

**BEFORE THE GUJARAT ELECTRICITY REGULATORY  
COMMISSION GANDHINAGAR**

Case No. \_\_\_\_\_ of 2022

IN THE MATTER OF

Petition under Section 32, 33, 61 & 86 of the Electricity Act, 2003 read with Regulations 23, 80 & 82 of GERC (Conduct of Business), Regulations, 2004, Hon. Commission Order dated 01.05.2010 in Case No. 3 of 2010 and Order dated 27.12.2019 in Case No. 1776 of 2019 for appropriate direction / clarification to SLDC for implementation of norms of CERC Deviation Settlement Regulations, 2022 notified on 14.03.2022 to Municipal Waste to Energy plants in the State of Gujarat Goodwatts WTE Jamnagar Pvt. Ltd.



AND

Having its Registered Office at: 10th Floor, Sangeeta Complex, Nr. Parimal Railway Crossing, Ellis bridge, Ahmedabad-380006

**.....Petitioner**

AND

Chief Engineer  
Gujarat State Load Dispatch Centre,  
132 KV Gotri Substation compound,  
Gotri Road, Vadodara-390021

**.....Respondent No:1**

AND

Gujarat Urja Vikas Nigam Limited  
Sardar Patel Vidyut Bhavan,  
Race Course, Vadodara - 390007

**.....Respondent No:2**

AND

Principal Secretary,  
Energy and Petrochemicals Department  
Government of Gujarat  
Sachivalaya,  
Gandhinagar

**.....Respondent No: 3**

AND

Principal Secretary,  
Urban Development Department  
Government of Gujarat  
Sachivalaya  
Gandhinagar

.....Respondent No: 4

**The Petitioner above named most respectfully showth as under:**

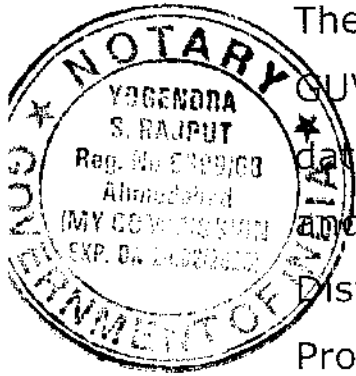
**Brief description of parties:**

1. **The Petitioner**, namely Goodwatts WTE Jamnagar Pvt. Ltd. (hereinafter referred to as "**Petitioner**" or "**WTE Project**") is a power generating company within the meaning of Section 2 (28) of the Electricity Act, 2003. The Petitioner is operating Municipal Solid Waste (MSW) based 7.5 MW Waste to Energy Power Project under the concession agreement dated 25.04.2017 executed with Jamnagar Municipal Corporation.

The petitioner is having Power Purchase Agreement with GUVNL in terms of Hon. Commission Order No. 4 of 2016 dated 10.11.2016 in the matter of Determination of Tariff and other terms & conditions for Procurement of Power by Distribution Licensees from Municipal Solid Waste to Energy Projects in the State of Gujarat.

2. **Respondent No:1**, State Load Dispatch Centre of Gujarat (hereinafter referred to as "Respondent" or "SLDC" for short) is set up under Section 31 of the Electricity Act, 2003 ("the Act") and discharging the load dispatch & grid operation functions in the State as per Section -32 of the Electricity Act, 2003. Further, SLDC is entitled to give directions under Section 33 of the Act for ensuring the integrated grid operations and for achieving the maximum economy and efficiency in the operation of power system in the State.

3. **Respondent No: 2**, Gujarat Urja Vikas Nigam Limited (hereinafter referred to as 'GUVNL') is the company

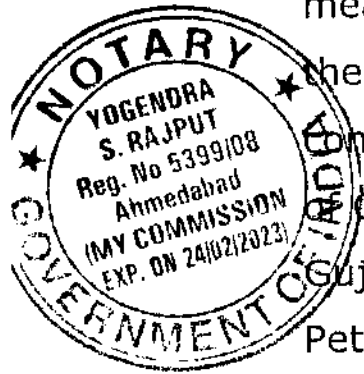


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incorporated under the Companies Act 1956, having its registered office at Sardar Patel Vidyut Bhavan, Race Course Circle, Vadodara - 390007. GUVNL is successor entity of erstwhile Gujarat Electricity Board and undertaking the function of bulk purchase of power from various sources on behalf of its subsidiary Distribution Companies for onward supply to electricity consumers. The Petitioner is having Power Purchase Agreement dated 30.05.2018 with GUVNL for supply of 7.5 MW power from its Waste to Energy power project at Jamnagar.

4. **Respondent No:3**, the Energy and Petrochemicals Department (hereinafter referred to as "Energy Department" or "the Department") is the Government of Gujarat Department and undertaking various policy measures conducive to the development of power sector in the State including framing of policies for promotion of non-conventional power projects in the State. The Government of Gujarat notified Gujarat Waste to Energy Policy 2016 and Gujarat Waste to Energy Policy 2022 through Energy and Petrochemicals Department for contributing towards disposal of Municipal Waste in environment friendly manner and Swatch Bharat Mission.

5. **Respondent No:4**, The Urban Development Department, is the Government of Gujarat Department (hereinafter referred to as "UDD" or "Urban Department"). The Department undertakes policy measures related to urban development and also monitoring its implementation. As per the Solid Waste Management (SWM) Rules, 2016, it is the duty of concerned Municipalities / Municipal Corporation for handling and disposal of Urban Waste in Environment friendly manner and the Municipal Corporation &

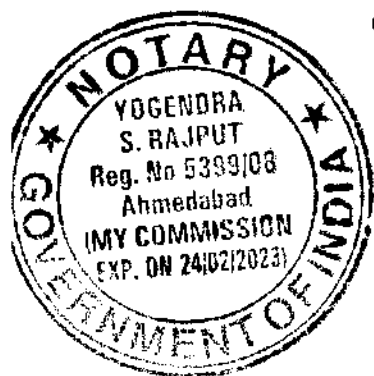


Municipalities in the State are functioning under Administrative Control of Urban Development Department.

**Conspectus**

6. That, the present petition is being filed before this Hon. Commission to apprise Hon. Commission in regard to:

- a. Technical and operation difficulties faced by Waste to Energy based power projects with Municipal Solid Waste as fuel inputs being heterogeneous in nature causing variation/deviation in actual generation against the schedule.
- b. With use of heterogeneous nature of fuel inputs which is beyond the control of power projects as well as local bodies, it is very difficult to accurately predict the actual generation of Waste to Energy generating plants which lead to difference in schedule and actual generation.
- c. As per the existing regulatory regime applicable in the State, Waste to Energy projects is covered under Deviation Settlement Mechanism (DSM), namely these plants are required to predict and declare schedule of generation in 15-minute time blocks basis and generate accordingly. Any deviation in generation, which is largely unpredictable due to variation in waste inputs as fuel, from declared schedule attracts significant penalties under the applicable DSM regulations, leading to financial stress and unviable operation of Waste Energy project.
- d. Considering operational and technical issues faced by Waste to Energy projects leading to deviation in actual generation of electricity and DSM penalties



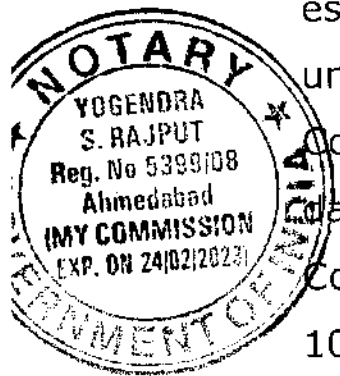
thereof, Hon. Central Electricity Regulatory Commission ("CERC") vide notification dated 14.03.2022 has come out with Deviation Settlement Regulations, 2022 providing equitable treatment to Waste to Energy projects under the DSM regime. There is earnest need for implementation of provisions of CERC Deviation Settlement Regulations, 2022, for Municipal Solid Waste based generating stations operating in the State for ensuring support to these projects, which are being set up in larger public and environmental interest primarily objective to process and dispose Municipal / Agro waste in scientific manner.

**Brief facts:**

7. That, the Petitioner is a wholly subsidiary of M/s. Abellon CleanEnergy Limited ("Abellon Group"). The petitioner has established 7.5 MW Municipal Waste to Energy Power plants under the concession agreement with Jamnagar Municipal Corporation for supply of power to GUVNL under the PPA dated 30.05.2018 executed in terms of this Hon. Commission order dated Order No. 4 of 2016 dated 10.11.2016. The power project is in commercial operation since 15.11.2021.

Further, the Abellon group has four Agro / Biomass Waste to Energy Power plants and is setting up another three (03) Municipal Solid Waste (MSW) based power projects in the State of Gujarat having PPAs with GUVNL, apart from MSW power project of the Petitioner.

8. That, it is respectfully submitted that The Central Electricity Regulatory Commission (CERC) by its order dated 4.1.2000, had introduced the scheme of Inter State



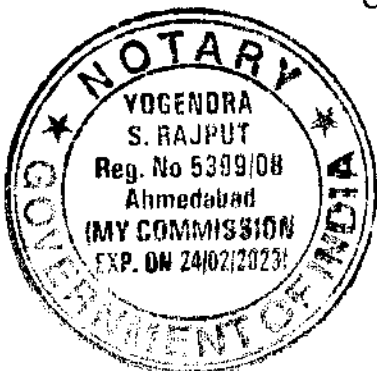
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Availability Based Tariff (ABT) in Western Region w.e.f. 1st July, 2002. Further, this Hon. Commission vide order no. 3 of 2006, dated 11.08.2006 had decided Intra-State ABT framework to be implemented in the State of Gujarat in line with Inter-State ABT mechanism implemented by Hon. CERC.

9. That, this Hon. Commission vide order dated 01.04.2010 in the Case No. 3 of 2010, has implemented Intra-State ABT mechanism in the State of Gujarat w.e.f. 05.04.2010. Under the ABT regime, the tariff payable to generating plants covers three components, namely;

- a. Fixed / Capacity Charge: Fixed / Capacity Charge is linked to 'Availability' of the generating station.
- b. Energy Charge: Payable on per unit basis on ex-bus energy scheduled to be sent out from the generating station.
- c. Unscheduled Interchange (UI): The deviation between actual generation and scheduled generation is to be accounted for through UI charges. The UI charge is linked to system frequency and payable by generating plants for under injection w.r.t schedule energy / receivable for over injection. It is to be noted that in the year 2014, Hon. CERC replaced the UI mechanism with Deviation Settlement Mechanism (DSM) and the same is implemented in the State of Gujarat.

10. In the order dated 01.04.2010, this Hon. Commission has decided to implement provisions of **CERC UI mechanism**, namely UI charges and deviation norms for the State of Gujarat, **as amended from time to time**. In this context,



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it is imperative to refer various clause of order no 3 of 2010, dated 01.04.2010 as under:

Para 8:

*The basic UI rates, as per CERC Notification dated 30.03.2009, are included in Annexure-1. **The basic UI rate for intra-State entities in Gujarat shall be in line with the CERC notifications on the matter as amended from time to time.** The present UI rates, as per CERC Notification dated 30.03.2009, are included in Annexure-1.*

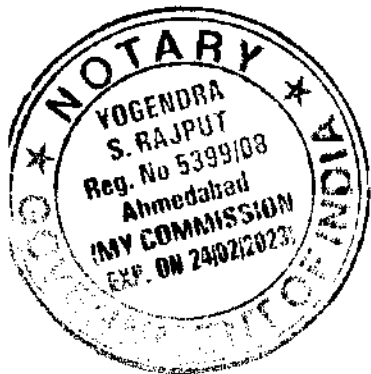
Para 10:

*In addition to UI rate corresponding the frequency below 49.22Hz, an additional UI charge shall also be applicable at the **rate stipulated by CERC from time to time for overdrawl or under-injection** of electricity for each time block when grid frequency is below 49.20 Hz.*

Annexure-I, Para 3

*"UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block and the basic UI rate for intra-State entities in Gujarat. **The basic UI rates for intra-State entities in Gujarat from the date of operationalization of implementation of Intra-state ABT Order shall be in line with the CERC notification dated 30.3.2009 and amendments made in the same from time to time.***

(Emphasis supplied)



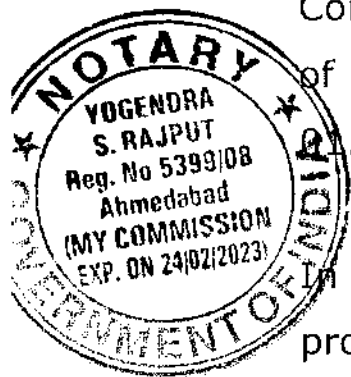
Thus, in the order 01.04.2010, this Hon. Commission has not only adopted existing provisions of Hon. CERC Inter-State ABT mechanism of Hon. CERC, but it is also decided to adopt the norms as may be amended by Hon. CERC from time to time.

The copy of Hon. GERC order no 3 of 2010 dated 01.04.2010 is annexed herewith and marked as **Annexure-1**.

11. It is respectfully stated that in the various orders passed by this Hon. Commission for determination of tariff for Biomass based power projects and Municipal Solid Waste (MSW) power projects, namely in the order dated 17.05.2010, 08.08.2013, 15.03.2018 & 27.06.2022 relating to Biomass power project and order dated 10.11.2016 relating Municipal Solid Waste based power projects, Hon. Commission has covered such projects under the purview of Intra-State ABT mechanism as per order dated 01.04.2010 as amended from time to time.

In terms of above, Municipal Solid Waste based power projects and Biomass based power projects in the State are subject to scheduling & dispatch mechanism and entitle to get tariff payment (fixed / capacity and energy charge) on scheduled energy basis whereas the deviation between scheduled energy and actual generated energy is accounted for under deviation charges mechanism as decided by this Hon. Commission in the Intra-State ABT order and as amended from time to time in line with norms Hon. CERC.

12. That, it is respectfully submitted that under the Inter-State ABT framework, Hon. CERC had introduced Deviation Settlement Mechanism and related matters Regulations,



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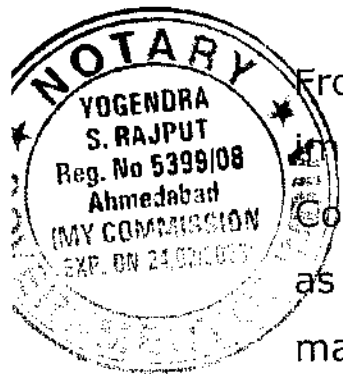


2014 effective from 17.02.2014 in place of earlier Un-scheduled Interchange (UI) mechanism. Further, as per the information available in the public domain, Hon. Commission vide letter dated GERC / Legal / 2015 / 0436 dated 05.03.2015 to SLDC had permitted to implement norms of Hon. CERC Deviation Settlement Mechanism (DSM) for the State entities with effect from 17.02.2014.

13. It is further stated that after 17.02.2014, Hon. CERC brought various amendments to CERC DSM Regulations, 2014 from time to time, namely first, second, third, fourth & fifth amendments to CERC DSM regulations to modify the deviation band for applicability of DSM charges/ DSM rate and introduce other norms for bringing better grid disciplines. The amendments brought out by Hon. CERC in the DSM regulations from time to time, are also implemented by SLDC without any exceptions for State entities effective from Hon. CERC notified date.

From above, it is evidently clear that since from the date of implementation of Intra-State ABT mechanism by this Hon. Commission, the provisions of Inter-State ABT mechanism as amended by Hon. CERC from time to time has been made effective for State entities.

14. It is further to state that on 22.11.2018, Hon. CERC introduced fourth amendment to CERC DSM regulations effective from 01.01.2019. In the fourth amendment to DSM Regulations, Hon. CERC had introduced major changes in the DSM mechanism such as narrowing frequency bands for applicability of DSM charges, DSM rate linked to daily average clearance price in the power exchange during given time block and additional 20% penalty due to sign change violation by the inter-state entities.



15. That, pursuant to the notification of 4<sup>th</sup> amendment to CERC DSM Regulations, 2014, it is understood that SLDC had filed petition before this Hon. Commission being Petition No: 1776 of 2019 for implementation of the fourth amendment more specifically on the aspect of approval of the methodology for sharing of penalty on account of sign change deviation. This Hon. Commission vide order dated 27.12.2019 allowed the implementation of fourth amendment to CERC DSM regulations for state entities with effect from CERC notified dated i.e., w.e.f. 01.01.2019.

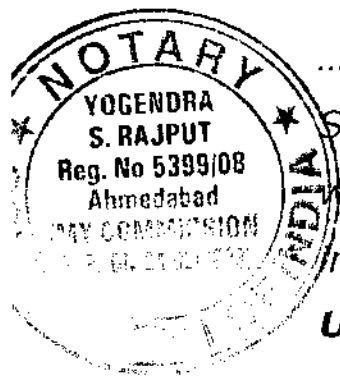
16. That, in the order dated 27.12.2019, this Hon. Commission has categorically reiterated that SLDC is required to follow the CERC DSM Regulations and its amendment issued from time to time in order to fall in line with the compliance of the Central Regulations at Regional and National level. The operative part of the order dated 27.12.2019 relevant for the purpose of present petition is reproduced hereunder:

Para 6.

..... *The ABT mechanism was introduced in the State of Gujarat w.e.f. 05.04.2010. This ABT mechanism was introduced in line with the ABT mechanism implemented at Central level for the inter- State Grid. **The UI charges and its applicability was also in line with the CERC Notification in that regard and was linked with the CERC amendments from time to time.***

Para 7

*The Central Electricity Regulatory Commission vide Notification dated 06.01.2014 issued the CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 repealing the earlier CERC (Unscheduled Interchange*



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*Charges and related matters) Regulations, 2009. **As stated above, the Gujarat State ABT mechanism was based on the Central ABT mechanism and UI charges were directly linked with the Central UI charges. It is, therefore, imperative that wherever there is a mention of CERC UI Regulations and its amendments in the Regulations/Order of the GERC, it should be construed as the mention of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 including its all amendments from time to time.***

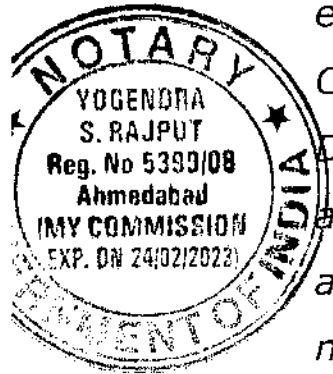
Para 8

*CERC vide DSM Regulations, 2014 has made stricter provision in relation to utilization of Grid by Constituents. The State's Grid with all their constituents are required to follow the discipline envisaged for the Central Grid since all the constituents are ultimately part of one grid i.e. the Central Grid. Principle, the nomenclatures like inter-State entities, intra-State entities, National Load Despatch Centre, Regional Load Despatch Centres, State Load Despatch Centres are for the administrative ease and for assigning responsibility to monitor and thereby fixing accountability across the Grid. These nomenclatures do not have any relevance when there is a matter of observance of a phenomena which is impacting the grid operation and its security is to be taken care of.*

.....

Para 9

*As stated above, **it is inevitable for the SLDC to observe the stipulations made in CERC DSM Regulations at State periphery in order to harmonise actions of SLDC for State Constituents, the***



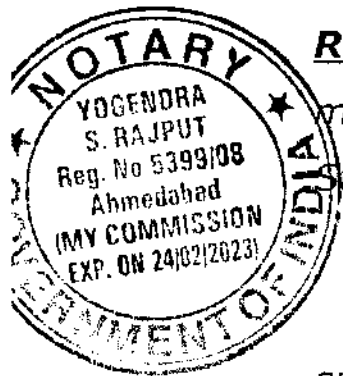
**Commission has clarified to adopt the CERC DSM Regulations vide letter dated 05.03.2015.** While doing so, the Commission continued with the State ABT Order/s to take care of the State specific issues which are not covered in the CERC DSM Regulations.

The present petition is for the limited purpose of approval of the mechanism of sharing of sign change penalty amongst the State Constituents. The Petitioner has clarified that only those constituents are required to share this sign change penalty who are payable or receivable of DSM charges. It is also clarified by the Petitioner that sharing of sign change penalty will be based on proportion of payable/ receivable DSM charges. Thus, the entities who are more precise in their scheduling will share less sign change charges. Since, we do not find any inconformity in the proposal of the Petitioner, we approve the same. **It is also to clarify that the Petitioner is required to follow the CERC DSM Regulations and its amendments issued from time to time in order to fall in line with the compliance of the Central Regulations at Regional and National level,** keeping in mind the State specific issues to be taken care of by the State ABT Order/s.

(The emphasis and underline supplied)

Copy of this Hon. Commission order dated 27.12.2019 is enclosed herewith and marked as **Annexure-2.**

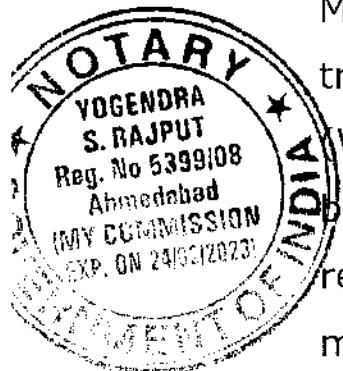
17. That, in terms of above order of this Hon. Commission, the provisions of CERC DSM regulations and its amendment from time to time, is required to be followed by SLDC without any exception.



18. It appears that during the pending proceedings of SLDC's above petition, Hon. CERC introduced fifth amendment to CERC DSM regulations, 2014 effective from 03.06.2019. The SLDC had implemented the fifth amendment to CERC DSM Regulations, without any exception and approval / direction from this Hon. Commission.
19. That, the facts stated hereinabove clearly establishes that as and when Hon. CERC introduced change / amendment in the UI / DSM mechanism at Inter-State level, the same has been implemented by SLDC without any exception.

**Provisions for MSW based power project in CERC DSM Regulations 2022:**

20. It is respectfully stated that as per Solid Waste Management Rules, 2016 notified on 08.04.2016 by Ministry of Environment, Government of India, the concerned municipalities have to implement segregation of MSW at source in their respective jurisdiction areas and transport the combustible matter to Waste to Energy (WTE) plants. While implementation of source segregation by municipal corporations has not been that effective, as a result unsegregated waste comprising of combustible matter mixed with inert and compostable material reaches Waste to Energy plants. This has been leading to significant inherent variation in generation of electricity from Waste to Energy plants on account of the nature of biomass / waste and operational differences as compared to conventional power plants. It is to be noted that Waste to Energy plants are slow responding and cannot increase or decrease steam generation like conventional thermal plants. Under the prevailing CERC Regulations and



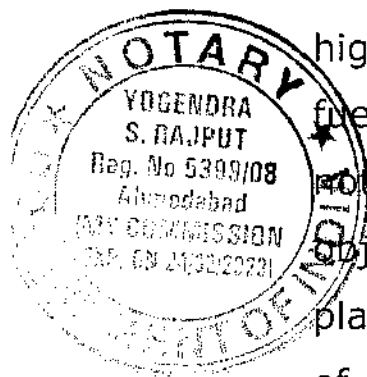
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Regulations of other State Commission including this Hon. Commission, the WTE plants are covered under the "Deviation Settlement Mechanism (DSM). Any deviation in generation (largely under injection) from declared schedule attracts penal provisions under the UI/DSM mechanism similar to conventional thermal plants, which causes financial stress to such WTE projects.

21. In the above background and based on the representations received from Waste to Energy based power projects to review the DSM norms for WTE projects, Hon. CERC vide letter dated 07.05.2021 had requested Central Electricity Authority (CEA) to provide inputs regarding technical and operational challenges faced by WTE power projects in the country with particular inputs on variations in actual generation from WTE plants with respect to schedule generation.

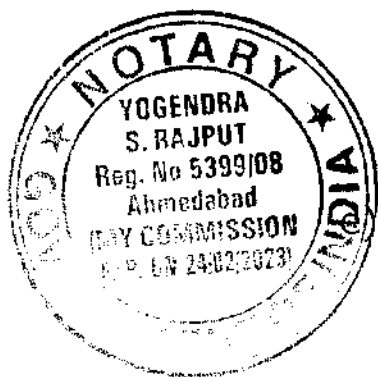
22. In response, CEA vide letter dated 26.06.2021 to Hon. CERC had furnished detailed submission to Hon. CERC highlighting that due to heterogeneous nature of waste as fuel input, the power generation from WTE projects may not be predicted accurately, hence to promote the main objective of disposal of MSW / Agro residue by these plants, it was recommended to allow deviation within band of 0-30% for applicability of DSM charges. The main observation of CEA in the letter dated 26.06.2021 in regard to the operational and technical aspects of Waste to Energy power plant is summarized as under:

- a) Waste to energy power plants (biomass, municipal solid waste, RDF based) are designed and built with the primary objectives of saving the planet from environmental hazards by processing and disposal of

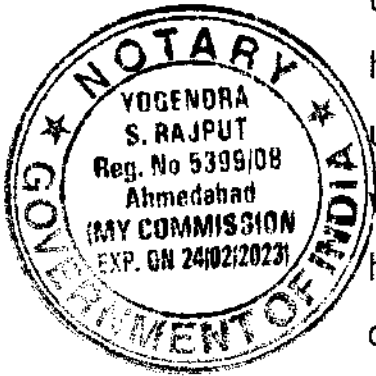


waste, preventing open burning of waste, and avoiding dumping of waste. Generation of electricity in the process is an important and useful byproduct.

- b) The purpose of Waste to energy is to dispose of the waste and divert from dump with the objective of protecting environment.
- c) The waste to energy plants are mandated to process the waste irrespective of the input or waste quality. Processing and disposal of waste is a critical requirement in the interest of environmental and public health. Strong emphasis has been laid on this in objectives of "Swacch Bharat Mission" and "Namami Gange Mission".
- d) The main operational challenges with these plants are the heterogeneous and variable composition nature of waste i.e. fuel provided to these plants by the urban local bodies / farmers on as-is basis as the objective is to process and dispose the waste, regardless of quality.
- Solid Waste is the composition of various kinds of waste which is heterogeneous in nature and also the composition of waste is very unpredictable.
- f) The collection of waste totally depends on the seasonality, locality, farming pattern, society's life style, availability of manpower etc., these factor makes the composition and characteristics of waste heterogeneous and very unpredictable.



- g) As per data from multiple sources, the deviations in calorific values are approximately within 30% range from the anticipated or assumed average values. Considering the wide range of possible deviations (approx. 30%) in calorific value of waste, there is a likely possibility of deviation of +/- 30% in actual generation from waste to energy plants.
- h) Due to heterogeneity nature in waste and subsequent deviation in actual generation, WtE Plants are levied Deviation Settlement Mechanism (DSM) related penalties.
- i) WtE plants are of small capacity having electricity production as a process by-product with primary objective to decompose and process the Waste irrespective of its quality. Considering the noble cause of WtE plants, it is very essential that they should be promoted and assisted to grow faster to make step towards "zero discharge" economy, but on the other hand imposition of DSM charges/penalties causing unnecessary financial burden on WtE, for the cause which are not under their control, and this may create hindrances in the proper growth of WtE and may also derail the very sprit of GoI prestigious mission i.e. "Swacch Bharat Mission" and "Namami Gange Mission".



The copy of CEA letter dated 26.06.2021 to Hon. CERC is enclosed herewith and marked as **Annexure-3**.

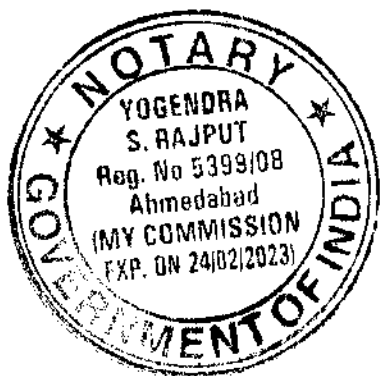
23. It is submitted that Hon. CERC vide public notice dated 07.09.2021 had issued draft CERC DSM Regulations 2021 along with Explanatory Memorandum (EM) for the same.



In the draft CERC DSM Regulations, 2021, Hon. CERC had provided special norms for Waste to Energy based power projects based on the recommendation received from various stakeholders including Ministry of Power, MNRE & CEA, Government of India. The para 3.9 of the EM read as under:

### **3.9 Municipal solid waste based generators**

*3.9.1 As per MNRE, the waste to energy potential in India is in the range of 5700 MW, out of which about 400 MW has been tapped so far. CEA has submitted a detailed report after examining the case of waste to energy from technical perspective and highlighted the variability in calorific value of waste and its impact on power generation. CEA has stated that WTE projects operate with a heterogeneous combination of solid waste which are inherently variable and the same cannot be predicted and is like the meteorological parameters of wind/solar generators. It is not possible to predict the composition of city waste being delivered to the WTE projects by the municipal corporation. Though WTE projects operate on the principle of Rankine Cycle technology, they cannot be treated at par with conventional thermal power projects as the fundamental difference lies in the type of fuel (coal vs. municipal solid waste). Heterogeneity in case of waste is manifested in variation in type of waste, size/ shape of waste, bulk density, moisture content, chloride content, salt content, inert/ sand/ silica content, type of ash etc. Since multiple types of waste are used, heterogeneity increases exponentially and the ability to predict quality of fuel*



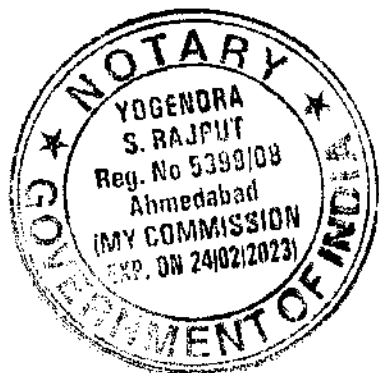
decreases proportionately, let alone the predictability of effects of interaction of different types of fuels during combustion and its impact on boiler and steam generation.

### 3.9.2.....

Waste to energy plants operate in a manner where the steam generation follows the fuel. i.e., turbine does not "demand" steam from boiler but generates only as much steam is being provided by the boiler. This is known as "fuel follow" or "boiler follow" mode. In contrast, conventional power plants operate in "turbine follow" mode where the boiler delivers the steam requirement for turbine to match the schedule. In case of waste to energy plant, which operates in boiler follow mode, the only option is to reduce power generation and keep matching grid power frequency – this results in deviation from schedule. Waste to energy plants are slow responding and cannot deliver the steam as quickly as conventional coal/gas based plants. Therefore, any deviation in generation is difficult to remedy in 15 minute time intervals.....

3.9.3 Accordingly, CEA has recommended exemption for waste to energy projects from payment of deviation charges within a limit of +/-30%.

3.9.4 Ministry of Power has also recommended a special dispensation for waste to energy projects in so far as deviation charge is concerned. In fact, the waste to energy projects should be seen in context of processing and disposal of waste, and their contribution to social and environmental cause. To encourage such projects, the tariff policy also




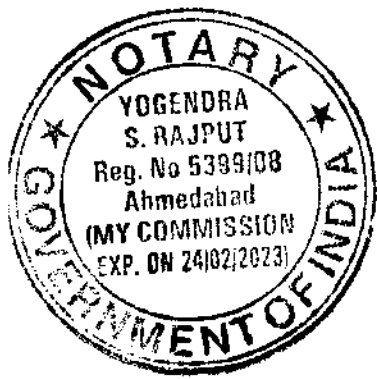
*provides for must off-take of energy from WTE plants.*

*3.9.5 With due regard to the above considerations, the Commission has extended a completely different treatment to the Municipal Solid Waste (MSW) based projects under the proposed DSM Regulations. The charges for deviation for any over-injection by such generators, as also for under-injection up to 20% from schedule, shall be zero. However, if the under-injection is beyond 20%, the normal rate of charges of deviation shall be applicable for such under-injection beyond 20%. The regional entity generators are paid based on schedule. This implies that in the event of under injection they will be able to retain the energy*

*charge paid to them without producing actual energy. In order to ensure that this does not become a perverse incentive, the Commission has extended free band of deviation only up to 20% of schedule, as against CEA's recommendation for exemption up to 30%. The intent is to balance the interests of the MSW projects in terms of ensuring recovery of part of the fixed cost (by allowing retention of energy charge up to 20% deviation) while at the same time making sure that system operation is not put to risk due to wide deviation from schedule.*

The copy of Explanatory Memorandum is enclosed herewith and marked as **Annexure-4**.

-  24. It is submitted that Hon. CERC vide gazette notification dated 14.03.2022 has published CERC (Deviation Settlement Mechanism and related matters) Regulations,



2022 effective from the date as may be notified by Commission separately. The DSM Regulations, 2022 provides completely different treatment for applicability of DSM charges to the Municipal Waste to Energy projects.

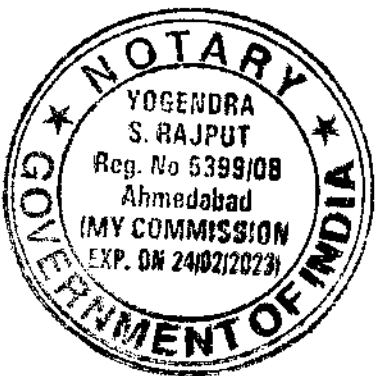
Under the clause 8 of the DSM regulations, 2022, for municipal solid waste based generating plants, following treatment is prescribed:

(i) **In case of over injection:** zero deviation charges. Provided that such MSW based generator shall be paid back for over injection up to 20% at the contract rate, or in the absence of a contract rate, at the rate of weighted average ACP of the Day Ahead Power market segments of all power exchanges for respective time block.

(ii) **In case of under injection:**

(a) Under injection up to 20%: zero deviation charges. Provided that the generator shall pay back for the shortfall in energy against schedule in any time block due to under injection up to 20% at 50% of contract rate, or in the absence of a contract rate, at 50% of the weighted average ACP of the Day Ahead Power market segments of all power exchanges for respective time block, and

(b) Under injection beyond 20%: normal rate of charges for deviation beyond 20%.



The copy of CERC DSM Regulations 2022 is annexed herewith and marked as **Annexure-5**.

25. It is further stated that Hon. CERC has also published Statement of Reasons (SoR) providing detailed reasoning

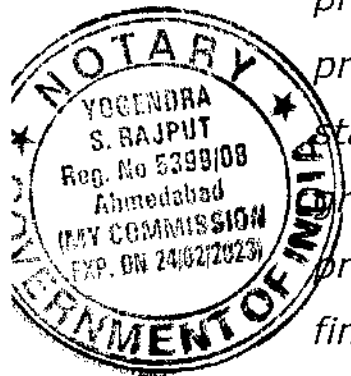
and analysis of the comments / objections received from various stakeholders while deciding the norms in the Regulations, 2022. In regard to the deviation norms for MSW based project, the analysis and decision of Hon. CERC, at para 7.3, read as under:

### **Analysis and Decisions**

*EAL (IIT-K) suggested that the charges for deviation for MSW based project in case of under-injection should not be zero while Tata Power suggested refund of payment to the pool for the quantum of under injected energy so as to avoid gaming. On the other hand, CEA, Mr Asit Singh and Abellon suggested to allow the exemption band up to +/- 30%.*

*The Commission has examined the suggestions and is of the view that the generation from MSW generators is more uncertain than conventional generators due to heterogeneous nature of the fuel and other factors. Further, MSW projects contribute to environment protection by gainfully disposing the wastes. Hence such projects deserve special dispensation. However, grid stability is the responsibility of all the constituents of the grid. As such, the exemption band of +/- 20% as proposed in the draft Regulations has been retained in the final Regulations. But suitable provision has been made in the final Regulations to provide for pay in / pay out for under-injection / over-injection from MSW projects*

The relevant pages of (first page and page no 41-42) of Statement of Reasons is annexed herewith and marked as **Annexure-6.**



26. It is also to place on record that Hon. CERC vide separate notification dated 31.10.2022 has notified that the CERC DSM Regulations, 2022 shall be come into force with effect from 05.12.2022. The copy of notification dated 31.10.2022 is annexed herewith and marked as **Annexure-7**.

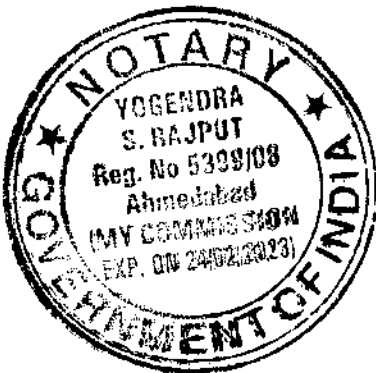
27. That, it is respectfully submitted that Hon. CERC has analyzed the issues being faced by Waste to Energy based generating plants in detailed and provided for exemption band of  $\pm 20\%$  with suitable pay in- pay out mechanism for over injection and under injection beyond 20%.

28. It is further to place on record that Energy & Petrochemicals Dept., Government of Gujarat vide notification dated 02.11.2022 has notified Gujarat Waste to Energy Policy 2022 for operative period from 02.11.2022 till 01.11.2027. The clause no. 17 of the policy, relevant for the purpose of this petition is read as under:

"17. FORECASTING & SCHEDULING:

**Because of the varying calorific value of waste due to its heterogeneous nature, the energy generation from MSW plants may not be accurately predicted. However, it may be predicted in a range, but in order to ensure grid discipline and grid security, the WTE Projects shall abide by the provisions of Intra-State ABT, Forecasting, Scheduling & Deviation Settlement Mechanism as per the CERC's Order/Regulation & National Policy/Guidelines as amended from time to time.**

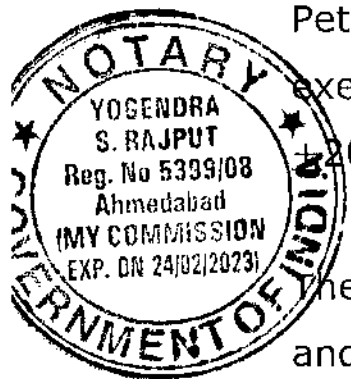
(Underline & emphasis supplied)



It is evident from above that the Government of Gujarat has also recognized that Municipal Waste to Energy plants are required to handle varying caloric value of waste due to its heterogeneous nature, and it is difficult to accurately predict the generation from MSW plants, however, it can be predicted in range only. In the Policy, it is categorically provided that in respect of MSW plants, the scheduling and Deviation Settlement mechanism shall be governed as per the CERC's Order/Regulation & National Policy/Guidelines as amended from time to time.

The copy of Gujarat Waste to Energy Policy 2022 is enclosed herewith and marked as **Annexure-8**.

29. It is relevant to submit that the Petitioner vide email dated 14.11.2022 has requested the Respondent No. 1 to implement the norms of CERC DSM Regulations 2022 for Petitioner's Municipal WtE power project providing exemption from payment of DSM charges to the extent of +20% deviation by MSW projects in the State.



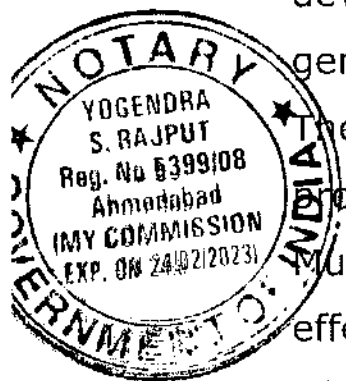
The copy of email dated 14.11.2022 is enclosed herewith and marked as **Annexure-9**.

30. It is further to place on record that the petitioner is in receipt of email dated 30.11.2022 from SLDC wherein it is informed that SLDC has filed a petition before Hon'ble GERC for implementation of CERC DSM Regulations 2022 with modifications for the State of Gujarat and also served up copy of said petition. It is to state that contrary to the provisions of CERC DSM Regulations, 2022, in the said petition, SLDC has averred that MSW generating plants is to be provided similar treatment to other generators and there is no need for any separate category for MSW power

plants in the State. It is respectfully stated that SLDC has made such averment in a simpliciter manner without assigning any logic and rational behind the same. SLDC has not considered the facts that Hon. CERC has decided the issue in a judicious manner and provided for completely different treatment for MSW power plants in the DSM Regulations, 2022 and the MSW power plants in the State are not exception to this. Further, as per order of this Hon. Commission, SLDC is bound to implement the norms of CERC DSM regulations without any exception.

### **Jurisdiction:**

31. It is respectfully stated that Municipal Waste to Energy based projects in the State of Gujarat are also facing similar issues as being considered by Hon. CERC for providing different treatment as compared to other generators. As per the existing DSM mechanism followed by SLDC for Intra-State entities and proposed to be followed post CERC DSM Regulations, 2022, the Waste to Energy projects are subject to severe DSM charges for the deviation in actual generation in comparison to schedule generation, for the cause which are not in their control. Therefore, there is earnest need to implement the provisions of Hon. CERC DSM regulations, 2022 for Municipal Solid Waste to Energy projects in the State with effect from 05.12.2022. It is submitted that under Section 32,33, 61 & 86 (1) (c), (e), (k) of the Electricity Act, 2003 read with order dated 01.04.2010 in case no 3 of 2010 and order dated 27.12.2019 in petition no. 1776 of 2019, this Hon. Commission has jurisdiction and authority to issue appropriate direction to SLDC for implementation of norms



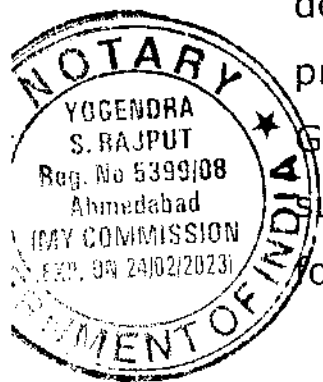


of CERC DSM Regulations, 2022 to Municipal Waste to Energy projects in the State of Gujarat.

### Grounds

32. That, it may be appreciated that the Section 73 of the Electricity Act, 2003 enumerates various functions to be performed by the Central Electricity Authority (CEA) for achieving the objective of the Electricity Act, 2003. As per Section 73 (n) of the Act, the Authority shall advise the Appropriate Government and the Appropriate Commission on all technical matters relating to generation, transmission and distribution of electricity. Accordingly, as required by the Hon. CERC, the CEA undertaken detailed study for the operational and technical aspects in relation to generation of electricity from these projects and deviation charges applicable to Waste to Energy projects under prevailing DSM regulations. Further, the Authority recommended to Hon. CERC to review the deviation norms and provide exemption band of  $\pm 30$  for Waste to Energy projects under DSM mechanism. Further, Ministry of Power, & MNRE has also recommended to Hon. CERC to provide different treatment to Waste to Energy projects for applicability of deviation charges highlighting that Waste to Energy projects assumes paramount importance in achieving Government's Swachh Bharat Mission and such projects are subject to deviation penalties under the existing regulations for the cause which is not in their control.

33. It is further submitted that Hon. CERC has also examined the inputs & recommendation of Ministry of Power, MNRE & CEA, Government of India and also analyzed objection / suggestions submitted by other stakeholders and decided the issue in a prudent manner by providing  $\pm 20\%$

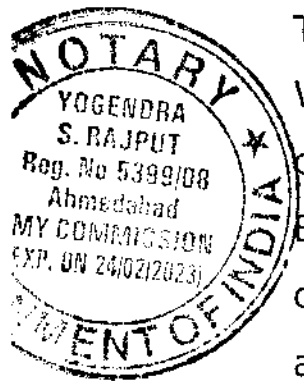


exemption band instead of  $\pm$  30% exemption band suggested by Government of India for applicability of DSM charges for Municipal Solid Waste to Energy project. In the given facts, when the issue of applicability of DSM charges to Waste to Energy projects has been decided by Hon. CERC in a judicious manner after considering all relevant aspects, the same needs to be implemented in totality at the State level for Waste to Energy based plants.

34. It is respectfully stated that as has been rightly pointed by CEA in its report dated 26.06.2021, in respect of Waste to Energy project, the production of electricity is as a process by-product with primary objective to process and scientifically dispose the Waste irrespective of its quality. Considering the noble cause of Waste to Energy plants it is very essential that they should be promoted and assisted to grow faster to make step towards "zero discharge" economy.

However, the existing DSM mechanism is not differentiating between Waste to Energy projects and conventional power projects for imposition of DSM charges/penalties, which is causing financial burden on Waste to Energy projects specifically for the cause which are not under their control. This has been creating hindrances in the proper growth of Waste to Energy power projects and it is against the spirits of Government of India's prestigious mission i.e. "Swacch Bharat Mission" and goal of Carbon neutral, Garbage free city and main objective under WTE Policy 2016 (as amended from time to time) and 2022.

The Hon. CERC DSM Regulations, 2022, seeks to differentiate Waste to Energy power projects with conventional power projects by providing separate DSM treatment to Waste to Energy based power projects, which



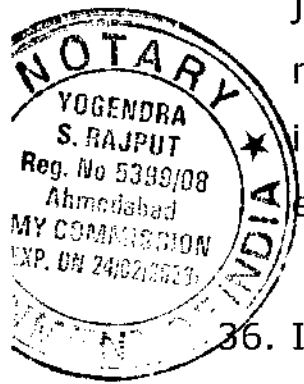
needs to be implemented for MSW power plants in the State also.

35. It is pertinent to submit that in the Gujarat Waste to Energy Policy, 2022 notified on 02.11.2022, the State Government has also recognized that Municipal Waste to Energy plants in the State are required to handle varying caloric value of waste due to its heterogeneous nature, and it is difficult to accurately predict the generation from MSW plants, however, can be predicted in range only.

In the Policy, it is categorically provided that in respect of MSW plants, the scheduling and Deviation Settlement mechanism shall be governed as per the CERC's Order/Regulation & National Policy/Guidelines as amended from time to time.

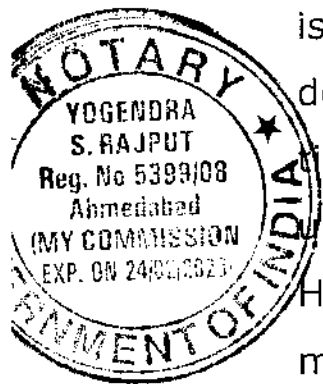
This being the clear position in the Government policy to follow CERC's norms in respect of scheduling and forecasting by MSW plants and when Hon. CERC has judiciously decided to treat MSW projects differently, the norms of CERC DSM Regulations, 2022 ought to be implemented for MSW plants in the State without any exception or without any subjectivity.

36. It is respectfully submitted that as per the provisions of the Section 61 (h) & 86(1) (e) of the Electricity Act, 2003, it is the function of State Electricity Regulatory Commission to promote generation of electricity from non-conventional Energy sources. Further, considering importance of Waste to Energy power projects in disposal of waste in environmental friendly manner and in order to extend the policy support to such projects, National Tariff Policy, 2016 provides for various dispensation to Waste to Energy based



power projects such as mandating distribution Companies for procurement of 100% power produced from Waste to Energy plants and exempting Waste to Energy plants from competitive bidding requirement for purchase power by Distribution licensee. It is stated that even after such policy framework conducive to development of Waste to Energy plants, only limited capacity has been set up so far in the State & Country, on account inherent issues being faced by Waste to Energy projects. Therefore, implementation of CERC DSM norms for Waste to Energy project in the State assumes vital importance for providing regulatory support to these plants.

37. It is respectfully submitted that even otherwise also in the Intra- State ABT framework notified by this Hon. Commission vide order no 3 of 2010 dated 01.04.2010, Hon. Commission has not only adopted the deviation norms / charges decided by Hon. CERC, but also decided to implement deviation norms & charges as may be amended by Hon. CERC from time to time. Therefore, as per the provisions of Hon. Commission's order dated 01.04.2010, it is mandatory on part of SLDC to make effective the deviation norms as amended by Hon. CERC from time to time. In fact, this has been consistently followed by SLDC until now since year 2010. For instance, in the year 2014, Hon. CERC replaced the earlier UI mechanism with DSM mechanism and also brought about five amendments from time to time. The CERC DSM mechanism along with its amendments has also been implemented in the State of Gujarat from time to time without prior approval of this Hon. Commission. Thus, in accordance with the order dated 01.04.2010, the DSM norms decided by Hon. CERC for Municipal Solid Waste plants in the Regulations, 2022 ought to be implemented in the State for providing similar

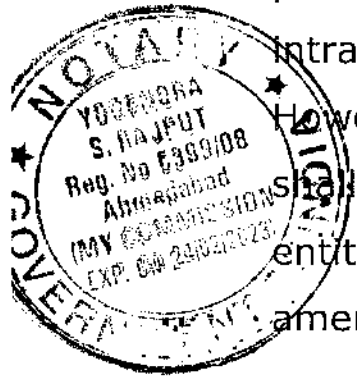


dispensation to State Entities as applicable to similarly placed Inter-State entities.

38. It is relevant to state that in the order dated 27.12.2019 in the Petition No. 1776 of 2019, this Hon. Commission has already clarified the position that the amendment to CERC DSM regulations from time to time shall be implemented by SLDC for State Entities. The operative part of the order clearly states that *SLDC is required to follow the CERC DSM Regulations and its amendments issued from time to time in order to fall in line with the compliance of the Central Regulations at Regional and National level.*

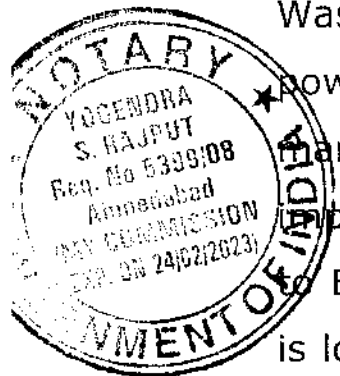
Therefore, even as per the above directives of Hon. Commission, SLDC is required to implement CERC DSM norms as notified on 14.03.2022 of Municipal Waste to Energy plants for state entities in totality and without any exception.

39. It is further to state that even otherwise also, in the order dated 27.12.2019, this Hon. Commission has decided the principle that the nomenclature like inter-State entities, intra-State entities, are for the administrative ease only. However, for the applicability of CERC deviation norms, it shall be uniformly made applicable even for intra-state entities in line with norms applicable for interstate entities as amended from time to time. Considering the same, the norms of CERC DSM Regulations, 2022 of Municipal Waste to Energy projects needs to be implemented even for intra-state entities and there cannot be contention that the CERC norms for Municipal waste to energy projects is only for inter-state level and no such dispensations shall be available for MSW plants in the State.



40. It is pertinent to submit that as stated hereinabove, the amendments in the CERC UI / DSM Regulations from time to time including fifth amendment had been implemented by SLDC without any exceptions. This clearly establishes that as and when Hon. CERC introduced change / amendment in the UI / DSM mechanism at Inter-State level, the same has been implemented by SLDC without any exception. In line with same, the provisions of CERC DSM Regulations, 2022 for Municipal Waste to Energy based project ought to be implemented for State Entities without any exception.

41. It is further to state that the Section 61 of the Act prescribes that Hon. Commissions shall be guided by the principles and methodologies specified by the Central Commission in the determination of tariff. Therefore, on the issue of implementation of Availability Based Tariff (ABT) also, this Hon. Commission is required to adopt the norms and principle decided by Hon. CERC. The ABT / deviation norms for Municipal Waste to Energy plants are deliberated and decided by Hon. CERC in the DSM Regulations, 2022 and provide completely different treatment to Municipal Waste to Energy projects as compared to conventional power projects. Therefore, it will in accordance with the mandate of Section 61 of the Electricity Act, 2003, to implement provisions of CERC DSM norms, 2022 for Waste to Energy projects, in the State. Even otherwise also, there is logic and justification behind the decision of Hon. CERC to treat Waste to energy projects differently as compared to conventional projects and provide for separate norms for these projects in its DSM Regulations, 2022. As against which, there is no logic and rational as to why Waste to Energy plants is to be treated similar to conventional plants and as to why distinct provisions are not made for these projects. Therefore, in the interest of Municipal Waste to



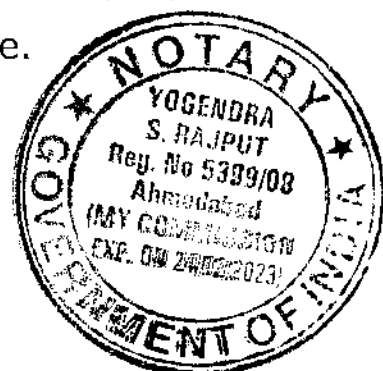
Energy projects and in the overall interest of society as a whole, the special dispensation provided by Hon. CERC in the DSM Regulations, 2022 for Municipal Waste to Energy project need to be implemented for State entities as well.

42. The Petitioners crave leave of this Hon. Commission to add any further submissions / grounds or file additional information at a later stage, if so, required based on the proceedings in the present Petition.

### **Prayers/Relief**

In the given facts and circumstances of the case, submissions made hereinabove and in the interest of justice, it is most humbly prayed that this Hon. Commission may be pleased to:-

- (a) Take on record the present petition and list for urgent hearing;
- (b) issue appropriate direction / clarification to SLDC for implementation of norms of CERC Deviation Settlement Regulations, 2022 notified on 14.03.2022 to Municipal Waste to Energy plants in the State of Gujarat, effective from 05.12.2022.
- (c) Pass such further or other Orders as this Hon. Commission may deem just and proper in the facts and circumstances of the case.

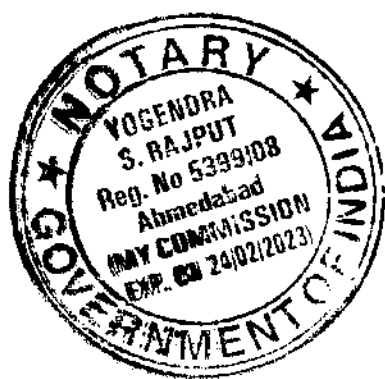



*Amit*  
GOODWATTS WTE JAMNAGAR PRIVATE LIMITED  
PETITIONER

~~Authorised Signatory/Director~~

Date: 21, December 2022

Place: Ahmedabad





**Declaration:**

Declaration that subject matter of the petition has not been raised by the Petitioner before any other competent forum and that no other competent forum is currently seized of the matter or has passed any order in relation thereto.

GOODWATTS WTE JAMNAGAR PRIVATE LIMITED  
PETITIONER

Authorised Signatory/Director

**DATE:** 21, December 2022

**PLACE:** Ahmedabad



**BEFORE THE GUJARAT ELECTRICITY  
REGULATORY COMMISSION GANDHINAGAR**

Case No. \_\_\_\_\_ of 2022

IN THE MATTER OF Petition under Section 32, 33, 61 & 86 of the Electricity Act, 2003 read with Regulations 23, 80 & 82 of GERC (Conduct of Business), Regulations, 2004, Hon. Commission Order dated 01.05.2010 in Case No. 3 of 2010 and Order dated 27.12.2019 in Case No. 1776 of 2019 for appropriate direction / clarification to SLDC for implementation of norms of CERC Deviation Settlement Regulations, 2022 notified on 14.03.2022 to Municipal Waste to Energy plants in the State of Gujarat

AND

Goodwatts WTE Jamnagar Pvt. Ltd.

.....Petitioner

AND

Gujarat State Load Dispatch Centre & Ors

..... Respondents



**AFFIDAVIT**

I, Aniket Bhargava son of Rajendra Kumar Bhargava aged about 27 years having its office at 10<sup>th</sup> Floor, Sangeeta Complex, Near Parimal Railway Crossing, Ellis bridge, Ahmedabad -380006 do hereby solemnly affirm and state as under:

1. I am the Authorised Signatory of the Petitioner above named and am well conversant with the facts of the case and able to depose to the present affidavit.
2. I have gone through the contents of the accompanying Petition and I say that the contents stated therein are based on the

records of the Petitioner maintained in the normal course of business.

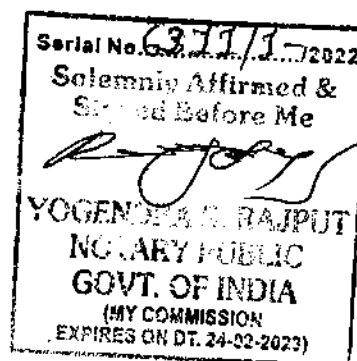
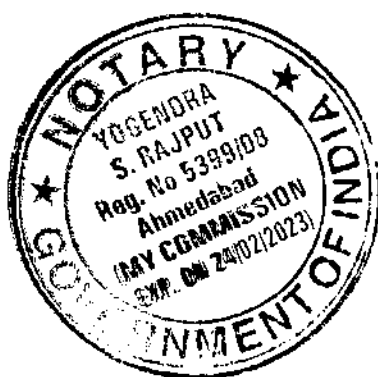
GOODWATTS WTE JAMNAGAR PRIVATE LIMITED  
~~DEPONENT~~  
Authorised Signatory/Director

**VERIFICATION:**

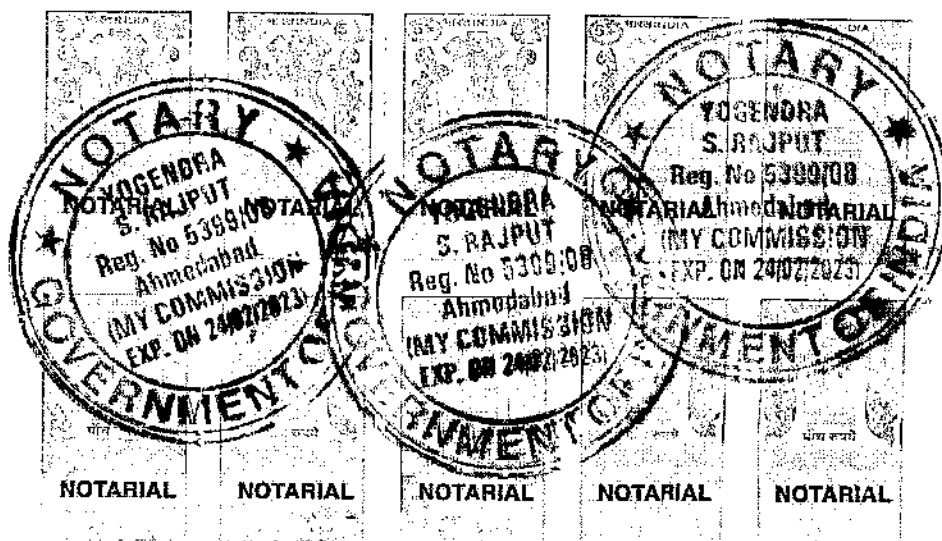
I, the deponent above named do hereby verify that the contents of my above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

Verified at Ahmedabad on this 21<sup>st</sup> day of December 2022.

GOODWATTS WTE JAMNAGAR PRIVATE LIMITED  
~~DEPONENT~~  
Authorised Signatory/Director



21 DEC 2022



**List of Annexures:**

<b>Annexure No.</b>	<b>Description</b>	<b>Page no.</b>
<b>Annexure-1</b>	Copy of Hon. GERC order no 3 of 2010 dated 01.04.2010	<b>36-79</b>
<b>Annexure-2</b>	Hon. Commission order dated 27.12.2019 in Petition No. 1776 of 2019	<b>80-156</b>
<b>Annexure-3</b>	Copy of CEA letter dated 26.06.2021 to Hon. CERC	<b>157-169</b>
<b>Annexure-4</b>	The copy of Explanatory Memorandum	<b>170-187</b>
<b>Annexure-5</b>	The copy of CERC DSM Regulations 2022	<b>188-202</b>
<b>Annexure-6</b>	The relevant pages of (first page and page no 41-42) of Statement of Reasons	<b>203-284</b>
<b>Annexure-7</b>	The copy of notification dated 31.10.2022 for declaring effective date of CERC DSM Regulations 2022 as 05.12.2022	<b>285</b>
<b>Annexure-8</b>	Gujarat Waste to Energy Policy	<b>286-300</b>
<b>Annexure-9</b>	Copy of Email dated 14.11.2022 to SLDC	<b>301-302</b>

**GUJARAT ELECTRICITY REGULATORY COMMISSION  
AHMEDABAD**

**CORAM**

**Dr. P.K. Mishra, Chairman  
Shri Pravinbhai Patel, Member**

**Order No. 3 of 2010**

**Amendment to Order No.3 of 2006 dated 11<sup>th</sup> August, 2006 in the matter of “Bringing Generating Stations of Gujarat State, Distribution Licensees and other persons under the purview of Intra-State Availability Based Tariff (Intra-State ABT)”.**

1. The Commission had earlier issued its Order No.3 dated 11<sup>th</sup> August, 2006 in the matter of bringing Generating Stations of Gujarat State, Distribution Licensees and other persons under the purview of Intra-State Availability Based Tariff (Intra-State ABT). The order paved the way for introduction of Intra-State ABT in the State for the first time. As provided therein, intra-state ABT was to be operated initially on trial run (as a mock exercise) and based on the feedback received from the mock exercise, the Commission was to review the provisions of the order.
2. Accordingly, the SLDC/GETCO (STU) have been carrying out mock exercises as per the aforesaid order starting from August, 2006.
3. Based on the experiences gained during the mock exercise, Gujarat



Energy Transmission Corporation Ltd. filed Petition No.931 of 2008 for resolving the impediments felt during implementation of Intra-State Availability Based Tariff and to seek further directives from the Commission.

4. The Commission had conducted hearing of the aforesaid petition and considered the submissions made by the parties. During the hearing, some issues regarding participation of M/s. Essar Power Ltd., Torrent Power Ltd., and various steel industries came to the notice of the Commission. The Commission, vide its order dated 08.05.2009 decided to seek advise of an expert on Availability Based Tariff to assess readiness of SLDC and to address other issues.
5. The Commission, thereafter, sought assistance of Shri Bhanu Bhushan, ex-Member, CERC to assess readiness of SLDC in implementation of intra-state ABT and to resolve some of the issues raised by different entities during the hearing of Petition No.931 of 2008. Based on the report of Shri Bhanu Bhushan and meetings with the parties concerned, the Commission hereby decides to operationalise the intra-state ABT in the State of Gujarat in the manner outlined in this order.
6. On the basis of the above consultation process, the Commission observed that there was a need for amendments to its earlier order dated 11<sup>th</sup> August, 2006. The Commission, therefore, makes the amendments to its order No.3 of 2006 dated 11<sup>th</sup> August 2006, as given in **Annexure-I** to this order.



7. The Commission's resolve/decision to implement the Intra-State ABT is already recorded in its order dated 11.8.2006. The present order is to clarify/streamline certain provisions of the earlier order and to decide the date of its actual implementation. This order is to be read along with the earlier order dated 11.8.2006, the contents of which are not being repeated, but are reiterated (to be read along with the amendments listed in Annexure-1).
8. The basic UI rate for intra-State entities in Gujarat shall be in line with the CERC notifications on the matter as amended from time to time. The present UI rates, as per CERC Notification dated 30.03.2009, are included in Annexure-1.
9. In the above referred CERC notification, the UI rate for generating stations using coal, lignite or APM gas, and whose tariff is determined by CERC under clause (a) of sub-section (1) of section 62 of the Act, has been capped at 408 paise per kWh, both for over-generation and under-generation. However, for the intra-State generating stations in Gujarat, we do not propose to specify any such UI rate cap, for reasons given below.
- (i) The UI rate applicable on the periphery of the State has no such cap. When frequency is in the 49.6 – 49.2 Hz range, the State shall have to pay the full UI rate for any over-drawal and it shall get paid at the full UI rate for any under-drawal. It shall, therefore, be in the interest of the State as a whole to encourage all available intra-State generating



stations having variable cost upto the prevailing UI rate to maximize their generation. A UI rate cap would restrict such encouragement, and no entity would gain anything by imposition of such a UI rate cap.

- (ii) CERC has imposed restrictions on over-drawal by the State when frequency falls below 49.5 Hz, and has stipulated an additional UI charge @ 40% of the ceiling UI rate for any over-drawal when frequency falls below 49.2 Hz. The State should therefore, endeavour to avoid getting into over-drawal mode when frequency is below 49.5 Hz. This too requires intra-State generation to be maximized, for which the incentive would be directly provided by paying the full (i.e. uncapped) UI rate to all generating stations.
10. In addition to UI rate corresponding the frequency below 49.22Hz, an additional UI charge shall also be applicable at the rate stipulated by CERC from time to time for overdrawl or under-injection of electricity for each time block when grid frequency is below 49.20 Hz. The present rate of additional UI charge is the rate equivalent to 40% of the UI rate corresponding to frequency below 49.22 Hz. This additional UI amount will also be put up in UI pool account and balancing shall be done including this additional UI amount.
11. The issues regarding implementation of intra-State ABT in the Essar complex at Hazira that have been resolved between the parties are as under:  
The Essar Complex at Hazira comprises of:





- (i) A Steel plant of M/s. Essar Steel Limited (ESL) which is an industrial consumer of DGVCL.
- (ii) 515 MW Combined Cycle Power Plant of Essar Power Limited (EPOL) which is an IPP.
- (iii) 505 MW Captive Power Plant of Bhandar Power Limited (BPL)/Essar Group of Companies.

All these entities along with the evacuation lines of GETCO., are connected to a common 220 KV bus system. Treatment of power injection/drawal by these entities shall be as under:-

- (a) The IPP of EPOL have allocation to ESL and GUVNL, and both of them shall be entitled to share the ex-bus availability of EPOL in the ratio of their allocation. Drawal schedules of ESL and GUVNL from EPOL will be as per their requisitions against the above entitlements. Total schedule of IPP will be equal to the sum of these drawal schedules.
- (b) GUVNL shall pay to EPOL on the basis of their scheduled energy.
- (c) ESL shall pay to EPOL, capacity and energy charges for their schedules as per terms of their PPA.
- (d) Net metered injection of EPOL into the 220 KV bus will be compared with the scheduled injection, and the deviation shall be accounted as UI. For all under injection EPOL, shall pay UI charges to the State UI



Pool account @ 105% of the basic UI rate and for all over-injection, it will receive UI charges @ 95% of the basic UI rate.

- (e) Injection by EPOL shall generally be allowed without any restriction, so long as (a) it does not result in over loading in GETCO system, and (b) the actual injection does not exceed its declared availability to an extent that indicates under-declaration (gaming).
- (f) Similarly, the CPP of ESL shall be treated as an independent generator with schedules to both ESL and GUVNL. Injection by the CPP shall be subject to UI charges similar to those discussed above for the IPP.
- (g) The Steel plant of ESL is an industrial consumer of DGVCL. Its actual metered drawal over and above the schedules from the IPP and the CPP, shall be deemed drawal from the DISCOM.
- (h) ESL shall pay to DISCOM as per their existing contract.

The detailed procedure in respect of Essar Complex along with the illustrative examples is placed at **Annexure-II**.

12. The above will be a part of the scheme for commercial operationalization of Intra-State ABT in the Essar Hazira Complex.
13. Detailed Procedures on Scheduling and Dispatch for Intra-State ABT is provided as **Annexure-III**.



14. Provisions regarding metering and accounting of injection by Wind Energy Generators by GEDA, shall continue to be in accordance with clauses 17 & 19 of the Order No.3 of 2006.
15. In the conclusion, the Commission directs that the Intra-State ABT in the State of Gujarat shall be fully implemented with all its commercial aspects w.e.f. 5<sup>th</sup> April 2010. The directions and observations made in this order are to be taken as a part of Order No.3 of 2006. In case of any issues which are already under dispute between the parties before any other forums the parties shall not take a plea before such other Forum that the matter has been resolved by the Commission.
16. SLDC is directed to take necessary action for commercial operationalization of Intra State ABT order as stipulated above.

Sd/-

(Dr. P. K. MISHRA)  
CHAIRMAN

Sd/-

(PRAVINBHAI PATEL)  
MEMBER (T)

Place: Ahmedabad

Date : 01.04.2010



ANNEXURE - I**Amendments to Order No. 3 of 2006 dated 11.8.2006**

1. Second sentence of Para 6 “ In the existing ...” shall be amended as below :  
 “In the existing Interstate ABT, Gujarat participates as a single unit connected to the Western grid and is liable to **receive or pay UI charges** in case of deviations from schedule.”
  
2. Second and Third sentence of Para 7.C (i), viz. “The Commission has .... GERC Tariff Regulations”, shall stand amended as below:  
  
 “The Commission has considered it appropriate and incorporated the UI rates and threshold frequencies for UI rate as determined by CERC in the CERC (Unscheduled Interchange charges and related matters) Regulations.
  
3. Sub-para (v) of para 7.c shall stand amended as follows:  
 "UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block and the basic UI rate for intra-State entities in Gujarat. The basic UI rates for intra-State entities in Gujarat from the date of operationalization of implementation of Intra-state ABT Order shall be in line with the CERC notification dated 30.3.2009 and amendments made in the same from time to time. The present rates, as stipulated in CERC Regulation dated 30<sup>th</sup> March2009, are as given below:



Average frequency of time block (Hz)		UI Rate (paise per kWh)
Below	Not below	
-	50.30	0
50.30	50.28	12
50.28	50.26	24
--	--	--
50.04	50.02	168
50.02	50.00	180
50.00	49.98	192
--	--	--
49.52	49.50	480
49.50	49.48	497
49.48	49.46	514
--	--	--
49.24	49.22	718
49.22	--	735

(Each 0.02 Hz step is equivalent to 12.0 paise/kWh in the 50.3-49.5 Hz frequency range and to 17.0 paise/kWh in the 49.5-49.2 Hz frequency range).

4. A new Sub-Para shall be added in para 7.c as hereunder:

(vii) The UI rates applicable for all deviations from schedule for the Discoms,



licensees and generating stations under ABT shall be the basic UI rates as specified in sub-para (v) above. The UI rates applicable for Essar IPP, and all the CPPs shall be 95% of the basic UI rates for over-injection and 105% of the basic UI rates for under-injection. For industries having CPPs opting for this provision, the UI rates payable to them for any power injection into the grid shall be 95% of the basic UI rates. Injection from Renewable Energy sources like Wind, Solar energy generation into the grid, which is not covered by any other commercial arrangement, shall be paid for at 85% of the prevailing tariff rate determined by the Commission for such generation from time to time.

5. A new Sub-Para shall be added in para 7.c as hereunder:

- (viii) In addition to UI Rate corresponding to frequency below 49.22 Hz, as stipulated under Sub para 7.c(v), an Additional Unscheduled Interchange Charge at the rate equivalent to 40% of the UI Rate corresponding to frequency below 49.22 Hz shall be applicable for over-drawal or under-injection of electricity for each time-block when grid frequency is below 49.22 Hz.

Provided that this additional UI amount will also be put up in UI pool account and balancing between receivable and payable shall be done including this additional UI amount.

**Note:** The Additional Unscheduled Interchange Charge shall be reviewed by the Commission from time to time, and revised, if necessary through separate orders.

6. Sub-para (d) of para 8 shall be amended as below:

“d. All CPPs above 15 MW capacity, injecting their generation for wheeling excluding wind, solar and mini hydro generator”

“e. All Distribution licensees specified by the Commission”

“f. All intra-state Open Access Users”

7. Para 9(a) of the order dated 11<sup>th</sup> August’2006 shall be deleted and note should be added after para 9(b) as under:

**Note:** The above shall be introduced in a phased manner as per the readiness



of the SLDC with required infrastructure.

8. In para 10.c, the last sentence, viz. “For any reactive energy charges payable to Regional REC pool account, the same will be pooled with State reactive account and shared by all beneficiaries” shall be deleted.
9. Para 10.f shall stand modified as follows:  
 “Switching in/out of all 400 kV and 220 kV lines and bus/line Reactors throughout the State grid shall be carried out according to the instructions of SLDC/RLDC. Tap changing on all 400/220 kV ICTs shall also be done only according to the instructions of SLDC/RLDC subject to technical feasibility and in accordance with mutual consent of the entities concerned”.
10. The second sentence of para 10(g) shall stand amended as follows:  
 The generating units for which full annual fixed costs are being borne by the beneficiaries through the capacity charge under ABT shall not get any payment for VAr Generation/ absorption.
11. In Sub para 10 (h), the following statement shall be appended:  
 “Provided that reactive charges of wind energy generators and CPPs governed by above said GETCO order, shall be excluded from member of reactive pool account and dealt separately.
12. Para 11 of the order dated 11.8.2006 stands amended as follows:  
 “The methodology of scheduling shall be according to the provision of Scheduling and Despatch Code, enclosed as Annexure-III”.
13. In para 12.a, “(excluding generating stations having total capacity of not less than 5 MW and upto 15 MW opting for injection under UI)” shall stand replaced by “under ABT (as per para 8)”, and para 12.c shall stand deleted.
14. Para 13.a shall be amended as follows:



“Any generating station under ABT may be required to demonstrate its declared capability as and when asked by the SLDC. In the event of the generating station failing to demonstrate .....

15. Para 14.a shall stand amended as follows:

“ABT compatible interface meters according to the Central Electricity Authority (Installation and Operation of Meters) Regulation, 2006 shall be provided by STU at the periphery/terminals of all intra-State entities listed in para 8 above, all open access users, and all entities proposed to be covered by UI mechanism under para 9. All expenses including installation charges and all other charges incurred by STU for providing ABT compatible meters shall be reimbursed to the STU by the entity/consumer concerned”.

16. In para 15.d, the word “private sector and” in sub-para (ii) and also Sub-para iv stands be deleted.

17. Para 16(f) and (g) shall stand deleted.

18. Sub para 16(h) shall be amended as below:

h. The summation of station-wise ex-bus dispatch schedules from each generating station and any bilaterally agreed interchanges of each beneficiary shall be adjusted for pooled transmission losses estimated by SLDC on weekly basis. Such corrected drawal schedule shall be compared with the actual net drawal of the beneficiary for UI charges.

19. In Sub para 16(i), the word “Wednesday” appearing in first sentence shall be replaced by “Friday”.

State pool accounts for (i) payments regarding unscheduled - interchanges (UI Account) and (ii) reactive energy exchanges (Reactive Energy Account), shall be prepared by the SLDC on weekly basis and these shall be issued to all constituents by Friday and Wednesday respectively of the Week following the next Week for the seven-day period ending on the previous Sunday mid-night.





20. In para 16.k, “@ 0.05%” shall stand amended as “@ 0.04%”.

21. Para 16.l shall stand amended as follows:

“If total payment receivable in the State UI pool account, after accounting for the receivables from/payables to the Regional UI pool account, is more or less than the UI payable, UI payable/receivable for the intra-State entities will be proportionately adjusted to make the payable and receivable amounts equal”

22. In para 16.m, “including that to the Regional reactive energy account” shall be inserted after “pay-out of all VA r charges”.

23. In para 17, following para to be added at the end of last statement:

Till installation of ABT compliant meters on each WEGs, SLDC shall work out suitable methodology for the determination of allocation of power (injected into the grid) to each distribution licensee, in each 15 minute base slot. GEDA shall provide a weekly energy injected by each WEGs to SLDC indicating allocation to respective distribution licensee, SLDC shall work out proportionate allocation to each distribution licensee. The energy set off to each distribution licensee thereafter be derived in 15 minute basis by applying allocation on data furnished from ABT meter installed at polling station.



ANNEXURE-II**DETAILED PROCEDURE IN RESPECT OF ESSAR COMPLEX  
ALONGWITH THE ILLUSTRATIVE EXAMPLES.**

- (i) The ESSAR complex at Hazira presently comprises of (i) a steel plant of Essar Steel Limited (ESL), (ii) a 515 MW combined cycle power plant of Essar Power Limited (EPOL), and (iii) a 505 MW captive power plant of Bhandar Power Limited (BPL) /ESL (Essar Group of Companies). All these are connected to a 220KV bus system in such a way that tie lines connected with CPP and the all four lines of GETCO terminate at same bus. Without going into the background and past debates/arguments, the solution agreed for enabling implementation of intra-State ABT is presented below through the following illustration.
- (ii) The 515 MW combined cycle plant of EPOL, an Independent Power Producer (IPP), has two beneficiaries, i.e. GUVNL and ESL, with allocations of 300 MW and 215 MW respectively. Suppose the plant declares as ex-Power Plant (ex-PP) availability of 500 MW for the next day. Entitlements of GUVNL and ESL in the same would be  $500 \times 300/515 = 291$  MW and  $500 \times 215/515 = 209$  MW respectively. Suppose GUVNL gives a requisition of 291 MW during peak load hours and 200 MW during off-peak hours and ESL requisitions 180 MW for the whole day. The schedule for IPP would then be  $291 + 180 = 471$  MW for peak-load hours and  $200 + 180 = 380$  MW for off-peak hours.
- (iii) There is an existing PPA between EPOL and GUVNL, provisions of which



would continue to be applicable except as amended by mutual agreement between the parties and / or as ordered by this Commission. For the present, GUVNL has sought an amendment only to the extent that the payment of energy charges and computation of fixed charges be made for scheduled energy instead of actual energy, and all deviations from schedule be accounted as UI. Such an amendment is considered necessary and appropriate while implementing intra-State ABT. Other amendments to the PPA can be considered by the Commission in due course in consultation with parties to the PPA.

(iv) GUVNL would then pay to EPOL for 5,346 MWh ( $291 \times 6 + 200 \times 18$ ) of energy. Payment will be for fixed as well as variable charges as stipulated in their PPA. ESL would pay to EPOL for 209 MW of plant availability and for  $180 \times 24$  MWh of energy as per terms of their PPA. Further, the net injection of the IPP into the 220 kV bus at Essar complex will be metered by GETCO/SLDC and all deviation from the schedule (471 MW and 380 MW during peak-load hours and off-peak hours respectively) shall be accounted as UI for the IPP. EPOL would pay into State UI pool account for all under-injection @ 105% of the basic UI rate notified by the Commission, and receive payment for all over-injection @ 95% of the basic UI rate.

(v) The above would generally cover the commercial arrangements for the IPP, and nothing further needs to be stipulated except regarding supply/absorption of reactive energy, which will be dealt with separately. Normally, deviations from schedule would be allowed without any restriction, as long as (i) GETCO lines are not getting overloaded, and (ii) the actual injection does not exceed the plant



availability declaration to an extent that indicates deliberate under-declaration (gaming).

- (vi) As agreed between Essar Power Limited, Essar Steel Limited, ESSAR CPP/BPL, GUVNL and GETCO in their minutes of meeting dtd. 13th May, 2009 the Day ahead schedule and subsequent revision in scheduling of EPOL, Essar CPP and ESL will be carried out on 15 minutes basis in accordance with the procedure mentioned in Scheduling and Dispatch Code. Requisition of Essar Steel will be reflected in Schedule. However, EPOL and Essar CPP (BPL) will be members under Intra-State ABT whereas ESL will not be a UI Pool Member. The accounting of EPOL, Essar CPP (BPL) and ESL will be carried out on 15 minute basis for calculating deviation from schedule & imbalance energy accounting.
- (vii) Suppose the Essar CPP indicates day ahead schedules of 300 MW in each 15 minutes time block to the ESL and of 150 MW to GUVNL in each 15 minutes time block adding up to 450 MW. The actual injection during 15 minute time block will be metered by GETCO / SLDC, and all deviations from the schedule (450 MW) will be accounted as UI for the CPP. All over-injections will be paid for from the State UI pool account to the CPP @ 95% of the basic UI rate, and for any under-injections, CPP will pay @ 105% of the basic UI rate. In addition, CPP will be paid for 150 MW of scheduled supply to GUVNL as per the agreement between them.
- (viii) The steel plant of ESL would remain an industrial consumer of the local



Discom, and supply of power to it from GETCO system will be governed by the relevant tariff of the Discom. Even after implementation of intra-State ABT, the above status of ESL shall continue except as discussed hereunder.

(ix) Suppose the Essar Steel Limited (ESL) is drawing 500 MW of power from the 220 KV bus during a particular 15 minute time block. Out of this, 180 MW is the schedule of ESL in that particular 15 minute time block from EPOL and 300 MW is the schedule of ESL in that particular 15 minute time block from Essar CPP (BPL). However, Commission is not expressing any view for applicability of transmission losses for wheeling of power from Essar Power, Essar CPP to Essar Steel as the matter is subjudice before Hon'ble high court. The drawal of the Essar steel plant (ESL) from DISCOM in that particular time block is then  $(500 - 180 - 300) = 20$  MW. However, since the meters installed on 220 KV feeders to the steel plant (ESL) would record a drawl of 500 MW, it is necessary to deduct 480 MW from meter recording to determine what is payable by steel plant to the DISCOM.

(x) The DISCOM tariff for the steel plant (ESL) has a demand charge component and the ESL has a contract capacity of 44.5 MVA with DISCOM. The tariff also has an energy charge component for actual energy drawn.. The maximum demand on 30 minutes time block and energy drawn by the ESL from DISCOM shall be computed on the basis of what is recorded in ABT meter installed on 220 KV drawl point of ESL. However, the distribution licensee shall issue the bill for the demand charge and energy charges to the ESL based on consumer tariff category under which Essar Steel Limited governed by the tariff order



issued by the Commission from time to time. The demand of ESL shall be worked out on 30 minutes block in the category of consumer tariff approved by the Commission in the Tariff Order while the energy is calculated on the basis of energy recorded in ABT meter in 15 minutes time block minus energy scheduled from EPOL minus energy scheduled from Essar CPP (BPL) during that time block. The maximum of such demand worked out during 30 minutes time block during the month shall be actual demand drawn by ESL from DISCOM and billing of ESL by DISCOM shall be done accordingly. The energy drawn by ESL from DISCOM shall be the sum of such net draws in 15 minutes time block during the month and energy charges shall be billed accordingly.

- (xi) M/s. Essar Power Limited, Essar Steel Limited, GETCO and GUVNL mutually agreed on 13<sup>th</sup> May, 2009 that ESL shall not be a member of UI pool account and therefore, in case the actual drawal of ESL during a 15 minute time block is less than the total scheduled drawal of ESL from EPOL and Essar CPP (BPL), in such case the under-drawal of energy by ESL shall be added in the metered injection of Essar CPP (BPL) during that particular time block for the purpose of determining the UI of Essar CPP (BPL). To illustrate, if total energy drawal of the steel plant (ESL) for a 15 minute time block is 107.5 MWh (against a schedule of 120 MWh for the same 15 minute time block, implying a under-drawal of 12.5 MWh) and the actual injection by Essar CPP (BPL) is 115 MWh (against a schedule of 112.5 MWh for the same 15 minute time block, implying a over injection of 2.5 MWh), the UI for the Essar CPP (BPL) shall be revised to  $(115 + 12.5 - 112.5) = +15.0$  MWh (over injection), for that time block.

- (xii) The treatment specified above would address a major objection of M/s. Essar,



and would enable trouble-free and dispute-free operation of the plants and the commercial scheme in which no party would suffer a loss. Also the captive nature of CPP would be retained. GETCO/SLDC have already installed the special energy meters on 220 kV feeders to the IPP and CPP. They need to install similar meters on the 220kV feeders to the steel plant as well, for applying the UI adjustment proposed in the previous paragraph. The Essar Steel Limited shall not have any direct impact of Unscheduled Interchange (UI).



ANNEXURE-III**SCHEDULING AND DISPATCH CODE****1. Introduction**

This annexure sets out the

- a) Demarcation of responsibilities between various intra-State entities and SLDC in scheduling and dispatch
- b) the procedure for scheduling and dispatch
- c) the reactive power and voltage control mechanism
- d) complementary commercial mechanisms (in the **Attachment- 1**).

**2. Objective**

This code deals with the procedures to be adopted for scheduling of the net injection/drawals of the intra-state entities concerned on a daily basis with the modality of the flow of information between the SLDC, ALDCs and intra-state entities. The procedure for submission of capability declaration by each Generating Station and submission of requisition/drawal schedule by other state entities is intended to enable SLDC to prepare the dispatch schedule for each Generating Station and drawal schedule for each state entity. It also provides methodology of issuing real time dispatch/drawal instructions and rescheduling, if required, to intra-state entities along with the commercial arrangement for the deviations from schedules, as well as, mechanism for reactive power pricing. The provisions contained in this annexure are without prejudice to the powers conferred on SLDC under sections 32 and 33 of the Electricity Act, 2003.





### 3. Scope

This code will be applicable to SLDC, ALDCs and other intra-state entities including Generators/ Captive Generating Plants (CGP)/Independent Power Producers (IPPs)/Discoms/State Transmission Utilities (STUs) and other beneficiaries of the State grid.

### 4. Demarcation of responsibilities

1. The SLDC shall coordinate the scheduling of all such generating stations located within the State, which are not scheduled by the RLDC in terms of CERC regulations as notified from time to time. The SLDC shall also be responsible for such generating stations for (i) real time monitoring of the station's operation, (ii) checking that there is no gaming in its availability declaration, (iii) revision of availability declaration and injection schedule, (iv) switching instructions, (v) metering and energy accounting, (vi) issuance of UI accounts, (viii) collections/disbursement of UI payments, (viii) outage planning, etc.

2. The State grid shall be operated as loose power pool (with decentralized scheduling and dispatch), in which the Discoms shall have full operational autonomy, and Area Load Dispatch Centers(ALDCs) shall have the total responsibility for (i) regulating the demand of their customers, (ii) scheduling their drawal from the Generating Stations and Inter-State Generating Station (ISGS) (within their share in the respective plant's



expected capability), (iii) arranging any bilateral interchanges, and (iv) regulating their net drawal from the State grid as per following guidelines.

3. The system of each Discom shall be treated and operated as a notional control area. The algebraic summation of scheduled drawal from Generating stations and ISGS and any bilateral inter-change shall provide the drawal schedule of each Discom, and this shall be determined in advance on daily basis. While the Discoms would generally be expected to regulate their consumers' load so as to maintain their actual drawal from the State grid close to the above schedules, a tight control is not mandated. The Discoms may, at their discretion, deviate from the drawal schedule, as long as such deviations do not cause system parameters to deteriorate beyond permissible limits and/or do not lead to unacceptable line loading.

4. The above flexibility has been provided in view of the fact that all Discoms do not have all requisite facilities for minute-to-minute on-line monitoring of the actual net drawal from the State grid, as also the fact that the only manner in which a Discom can regulate its net drawal from the State grid is through curtailment of consumer load, which should be avoided. Deviations from net drawal schedule are, however, to be appropriately priced through the Unscheduled Interchange (UI) mechanism.

5. Provided that the Discoms, through their ALDCs, shall always endeavour to restrict their net drawal from the grid to within their respective drawal schedules, whenever the system frequency is below 49.5 Hz. When



the frequency falls below 49.2 Hz, requisite load shedding shall be carried out in the concerned Discom(s) to curtail the over-drawal.

6. The Discoms shall regularly carry out the necessary exercises regarding short-term and long-term demand estimation for their area, to enable them to plan in advance as to how they would meet their consumers' load without overdrawing from the grid.

7. The State Generating Stations (SGS/ IPP/ CGP if scheduled) shall be responsible for power generation according to the daily schedules advised to them by the SLDC on the basis of the requisitions received from the ALDCs, and for proper operation and maintenance of their Generating Station, such that these stations achieve the best possible long-term availability and economy.

8. While the Generating station would normally be expected to generate power according to the daily schedules advised to them, it would not be mandatory to follow the schedules tightly. In line with the flexibility allowed to the Discoms, the Generating Stations may also deviate from the given schedules depending on the plant and system conditions. In particular, they would be allowed / encouraged to generate above the given schedule under deficit conditions. Deviations from the ex-power plant generation schedules shall, however, be appropriately priced through the UI mechanism.

9. Provided that when the frequency is higher than 50.3 Hz, the actual net



injection shall not exceed the scheduled dispatch for that time. Also, while the frequency is above 50.3 Hz, the Generating Stations may (at their discretion) back down without waiting for an advice from SLDC in order to restrict the frequency rise. When the frequency falls below 49.5 Hz, the generation at all Generating Stations shall be maximized, at least upto the level which can be sustained, without waiting for an advice from SLDC.

10. However, notwithstanding the above, the SLDC may direct the ALDCs/ Generating Stations to increase/decrease their drawals/generation in case of contingencies e.g. overloading of lines/transformers, abnormal voltages, threat to system security. Such directions shall be immediately acted upon. In case the situation does not call for very urgent action, and SLDC has some time for analysis, it shall be checked whether the situation has arisen due to deviations from schedules, or due to any power flows pursuant to short-term open access. These shall be terminated first, in the above sequence, before an action which would affect the scheduled supplies from Generating Station to the long term customers is initiated.

11. For all outages of generation and transmission system, which may have an effect on the State grid, all constituents shall cooperate with each other and coordinate their actions through State Coordination Committee (SCC) for outages foreseen sufficiently in advance and through SLDC (in all other cases), as per procedures finalized separately by SCC. In particular, outages requiring restriction on Generating Station generation and/or restriction of Generating Stations share which a beneficiary can receive (and which may have a commercial implication) shall be planned carefully to achieve the best



optimization.

12. The constituents shall enter into separate joint/bilateral agreement(s) to identify the Discom's shares in the Generating Stations (based on the allocations by the State Government/GUVNL, where applicable), scheduled drawal pattern, tariffs, payment terms etc. All such agreements shall be filed with the SLDC for being considered in scheduling and State energy accounting. Any bilateral agreements between constituents for scheduled interchanges on long-term/short-term basis shall also specify the interchange schedule, which shall be duly filed in advance with the SLDC.

13. All constituents shall abide by the concept of frequency-linked load dispatches and pricing of deviations from schedule, i.e., unscheduled interchanges. All generating units of the constituents, licensees and generating companies should normally be operated according to the standing frequency-linked load dispatch guidelines issued by the SLDC, to the extent possible, unless otherwise advised by the SLDC.

14. It shall be incumbent upon the Generating Stations to declare the plant capabilities faithfully, i.e., according to their best assessment. In case, it is suspected that they have deliberately over/under declared the plant capability contemplating to deviate from the schedules given on the basis of their capability declarations (and thus make money either as undue capacity charge or as the charge for deviations from schedule), the SLDC may ask the Generating Station to explain the situation with necessary backup data.



15. The STU shall install special energy meters on all inter connections between the State constituents and at other identified points for recording of actual net MWh interchanges and MVARh drawals. The type of meters to be installed, metering scheme, metering capability, testing and calibration requirements and the scheme for collection and dissemination of metered data are detailed as **Attachment-2**. All concerned entities (in whose premises the special energy meters are installed) shall fully cooperate with the STU/SLDC and extend the necessary assistance by taking weekly meter readings and transmitting them to the SLDC.

16. The SLDC shall be responsible for computation of actual net MWh injection/drawal of concerned intra-state entity, 15 minute-wise, based on the above meter readings and for preparation of the State Energy Accounts. All computations carried out by SLDC shall be open to all constituents for checking/verifications for a period of 15 days. In case any mistake/omission is detected, the SLDC shall forthwith make a complete check and rectify the same.

17. SLDC shall periodically review the actual deviation from the dispatch and net drawal schedules being issued, to check whether any of the constituents are indulging in unfair gaming or collusion. In case any such practice is detected, the matter shall be reported to the Commission for further investigation/action.



## 5. Scheduling and Dispatch procedures

1. All Intra-State Generating Stations shall be duly listed. The station capacities and allocated/contracted shares of different beneficiaries shall also be listed out.
2. Each Discom shall be entitled to a MW dispatch upto (foreseen ex-power plant MW capability for the day) x (Discom's share in the station's capacity) for all such stations. In case of hydro-electric stations, there would also be a limit on daily MWh dispatch, equal to (MWh generation capacity for the day) x (Discom's share in the station's capacity).
3. By 9 AM every day, the Generating Station shall advise the SLDC, the station-wise ex-power plant MW and MWh capabilities foreseen for the next day, i.e., from 0000 hrs to 2400 hrs of the following day.
4. The above information of the foreseen capabilities of the Generating Stations and ISGS and the corresponding MW and MWh entitlements of each Discom, shall be compiled by the SLDC every day for the next day, and advised to all beneficiaries by 11 AM. The ALDCs shall review it vis-à-vis their foreseen load pattern and advise the SLDC by 2 PM their drawal schedule for each of the Generating Stations and ISGS in which they have shares, long-term bilateral interchanges, approved short-term bilateral interchanges and composite request for day-ahead open access and scheduling of bilateral interchanges.



5. The ALDCs may also give standing instructions to the SLDC such that the SLDC itself may decide the drawal schedules for the Discoms.
6. By 7 PM each day, the SLDC shall convey:
- i) the ex-power plant “dispatch schedule” to each of the Generating Station, in MW for different hours, for the next day. The summation of the ex-power plant drawal schedules advised by all beneficiaries shall constitute the ex-power plant station-wise dispatch schedule.
  - ii) The “net drawal schedule” to each intra-state entity, in MW for different time blocks, for the next day. The summation of the station-wise ex-power plant drawal schedules for all Generating Stations and ISGS and drawal schedules consequent to bilateral interchanges, after deducting the transmission losses (estimated), shall constitute the entity-wise drawal schedule.
7. While finalizing the above daily dispatch schedules for the Generating Stations, SLDC shall ensure that the same are operationally reasonable, particularly in terms of ramping-up/ramping-down rates and the ratio between minimum and maximum generation levels. A ramping rate of upto 20% of the capacity on bars per hour should generally be acceptable for Generating Station except for hydro-electric Generating Station which may be able to ramp up/ramp down at a faster rate.





8. The ALDCs/Generating Station may inform any modifications/changes to be made in station-wise drawal schedule & bilateral interchanges /foreseen capabilities, if any, to SLDC by 10 PM.

9. Upon receipt of such information, the SLDC after taking into account any advise received from RLDC and after consulting the concerned constituents, shall issue the final 'drawal schedule' to each intra-state entity and the final 'dispatch schedule' to each Generating Stations by 11.30 PM.

10. While finalizing the drawal and dispatch schedules as above, the SLDC shall also check that the resulting power flows do not give rise to any transmission constraints. In case any constraints are foreseen, the SLDC shall moderate the schedules to the required extent, under intimation to the concerned constituents. Any changes in the scheduled quantum of power which are too fast or involve unacceptably large steps, may be converted into suitable ramps by the SLDC.

11. In case of forced outage of a unit, the SLDC shall revise the schedules on the basis of revised declared capability. The revised declared capability and the revised schedules shall become effective from the 4th time block, counting the time block in which the revision is advised by the Generating Station to be the first one.

12. In the event of bottleneck in evacuation of power due to any constraint, outage, failure or limitation in the transmission system, associated switchyard



and sub- stations owned by the State Transmission Utility or any other transmission licensee involved in Intra-State transmission (as certified by the SLDC) necessitating reduction in generation, the SLDC shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. Also, during the first, second and third time blocks of such an event, the scheduled generation of the Generating Stations shall be deemed to have been revised to be equal to actual generation, and the scheduled drawals of the beneficiaries shall be deemed to have been revised to be equal to their actual drawals.

13. In case of any grid disturbance, scheduled generation of all the Generating Station and scheduled drawal of all the intra-state entities shall be deemed to have been revised to be equal to their actual generation/drawal for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the SLDC.

14. Revision of declared capability by the Generating Station(s) and requisition by beneficiary(ies) for the remaining period of the day shall also be permitted with advance notice, but only in case of a contingency. Revised schedules/declared capability in such cases shall become effective from the 6th time block, counting the time block in which the request for revision has been received in the SLDC to be the first one.

15. If, at any point of time, the SLDC observes that there is need for revision of the schedules in the interest of better system operation, it may do



so on its own, and in such cases, the revised schedules shall become effective from the 4th time block, counting the time block in which the revised schedule is issued by the SLDC to be the first one.

16. To discourage frivolous revisions, the SLDC may, at its sole discretion, refuse to accept schedule/capability changes of less than two (2) percent of the previous schedule/capability.

17. After the operating day is over at 2400 hours, the schedule finally implemented during the day (taking into account all before-the-fact changes in dispatch schedule of Generating Station and drawal schedule of the beneficiaries) shall be issued by SLDC. These schedules shall be the datum for commercial accounting. The average ex-bus capability for each Generating Station shall also be worked out based on all before-the-fact advise to SLDC.

18. SLDC shall properly document all above information i.e. station-wise foreseen ex-power plant capabilities advised by the Generating Station, the drawal schedules advised by beneficiaries, all schedules issued by the SLDC, and all revisions/updating of the above.

19. The procedure for scheduling and the final schedules issued by SLDC, shall be open to all constituents for any checking/verification, for a period of 7 days. In case any mistake/omission is detected, the SLDC shall forthwith make a complete check and rectify the same.



20. While availability declaration by Generating Station may have a resolution of one (1) MW and one (1) MWh, all entitlements, requisitions and schedules shall be rounded off to the nearest second decimal, to have a resolution of 0.01 MW and 0.01 MWh..

## 6. Reactive Power and Voltage Control

1. Reactive power compensation should ideally be provided locally, by generating reactive power as close to the reactive power consumption as possible. The beneficiaries are therefore expected to provide local VAR compensation/generation such that they do not draw VARs from the State grid, particularly under low-voltage condition. However, considering the present limitations, this is not being insisted upon. Instead, to discourage VAR drawls by Beneficiaries, VAR exchanges with Intra-State Transmission System shall be priced as follows:

- The Beneficiary pays for VAR drawal when voltage at the metering point is below 97%
- The Beneficiary gets paid for VAR return when voltage is below 97%
- The Beneficiary gets paid for VAR drawal when voltage is above 103%
- The Beneficiary pays for VAR return when voltage is above 103%

2. The charge/payment for VARs, shall be at a nominal paise/kVARh rate as may be specified by the Central Electricity Regulatory Commission (CERC) from time to time, and will be between the Beneficiary and the State



pool account for VAr interchanges.

3. Notwithstanding the above, SLDC may direct a beneficiary to curtail its VAr drawal/injection in case the security of grid or safety of any equipment is endangered.

4. In general, the Beneficiaries shall endeavour to minimize the VAr drawal at an interchange point when the voltage at that point is below 95% of rated, and shall not return VAr when the voltage is above 105%. Transformer taps at the respective drawal points may be changed to control the VAr interchange as per a Beneficiary's request to the SLDC, but only at reasonable intervals. A beneficiary may also request the SLDC for increase/decrease of VAr generation at a Generating Station for addressing a voltage problem.

5. Switching in/out of all bus and line Reactors throughout the State grid shall be carried out as per instructions of SLDC. Tap changing on all transformers in STU system shall also be done as per SLDCs instructions only.

6. The Generating Station shall change generator- transformer taps and generate/absorb reactive power as per instructions of SLDC, within capability limits of the respective generating units, that is without sacrificing on the active generation required at that time. No payments shall be made to the generating companies for such VAr generation/absorption at the generating



stations full annual fixed cost of which are being borne by the beneficiaries through capacity charge.

7. VAr exchange directly between two Beneficiaries on the interconnecting lines owned by them (singly or jointly) generally address or cause a local voltage problem, and generally do not have an impact on the voltage profile of the State grid. Accordingly, the management/control and commercial handling of the VAr exchanges on such lines shall be as per following provisions, on case-by-case basis:

- iv) The two concerned beneficiaries may mutually agree not to have any charge/payment for Var exchanges between them on an interconnecting line.
- v) The two concerned Beneficiaries may mutually agree to adopt a payment rate/scheme for Var exchanges between them identical to or at variance from that specified by GERC for Var exchanges with State Transmission System. If the agreed scheme requires any additional metering, the same shall be arranged by the concerned Beneficiaries.
- vi) In case of a disagreement between the concerned Beneficiaries (e.g. one party wanting to have the charge/payment for Var exchanges, and the other party refusing to have the scheme), the scheme as specified in **Attachment-3** shall be applied.
- vii) The computation and payments for such Var exchanges shall be effected as mutually agreed between the two Beneficiaries.



**ATTACHMENT – 1****COMPLEMENTARY COMMERCIAL MECHANISMS**

1. The beneficiaries shall pay to the respective Generating Stations Capacity charges corresponding to plant availability and Energy charges for the scheduled dispatch, as per the relevant notifications and orders of GERC. The bills for these charges shall be issued by the respective Generating Station to each beneficiary on monthly basis.
2. The sum of the above two charges from all beneficiaries shall fully reimburse the Generating Station for generation according to the given dispatch schedule. In case of a deviation from the dispatch schedule, the concerned Generating Station shall be additionally paid for excess generation through the UI mechanism approved by CERC. In case of actual generation being below the given dispatch schedule, the concerned Generating Station shall pay back through the UI mechanism for the shortfall in generation.
3. The summation of station-wise ex-power plant dispatch schedules from each Generating Station and any bilaterally agreed interchanges of each beneficiary shall be adjusted for transmission losses, and the net drawal schedule so calculated shall be compared with the actual net drawal of the beneficiary. In case of excess drawal, the beneficiary shall be required to pay through the UI mechanism for the excess energy. In case of under-drawal, the



beneficiary shall be paid back through the UI mechanism, for the energy not drawn.

4. When requested by a constituent, SLDC shall assist the constituent in locating a buyer/seller and arranging a scheduled interchange within the Region or across the regional boundary. The SLDC shall act only as a facilitator (not a trader / broker), and shall assume no liabilities under the agreement between the two parties, except (i) ascertaining that no component of the power system of any other constituent shall be over-stressed by such interchange/trade, and (ii) incorporating the agreed interchange/trade in the net interchange schedules for the concerned constituents.
5. Monthly Energy Accounts and weekly statement of UI charges shall be prepared by the SLDC. The weekly statement of UI charges and shall be issued to all constituents by Thursday for the seven-day period ending on the penultimate Sunday mid-night. Payment of UI charges shall have a high priority and the concerned constituents shall pay the indicated amounts within 10 (ten) days of the statement issue into a state UI pool account operated by the SLDC. The agencies who have to receive the money on account of UI charges would then be paid out from the state UI pool account, within three (3) working days.
6. The SLDC shall also issue the weekly statement for VAr charges, to all constituents who have a net drawal / injection of reactive energy under low/high voltage conditions. These payment shall also have a high priority





and the concerned constituents shall pay the indicated amounts into the state reactive account operated by the SLDC within 10 (ten) days of statement issue. The constituents who have to receive the money on account of VAr charges would then be paid out from the -state reactive account, within three (3) working days.

7. If payments against the above UI and VAr charges are delayed by more than two days, i.e., beyond twelve (12) days from statement issue, the defaulting constituent shall have to pay simple interest @ 0.04% for each day of delay. The interest so collected shall be paid to the constituents who had to receive the amount, payment of which got delayed. Persistent payment defaults, if any, shall be reported by the SLDC to the Commission, for initiating remedial action.
8. The money remaining in the state reactive account after pay-out of all VAr charges upto 31<sup>st</sup> March of every year shall be utilized for training of the SLDC operators, and other similar purposes which would help in improving/streamlining the operation of the respective regional grids, as decided by the SPC from time to time.
9. In case the voltage profile of the grid improves to an extent that the total pay-out from the VAr charges account for a week exceeds the total amount being paid-in for that week, and if the reactive account has no balance to meet the deficit, the pay-outs shall be proportionately reduced according to the total money available in the above account.



10. The SLDC shall prepare the complete statement of the state UI account and the state Reactive Energy account, on a quarterly basis and circulate the same to all the pool members for verification.
11. All 15-minute energy figures (net scheduled, actually metered and UI) shall be rounded off to the nearest 0.01 MWh.

## ATTACHMENT – 2

### REGULATORY REQUIREMENTS OF SPECIAL ENERGY METERS

1. Special energy meters of a uniform technical specification shall be provided on the electrical periphery of each state constituent, to determine its actual net interchange with the state grid. Each interconnection shall have one (1) Main meter. In addition, Standby/check meters shall be provided such that correct computation of net interchange of a constituent is possible even when a Main meter, a CT or a VT has a problem.
2. The Special energy meters shall be static type, composite meters, installed circuit-wise, as self-contained devices for measurement of active and reactive energy, and certain other parameters as described in the following paragraphs. The meters shall be suitable for being connected directly to voltage transformers (VTs) having a rated secondary line-to-line voltage of 110 V, and to current transformers (CTs) having a rated secondary current of 1A (model-A) or 5A (model-B). The reference frequency shall be 50 Hz.
3. The meters shall have a non-volatile memory in which the following shall be automatically stored:
  - i) Average frequency for each successive 15-minute block, as a two digit code (00 to 99 for frequency from 49.0 to 51.0 Hz).
  - ii) Net Wh transmittal during each successive 15-minute block, upto second decimal, with plus/minus sign.



- iii) Cumulative Wh transmittal at each midnight, in six digits including one decimal.
  - iv) Cumulative VARh transmittal for voltage high condition, at each midnight, in six digits including one decimal.
  - v) Cumulative VARh transmittal for voltage low condition, at each midnight, in six digits including one decimal.
  - vi) Date and time blocks of failure of VT supply on any phase, as a star (\*) mark.
4. The meters shall store all the above listed data in their memories for a period of ten (10) days. The data older than (10) days shall get erased automatically. Each meter shall have an optical port on its front for tapping all data stored in its memory using a hand held data collection device.
  5. The active energy (Wh) measurement shall be carried out on 3-phase, 4-wire principle, with an accuracy as per class 0.2 S of IEC-687/IEC-62053-22. In model-A, the energy shall be computed directly in CT and VT secondary quantities, and indicated in watt-hours. In model-B, the energy display and recording shall be one fifth of the Wh computed in CT and VT secondary quantities.
  6. The VAR and reactive energy measurement shall also be on 3-phase, 4-wire principle, with an accuracy as per class 2 of IEC-62053-23 or better. In model-A, the VAR and VARh computation shall be directly in CT and VT secondary quantities. In model-B, these shall be displayed and recorded as one-fifth of those in CT and VT secondary quantities. There shall be two reactive energy registers, one for the period when average RMS voltage is above 103% and the other for the period the voltage is below 97%.
  7. The 15-minute Wh shall have a +ve sign when there is a net Wh export from substation busbars, and a -ve sign when there is a net Wh import. The integrating (cumulative) registers for Wh and VARh shall move forward when there is Wh/VARh export from substation busbars, and backward when there is an import.



8. The meters shall also display (on demand), by turn, the following parameters:
  - i) Unique identification number of the meter
  - ii) Date
  - iii) Time
  - iv) Cumulative Wh register reading
  - v) Average frequency of the previous 15-minute block
  - vi) Net Wh transmittal in the previous 15-minute block, with +/- sign
  - vii) Average percentage voltage
  - viii) Reactive power, with +/- sign
  - ix) Voltage-high VArh register reading
  - x) Voltage-low VArh register reading
9. The three line-to-neutral voltages shall be continuously monitored, and in case any of these falls below 70%, the condition shall be suitably indicated and recorded. The meters shall operate with the power drawn from the VT secondary circuits, without the need for any auxiliary power supply. Each meter shall have a built-in calendar and clock, having an accuracy of 30 seconds per month or better.
10. The meters shall be totally sealed and tamper-proof, with no possibility of any adjustment at site, except for a restricted clock correction. The harmonics shall preferably be filtered out while measuring Wh, VAr and VArh, and only fundamental frequency quantities shall be measured/computed.
11. All metering equipment shall be of proven quality, fully type-tested, individually tested and accepted by the State Transmission Utility (STU) before dispatch from manufacturer's work.
12. In-situ functional checking and rough testing of accuracy shall be carried out for all meters once a year by the STU, with portable test equipment complying with IEC-60736, for type and acceptance testing of energy meters of 1.0 class.
13. Full testing for accuracy for every meter shall be carried out by the STU at an accredited laboratory, once every five (5) years.
14. The current and voltage transformers to which the above special energy meters are connected shall have a measurement accuracy class of 0.5 or



better. Main and Standby/check meters shall be connected to different sets of CTs and VTs, wherever available.

- 15. Only functional requirements from regulatory perspective are given in this code. Detailed specifications for the meters, their accessories and testing, and procedures for collecting their weekly readings shall be finalized by the STU with the approval of the Commission.

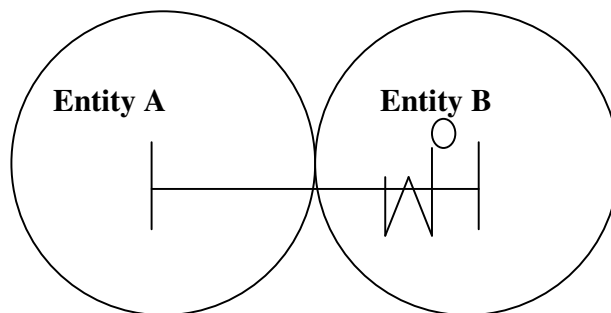
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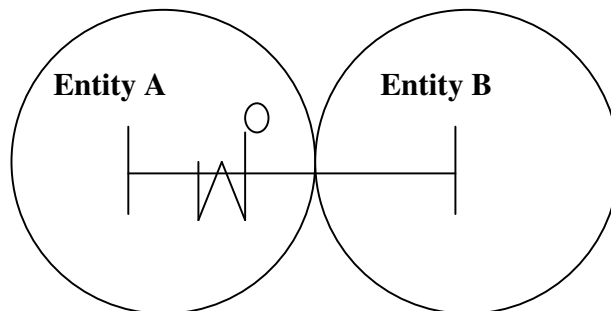
## ATTACHMENT – 3

**PAYMENT FOR REACTIVE ENERGY EXCHANGES ON LINES OWNED BY INDIVIDUAL ENTITIES.**

**Case- 1:** Interconnecting line owned by Entity – A  
Metering Point: Substation of Entity – B



**Case- 2:** Interconnecting line owned by Entity – B  
Metering Point: Substation of Entity – A



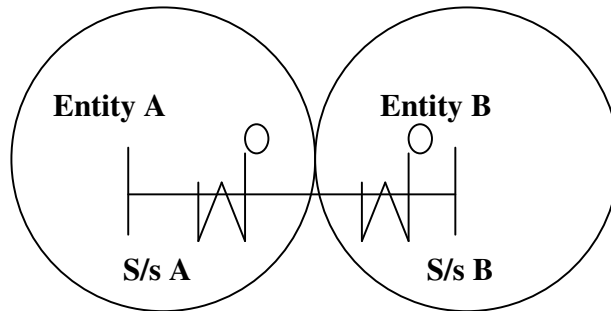
Entity B pays to Entity A for

- (i) Net VARh received from Entity A while voltage is below 97%
- (ii) Net VARh supplied to Entity A while voltage is above 103%



Note: Net VARh and net payment may be positive or negative

**Case- 3:** Interconnecting line jointly owned by Entity – A & B  
Metering Point: Substations of Entity - A & Entity - B



Net VARh exported from S/s-A, while voltage  $< 97\% = X_1$   
 Net VARh exported from S/s-A, while voltage  $< 103\% = X_2$   
 Net VARh exported from S/s-B, while voltage  $< 97\% = X_3$   
 Net VARh exported from S/s-B, while voltage  $< 103\% = X_4$

- (i) Entity B pays to Entity A for  $X_1$  or  $X_3$ , whichever is smaller in magnitude, and
- (ii) Entity A pays to Entity B for  $X_2$  or  $X_4$ , whichever is smaller in magnitude.

**Note:**

1. Net VARh and net payment may be positive or negative
2. In case  $X_1$  is positive and  $X_3$  is negative, or vice-versa, there would be no payment under (i) above.
3. In case  $X_2$  is positive and  $X_4$  is negative, or vice-versa, there would be no payment under (ii) above.







**BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION  
AT GANDHINAGAR**

**PETITION NO. 1776 OF 2019**

**In the matter of:**

**Petition under Section 181 read with Section 86 (1) (c) of the Electricity Act, 2003 for  
implementation of the Deviation Settlement Mechanism.**

Petitioner	:	State Load Despatch Centre
Represented by	:	Advocate Ms. Ranjitha Ramachandran Shri M. G. Gadhvi, SLDC Shri Parag Parmar, SLDC Shri J. D. Trivedi, SLDC
Objector No. 1	:	Bhadreshwar Vidyut Pvt. Ltd.
Represented by	:	Advocate Shri Anurag Sharma Shri Parth Desai
Objector No. 2	:	Adani Power (Mundra) Ltd.
Represented by	:	Shri Gourav Sharma
Objector No. 3	:	Gujarat Biomass Energy Developers Association
Represented by	:	Advocate Shri Ashish Jha Shri Tarun Rokadiya
Objector No. 4	:	The Chamber of Commerce & Industry Kutch Nobody was present
Objector No. 5	:	Welspun Group Nobody was present

**CORAM:**

**Shri Anand Kumar, Chairman**  
**Shri K. M. Shringarpure, Member**  
**Shri P. J. Thakkar, Member**

**Date:27/12/2019**

**ORDER**

1. The present petition is filed by State Load Despatch Centre (hereinafter referred to as 'the Petitioner') under Section 181 read with Section 86 (1) (c) of the Electricity Act, 2003 in respect of the implementation of the fourth amendment to the Regulations notified by the Central Commission on 22.11.2018, in the State of Gujarat.
2. A brief background and the facts of the matter are as under:
  - 2.1. Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 (hereinafter referred to as 'CERC DSM Regulations') was introduced and made effective from 17.02.2014 and was amended three times.
  - 2.2. The Deviation Settlement Mechanism was implemented at Intra-State level effective from 17.02.2014 vide Letter No. GERC/Legal/2015/0436 dated 05.03.2015 by the Commission.
  - 2.3. The Central Commission introduced the fourth amendment to the CERC DSM Regulations on 22.11.2018, which came into force on 01.01.2019 or on such other date as the Commission may appoint (through separate notification). Salient features of the Fourth Amendment of CERC DSM Regulations are as under:

- i. The Amendment would come into force on 01.01.2019 or on such other date as the Commission may appoint (through separate notification)
  - ii. DSM frequency band changes to 49.5 Hz to 50.05 Hz
  - iii. Maximum DSM rate is Rs. 8.00 corresponding to frequency below 49.85 Hz. The rate corresponding to 50.05 Hz is Rs. 0.
  - iv. DSM price vector has been linked to daily average clearing price discovered in Day Ahead Market on Power Exchanges.
  - v. In the event of sustained deviation from schedule in one direction (positive or negative) by any regional entity (buyer or seller), such regional entity shall have to change sign of their deviation from schedule, at least once, after every 6 time blocks. The violation of the requirement under this clause shall attract an additional charge of 20% on the daily base DSM payable/ receivable as the case may be.
- 2.4. The Petitioner proposed to modify Deviation Settlement Mechanism as implemented in the State of Gujarat to incorporate (i) back to back settlement of penalty at regional level amongst intra-State entities and (ii) the NLDC declared frequency rate (based on the Daily Average Clearing Price) for the Intra- State DSM accounting.
- 2.5. The Petition was listed for hearing. Meanwhile, the Commission received communications from Gujarat Biomass Energy Developers Association and M/s Welspun Group seeking public hearing on the subject matter.
- 2.6. The Commission held hearing in this regard on 11.04.2019. The Commission vide order dated 13.05.2019 directed the Petitioner to publish a public notice in two Gujarati and one English language leading newspapers inviting comments/ suggestions on the petition within fifteen days of the public notice. The Petitioner was also directed to submit their views on the objection/ suggestions received from the Stakeholders to the

Commission within 15 days of the last date of receipt of objections/ suggestions with a copy to the respective stakeholder.

- 2.7. The Petitioner, complying with the said order, invited comments/ suggestions on the petition vide public notice in two Gujarati language leading newspapers i.e. Sandesh and Divya Bhaskar and one English language leading newspaper, Indian Express, on 24.05.2019. Last date of submission of comments/ suggestion was kept as 08.06.2019.
- 2.8. In reference to the said public notices, the Commission received objections/ suggestions from (i) Bhadreshwar Vidyut Private Limited (ii) Adani Power Limited (iii) Gujarat Biomass Energy Developers Association. The Commission also received objections/ suggestions from The Chamber of Commerce & Industry Kutch prior to publication of Public Notice, however, the same have been considered while dealing with comments/ suggestions of the Stakeholders.
- 2.9. Issue wise objection of the Objectors are as under;
1. Retrospective implementation of the Regulations
    - i. As per the Electricity Act, 2003, any regulation for a State can be implemented only once such regulation is issued/ notified by it corresponding State Commission.
    - ii. Regulation 32 of the Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011 makes it clear that settling of imbalance transactions for intra-State transactions should be based on the procedure and charges as specified by the Commission. Therefore, in absence of notification by the Commission or till the time new notification is issued by the Commission, the existing Regulations only prevail.
    - iii. Hon'ble CERC had issued CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 after following procedure

under the statute on a prospective basis and the said Regulations were notified on 26.11.2018 to be effective from 01.01.2019 thus providing utilities sufficient time to take necessary steps in that regard and to approach the Commission in timely manner.

- iv. Directive provided by the Commission vide letter dated 05.03.2015 to SLDC was with respect to implementation of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 and not with respect to implementation of amendments provided thereof.
  - v. A retrospective implementation of the Deviation Settlement Mechanism shall prejudice the private power producers as the power supply for such period has already taken place and accordingly the commercial settlement in regard to it.
2. Linking Intra-State DSM accounting with NLDC declared frequency rate and based on the Daily Average Clearing Price of DAM
- i. Presently DAM market is very volatile and has only 3% to 4% share of total power generated in a year.
  - ii. Daily Average Clearing Price of DAM is influenced by various factors such as (i) demand/ supply scenario or increase in demand; (ii) specific working strategy/ requirements of individual generator to operate the plant to recover fixed and variable cost.
  - iii. During crisis of fuel supply in India, all generators would sell their power at higher rates in order to meet their minimum working capital. Under such situations, since the clearing prices are very influenced, the charges for deviation and penalty may increase and therefore impact of retrospectively implementation of CERC (DSM) (Fourth Amendment) Regulations, 2018 on intra-State entities will have additional commercial impact on generators.
  - iv. Proposed methodology appears to be incorrect as two inter dependent variables are being used in place of firm DSM rates at a particular frequency.

3. Implementation of socialized penalty for each block
  - i. The methodology suggested by SLDC for back to back settlement of penalty from intra-State entities is wrong and discriminatory as it is not necessary that all intra-State entities are liable to pay such penalty in a particular time block.
  - ii. In this arrangement, it may happen that entity who has helped balance the grid still stand up paying penalty.
  - iii. Imposing such unnecessary penalty on small generators without any deviation from scheduled generation will have financial impact.
  - iv. Small generating stations with installed capacity of 150-200 MW mostly adhere to the scheduled generation. For such generators, sign change applicability cannot be possible without load shedding.
  - v. In the CERC (DSM) (Fourth Amendment) Regulations, 2018, it is specifically mentioned that the said Regulations are applicable to the regional entities only and entities connected to STU/Distribution System are governed by the Regulations notified by the appropriate SERC. Accordingly, SLDC shall prepare the deviation settlement account for such generator on the basis of measurement of the deviation in the energy injected for intra-State entities.
4. Penalty for deviation from schedule due to unpredictable nature of fuel
  - i. Waste to Energy/ Biomass plants operate in fuel follow mode vs. turbine follow mode i.e. turbine follows the steam generated from the boiler instead of demanding steam to match the schedule, due to unpredictable nature of waste and boilers are slow responding.
  - ii. These plants are also must run plants to maximize waste/ biomass processing and disposal in environmental benefit in addition to electricity generation.
  - iii. As nature of fuel is unpredictable, there will be deviation from schedule.
  - iv. Waste to Energy / Biomass plants are small capacity plants and should not be burdened with same level of penalty as of large capacity conventional thermal power plants.

5. Non-following due procedure before adoption of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014
- i. The Commission implemented intra-State ABT in the State of Gujarat with prospective effect i.e. 05.04.2010 vide Order No. 3 of 2010 dated 01.04.2010. In the said ABT Order it is specified that *“The basic UI rate for intra-State entities in Gujarat shall be in line with the CERC notifications on the matter as amended from time to time. The present UI rates, as per CERC Notification dated 30.03.2009, are included in Annexure – 1.”*
  - ii. Thus, UI rates for intra-State entities in Gujarat were in line with CERC UI rates specified in the CERC (Unscheduled Interchange Charges and related matters) Regulations and subsequent amendments.
  - iii. CERC notified CERC DSM Regulations, 2014 on 06.01.2014 which came into force from 17.02.2014. These regulations repealed CERC ((Unscheduled Interchange Charges and related matters) Regulations and subsequent amendments.
  - iv. The Commission has allowed SLDC to adopt provisions of CERC DSM Regulations, 2014 only with a letter and thus has lapsed in harmonizing the intra-State ABT Order with the CERC DSM Regulations, 2014 and subsequent amendments.
  - v. Gujarat Intra-State ABT orders refer to the repealed CERC Regulations. It is not clear which Regulations are to be followed at intra-State level. Whether CERC DSM Regulations in toto or partial adoption of the same and partial adoption of GERC Intra-State ABT Orders.
  - vi. SLDC, in this petition also has made a limited prayer for a methodology of socializing cost of sign-change violation only. CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 has brought drastic change in the methodology of DSM price vector and introduced additional penal provisions which are more than simple change in UI rate and

therefore, SLDC cannot make provisions of these Regulations applicable at intra-State level in the absence of any enabling provision/ order.

- vii. Legality and validity of certain provisions of the CERC (DSM and related matters) (Fourth Amendment) Regulations, 2018 were challenged in Hon'ble High Court of Delhi where Hon'ble High Court of Delhi vide order dated 27.03.2019 directed CERC to look into representations with respect to the submissions articulated regarding other amended Regulations including Clause 7 (11a).
  - viii. CERC, after following due procedure and public hearing, has issued CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 on dt. 28.05.2019. The Objector has also furnished changes made in these Regulations.
  - ix. The Commission may take cognizance of the CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 and comprehensively review and implement the amended Regulations while giving relief in line with submissions.
- 2.10. The Petitioner filed replies on comments/ suggestions of Objectors vide additional submission dated 24.06.2019.
- 2.11. Issue wise replies of the Petitioner are as under;
- 1. Retrospective implementation of the said Regulations
    - I. As per provision of the GERC Order No. 6 of 2010, Order No. 3 of 2010 and GERC Letter dated 05.03.2015, settlement of interstate DSM Account is to be contributed by Intra-State Pool Members and therefore such synchronous method of back to back settlement is to be kept in operation to avoid piling up of accounts and not to become defaulter entity at regional level. The process and procedure is subject to final directives of the Commission.



- II. The process of approval of the methodology takes time but this does not mean that during such time, there should be a gap i.e. the penalty is imposed at regional level but is not shared amongst intra-State entities.
  - III. There is no provision in the Electricity Act, 2003 which prohibits implementation of Regulations/ Orders from retrospective effect. The Commission vide letter dated 03.05.2015 had adopted the CERC DSM Regulations from 17.02.2014 and accordingly directed the revision of energy accounting.
2. Linking Intra-State DSM accounting with NLDC declared frequency rate and based on the Daily Average Clearing Price of DAM
- I. There is a conscious decision of the Central Commission to link the DSM price vector to daily average clearing price discovered in Day Ahead Market in Power Exchanges based on the recommendation of the Expert Group constituted by the Central Commission.
  - II. The intension is to obviate the tendency/ possibility of arbitrage between the two segments i.e. DSM and DAM as stated in the Statement of Reasons.
  - III. The issue raised by the Objector was considered by the Central Commission in its Statement of Reasons in regard to Fourth Amendment. Relevant extract of the Statement of Reasons is reproduced below;

*“The Commission would like to clarify that the proposal is to link the prices in the DAM segment of Power Exchange with the DSM segment. Both these are of a comparable size – DAM segment being larger in size (3-4%) as compared to the DSM segment (1.5 – 2%). As such, the argument that DAM price is not representative for indexation purpose, does not sustain. Further, it should be noted that the objective behind the proposal to link the two prices (DAM and DSM prices), as already highlighted in the Explanatory Memorandum, is to*

*obviate the tendency/ possibility of arbitrage between these two segments) viz. DSM and DAM). ”*

3. Implementation of socialized penalty for each block
  - I. The penalty is not socialised based on the deviation of the entity but it is based on the amount payable/ receivable (i.e. logic of pool balancing) in the particular block. In such a case, there will not be any component of sign change penalty on the intra-State entity. However, directives of the Commission shall be implemented.
4. Penalty for deviation from schedule due to unpredictable nature of fuel
  - I. The submissions of the Objector deal with technical aspects of the power project, which are not relevant to the present case. The issue in the present case is not scheduling of the power per se but of the methodology of sharing the penalty being paid at regional level.
  - II. The objective is that there should be a back to back and block to block settlement of penalty at regional level amongst the intra-State entities. The penalty would be shared by the intra-State entities based on their pool balancing logic and therefore there is not disproportionate penalty on the Biomass energy projects.
  - III. Any exemption granted to one group of entity would burden the other entities, which has to be considered by the Commission.
5. Non-following due procedure before adoption of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014
  - I. Various issues raised by the Objector regard to implementation of the Deviation Settlement Mechanism by the Commission in the past, which cannot be raised at this stage.
  - II. The Petitioner has implemented the directives and orders of the Commission for various provisions of the Regulations and Orders and the process and procedure adopted by the Petitioner for intra-State DSM account are in accordance with directives of the Commission.

- III. The present petition has been filed in consequences to the introduction of the fourth amendment to the Regulations by CERC seeking procedural clarity. The Objector cannot compel the Petitioner to expand the scope beyond the relief sought which is related to fourth amendment.
- IV. The Fifth Amendment in the CERC (DSM and related matters) Regulations was issued subsequent to the filing of the Petition and issuance of Public Notice. The Petitioner has place on record the Fifth Amendment issued by CERC which came into effect on 03.06.2019, in the present submissions along with the implications. Until 02.06.2019, Fourth Amendment is operational. The Fifth Amendment provides that with effect from 01.04.2020, the settlement will be different as detailed in the additional submission.
- V. The Petitioner is not seeking the requirement of sign change or penalty for sign change violation at State level for intra-State entities. Only sharing of the penalty at regional level by all the intra-State entities is proposed in the petition. The Petitioner has also proposed NLDC declared frequency rate (based on the Daily Average Clearing Price) for the intra-State DSM Accounting.
- VI. The Western Regional Power Committee at the regional level issues the account/bill as per the provisions of the CERC DSM Regulations. The Petitioner is required to settle the amount payable/ receivable back to back weekly amongst the intra-State pool members. The Petitioner cannot fund the amount on its own and has to settle it back to back in order to make payment to make the State pool revenue neutral. Therefore, the Petitioner has to prepare the intra-State UI/DSM account accordingly.
- VII. The Petitioner has followed the methodology as proposed for sharing the penalty at the regional level amongst intra-State entities. The accounts are prepared under the head 'Provisional' and would be reviewed and re-issued as per the directives of the Commission.

- 2.12. The Petitioner in the additional submission also submitted that the Central Electricity Regulatory Commission notified the CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 which came into effect on 03.06.2019.
- 2.13. Salient features Fifth Amendment of CERC DSM Regulations, which are relevant to the present petition, are under:
- I. The Amendment would come into force on 03.06.2019;
  - II. The terms “Daily Base DSM Charge’ and ‘Time Block DSM Charge’ has been defined;
  - III. The Additional Charge for Deviation shall be applicable for over injection/ under drawal of electricity for each time block by buyer/ seller as the case maybe, when grid frequency is “50.10 Hz and above”;
  - IV. Provisions related to penalty for sign change are eased till 01.04.2020, as under;
    - a. For period from 03.06.2019 to 31.03.2020, for sustained deviation for 12 time blocks, the regional entity shall correct its position by making the sign of its deviation from schedule changed or by remaining in the range of +/- 20 MW with reference to its schedule, at least once, latest by 13<sup>th</sup> time block, where each violation to attract additional charge of 10% of time block DSM charge payable;
    - b. For period from 01.04.2020 onwards, in the event of sustained deviation from schedule in one direction for 6 time blocks, regional entity to correct its position by making the sign of its deviation from schedule changed or by remaining in the range of +/- 20 MW with reference to its schedule, at least once, latest by 7<sup>th</sup> time block and violation to attract penalty of additional charge as specified in the Regulations.

The Petitioner proposed distribution of DSM charges payable/ receivable by the Petitioner at State periphery, in accordance with provisions of CERC (Deviation

Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 and CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019.

- 2.14. The Commission held hearing on 29.07.2019.
- 2.15. During the hearing, the Petitioner clarified that it has started issuing provisional bills on its beneficiaries to State DSM Pool Members, subject to final approval of proposed methodology of sharing of DSM Charges by the Commission.
- 2.16. The Objectors objected against implementation of provisions of CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 by the Petitioner from retrospective effect, linking of DSM price vector to daily average clearing price discovered in Day Ahead Market on Power Exchanges and non following due procedure before implementation of provisions of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 and subsequent amendments i.e. publishing draft Regulations for intra-State entities, inviting comments/ suggestions and hearing objectors.
- 2.17. The Objector also suggested to implement CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 in toto.
- 2.18. The Objectors further submitted additional written submissions during the hearing in reference to reply provided by the Petitioner.
- 2.19. The Petitioner replied that it is required to pay for deviation at State periphery from State Pool Account to Regional Pool Account and therefore DSM charges need to be distributed amongst State DSM Pool Members, however, these DSM Charges are to be

distributed on pro-rata basis amongst only those State Pool Members who have deviated from their schedule.

- 2.20. The Petitioner also submitted that the Commission has adopted the provisions of CERC DSM Regulations, 2014 in the State of Gujarat for the Intra-State entities from 17.02.2014 vide letter dated 05.03.2015. CERC (Deviation Settlement Mechanism) (Fourth Amendment) Regulations, 2018 came into effect from 01.01.2019 at Central level and at State level. Hence, the Petitioner who is functioning on behalf of its beneficiaries in the State has to pay DSM charges in accordance with provisions of CERC (Deviation Settlement Mechanism) (Fourth Amendment) Regulations, 2018 from 01.01.2019 for deviation at State boundary. Therefore, question of retrospective implementation of CERC (Deviation Settlement Mechanism) (Fourth Amendment) Regulations, 2018 do not arise. It is also submitted that linking of DSM price vector to daily average clearing price discovered in Day Ahead Market on Power Exchanges is in accordance with CERC DSM Regulations.
- 2.21. The Petitioner was directed to file replies on additional submissions made by the Objectors Association within a week's time from the date of issuance of the order with a copy to them. The Objector were directed to submit their comments on the reply received from Petitioner on the additional submissions made by them on the date of hearing.
- 2.22. Issue wise objection of the Objectors are as under;
1. Applicability of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 in the State of Gujarat;
    - i. The Petitioner has not submitted any documentary evidence about applicability of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 in the State of Gujarat.

- ii. The Commission has not notified similar Regulations on Deviation Settlement Mechanism as per the provisions of the Electricity Act, 2003.
  - iii. The Petitioner has not incorporated CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 and has not provided opportunity to the stakeholders to provide their comments/ suggestions on the said Regulations.
  - iv. The proposed methodology of levying penalty/ charges is not approved by the Commission and therefore is not permissible for approval.
2. Applicability of DSM to renewable energy projects;
- i. Technical parameters of Biomass, Bagasse, Municipal Solid Waste to Energy and Oil, Gas, Coal are not comparable with each other. Therefore, it is necessary to study characteristics of small Biomass, Bagasse and MSW Plants before imposing provisions regarding penalty/ charges of CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 uniformly.
  - ii. The Petitioner shall evaluate the impact of the said provisions on different types of generators connected with the State Grid having impact on grid operational parameters.
  - iii. Uniform imposition of penalty/ charge for deviation from schedule irrespective of generation capacity of generating stations is arbitrary and illegal. It is therefore necessary to study power plants of different entities/ generators, distribution licensees etc. along with load variance, generation variance and accordingly formula or mechanism for imposing penalty/ charge should be decided.

3. Due process for implementation of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 in the State of Gujarat;
  - i. Due process was not followed before implementing CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 in the State of Gujarat. SLDC did not file any petition in this regard either.
  - ii. The CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 has been implemented in the State of Gujarat with effect from 17.02.2014 vide letter dated 05.03.2015 of the Commission, which is against the provisions of the Electricity Act, 2003 and rules and regulations framed under it. Therefore, recoveries made on this basis are also illegal, arbitrary and void.
  - iii. The Petitioner is not empowered to recover Deviation Settlement Charges which are not decided by the Commission.
  - iv. Petition filed by the Petitioner seeking adoption of CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 is not permissible as there is no existence of principal Regulations i.e. CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 and subsequent three amendments.
  - v. The Commission is not empowered in the Electricity Act, 2003 to pass any order which is applicable from retrospective effect. Therefore, the plea of the Petitioner to make CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 applicable from retrospective effect i.e. from 01.01.2019 is not permissible.
  - vi. The Central Electricity Regulatory Commission has followed due process of law i.e. issuance of (i) discussion paper/ draft regulations, (ii) public notice, (iii) inviting comments/ suggestions, (iv) public hearing, (v) notification with order about objections/ suggestions and decision of the Commission, before framing CERC (Deviation Settlement Mechanism and related matters) Regulations,



2014 and subsequent amendments. Further, these Regulations were made applicable from prospective effect and not from retrospective effect.

4. Determination of DSM charges by the Commission;
  - i. As the Commission has not decided or specified any DSM charges/ rates or penalty, methodology for recovery of such charges, the Petitioner cannot levy DSM charges/ rates or penalty without approval of the Commission.
  - ii. The Petitioner stated that as per Section 61 of the Electricity Act, 2003, the Commission shall be guided by the Regulations framed by the Central Commission. However, Section 61 is pertaining to tariff regulations. Further, only Section 61 (a) states that principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees shall be only guiding factors to the State Commissions. Determination of DSM charges are different and distinct from determination of tariff.
5. Exemption of renewable energy entities from the provisions of the sign change requirement and penalty;
  - i. CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 has exempted renewable energy entities from the provisions of sign change requirement and penalty.
  - ii. Therefore, sign change penalty at regional level should not be socialized amongst renewable energy entities which are intra-State pool members i.e. while socializing cost on intra-State energy account for pool members, SLDC should keep all the renewable energy entities i.e. wind, solar, biomass bagasse, MSW, Hydro, etc. out of the energy accounting pool.

6. Non-submission of data of case study on effect of implementation of methodology proposed by the Petitioner;
  - i. The Petitioner has not submitted any data of case study examples along with clarifications sought by the Commission to the Stakeholders and thus Stakeholders are not provided with opportunity.
  - ii. Such data are required to be provided to the Stakeholders so that submission can be made on the said case study data.
7. Proposal of the Petitioner not in line with the CERC DSM Fourth Amendment, Regulations, 2018;
  - i. Though, the Petitioner seeks to amend the DSM Regulations to make them aligned to the CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018, the charges specified in the Petition are not as per the charges specified in the CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018.
8. Non consideration of technical, commercial, financial and legal implications and socializing penalty amongst DSM pool members;
  - i. The Petitioner has not taken into consideration the technical, commercial, financial and legal implications, rights and interests of stakeholders before implementation of CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018.
  - ii. The Petitioner has not specified any methodology or formula for implementation of these Regulations.
  - iii. The Petitioner has sought to bring all entities under the DSM without taking into consideration scientific techniques for implementation of the DSM.
  - iv. Further, the Petitioner has proposed to impose additional penalty in case of sign change violation, which shall be settled back to back amongst all intra-State pool members.

- v. This will lead to passing of burden on entities who have not deviated from schedules or affected the grid parameters and thus not violating DSM.
9. Retrospective implementation of the said Regulations;
- i. The Electricity Act, 2003 does not contemplate promulgation of any delegated legislation with retrospective effect.
  - ii. CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 were implemented from prospective effect.
  - iii. The Petitions submitted that the petition is filed to bring DSM in the State of Gujarat in line with CERC DSM. However, it is proposed to implement the said Regulations from retrospective effect and thus the Petitioner has contradicted from their submissions.
  - iv. CERC has notified CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 which were also implemented from prospective effect after following due procedure. Thus, CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 are effective. The Petitioner has not suggested any amendment based on the said Regulations.
  - v. CERC has recognized anomalies in the CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 by issuing Fifth Amendment. Therefore, the Petition cannot insist on implementing CERC DSM Fourth Amendment Regulations, 2018.
10. Linking Intra-State DSM accounting with NLDC declared frequency rate and based on the Daily Average Clearing Price of DAM;
- i. In reference to objection of the Objector regarding issue of frequency rate, the Petitioner replied that CERC has provided a detailed explanatory memorandum and the explained the same in Statement of Reasons.

- ii. However, it is the Petitioner's responsibility to implement the DSM in the State of Gujarat and therefore to give a detailed representation as to how DSM will be implemented on intra-State level, by taking all the factors into account.
3. The Petitioner filed replies on comments/ suggestions of Objectors vide additional submission dated 09.08.2019.
- 3.1. Issue wise replies of the Petitioner are as under
- 1. Applicability of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 in the State of Gujarat;
    - i. There is no requirement that the Regulatory Commissions can act only by framing Regulations. The Petitioner is relied on judgement of the Hon'ble Supreme Court in PTC India Limited Vs. CERC (2010) 4 SCC 603. Relevant portion of the judgment is produced below;

**39..... Such decision – making under Section 79 (1) is not dependent upon making of regulations under Section 178 by the Central Commission.**  
*therefore, functions of Central Commission enumerated in Section 79 are separate and distinct from function of Central Commission under Section 178. The former is administrative/ adjudicatory function whereas the latter is legislative.*

*40..... There measures, which the Central Commission is empowered to take, have got to be in conformity with the regulations under Section 178, whenever such regulations are applicable. Measures under Section 79 (1), therefore, have got to be in conformity with the regulations under Section 178. To regulate is an exercise which is different from making of the regulations. **However, making of a regulation under Section 178 is not a pre-condition to the Central Commission taking any steps/ measures under Section 79 (1).** As stated, if*

*there is a regulation, then the measure under Section 79 (1) has to be in conformity with such regulation under Section 178.....**Making of a regulation under Section 178 is not a pre-condition to passing of an Order levying a regulatory fee under Section 79 (1) (g).** However, if there is a regulation under Section 178 in that regard then the Order levying fees under Section 79 (1) (g) has to be in consonance with such regulation. Similarly, while exercising the power to frame the terms and conditions for determination of tariff under Section 178, the Commission has to be guided by the factors specified in Section 61. **It is open to the Central Commission to specify terms and conditions for determination of tariff even in the absence of the regulations under Section 178.** However, if a regulation is made under Section 178, then, in that event, framing of terms and conditions for determination of tariff under Section 61 has to be in consonance with the regulation under Section 178.*

- ii. This is also clear from the fact that the Commission has introduced the ABT mechanism by way of the Orders.
- iii. In the ABT Order dated 01.04.2010, the Commission has held that the rates/ penalty under the Regulations of the CERC would apply. Relevant extracts of the order are produced under;

*8. The basic UI rate for intra-State entities in Gujarat shall be in line with the CERC notifications on the matter as amended from time to time. The present UI rates, as per CERC Notification dated 30.03.2009, are included in Annexure – 1.*

.....

*10. In addition to UI rate corresponding the frequency below 49.22 Hz, an additional UI charge shall also be applicable at the rate stipulated by CERC from time to time for over drawl or under- injection of electricity for each time*

*block when grid frequency is below 49.20 Hz. The present rate of additional UI charge is the rate equivalent to 40% of the UI rate corresponding to frequency below 49.22 Hz. This additional UI amount will also be put up in UI pool account and balancing shall be done including this additional UI amount.*

*Annexure I*

...

2. *Second and Third sentence of Para 7.C (i), viz. “The Commission has .... GERC Tariff Regulations”, shall stand amended as below:*

*“The Commission has considered it appropriate and incorporated the UI rates and threshold frequencies for UI rate as determined by CERC in the CERC (Unscheduled Interchange Charges and related matters) Regulations.*

- iv. CERC notified the CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 which have repealed earlier Regulations. The Commission vide letter dated 05.03.2015 made the said DSM Regulations applicable in the State of Gujarat and directed the Petitioner to revise the energy bills accordingly w.e.f. 17.02.2014. This is just a clarification of the ABT mechanism already in existence in the State.
  - v. Thus, impact of fourth and fifth amendments to the CERC DSM Regulations have to be adjusted amongst the intra-State entities and are being done by pre-existing logic of pool balancing.
  - vi. The petition is seeking approval of the methodology and applicability of DSM price vector with Average Area Clearing Price being published by NLDC.
2. Applicability of DSM to renewable energy projects;
- i. The biomass projects above 4 MW are subjected to ABT and therefore have to be included in the sharing of all penalties at the inter-State/ regional level. There

is no further need to study any technical parameters of the power plant or compare various generators, as the exercise has already been done.

- ii. The issue in the present petition is of the methodology of sharing the penalty being paid at regional level and the same is not dependent on characteristics of the power plant.
  - iii. Further, the penalty would be shared by the intra-State entities based on their pool balancing logic and therefore there is no disproportionate penalty on the biomass energy projects.
3. Due process for implementation of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 in the State of Gujarat;
- i. The ABT mechanism was introduced from 05.04.2010 vide ABT Order dated 01.04.2010. The order was passed after following due process. This order decided applicability of CERC specified charges/ rates in the State of Gujarat.
  - ii. Thus, any change in CERC rates/ charges would automatically apply within the State and there is no need for further hearing/ order.
  - iii. The procedure is followed by CERC as it is notifying new amendments. However, requirement of the Petitioner to implement the same back to back is pre-existing and does not require any further procedure or order or regulations.
  - iv. The applicability of CERC rates/ charges is with immediate effect from the date of CERC notifications.
  - v. The present petition is only for approval of methodology which necessarily can come only after the charges/ rates of Central Commission are notified.
  - vi. Further, there cannot be any vacuum in the ABT mechanism/ deviation settlement mechanism. The Petitioner cannot bear the charges from 01.01.2019 on its own. The same has to be shared by intra-State entities. The Petitioner has raised provisional invoices subject to approval of the methodology by the Commission and the same would be finalized once the orders are passed by the Commission.

4. Determination of DSM charges by the Commission;
  - i. Section 61 (a) of the Electricity Act, 2003 requires the State Commissions to be guided by Central Commission.
  - ii. Even though Section 61 (a) is related to tariff determination the issue relates to deviation charges which should be considered to be covered under the said Section.
  - iii. For Grid Operations, the State Commissions are required to be guided by CERC Regulations, where Section 86 (1) (h) provides for the State Commission to notify Grid Code in consistent with CERC Grid Code.
  - iv. Further, as per Section 33 of the Electricity Act, 2003, SLDC has to comply with the directions issued by RLDC.
  - v. In the present case, guidance of CERC Regulations are mandatory as the Petitioner cannot be expected to pay the penalty at the inter-State/ regional level and not recover the same from intra-State entities. The Petitioner cannot bear the burden on deviations from schedule by the intra-State entities.
  - vi. It is not possible for the Petitioner to approach the Commission until notification of Regulations by CERC, as the methodology for sharing the penalty can be proposed only after notification of penalty by CERC.
  - vii. After notification of CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018, the Petitioner had approached the Commission for approval of methodology of sharing. The Petition was asked to file a petition in this regard by the Commission.
  - viii. The methodology is ack to back sharing and it is dependent on the amount of penalty being imposed at intra-State/ regional level by way of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 and subsequent amendments. Therefore, charges/ rates are not proposed by the Petitioner. The imposition is only back to back sharing of the penalty under CERC (Deviation



Settlement Mechanism and related matters) Regulations, 2014 and subsequent amendments.

5. Exemption of renewable energy entities from the provisions of the sign change requirement and penalty;
  - i. CERC (Deviation Settlement Mechanism) (Fifth Amendment) Regulations, 2019 grants exemption to renewable energy projects from sign change penalties.
  - ii. The Petitioner is not at present seeking implementation of sign change penalties to intra-State entities within the State of Gujarat but is only seeking sharing of penalty imposed at inter-State/ regional level.
  - iii. UI/ DSM charges are applicable to the intra-State Pool Members who are covered under ABT regime. Wind and Solar RE generators are not covered under ABT regime and hence UI/DSM charges including sign change violation are not applicable to these generators as per ABT Orders and amendments of the Commission from time to time.
  - iv. As per the decision of the Commission, biomass projects above 4 MW are subjected to ABT and therefore would share the penalty for deviations.
  - v. The present petition is on methodology of sharing and granting exemption of any entity from payment of penalty would have to be considered separately as this requires amendment of the existing mechanism. Further, any exemption granted to one group of entity would burden other entities.
6. Non-submission of data of case study on effect of implementation of methodology proposed by the Petitioner;
  - i. The present petition is related to methodology for sharing of sign change penalty back to back and therefore, there is no requirement of any data.

7. Proposal of the Petitioner is not in line with the CERC DSM Fourth Amendment, Regulations, 2018;
  - i. The Petitioner is seeking approval of methodology of sharing of the sign change penalty being imposed under the Fourth and Fifth Amendments of CERC DSM Regulations.
  - ii. The proposal of the Petitioner is only back to back adjustment. The Objector has not furnished information regarding how the proposed charges are different than the charges specified in the CERC DSM Regulations.
  - iii. The methodology given by the Petitioner is based on example. The actual charges would depend on the actual penalty payable under the Fourth and Fifth Amendments of CERC DSM Regulations.
8. Non consideration of technical, commercial, financial and legal implications and socializing penalty amongst DSM pool members;
  - i. The only consideration in the present case is the methodology of sharing of sign change penalty, if any, being imposed at inter-State level between intra-State entities based on existing logic of pool balancing.
  - ii. This sharing is not amongst all the generators without distinction but on all the entities who have deviated from the schedule for the concerned time blocks.
  - iii. If the entity is covered under ABT mechanism, it is liable to share the penalty including sign change penalty, in case it deviates from schedule. Thus, there is no socialization of penalty amongst pool members.
  - iv. The Petitioner has not proposed sign change penalty within the State.
9. Retrospective implementation of the said Regulations;
  - i. The applicability of the Fourth and Fifth Amendments of CERC DSM Regulations have been w.e.f. 01.01.2019 and 03.06.2019 respectively to settle WRPC inter-State Accounts and therefore, the sharing has to be from such date.

- ii. The Commission has already provided for implementation of CERC DSM Regulations, 2014 vide letter dated 05.03.2015. This includes Fourth and Fifth Amendments of CERC DSM Regulations.
- iii. The present petition is for approval of methodology of sharing of the sign change penalty at inter-State level introduced in the said Amendments. The Petitioner cannot bear the burden of such penalty.
- iv. Further, the Regulations/ Orders can be implemented from retrospective effect. The CERC (Sharing of Inter-State Transmission Charges and Losses) (Sixth Amendment) Regulations, 2019 were notified on dt. 27.03.2019, however, these Regulations were made implemented from dt. 13.02.2018.
- v. The Hon'ble Tribunal in the case of Siel Limited Vs. the Punjab State Electricity Regulatory Commission 2007 ELR APTEL 931 held that the tariff orders can be retrospective. Relevant extracts of the order are produced under;

*“81. We do not find that the Commission was wrong in its approach by giving effect to the tariff order from the aforesaid retrospective date as the tariff was fixed for the tariff year 2005-06, which commenced on 1<sup>st</sup> April, 2005. If the submission of the Industrial Consumers is accepted, a consumer could initiate some proceedings in a Court against the Commission with a prayer for seeking an interim order restraining the Commission from revising the tariff on some ground or the other. This could delay the passing of the tariff order in case an interim order interdicting the determination of tariff is passed pending the proceedings. In such a contingency, it is only after the interim order is lifted by the Court that the Commission would be in a position to pass the tariff order. Obviously, it would only be just and fair that the tariff order relates back to and commences on the first day of the year for which the tariff determination is made. In Kanoria Chemicals & Industries Ltd. and Anr. Vs. State of UP & Ors. (1992) 2 SCC 124, a question was raised with regard to the competence of the Electricity*

*Board to determine tariff with retrospective effect. The Supreme Court was of the view that retrospective effect to the revision of tariff was clearly envisaged in law. In this regard, the Supreme Court held as follows:*

*“ A retrospective effect to the revision also seems to be clearly envisaged by the section. One can easily conceive a weighty reason for saying so. If the section were interpreted as conferring a power of revision only prospectively, a consumer affected can easily frustrate the effect of the provision by initiating proceedings seeking an injunction restraining the Board and State from revising the rates, on one ground or other, and thus getting the revision deferred indefinitely. Or, again, the revision of rates, even if effected promptly by the Board and State, may prove infructuous for one reason or another. Indeed, even in the present case, the Board and State were fairly prompt in taking steps. Even in January 1984, they warned the appellant that they were proposing to revise the rates and they did this too as early as in 1985. For reasons for which they cannot be blamed this proved ineffective. They revised the rates again in March 1988 and August 1991 and, till today, the validity of their action is under challenge. IN this State of affairs, it would be very impractical interpretation of the section to say that the revision of rates can only be prospective.”*

*82. Section 62, which provides for determination of tariff by the Commission, does not suggest that the tariff cannot be determined with retrospective effect, In the instant case, the whole exercise was undertaken by the PSERC to determine tariff and the annual revenue requirement of the PSERB for the period April, 1, 2005 to March 31, 2006, therefore, logically tariff should be applicable from April 1, 2005. in force for such period as may be specified in*

*the tariff order. Thus the Commission is vested with the power to specify the period for which the tariff order will remain in force. The Commission deriving its power from Section 64 (6) has specified that the order shall come into force from April 1, 2005. No fault can be found with such a retrospective specification of the Commission.*

- vi. In the present case, the entities may seek to delay the proceedings to delay the application of the penalty which cannot be allowed. In the present case, since the sign change penalty of the CERC DSM Regulations is already known, there is no retrospective penalty.

10. Linking Intra-State DSM accounting with NLDC declared frequency rate and based on the Daily Average Clearing Price of DAM;

- i. CERC DSM Regulations provide for NLDC declared frequency rate based on Daily Average Clearing Price of Power Exchange and the same is therefore being included in the present petition.
- ii. UI/DSM frequency rate is in line with ABT orders and amendments in CERC DSM Regulations.
- iii. CERC has proposed the amendment of linking DSM charges with NLDC frequency rates and based on Daily Average Clearing Price of DAM after detailed study.

4. The Objectors (i) Gujarat Biomass Energy Developers Association and (ii) M/s Bhadreshwar Vidyut Private Limited have filed additional submission on the reply of the Petitioner.

**Additional Submission of Gujarat Biomass Energy Developers Association**

- 4.1. The Objector raised following issues in regard to implementation of CERC DSM Regulations, 2014 through the Commission's letter dated 05.03.2015;

- i. Was the procedure of issuance of order or notification for DSM made after following due process of law on the provision of the Electricity Act, 2003 and regulations of the Commission or not in respect of DSM introduced as principal regulation from 17th February, 2014 and three subsequent amendments made in it?
  - ii. Whether a letter written by the Commission qualifies as an ‘order’ or ‘judgment’ as per the provision and GERC (Conduct of Business) Regulations, 2004?
  - iii. Whether the Commission had authorised or permitted to the Petitioner to declare a ‘letter’ of the Commission as ‘order’ of the Commission?
  - iv. Is the Petitioner following GERC ABT mechanism or CERC DSM Regulations in toto or partially adopting provisions of GERC ABT order and partially those of CERC DSM Regulations?
- 4.2. The Commission’s letter dated 05.03.2015 cannot be considered as order as per the provisions of the Electricity Act, 2003. Even if the letter is considered as order of the Commission, any actions taken by the Petitioner based on the letter is illegal as;
  - i. Section 181 (3) of the Electricity Act, 2003 provides for the State Electricity Regulatory Commission to carry out pre-publication procedure and invite comments/ suggestions from stakeholders before framing any regulations;
  - ii. The letter must comply with the provisions of the Electricity Act, 2003 and regulations and in this case, procedure depicted in GERC (Conduct of Business) Regulations 2004 was not followed such as, (a)petition in this regard was not filed paying requisite fees and by submitting requisite documents, (b) No hearing opportunity were given to the affected stakeholders, (c) order/ judgment was not uploaded on the website of the Commission.
- 4.3. The Objector has cited following judgments to support the said argument.

- i. Judgment of Hon'ble Supreme Court in case of Gujarat Urja Vikas Nigam Limited V/s Solar Semiconductor Ltd. Relevant portion of the order is reproduced below;

*22. It is contended that Section 86 (1) (b) of the Act empowers the State Commission to regulate the price of sale and purchase of electricity between the generating companies and distribution licensees and the terms and conditions of the PPA cannot be set to be inviolable. Merely because in PPA, tariff rate as per Tariff Order (2010) is incorporated that does not empower the Commission to vary the terms of the contract to the disadvantage of the consumers whose interest the Commission is bound to safeguard. Sanctity of PPA entered into between the parties by mutual consent cannot be allowed to be breached by a decision of the State Commission to extend the earlier control period beyond its expiry date, to the advantage of the generating company – respondent no. 1 and disadvantage of the appellant. Terms of PPA are binding on both the parties equally.*

*23. In Gujarat Urja Vikas Nigam Limited Vs. EMCO Limited and Another (2016) 11 SCC 182, facts were similar and the question of law raised was whether by passing the terms and conditions of PPA, respondent can assail the sanctity of PPA. This Court held that Power Producer cannot go against the terms of the PPA and that as per the terms of the PPA, in case, the first respondent is not able to commence the generation of electricity within the 'control period' the first respondent will be entitled only for lower of the tariffs.*

*24. The first respondent placed reliance upon Gujarat Urja Vikas Nigam Limited Vs. Tarini Infrastructure Limited and Others (2016) 8 SCC 743. In the said case, this Court was faced with the substantial question of law viz. whether the tariff fixed under a PPA (Power Purchase Agreement) is sacrosanct and inviolable and beyond review and correction by the State Electricity Regulatory Commission. In that case, respondent no.*

*I thereon- power producer had entered into a PPA with the appellant therein-distribution licensee for sale of electricity from the generating stations to the extent of the contracted quantity for a period of 35 years at Rs. 3.29 per kWh subject to escalation of 3% per annum till date of commercial operation. However, later the power producer found out that the place from where the power was to be evacuated was at a distance of 23 kms. as opposed to a distance of 4 kms, envisaged in the concession agreement entered into between the Respondent-power producer and Narmada Water Resources Department (Respondent No. 2 therein). On this ground respondent had sought revision of tariff by State Electricity Commission. This Court held that Section 86 (1) (b) of Act empowers State Commission to regulate price of sale and purchase of electricity between generating companies and distribution licensees through agreements for power, produced for distribution and supply that the state commission has power to re-determine the tariff rate when the tariff rate mentioned in the PPA between generating company and distribution licensee was fixed by State Regulatory Commission in exercise of its statutory powers.*

*Relevant portion of the paras (17) and (18) of the judgment, read as under:-*

*“17. As already noticed, Section 86 (1) (b) of the Act empowers the State Commission to regulate the price of sale and purchase of electricity between the generating companies and distribution licensees through agreements for power produced for distribution and supply. As held by this Court in V. S. Rice & Oil Mills v. State of A. P. AIR 1964 SC 1781, K. Ramanathan v. State of T. N. (1985) 2 SCC 116 and D. K. Trivedi & Sons v. State of Gujarat 1986 Supp. SCC 20 the power of regulation is indeed of wide import...*

*18. All the above would suggest that in view of Section 86 (1) (b) the Court must lean in favour of flexibility and not read inviolability in terms of PPA insofar as the tariff*



*stipulated therein as approved by the Commission is concerned. It would be a sound principle of interpretation to confer such a power if public interest dictated by the surrounding events and circumstances require a review of the tariff. The facts of the present case, as elaborately noted at the threshold of the present opinion, would suggest that the Court must lean in favour of such a view also having due regard to the provisions of Sections 14 and 21 of the General Clauses Act, 1898...*

*In the facts and circumstances of that case and that the tariff rate of Rs. 3.29/-per KWH was subject to escalation and subject to periodic review. Evacuation was changed from a distance of 4 kms. to 23 kms. from its switch yard. On account of the same, respondent No. 1 therein had incurred an additional cost of about Rs. 10 crores which was not envisaged in the Concession Agreement. In such facts and changed circumstances, this Court thought it apposite to take a lenient view and allow the State Commission to re-determine the tariff rate.*

...

...

*35. This Court should be specially careful in dealing with matters of exercise of inherent powers when the interest of consumers is at stake. The interest of consumers, as an objective, can be clearly ascertained from the Act. The preamble of the Act mentions "protecting interest of consumers" and Section 61 (d) requires that the interests of the consumers are to be safeguarded when the Appropriate Commission specifies the terms and conditions for determination of tariff. Under Section 64 read with Section 62, determination of tariff is to be made only after considering all suggestions and objections received from the public. Hence, the generic tariff once determined under the statute with notice to the public can be amended only by following the same procedure. Therefore, the approach of this Court ought to be cautious and guarded when the decision has its bearing on the consumers."*

- ii. Judgment of Hon'ble Supreme Court in case of Swadeshi Cotton Mills v. Union of India, reported in (1981) 1 SCC 664. Relevant portion of the order is reproduced below;

92. The further question to be considered is: What is the effect of the nonobservance of this fundamental principle of fairplay? Does the non-observance of the audi alteram partem rule, which in the quest of justice under the rules of law, has been considered universally and most spontaneously acceptable principle, render an administrative decision having civil consequences, void or violable? In England, the outfall from the watershed decision, R. V. Baldwin, 1964. AC 40 brought with it a rush of conflicting opinion on this point. The majority of the House of Lords in Ridge v. Baldwin held that the non-observance of this principle, had rendered the dismissal of the Chief Constable void. The rationale of the majority view is that where there is *a duty to act fairly just like the duty to act reasonably, it has to be enforced as an implied statutory requirement, so that failure to observe it means that the administrative act or decision was outside the statutory power; unjustified by law, and therefore ultra vires and void.* (See Wade's Administrative Law, *ibid*, page 448). *In India, this Court has consistently taken the view that a quasi-judicial or administrative decision rendered in violation of the audi alteram partem rule, wherever it can be read as an implied requirement of the law, is null and void.* (e.g. Maneka Gandhi's case MANU/SC/0133/1978 : [1978] 2SCR621 (*ibid*) and S. L. Kapoor v. Jagmohan MANU/SC/0036/1980: [1981] 1SCR746 (*ibid*). In the facts and circumstances of the instant case, there has been a non-compliance with such implied requirement of the audi alteram partem rule of natural justice at the pre-decisional stage. The impugned order therefore, could be struck down as invalid on that (core alone. But we refrain from doing so, because the learned Solicitor-General in all fairness, has both orally and in his written submission dated August 28, 1979, committed himself to the position that under Section 18 – F, the Central Government in exercise of its curial functions, is bound to give the affected owner of the undertaking taken-over, a “full and effective hearing on all aspects touching the validity and/ or

*correctness of the order and/ or action of take-over”, within a reasonable time after the take-over. The learned Solicitor has assured the Court that such a hearing will be afforded to the appellant Company if it approaches the Central government for cancellation of the impugned order. It is pointed out that this was the conceded position in the High Court that the aggrieved owner of the undertaking had a right to such a hearing.*

*93. In view of this commitment/ or concession fairly made by the learned Solicitor-General, we refrain from quashing the impugned order, and allowing Civil Appeal 1629 of 1979 send the case bad to the Central Government with the direction that it shall, within a reasonable time, preferably within three months from today, give a full, fair and effective hearing to the aggrieved owner of the undertaking, i.e., the Company, on all aspects of the matter, including those touching the validity and/ or correctness of the impugned order and/ or action of takeover and then after a review of all the relevant materials and circumstances including those obtaining on the date of the impugned order, shall take such fresh decision, and/or such remedial actions as may be necessary, just, proper and in accordance with law.*

4.4. The Objector also objected against retrospective implementation of the said CERC DSM Regulations and submitted additional arguments in this regard. It is submitted that the Electricity Act, 2003 and provisions of the Act do not empower the Petitioner or the Commission to impose charges retrospectively. Section 61,62, 86, 181 or 94 and any other Sections of the Electricity Act, 2003 empower the Commission or the Petitioner to impose DSM charges on prospective basis. Thus, implementation of recovery of charges under CERC DSM Fourth and Fifth Amendments should be prospective from the date of order of the Commission.

4.5. Following judgments have been cited by the Objector for the said argument;

- i. Judgment of Hon'ble Supreme Court in the case of M. D. University v. Johan Singh, reported in (2—7) 5 SCC 77. Relevant portion of the judgment is produced below;

*'.....17. Clauses (a) and (b) of Regulation 26 (ii) are not attracted herein. Clause (c), according to the respondent, is attracted in the instant case.*

*18. However, before proceeding to consider the matter further, we may notice that the said regulation was purported to have been amended with retrospective effect on the following terms:*

*“Considered the following amendment in Regulation 26 (c) of ‘Leave Regulations’ appearing at pp. 159-60 of M. D. University Calendar, Volume III: PROPOSED leave is granted to accept an invitation to a teaching post or fellowship or research-cum-teaching post or an assignment for administrative or technical or academic work of importance. Provided that the maximum total period for which such leave is granted shall not ordinarily exceed three years and in exceptional cases such leave may be extended so that the total period of leave, during the whole tenure of service of an employee does not exceed five years.*

*Provided further that the benefit of increment for a period up to three years of extraordinary leave may be allowed for accepting such assignments and for the purpose of higher studies and research anywhere in India or abroad.*

*The word ‘invitation’ of the above rule may include both a direct offer sent by the host institution and any offer received in response to an application, bio-data sent by the employee through the University to any institution in India or abroad.*

*RESOLVED that the above amendment be approved.*

*FURTHER RESOLVED that the amended provision would take retrospective effect and would be applicable to both teaching and non-teaching employees who undertake administrative/ teaching assignment anywhere in India or abroad.”*

*19. The Act does not confer any power on the Executive Council to make a regulation with retrospective effect. The purported regulations, thus, could not have been given retrospective effect or retroactive operation as it is now well settled that in absence of any provision contained in the legislative Act, a delegate cannot make a delegated legislation with retrospective effect.*

*20. In Mahabir Vegetable Oils (P) Ltd. v. State of Haryana<sup>1</sup> this Court stated: (SCC p. 633, paras 41-43)*

*“41. We may at this stage consider the effect of omission of the said note. It is beyond any cavil that a subordinate legislation can be given a retrospective effect and retroactive operation, if any power in this behalf is contained in the main Act. The rule-making power is a species of delegated legislation. A delegate therefore can make rules only within the four corners thereof.*

*42. It is a fundamental rule of law that no statute shall be construed to have a retrospective operation unless such a construction appears very clearly in the terms of the Act, or arises by necessary and distinct implication. (See West v. Gwynne.).....”*

- ii. Judgment in the case of Panchi Devi v. State of Rajasthan, (2009) 2 SCC 589: (2009) 1 SCC (L&S) 408, at page 590. Relevant portion is produced hereunder; “.....9. A delegated legislation, as is well known, is ordinarily prospective in nature. A right or a liability which was created for the first time, cannot be given a retrospective effect. Furthermore, the intention of the State in giving a prospective effect to that Rule is clear and explicit; the amendment in Rule 22-A was also to be effective from 1-9-1982 itself. No relief can be granted to the

*appellant herein on the basis of the decision in Prabhati Devi (See para 5 above). The said decision did not lay down the correct law. Article 14 of the Constitution of India has a positive concept. Equality, it is trite, cannot be claimed in illegality. Even otherwise the writ petition as also the review petition have rightly not been entertained on the ground of delay and laches on the part of the appellant.*

*10. For the reasons aforementioned, we are of the opinion that apart from the question of delay, even on merit, the appellant has no case, The appeals are dismissed accordingly.*

- iii. Judgment of Hon'ble Supreme Court in the case of DDA v. Joint Action Committee, Allottee of SFS Flats, reported in (2008) 2 SCC 672. Relevant portion is produced hereunder;

*74. From a perusal of the Resolution dated 27-8-1996, it appears that 20% surcharge was levied over the disposal cost worked out for the flats in South Delhi SFS. It does not show that any subsidy was proposed to be granted for the migrants from Jammu and Kashmir or Punjab. The policy was taken only with a view to balance the reduced cash inflow. DDA, this, had in view commercial aspect of the matter and not the social justice aspect.*

*75. Again, by reason of the office order dated 31-3-1999, the delegation of power in favour of various authorities was redefined. The Vice-Chairman could deal with delay or default even if it exceeds one year and six months. 22-8-1996 was prescribed as the cut-off date for the purpose thereof. Price of the flat was to be calculated on the basis of either current price or old price, whichever is higher. It was sought to be applied irrespective of the extent of delay. On what basis 22-8-1996 was taken to be the cut-off date has not been disclosed. We*

would, however, assume that the said date was taken into consideration in view of the Resolution dated 27-8-1996.

76. An executive officer, in absence of any provision of a statute, cannot apply his own decision with retrospective effect. A delegate is bound to act within the four corners of the delegation and not beyond the same.

77. Delegation of power in favour of an authority under a statute must also be tested in terms of the statutory provisions. No provision under the Act or the Regulations has been brought to our notice which empowers the delegate to alter the terms and conditions of the contract with retrospective effect. The purported policy decision must, therefore, be tested not only having regard to the provisions of the statute but also having regard to Clause 4 of the offer.

78. Current cost has been calculated upon computing 20% over and above the actual cost. A provision for surcharge had also been made in terms whereof a premium of 20% over the disposal cost was worked out on current cost for the SFS flats in South Delhi. Imposition of surcharge is subject to the condition that the real value in the market of DDA flats would be much more than it had been charging as per the cost formula. Parameters of computation of disposal price have been laid down which we have noticed supra. The Authority having itself adopted a formula for computing the disposal cost, the same was binding upon the delegates. A delegate cannot take any action contrary to or inconsistent with the factors laid down for computation of disposal cost as defined in Section 2 (30) of the Act. Regulations 5 and 6 do not authorise the delegate to apply a formula which was not contemplated by the Authority itself. If an executive authority in absence of any statutory provision cannot apply a decision with retrospective effect, the same would be ultra vires.

79. In *Vice-Chancellor, M. D. university v. Johan Singh* this Court observed: (SCC p. 83, para 19)

“19. The Act does not confer any power on the Executive Council to make a regulation with retrospective effect. The purported regulations, thus, could not have been given retrospective effect or retroactive operation as it is now well settled that in absence of any provision contained in the legislative Act, a delegate cannot make a delegated legislation with retrospective effect.”

- 4.6. It is basic principle of natural justice that no one can be penalised on the ground of a conduct which was not penal on the day it was committed. It is settled law that the delegation-legislation like framing of regulations under the Act are always prospectively and not retrospectively except the Act provided for the same. The Electricity Act, 2003 does not provide such power to the Commission to frame the Regulations which are delegated sub-legislation with regard to imposition of sign change from retrospective effect.
- 4.7. The implementation of the CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 can be done prospectively and not retrospectively. The penalty or charges proposed to levy on State Energy Account members are charges/ penalty and qualify as penal charges for sign change regulations once it qualify as penal charge to pay penalty for offence/ violation of provision of sub legislation or provision of law effect to increase the charge which are prevailing at the relevant time i.e. UI charge or such other charge. It is undisputed that there is no DSM charge or Regulation in Gujarat hence no penal charge exists with regard to sign change and the parties are operating their system etc. as per the prevailing rules and regulations as per the provisions of the Act. Hence, the penalty for any offence like sign change or socializing such penalty as proposed by the Petitioner will be only prospective by the reason of the constitutional restrictions imposed by article 20 of the Constitution of India even otherwise they are construed prospective because it manifestly shocks one's



sense of justice that an act, legal at the time of doing it should be made unlawful by some enactment.

- 4.8. Therefore if an act, regulations create a new offence or violation of provisions of it will bring into its fold only those offenders who commit all ingredients of offence after the act or rules, regulations came into operation. It is a basic principle of natural justice that no one can be penalised on the ground of which was no offence or no penalty payable on act on the day when it was committed or done based on the regulation or provision of act prevailing at that day. The Objector relied on following judgments in support of the said arguments:
- a. West Ramanad Electric Distribution Co. Ltd. Vs State of Madras reported in AIR 1962 SC 1753
  - b. AIR 1977 SC 2091 in the case of Soni Devrajbhai Babubhai Vs. State of Gujarat
  - c. AIR 1989 SC 1954 in the case of Pyarelal Sharma Vs. MS Jammu and Kashmir industries Ltd.
- 4.9. Proposed charges/ penalty under guise of penalty by the petitioner are taxing or charging provisions. As per the provision of the Electricity Act, 2003, read with the provisions of Constitution of India, any tax or charges are leviable on the persons are prospectively based on the provision of law i.e. provision of Act/ Rule or Regulations. The charging or taxing provisions are always prospective and not retrospective because the person on whom the charges or taxes levied by the executives or administrative or statutory authority may not be aware of the charges payable by it for any act or conduct.
- 4.10. Any charge or penalty imposed on retrospective basis create a situation that the person who has not created any error or default for his act may be liable to charges or penalty or he, may acquire to pay tax or charge which do not prevail on the date of act. However, by enactment of tax/ charge provisions applicable on retrospective basis the person on

whom such charges are imposed are deprived from principle of natural justice that he may not be given an opportunity of hearing and also an opportunity to avoid the charges. Therefore, sing charge regulations based on the CERC Regulations proposed by the Petitioner must be prospectively and not retrospectively.

- 4.11. Any order passed by the Commission is also prospective and not retrospective. The impact of such order or oppression of such order are prospective and not retrospective. The subject matter in the present petition is pertaining to framing of Regulations as there is neither any dispute between the Petitioner with regard to any contract or any relation between the parties where commercial dispute arises. The issue is of Petitioner's desire to impose penalty/ charges based on the CERC DSM Regulations which were not prevailing till date. In such a situation, it is incorrect to pass any order with regard to any dispute between the parties on retrospective date.
- 4.12. Moreover, GERC Conduct of Business Regulations do not provide any such power to the Commission to pass order on retrospective basis. The orders passed by the Commission are always prospective basis whenever any charge/ penalty is imposed on Licensee, generating Company, Consumers etc. The GERC Forecasting and Scheduling by Renewable Sources Regulations where mechanism is formulated for imposition of penalty on renewable sources for deviation from their schedule is made prospectively and not retrospectively.
- 4.13. The Petitioner has submitted that they are zero balance account organisation and they may not bear any burden or charges. It is submitted that SLDC is grid provide and failure of their performance may also lead penalty or charges to other members or constituents. It is incorrect to say that their default may be passed on to members of the State Energy Account. Only in few States sign change Regulations are implemented from prospective basis. If SLDCs are Zero Balance entity then how are they balancing

such amount where sign change regulations are implemented. The Petitioner must devise some mechanism which is not submitted to the Commission.

- 4.14. The Petitioner has been publishing UI/DSM accounts since 17.02.2014 which can be noted from their submission, reproduced below;

*“The Unscheduled Interchange (UI) energy account(Deviation Charges) for the week from 16.03.2015 to 22.03.2015 is enclosed herewith along with day wise statement of UI/deviation energy and corresponding charges computed in accordance with Order No. 3 of 2006 & amendments issued by GERC with effect from 5<sup>th</sup> April, 2010. **As per GERC order: GERC/Legal/2015/436 dated 5<sup>th</sup> March, 2015, revised UI/Deviation Charges and volume of limits as specified by CERC in DSM Regulations 2014 and same is made effective from 17<sup>th</sup> February, 2014 and Deviation Charges received from WRLDC towards power exchange with Gujarat Transmission Network which includes addition charges is pooled and shared through pool account.**”*

The Petitioner has referred the GERC letter dated 05.03.2015 as an order in all the UI/DSM bills. This became evident only after the Petitioner submitted a copy of the letter along with its Petition to the Commission and the Commission asked the Petitioner to make the petition public and invited comments. Document cited by the Petitioner is merely a letter and not an order as being claimed by the Petitioner. The Petitioner has been incorrectly citing the letter as an order and serving the same in weekly UI/DSM bills for intra-State entities.

Further, this letter is communication between the Commission and SLDC. Reference submissions made by SLDC in the letter to the Commission are also not in public domain.

The Petitioner has cited that ABT Mechanism has been implemented in Gujarat vide Order No. 3 of 2010 dated 01.04.2010 and subsequent amendments where the Commission has held that UI rates as notified by CERC shall be applicable. Relevant Clause is reproduced below;

*“8. The basic UI rate for intra-State entities in Gujarat shall be in line with the CERC notifications on the matter as amended from time to time. The present UI rates, as per CERC Notification dated 30.03.2009, are included in Annexure-1.”*

The GERC ABT Orders state that the basic UI rate for intra-State entities in Gujarat shall be in line with CERC notifications on the matter as amended from time to time, which is to be interpreted with reference to CERC (Unscheduled Interchange charges and related matters) Regulations, 2009 dated 30.03.2009 and its amendments. These Regulations were repealed upon introduction of CERC DSM Regulations, 2014 and thus, CERC DSM Regulations, 2014 cannot be considered as amendments to CERC (Unscheduled Interchange charges and related matters) Regulations, 2009 and the Commission's intra-State ABT Orders cannot said to have provisions to adopt CERC DSM Regulations, 2014 without enabling order of the Commission with due process. Therefore, contention of the Petitioner that the Commission's letter dated 05.03.2015 is merely a clarification is also incorrect. The Commission has not given any clarification in the said letter no stated how GERC ABT orders are to be interpreted along with CERC DSM Regulations, 2014 or what provisions of the GERC ABT Order stand amended or repealed. The letter simply states that based on representation and letters of SLDC, the Commission has decided to adopt provisions of CERC DSM Regulations, 2014. Since such representations and letters submitted by SLDC are not available on public domain, it is not possible to comment on the veracity of claims/ submission made by SLDC that led the Commission to adopt the provisions of CERC DSM Regulations, 2014 without following due process of law.

The Objector is not challenging the UI/ DSM bills from 17.02.2014 to 31.12.2018 nor asking to reverse energy account bill for the said period. However, since the Petitioner has in present petition categorically stated that the Petitioner's power for provisional implementation of CERC DSM 4<sup>th</sup> and 5<sup>th</sup> Amendment is predicated on the powers and approvals given vide the Commission's letter dated 05.03.2015 based on which the Petitioner is merely seeking approval of the Commission in the present petition, the Objector is objecting to the present claims of the Petitioner. The Petition, regardless of what the scope may or may not be, cannot be considered legally valid as it is based on lapsed process of law.

- 4.15. The Petitioner has stated that there is no requirement for the Commission to frame regulations to take a decision, however, the Petitioner has failed to substantiate this claim with any legal grounds or evidence and therefore, this claim cannot be considered as legally valid. Section 181 (1) of the Electricity Act, 2003 deals with powers of the State Commission which states that, "*the State Commissions may, by notification, make regulations consistent with this Act and the rules generally to carry out the provisions of this Act.*" Therefore, any implementation of CERC DSM Regulations 4<sup>th</sup> and 5<sup>th</sup> Amendments has to be made through a corresponding order/ regulation of the Commission. The Commission has notified ABT Orders applicable to intra-State entities which are the principle regulations under which UI/ DSM charges are being levied from intra-State entities. The same need to be amended through order as per provisions of Section 181 of the Electricity Act, 2003 prior to implementation of CERC DSM Regulations 4<sup>th</sup> and 5<sup>th</sup> amendments while considering how and on which entities the penalty for sign change violation at regional level should be levied.
- 4.16. The Petitioner has stated that since biomass projects above 4 MW are covered under GERC ABT orders, any entity subjected to ABT order would be subjected to penalty

which implies that sharing of penalty for sign-change at regional level is also applicable on biomass and waste to energy projects above 4 MW. On one hand the Petitioner states that CERC DSM Regulations, 2014 are in force and on the other hand the Petitioner conveniently relies on GERC ABT Orders to rationalize applicability of sign change penalty on intra-State entities. The GERC ABT Order No. 3 of 2010 and 3 of 2012 provide for levy of only UI charge and additional UI charge in line with CERC UI Regulations, 2009 dated 30.03.2009 and its subsequent amendments. The GERC ABT Orders do not have any provision regarding levying sign change penalty or modalities on socializing such cost or determining on whom such cost should be socialized.

The CERC DSM Regulations 4<sup>th</sup> amendment introduced the sign-change requirement and associate penalty for violation in addition to basic UI and additional UI charges, for the first time. If GERC ABT Orders do not have any provision/ modalities related to sign change and if GERC ABT Orders are applicable to Biomass and Waste to Energy projects then it would be illegal and arbitrary for the Petitioner to have levied or socialized sign-change penalty cost at intra-State level.

- 4.17. The Petitioner while proposing the methodology for sharing of sign-change penalty ignoring the fact that the CERC has exempted renewable energy generators from payment of additional charge for failure to adhere to sign-change requirement in CERC DSM Regulations 5th Amendment:

*“4.5 (b)...*

*Provided also that payment of additional charge for failure to adhere to sign change requirement as specified under clauses (a) & (b) of this regulation shall not be applicable to:*

*a. Renewable energy generators which are regional entities.”*

Renewable energy entities at intra-State level should be exempted from sign-change requirement or any penalty/ charges related to sign-change once the CERC Regulations are implemented/ adopted at intra-State level after due process of law. Since Biomass and Waste to Energy projects are renewable energy projects, they too should be exempted from any methodology pertaining to sign-change penalty or from inclusion in the pool for socializing of costs/ penalties related to sign-change coming from inter-State/ regional level. This consideration is being sought as part of implementation of CERC DSM Regulations 4<sup>th</sup> and 5<sup>th</sup> amendments through GERC ABT Orders which need to be suitably amended with due process of law. The Petitioner has failed to take this into consideration while proposing the methodology and therefore the Objector has made a plea for comprehensive review prior to implementation based on just the Petitioner's representation.

- 4.18. The Petitioner has restated that it has served a letter dated 17.07.2015 to entities in which it has informed that the Petitioner has initiated levying UI/DSM charges as per CERC DSM Regulations, 2014 in reference to letter dated 05.03.2015 of the Commission and therefore the Objector cannot claim it was not aware of the said letter. The Petitioner in all communications has cited the letter of the Commission as an "order":

"...

*As per GERC order: GERC/Legal/2015/436 dated 05th March'2015, revised UI/Deviation charges and volume of limits as specified by CERC in DSM regulations 2014 and same is made effective from 17<sup>th</sup> February'2014..."*

The Petitioner has not served a copy of the letter dated 05.03.2015 of the Commission but only a reference of it as an "order" has been mentioned in the letter dated 17.07.2015. Thus, the Petitioner has led the intra-State entities to believe that based on regulatory proceeding an order has been issued by the Commission by which the provisions of CERC DSM Regulations, 2014 have been implemented. The Objectors

had no reason as such to challenge the statement of the Petitioner as the Petitioner is a statutory body and entrusted to carry out its business as per the provisions of the Electricity Act, 2003 and Regulations thereof. The Petitioner has the onus to correctly represent matters and not to skew facts. The difference between a letter of the Commission and order of the Commission should be well known to the Petitioner and cannot be construed as being the same.

The Respondent has come across the letter dated 05.03.2015 of the Commission only as part of the present petition when it was annexed by the Petitioner. It became evident that the said document is clearly only a letter and not an order as claimed by the Petitioner.

When the Petitioner has represented a key fact incorrectly for the past years due to which it has gone unchallenged does not mean it can deprive the Respondent or anybody from challenging the basis of implementation of future regulations after becoming aware of the lapse in process and falsification of fact as part of present petition.

- 4.19. The Petitioner has filed the present petition under provisions of Section 181 of the Electricity Act, 2003 which are powers of the State Electricity Regulatory Commissions to make Regulations and Section 86 of the Electricity Act, 2003 which are function of the State Electricity Regulatory Commissions respectively.

Section 181 (1) of the Electricity Act, 2003 states that, “*the State Commissions may, by notification, make regulations consistent with this Act and the rules generally to carry out the provisions of this Act*”. Thus, nothing in Section 181 of the Electricity Act, 2003 empowers the State Commissions to make Regulations with retrospective effect.



- 4.20. It is not for the Respondent to determine or propose in this petition how to settle the UI/DSM imbalance on prospective implementation of CERC DSM Regulations 4th and 5th Amendments from the date of order of the Commission. The Respondent is concerned that the process of law should be followed. Further, the Petitioner should not be allowed to use the quantum of financial implication and how it will be handled in case of prospective implementation of CERC DSM Regulations 4<sup>th</sup> and 5<sup>th</sup> Amendments as an excuse to continue violation of process of law. The Petitioner is a statutory body and entrusted to follow due process of law. The Petitioner has not only failed in following due process of law in this case but also incorrectly represented a “letter” as an “order” and not followed due process to enable the Commission to harmonize CERC DSM Regulations with GERC ABT Orders and provisions thereof.
- 4.21. The Petitioner has repeatedly stated that the submissions made by the Respondents are beyond the scope of the petition. The Petitioner cannot restrict scope of submission when the legal grounds based on which it has made a petition are questionable and no opportunity has been provided to stakeholders up until this petition which has shed light on the lapses in process of law and against natural justice.
- 4.22. The Petitioner is contending that GERC ABT Orders are in force and the petition is only for adoption of the mechanism for handling sign change violation settlement at regional level on the intra-State entities. The Petitioner in doing so is once again detracting the Commission from reviewing and making necessary amendments in the GERC ABT orders with due process of law to ensure they are harmonized with CERC DSM Regulations.
- 4.23. Maharashtra Electricity Regulatory Commission has introduced MERC (Deviation Settlement Mechanism and relate matters) Regulations, 2019 with effect from March 2019, i.e. prospectively after conducting public hearing and issuing order for the same.

Maharashtra is one of the key states in the WRLDC region and if it is following process of law to harmonize with amendments to CERC DSM Regulations while implementing prospectively, there is no reason why the Petitioner in Gujarat cannot do the same.

- 4.24. The Petitioner's contention that CERC DSM Regulations 4<sup>th</sup> and 5<sup>th</sup> Amendments should be implemented from the date mentioned by the CERC only or it shall lead to mismatch in UI/DSM accounting with WRLDC is not a justified reason for retrospective implementation in light of the fact that SLDC in Maharashtra is handling the UI/DSM accounting with prospective implementation and it is also part of WRLDC. If the Petitioner wanted to have the implementation in line with implementation dates notified by the CERC, it should have made submissions/ petition before the CERC to notify an implementation date that would allow adequate time for the Petitioner to approach the Commission for enabling order and alignment with forthcoming CERC Regulations. The Petitioner has made such submission to the CERC and now cannot pray to the Commission to approve the provisional UI/ DSM bills that it has been generating based on CERC DSM Regulations 4<sup>th</sup> and 5<sup>th</sup> Amendments on its own without enabling order from the Commission and against the process of law.
- 4.25. The Petitioner relied on the judgment of Hon'ble Tribunal in the case of Siel Limited Vs. the Punjab State Electricity Regulatory Commission (PSERC) 2007 ELR APTEL 931 which is irrelevant in the present case. In the said case, the PSERC had undertaken a review of the applicable tariff for the period of 1<sup>st</sup> April, 2005 to 31<sup>st</sup> March, 2006 under the powers provided under Section 62 of the Electricity Act, 2003 which is for determination of tariff and Section 64 of the Electricity Act, 2003 which is procedure for tariff order. The petition filed by the Petitioner is neither for determination of tariff nor for procedure for tariff order.

- 4.26. The Petitioner has stated that CERC DSM Regulations 5<sup>th</sup> Amendment grants exemption on sign change to renewable energy projects and the Petitioner is not seeking to implement the sign change requirement/ mechanism but only sharing of sign change penalty at inter-State/ regional level and therefore no exemption can be granted on sharing of such penalty by biomass and waste to energy projects which are covered under ABT orders.

CERC has exempted renewable generators which to be interpreted in context of all renewable energy sources including wind, solar, hydro, biomass, waste to energy from payment of additional charge for failure to adhere to sign change requirement. Relevant text is reproduced hereunder:

*“4.5 (b)...*

*Provided also that payment of additional charge for failure to adhere to sign change requirement as specified under clauses (a) & (b) of this regulation shall not be applicable to:*

*a. renewable energy generators....”*

The exemption given by CERC is clear in both letter and spirit- renewable energy generators cannot be burdened with either the technical requirement for sign change or any penalty or commercial implication associated with sign change at inter-State or regional level. Therefore, the Petitioner’s proposal to consider renewable energy generators in the pool for purpose of sharing of sign change penalty at regional/ inter-State level is illogical and not in line with the Regulations. Consequently, the methodology proposed by the Petitioner cannot be accepted when the Petitioner has not proposed to keep renewable energy generators out of pool for purpose of socializing sign change penalty at inter-State/regional level.

**Additional Submission of M/s Bhadreshwar Vidyut Private limited**

For the sake of avoid repetition, only those contentions which were not covered in previous objections/ suggestions have been covered hereunder:

- 4.27. The Petitioner has submitted that by filing the instant petition, the Petitioner has sought for back to back adjustment of penalty payable by the State at the regional level for the sign change penalty in terms of CERC DSM Regulations 4th and 5th Amendment.

The Petitioner has proposed the said adjustment in accordance with CERC DSM Regulations 5<sup>th</sup> Amendment for the first time and prayer in this regard was not made in the original petition. Further, the Petitioner has not preferred a separate petition in order to introduce amendments in regard to CERC DSM Regulations 5<sup>th</sup> Amendments. Post filing of the petition, the CERC on 29.05.2019 notified the CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019. These Regulations came into force after following due process of law by the CERC. No amendment has been suggested by the Petitioner on the basis of these Regulations. Further, when CERC vide 5<sup>th</sup> Amendment has recognized anomalies in the 4<sup>th</sup> Amendment then it makes no sense for the Petitioner to insist upon implementing 4<sup>th</sup> Amendment in the State of Gujarat.

Pursuant to the filing of the said petition, the CERC introduced the CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019. Accordingly, the Petitioner vide its affidavit dated 24.06.2019, merely suggested that the Commission may consider the 5<sup>th</sup> amendment Regulations notified by CERC. However, the Petitioner has not carried out any studies, or methodology for the purpose of inclusion of the said amendment of the CERC, in the DSM framework for the state of Gujarat.

The Petitioner admits the fact that State Commissions are required to be guided by Central Commission and that the State Commissions' Regulations requires to be consistent with the regulations of Central Commission. However, the Petitioner has not considered the 5<sup>th</sup> Amendment, which are effective as on date, when the CERC has it self recognized the anomalies in the 4<sup>th</sup> Amendment, by issuing the 5<sup>th</sup> Amendment.

Due to such arbitrary exercise and lackadaisical approach of the Petitioner, the proposed amendments are not in line with the DSM Regulations of the CERC. All the amendments proposed by the Petitioner, by of the instant petition is nothing but misinterpretation of the legal provisions and the orders of the Hon'ble Supreme Court. As such the present petition ought to be dismissed.

- 4.28. The Petitioner has submitted that the Commission vide order no. 6 of 2010 and 3 of 2010 has adopted applicability of inter-State ABT mechanism in the State of Gujarat. By way of the inter-State ABT mechanism, the Commission has only introduced the UI charges in the State. However the UI charges, additional UI charges and CAP UI charges are entirely different and distinct from each other, Even the DSM charges are completely different and distinct from additional UI and CAP UI charges.
- 4.29. The Petitioner has proposed amendments in line with CERC DSM Regulations 4<sup>th</sup> Amendments. However, the Petitioner never approached the Commission when the CERC notified the CERC DSM Regulations 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Amendments and same were not approved by the Commission, though, the Petitioner unilaterally decided to impose the penalty charges on State Energy Account members and has been recovering the same, which is violation of the provisions of the Electricity Act, 2003 and the orders of the Commission.

- 4.30. The Petitioner has submitted that it has issued 19 provisional invoices based on the CERC DSM Regulations 4th Amendment which is arbitrary and illegal considering the petition is still pending before the Commission and prayer has not been allowed yet. Therefore, actions may be initiated against the Petitioner under Section 142 of the Electricity Act, 2003.
- 4.31. The Petitioner in the reply stated that even assuming that the Section 61 (a) of the Electricity Act, 2003 only relates to Tariff Determination, the issue of Deviation Charges should also be covered under Section 61 (a).

Section 61 of the Electricity Act, 2003, in its entirety, only relates to the guiding principles for determination of tariff, which is applicable for the generating companies and transmission licensees. However, the present petition only relates to amendment of the DSM framework and the consequent imposition of penalty/ charges, which are not in the nature of tariff. As, the petition does not fall under nature of tariff, the Commission does not have to abide by the principles enumerated under Section 61 (a) of the Electricity Act, 2003. Section 61 of the Electricity Act, 2003 is reproduced hereunder:

***Section 61. (Tariff regulations):***

*The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-*

*(a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;*

*(b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;*

- (c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;*
- (d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;*
- (e) the principles rewarding efficiency in performance;*
- (f) multi year tariff principles;*
- [(g) that the tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies in the manner specified by the Appropriate Commission;]*
- (h) the promotion of co-generation and generation of electricity from renewable sources of energy;*
- (i) the National Electricity Policy and tariff policy:*

*Provided that the terms and conditions for determination of tariff under the Electricity (Supply) Act, 1948, the Electricity Regulatory Commission Act, 1998 and the enactments specified in the Schedule as they stood immediately before the appointed date, shall continue to apply for a period of one year or until the terms and conditions for tariff are specified under this section, whichever is earlier.*

- 4.32. The Petitioner has stated that the present petition relates to back to back adjustment of sign change penalty, therefore, there is no requirement of adopting the consultation process. However, the said amendments proposed by the Petitioner has direct impact on the stakeholders, including the Objectors and therefore, entire process has to be followed which includes extensive consultation with the stakeholders. This is also settled law and violation of the same is against the principles of natural justice. The same is settled by the Hon'ble Supreme Court.

The Objector relied upon following judgments in support of the argument:

- i. Indian Administrative Service (SCS) Association Vs. Union of India reported in 1993 Supp (1) SCC 731:

*“26 the result of the above discussion leads to the following conditions:*

*(1) Consultation is a process which required meeting of minds between the parties involved in the process of consultation on the material facts and point involved to evolve a correct or at least satisfactory solution. There should be meeting of minds between the proposer and the persons to be consulted on the subjection of consultation. There definite facts which constitute the foundation and source for final decision. The object of the consultation is to render consultation meaningful to serve the intended purpose. Prior consultation in that behalf is mandatory.*

*(2) when the offending action affects fundamental rights or to effectuate built-in insulation, as fair procedure, consultation is mandatory and non-consultation renders the action ultra vires or invalid or void.*

*(3) when the opinion or advice binds the proposer, consultation is mandatory and its infraction renders the action or order illegal.*

*(4) when the opinion or advice or view does not bind the person or authority, any action or decision taken contrary to the advice is not illegal, nor becomes void.*

*(5) when the object of the consultation is only to apprise of the proposed action and when the opinion or advice is not binding on the authorities or person and is not bound to be accepted, the prior consultation is only directory. The authority proposing to take action should make known the general scheme or*



*outlines of the actions proposed to be taken be put to notice of the authority or the persons to be consulted, have the views or objections, take them into consideration, and thereafter, the authority or person would be entitled or has/ have authority to pass appropriate orders or take decision thereon. In such circumstances it amounts to an action “after consultation”.*

*(6) No hard and fast rule could be laid, no useful purpose would be served by formulating words or definitions nor would it be appropriate to lay down the manner in which consultation must take place. It is for the Court to determine in each case in the light of its facts and circumstances whether the action is “after consultation”; “was in fact consulted” or was it a “sufficient consultation”.*

*(7) Where any action is legislative in character, the consultation envisaged like one under Section 3 (1) of the Act, the Central Government is to intimate to the State Governments concerned of the proposed action in general outlines and on receiving the objections or suggestions, the Central Government or Legislature is free to evolve its policy decision, make appropriate legislation with necessary additions or modification or omit the proposed one in draft bill or rules. The revised draft bill or rules, amendments or additions in the altered or modified form need not again be communicated to all the concerned State Governments nor have prior fresh consultation. Rules or Regulations being legislative in character, would tacitly receive the approval of the State Governments through the people’s representatives when laid on the floor of each House of Parliament. The Act or the Rule made at the final shape is not rendered void or ultra vires or invalid for non-consultation.”*

- ii. Cellular Operators Association of India & Ors. Vs. Telecom Regulatory Authority of India & Ors. Reported in (2016) 7 SCC 703

*“92. We find that, subject to certain well-defined exceptions, it would be a healthy functioning of our democracy if all subordinate legislation were to be “transparent” in the manner pointed out above, Since it is beyond the scope of this judgment to deal with subordinate legislation generally, and in particular with statutes which provide for rule making and regulation making without any added requirement of transparency, we would exhort Parliament to take up this issue and frame a legislation along the lines of the US Administrative Procedure Act (with certain well-defined exceptions) by which all subordinate legislation is subject to a transparent process by which due consultations with all stakeholders are held, and the rule or regulation-making power is exercised after due consideration of all stakeholders” submissions, together with an explanatory memorandum which broadly takes into account what they have said and he reasons for agreeing or disagreeing with them. Not only would such legislation reduce arbitrariness in subordinate legislation-making, but it would also conduce to openness in governance. It would also ensure the redressal, partial or otherwise, of grievances of the stakeholders concerned prior to the making of subordinate legislation. This would obviate, in many cases, the need for persons to approach courts to strike down subordinate legislation on the ground of such legislation being manifestly arbitrary or unreasonable.”*

- 4.33. All the information submitted by the Petitioner needs to be provided to the stakeholders so that they can address the submitted case studies and accordingly make submissions on the same. In this event, no such opportunity is given to the stakeholders, then the same would be blatantly contrary to the principles of natural justice. It is a settled law that principles of natural justice demand that the party to the proceedings should be

given a fair opportunity before passing of an order by a judicial authority. An entity is a party to a judicial proceeding in relation to a certain dispute, has the legitimate right to raise an objection/ submission on every aspect of the case, before passing of the judicial order. The Objector relied on following judgments of Hon'ble Supreme Court in support of the said argument:

- i. Johra and Ors. Vs. State of Haryana and Ors. Reported in (2019) 2 SCC 324:

*“6. We may reiterate the basic fundamental principle of law that no order can be passed by any court in any judicial proceedings against any party to such proceedings without hearing and giving such party an opportunity of hearing.*

*7. Principle of natural justice demands that the party to the proceedings must be heard by the Court before passing any order in relation to the subject-matter of such proceedings (see observations of an eminent Judge-Vivian Bose in Sangram Singh Vs. Election Tribunal [Sangram Singh V. Election Tribunal, AIR 1955 SC 425].*

*8. The fact that a person is made a party to the judicial proceedings in relation to a certain dispute has a legitimate right to raise an objection that before passing any order in such proceedings, he should be at least heard and his views/ stand in relation to the subject-matter of the proceedings be taken into consideration. The Court is duty-bound to hear all such person (s) by giving them an opportunity to place their stand.”*

- ii. Krishna Mohan Medical College and Hospital & Anr. Vs. Union of India & Anr., reported in 2017 SCC ON Line SC 1032:

*“20. In the predominant factual setting, noted hereinabove, the approach of the respondents is markedly incompatible with the essence and import of the proviso to Section 10A (4) mandating against disapproval by the Central Government of any scheme for establishment of a college except after giving the person or the college concerned a reasonable opportunity of being heard. Reasonable opportunity of hearing which is synonymous to ‘fair hearing’, it is not longer res integra, is an important ingredient of audi alteram partem rule and embraces almost every facet of fair procedure. The rule of ‘fair hearing’ requires that the affected party should be given an opportunity to meet the case against him effectively and the right to fair hearing takes within its fold a just decision supplemented by reasons and rationale. Reasonable opportunity of hearing or right to ‘fair hearing’ casts a steadfast and sacrosanct obligation on the adjudicator to ensure fairness in procedure and action, so much so that any remiss or dereliction in connection therewith would be at the pain of invalidation of the decision eventually taken. Every executive authority empowered to take an administrative action having the potential of visiting any person with civil consequences must take care to ensure that justice is not only done but also manifestly appears to have been done.”*

Thus, the stakeholders, including the Objector, who will be directly affected by the amendments, as proposed by the Petitioner, should be granted a fair opportunity to analyse the case studies submitted by the Petitioner, and should be allowed to make counter submissions to the said case studies, in the interest of justice and equity.

- 4.34. The Petitioner stated that there is no prohibition for the Regulations/ Orders to be retrospective. It is a settled principle of law that a delegated legislation can be retrospective only in the event the same is permitted by the parent Act. The Electricity

Act, 2003 nowhere contemplates promulgation of any delegated legislation with retrospective effect. The idea behind the rule is that a current law should govern current activities, and hence a law passed today cannot apply to the events of the past, or affect the rights of the parties for the past period. The Objector relied upon following judgments of Hon'ble Supreme Court in support of the argument:

- i. Director General of Foreign Trade and Another Vs. Kanak Exports and Another; reported in (2016) 2 SCC 226:

*“135. We have already discussed these aspects in detail. To recapitulate, it is held by us that Section 5 of the Act does not empower the Government to make amendments with retrospective effect, thereby taking away the rights which have already accrued in favour of the exporters under the Scheme. No doubt, the Government has, otherwise, power to amend, modify or withdraw a particular scheme which gives benefits to a particular category of persons under the said scheme. At the same time, if some vested right has accrued in favour of the beneficiaries who achieved the target stipulated in the scheme and thereby became eligible for grant of duty credit entitlement, that cannot be snatched from such persons/ exporters by making the amendment retrospectively. In the present case, we find that Section 5 of the Act does not give any specific power to the Central Government to make the rules with retrospective effect. The Central Government is authorised to make rules/ schemes under the said provision as a delegate, which means that the EXIM Policy/Scheme framed under the said provision is by way of delegated legislation. There has to be specific power to make the amendments with retrospective effect, which are lacking in the instant case. Moreover, even if there is such a power, it cannot take away vested rights which have accrued in favour of particular persons/*

exporters. We have already enlisted number of judgments of this Court taking such a view.

.....”

- ii. Union of India and Another Vs. Indusind Bank Ltd. and Another, reported in (2016) 9 SCC 720:

“23. Similarly, in *CIT v. Vatika Township (P) Ltd.* [*CIT v. Vatika Township (P) Ltd.*, (2015) 1 SCC 1] this Court held that the proviso to Section 113 of the Income Tax Act, 1961 was prospective and not retrospective. IN so holding, the Constitution Bench adverted to certain general principles as under: (SCC pp. 21-22, paras 28-29)

“28. Of the various rules guiding how a legislation has to be interpreted, one established rule is that unless a contrary intention appears, a legislation is presumed not to be intended to have a retrospective operation. The idea behind the rule is that a current law should govern current activities. Law passed today cannot apply to the events of the past. If we do something today, we do it keeping in view the law of today and in force and not tomorrow’s backward adjustment of it. Our belief in the nature of law is founded on the bedrock that every human being is entitled to arrange his affairs by relying on the existing law and should not find that his plans have been retrospectively upset. This principle of law is known as *lex prospicit non respicit*: law looks forward not backward. As was observed in *Philips v. Eyre* [*Philips v. Eyre*, (1870) LR 6 QB 1], a retrospective legislation is contrary to the general principle that legislation by which the conduct of mankind is to be regulated when introduced for the first time to deal with future acts ought not to change the character of past transactions carried on upon the faith of the then existing law.

29. The obvious basis of the principle against retrospectivity is the principle of “fairness”, which must be the basis of every legal rule as was observed in *L’Office Cherifien des Phosphates v. Yamashita-Shinnihon Steamship Co. Ltd.* [*L’Office Cherifien des Phosphates v. Yamashita-Shinnihon Steamship Co. Ltd.*, (1994) 1 AC 486; (1994) 2 WLR 39; (1994) 1 All ER 20 (HL)] Thus, legislations which modified accrued rights or which impose obligations or impose new

*duties or attach a new disability have to be treated as prospective unless the legislative intent is clearly to give the enactment a retrospective effect; unless the legislation is for purpose of supplying an obvious omission in a former legislation or to explain a former legislation. We need not note the cornucopia of case law available on the subject because aforesaid legal position clearly emerges from the various decisions and this legal position was conceded by the counsel for the parties. In any case, we shall refer to few judgments containing this dicta, a little later.”*

*24. On a conspectus of the aforesaid decisions, it becomes clear that Section 28, being substantive law, operates prospectively, as retrospectivity is not clearly made out by its language. Being remedial in nature, and not clarificatory or declaratory of the law, by making certain agreements covered by Section 28 (b) void for the first time, it is clear that rights and liabilities that have already accrued as a result of agreements entered into between parties are sought to be taken away. This being the case, we are of the view that both the Single Judge [Union of India v. Bhagwati Cottons Ltd., 2008 SCC OnLine Bom 217: (2008) 5 Bom CR 909] and the Division Bench [Indusind Bank Ltd. v. Union of India, 2011 SCC OnLine Bom 1972] were in error in holding that the amended Section 28 would apply.”*

iii. Union of India v. Kartick Chandra Mondal, reported in (2010) 2 SCC 422:

*“14. In the light of the aforesaid submissions of the counsel appearing for the parties we have considered the entire records. So far as the Office Memorandum dated 7-5-1985 is concerned, the same was issued by way of relaxation of the condition of recruitment of casual workers. But the fact remains that the respondents worked with the appellants only for two years i.e. 1981 to 1983 and admittedly on the date when the aforesaid office memorandum was issued they were not working the Appellate 2. There is nothing in the contents or in the language of the said office memorandum which would indicate that there was an intention to give a retrospective effect to the contents of the said notification. Instead, the language used in the aforesaid notification clearly shows that the same was intended to be prospective in nature and not retrospective.*

15.....

*16. As has been noted earlier, the said office memorandum stated that the same would apply only to those persons who might have been continuing as casual workers for a number of years and who were not eligible for regular appointment and whose services might be terminated at any time. Therefore, it envisaged and could be made applicable to only those persons who were in service on the date when the aforesaid office memorandum was issued. Unless and until there is a clear intention expressed in the notification that it would also apply retrospectively, the same cannot be given a retrospective effect and would always operate prospectively.”*

- iv. Corporate Bank v. Saraswati Abharansala, reported in (2009) 1 SCC 540:

*“23. Furthermore, the notification having been given a retrospective effect must be construed on the touchstone of the purpose and object it sought to achieve. Principle of purposive construction should be applied in a case of this nature to find out the object of the Act. When a statute cannot be considered in such a manner which would defeat its object, the legislature is presumed to be aware of the consequences flowing therefrom. The statute should be considered in such a manner so as to hold that it serves to seek a reasonable result. The statute would not be considered in such a manner so as to encourage defaulters and discourage those who abide by the law.”*

- v. Delta Engineers v. State of Goa, reported in (2009) 12 SCC 110:

*“34. We may next consider whether the 1992 and 1994 Amendments to the Rules were retrospective in operation. In Zile Singh v. State of Haryana [(2004 8 SCC 1)] this Court held: (SCC p. 8, para 13)*

*“13. It is a cardinal principle of construction that every statute is prima facie prospective unless it is expressly or by necessary implication made to have a retrospective operation. But the rule in general is applicable where the object of the statute is to affect vested rights or to impose new burdens or to impair existing obligations. Unless there are words in the statute sufficient to show the intention of the legislature to affect existing rights, it is deemed to be prospective only...”*



The Amendment Rules do not provide that they are retrospective in operation. Nor do the circumstances warrant such an inference. In fact, the contention of the Objectors is not that power to levy fees/ charges for use of rivering land was created/ vested in the Port Authorities, by virtue of the Amendment Rules and that such power was given to levy fees/ charges retrospectively. The contention has been that the power to levy fees/ charges existed even since the Rules came into force on 5-4-1984 and that position was merely clarified by the Amendment Rules in 1992 and 1994.

- vi. District Collector, Vellore District v. K. Govindaraj, reported in (2016) 4 SCC 763:

*“13. As mentioned above, though the legislature has plenary powers of legislation within the fields assigned to it and can legislate prospectively or retrospectively, the general rule is that in the absence of the enactment specifically mentioning that the legislation or legislative amendment concerned is retrospectively made, the same is to be treated as prospective in nature. It would be more so when the statute is dealing with substantive rights. No doubt, in contract to statute dealing with substantive rights, whenever a statute deals with merely a matter of procedure, such a statute/ amendment in the statute is presumed to be retrospective unless such a construction is textually inadmissible. At the same time, it is to be borne in mind that a particular provision in a procedural statute may be substantive in nature and such a provision cannot be given retrospective effect. To put it otherwise, the classification of a statute, either substantive or procedural, does not necessarily determine whether it may have a retrospective operation. In Maxwell v. Murphy [Maxwell v. Murphy, (1957) 96 CLR 261 (Aust)], Dixon, C. J. formulated the aforesaid procedure in the following words:*

*“The general rule of the common law is that a statute changing the law ought not, unless the intention appears with reasonable certainty, to be understood as applying to facts or events that have already occurred in such a way as to confer or impose or otherwise affect rights or liabilities which the law had defined by reference to the past events. But given rights and liabilities fixed by reference to the past facts, matters or events, the law appointing or regulating the manner in*

*which they are to be enforced or their enjoyment is to be secured by judicial remedy is not within the application of such a presumption.”*

Thus, on the basis of the settled law laid down by the Hon’ble Supreme Court, the present amendment proposed by the Petitioner cannot have retrospective applicability, since the parent Act i.e. the Electricity Act, 2003 does not specifies promulgation of any delegated legislation with retrospective effect.

The said judgments also make an undisputed fact that the prayer of the Petitioner and grounds relied by the Petitioner for it in regard to penal provision applicable on the pool members in the State as a result of sign change violation is not at all permissible to be applicable on retrospective basis. It is settled law that any penal provisions or penalty can be imposed on the defaulter or the person who has violated the provisions of law on the basis of the penalty imposed or penalty prevailing on that day.

Any charging stature, which may be in the form of penalty, cess or any other nomenclature must be prospective and not retrospective. The proposed amendments, if any, can only be prospective and not retrospective, as the same will be in complete violation of the provisions of the Electricity Act, 2003.

The other State Commissions have also notified DSM Regulations and amended DSM Regulations prospectively, which are as under:

S. No.	State	Date of Notification	Relevant provision of the DSM Regulations
1	Maharashtra	09.03.2019	Regulations Maharashtra Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2019.

			<p>These Regulations shall come into force from the date of their publication in official gazette.</p>
2	Rajasthan	05.03.2019	<p>Regulation Rajasthan Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) (First Amendment) Regulations, 2019.</p> <p>These Regulations shall come into force from the date of their publication in official gazette.</p>
3	Haryana	29.04.2019	<p>Regulation Haryana Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2019.</p> <p>These regulations except commercial arrangements deviation charges and penalty shall come into force on the date of notification in these Regulations the official Gazette.</p> <p>Provided that the commercial arrangements specified under clause 9 and 10 these Regulations, and the related provisions regarding Deviation Charges, Additional Charge for Deviation and penal actions if any, shall come into force six months thereafter.</p>

4	Himachal Pradesh	29.06.2019	<p>Regulations Himachal Pradesh Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) (First Amendment) Regulations, 2019.</p> <p>These regulations shall come into force from 00.00 hrs of the first day of the week (i.e. Monday) starting immediately after the date of their publication in the Rajpatra, Himachal Pradesh.</p>

Thus, DSM Regulations have been implemented prospectively and not retrospectively. Assuming without admitting that the proposed amendments of the Petitioner are allowed, if any, then the Commission can make the applicability prospectively. The Commission may consider the stand taken by the neighbouring State Electricity Regulatory Commissions and also consider whether CERC DSM Regulations have been challenged before any Court/Forum and accordingly await the outcome of the said Petitions, if any, so that there is clear idea about the implementation of the DSM Regulations in the State of Gujarat.

- 4.35. The Petitioner by proposing the said Amendments, has not made any distinction whatsoever, with respect to financial, as well as, the generation capacity of the individual power plants in the State of Gujarat. The Technical Specifications of the plants are different and distinct from each other which limits generation of electricity. Further, drain up and drain down of the power plants are limited along with ramp up and ramp down time limit. In case of the Objector, meter, accounting the data of export generation, is situated 55 KMs away from the actual generating units which makes it

impossible to monitor the actual generation vis a vis scheduled generation on real time basis. Further, even under the ideal conditions, it is impossible for any generating unit to match actual generation with scheduled generation and accordingly, the generator is bound to deviate from the scheduled generation and pay corresponding charges.

- 4.36. The Commission approves the various charges that can be levied by the Petitioner based on the services provided by them. In case of failure of the Petitioner to efficiently fulfil such services, the Petitioner is liable to pay penalty charges. The additional charges the Petitioner has proposed to socialize on the State Pool Members itself may not be applicable in case the Petitioner carried out detailed study of the various entities associated with the grid, their technical parameters, the operational range that they are eligible to operate as per the permissible limit of their equipment manufacturers' guidelines, ramp up ramp down of various generating plants and accordingly decides the mechanism of levy of DSM penalty. The Petitioner shall be directed to carry out study of intra-State entities in line with the case studies carried out by the CERC and then propose the methodology for levy of charges after following due proves of law.
- 4.37. Under the present power market situation where the financial conditions of power Generators is already in a bad shape and the support from the financial institutions is minimal, thereby imposing any additional burden on the generating companies needs to be considered by the Commission. Also, it is necessary to study the parameters of various generating plants with different capacity of generation, and also necessary to consider whether the present infrastructure and arrangements within the state are capable to adopt to the methodology prayed by the Petitioner and only then, penalty/charges under the DSM needs to be decided. Implementing a same standard for all types of generating units, is arbitrary as the operating parameters of all such units are different.

- 4.38. The Petitioner has submitted that it has to be zero balance. The Petitioner is responsible for grid operations and management. Accordingly, in order to maintain the discipline in grid operations, the Petitioner is responsible to see that Regulations/ Provisions of the Orders are being followed by all the Members of the State Energy Accounts. Failure to perform its duty or follow the provision of the Act, provisions of the Regulations and Orders will lead to a situation wherein the constituents of the State Energy Account will be required to pay, which is completely arbitrary and illegal. The Petitioner is trying to pass on the penalty, if any, to the State Energy Pool Account by way of zero balance, which is discriminatory in nature. The Commission may verify from RLDC about the SLDCs imposing or following CERC DSM Regulations and whether they are zero balance entities. The Amendments proposed by the Petitioner is not in accordance with the Principle Regulations not as per the Amendments made to it.
- 4.39. The Petitioner has proposed to impose additional penalty as a result of sign change violation and to settle this penalty “back to back” amongst all intra-State Pool participants. This is arbitrary as the intent behind the DSM framework is that an entity who is connected to the State Grid shall be liable to penalty/ charges in case of any deviation/violation in its generation of power and not pass the same to others. An entity who is not at all in sign change violation cannot be made liable to bear the cost of any entity who has violated, as the same would be against all settled principles of law. The Petitioner cannot socialize the entire DSM, thereby shifting the financial burden on entities, who are not in any violation.
- 4.40. All the Generators are exposed to deviate from their scheduled generation may be able to adhere to the Deviation Settlement Mechanism as settled by the CERC individually but still will be forced to pay additional charges due to Deviation Settlement Mechanism proposed by the Petitioner. An example has been illustrated in the petition.

4.41. The stand taken by the Petitioner that it has proposed sharing of penalty charges along the pool members of the State is also against the principle of penal provisions since as per the penal provisions, the person who is violating the provision of law is only liable to pay the penalty.

4.42. It is settled law that a legislation cannot be favourable to certain individuals. There has to be classification on the basis of the capacity of the individuals or entities, in order to safeguard the interest of all the individuals or who fall under the ambit of a legislation. The Objector relied on following judgments of Hon'ble Supreme Court to further the argument:

- i. State of Bombay and Anr. Vs. F.N. Balsara, reported in AIR 1951 SC 318:

*“38, Similarly, Professor Willis, dealing with the Fourteenth Amendment of the Constitution of the United States, which guarantees equal protection of the laws, sums up the law as prevailing in that country in these words:*

*“The guarantees of the equal protection of the laws means the protection of equal laws. It forbids class legislation, but does not forbid classification which rests upon reasonable grounds of distinction. It does not prohibit legislation, which is limited either in the objects to which it is directed or by the territory within which it is to operate. ‘It merely requires that all persons subjected to such legislation shall be treated alike under like circumstances and conditions both in the privileges conferred and, in the liabilities, imposed’. The inhibition of the amendment... was designed to prevent any person or class or persons from being singled out as a special subject of discriminating and hostile legislation’. It does not take from the states the power to classify either in the adoption of police laws or tax laws, or eminent domain laws, but permits to them the exercises of a wide scope of discretion, nullifies what they do only when it is without any reasonably be convinced to sustain a classification, the existence of that state of facts must be assumed. One who assails a classification must carry*

*the burden of showing that it does not rest upon any reasonable basis.”*  
*[Constitutional Law, by Prof Willis, (1st Edition) p 578]*

39. *With these principles in view, I have to decide whether Article 14 of the Constitution has been violated by the provisions contained in section 39 of the Act before us. That section runs as follows.*

*“The Provincial Government may, on such conditions as may be specified in the notification published in the Official Gazette, permit the use or consumption of foreign liquor on cargo boats, warships and troopships and in military and naval messes and canteens.”*

40. *What is contended is that the concession shown to the war ships, troopships, and military and naval messes and canteens is violation of the principles and equality and the legislature has acted arbitrarily and capriciously in selecting certain bodies or groups of people for favoured treatment, while subjecting the petitioner and other citizens to the general provisions of the Act. It is said that the law should have been enforced alike against the civil population and military personnel, between whom no distinction can be made at all on any rational ground in the enforcement of the policy of prohibition.”*

- ii. *Kunnathat Thatehunni Moopli Nair, Etc. vs. State of Kerala and reported in AIR 1961 Sc 552:*

*“16. On the argument of the petitioners, the Act makes a classification between owners of lands using as the differentia, the area of the land held by them. The question then, is, is that both the tests are satisfied in the present case. The taxpayers are classified according to the area of lands held by them. That is quite an intelligible basis in which to make a classification; holder of varying areas of land can quite understandably be placed in different classes. Next, has such a basis of classification, a rational relation to the object of the Act? The Act is taxing statute. It is intended to collect revenue for the governmental business of the State. it says that one of its object is to provide a low and uniform rate of basic tax. Another object mentioned is to replace all other dues payable to the Government in respect of the ownership of the land by a uniform basic tax. Why is to be said that the use of the area of land held as the basis of*



*classification has no rational relation to these objects. I find no reason. The object is to tax land held in the State for raising revenues. It is the holding of the land in the State that makes the owner liable to pay tax. It would follow that the quantum of the tax can be reasonably linked with the quantum of the holding.*

*17. Why is it said that the classification on the basis of area is bad? It is only because it imposes unequal burden of the tax on the owners of land would have a larger burden put on them. Now, if this argument is right, then tax on land can be imposed only according to its productivity. I have not been shown any authority which goes to this length. I am further unable to see how productivity as the basis of classification could be said to have a more rational to the object of a statute collecting revenue by taxing land held in the State. The tax is not levied because the land is productive but because the land is held in the State. Again if the tax which could be imposed on land had to be correlated to its productivity, then the State would have no power to tax unproductive land and the provision in the Constitution that it would have power to tax land would, to that extent, be futile. It seems to me that a contention leading to such a result cannot be accepted.*

*18. Reliance was placed for the petitioners on Cumberland Coal Company v. Board of Revision on Tax Assessment [76 Led 146] in support of the contention that a tax on land not based on its productivity, violates Article 14. I am unable to hold that this case supports the contention. What Shad happened there was that a certain statute had imposed a tax ad valorem on all coal situated in a certain area and in assessing the tax, the coal of the Cumberland Coal Company had been assessed by the authorities concerned at its full value while the coal of the rest of the class liable to the tax had been "the intentional systematic undervaluation by State Officials of taxable property of the same class belonging to other owners contravenes the constitutional right of one taxed on the full value of his property". On this view of the Supreme Court of America directed readjustment of the assessments. The statute with which this case was concerned had levied the tax ad valorem which, it may be, is the same thing as a tax correlated to productivity. The case had therefore nothing to do with the question that a tax on coal otherwise than as valorem would be unconstitutional. In fact this case did not declare any statute invalid."*

Thus, on the basis of the law settled by the Hon'ble Supreme Court in the aforesaid judgments, the Petitioner cannot propose a legislation which does not provide for distinction between a class of generators, having generating capacity, which varies from one another.

5. We have considered the submissions made by the Petitioner and the Objectors. We note that the present petition is filed by the petitioner for approval of the methodology for sharing of penalty on account of sign change deviation is in accordance with the CERC DSM Regulations 4<sup>th</sup> Amendment dated 22.11.2018 which came into force from 01.01.2019. We note that the Objectors have raised the issues of retrospective implementation of Regulations, linking intra-State DSM accounting with NLDC declared frequency rate based on Daily Average Clearing Price of Day Ahead Market, socializing the penalty, procedural aspects related to framing of Regulations and in toto adoption of the Central Regulations on the subject matter.
6. We note that the Commission vide Order No. 3 of 2006 and Order No. 3 of 2010 has introduced intra-State ABT mechanism in the State of Gujarat. As per the concept of ABT Grid, Constituents are required to utilize the grid with reference to the grid frequency. Failure to observe the grid frequency shall attract commercial implication in terms of Unscheduled Interchange (UI) charge. The ABT mechanism was introduced in the State of Gujarat w.e.f. 05.04.2010. This ABT mechanism was introduced in line with the ABT mechanism implemented at Central level for the inter-State Grid. The UI charges and its applicability was also in line with the CERC Notification in that regard and was linked with the CERC amendments from time to time.
7. The Central Electricity Regulatory Commission vide Notification dated 06.01.2014 issued the CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 repealing the earlier CERC (Unscheduled Interchange Charges and related

matters) Regulations, 2009. As stated above, the Gujarat State ABT mechanism was based on the Central ABT mechanism and UI charges were directly linked with the Central UI charges. It is, therefore, imperative that wherever there is a mention of CERC UI Regulations and its amendments in the Regulations/Order of the GERC, it should be construed as the mention of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 including its all amendments from time to time.

8. CERC vide DSM Regulations, 2014 has made stricter provision in relation to utilization of Grid by Constituents. The State's Grid with all their constituents are required to follow the discipline envisaged for the Central Grid since all the constituents are ultimately part of one grid i.e. the Central Grid. Principle, the nomenclatures like inter-State entities, intra-State entities, National Load Despatch Centre, Regional Load Despatch Centres, State Load Despatch Centres are for the administrative ease and for assigning responsibility to monitor and thereby fixing accountability across the Grid. These nomenclatures do not have any relevance when there is a matter of observance of a phenomena which is impacting the grid operation and its security is to be taken care of.

As per Section 32 of the Electricity Act, 2003, SLDC is responsible for optimum scheduling and despatch of electricity within the State, monitor grid operations, real time operation for grid in secure and economic manners and exercise supervision and control over the intra-State system. As per Section 33 of the Electricity Act, 2003, SLDC is bound to comply with the directions of Regional Load Despatch Centre. If we look at the entire scheme of various stipulations made in the Electricity Act, 2003 related to transmission of electricity, it can be well understood that the statute has made all the Load Despatch Centres at various levels to operate harmoniously. SLDC is made responsible to comply with the RLDC and the RLDC is made responsible to comply with the NLDC directives and guidelines. From above, it is clear that the operation of the Grid is envisaged to be carried out in identical manner and each level of Grid should

follow the inherent requirements of the entire Grid. Since the requirement of the Grid, irrespective the level of it, needs to be uniform with rest of the Grid, the implication, be it a commercial or a technical should also be identical as that of the rest of the Grid.

9. As stated above, it is inevitable for the SLDC to observe the stipulations made in CERC DSM Regulations at State periphery in order to harmonise actions of SLDC for State Constituents, the Commission has clarified to adopt the CERC DSM Regulations vide letter dated 05.03.2015. While doing so, the Commission continued with the State ABT Order/s to take care of the State specific issues which are not covered in the CERC DSM Regulations.
  
10. By virtue of implementation of CERC DSM Regulations along with all its amendments, the SLDC started receiving DSM penalties on account of sign change at State periphery. The schedules at State periphery are the aggregation of the schedules by the intra-State constituents. It is necessary for the intra-State constituents to take responsibility of the commercial implication at the State periphery. SLDC being a State Nodal Agency to operate the intra-State Grid, has become responsible to address this commercial implication. As clarified the SLDC during the course of hearing on dated 11.04.2019, it is not feasible to direct each State Constituent to observe sign change requirement and control or modify its drawal or injection since it will lead to unpredictable and undesirable situation at State boundary hampering the Grid stability and security. Under the circumstances, it is advisable to observe the sign change stipulation by SLDC for the State as a whole. The SLDC while complying the sign change Regulations, may receive some bill from RLDC which is required to be shared by the State Constituents on whose behalf the SLDC is functioning. The present petition is for the limited purpose of approval of the mechanism of sharing of sign change penalty amongst the State Constituents. The Petitioner has clarified that only those constituents are required to share this sign change penalty who are payable or receivable of DSM charges. It is also clarified by the Petitioner that sharing of sign

change penalty will be based on proportion of payable/ receivable DSM charges. Thus, the entities who are more precise in their scheduling will share less sign change charges. Since, we do not find any inconformity in the proposal of the Petitioner, we approve the same. It is also to clarify that the Petitioner is required to follow the CERC DSM Regulations and its amendments issued from time to time in order to fall in line with the compliance of the Central Regulations at Regional and National level, keeping in mind the State specific issues to be taken care of by the State ABT Order/s.

11. The other issues raised by the Objectors related to retrospective implementation of Regulations and procedural aspects related to framing of Regulations are beyond the subject matter of the present petition and accordingly, not accepted.
12. We order accordingly.
13. With this order, the petition stands disposed off.

Sd/-	Sd/-	Sd/-
<b>(P. J. THAKKAR)</b>	<b>(K. M. SHRINGARPURE)</b>	<b>(ANAND KUMAR)</b>
MEMBER	MEMBER	CHAIRMAN

Place: Gandhinagar

Date:27/12/2019



भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
केन्द्रीयविद्युतप्राधिकरण  
Central Electricity Authority  
नवीकरणीय प्रौद्योगिकी और एकीकरण प्रभाग  
Renewable Technology & Integration Division

No. CEA/PLG/RT&I/20/11/2021/

दिनांक/Dated 26.06.2021

To,

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विषय: वेस्ट टू एनर्जी (डब्ल्यूटीई) पावर प्रोजेक्ट्स के लिए डेटा की आवश्यकता के संदर्भ में.  
Sub: Data requirement for Waste to Energy (WtE) Power Projects – reg.

Reference is invited to the CERC letter no RA-14027(12)/1/2021-CERC dated 7<sup>th</sup> May, 2021 (received via email dated 07-06-2021) on above mentioned subject, wherein CERC has mentioned regarding the representation received to review the treatment of WtE power projects with regard to Deviation Settlement Mechanism (DSM) and scheduling power from such projects. CERC vide this letter requested CEA to provide inputs regarding technical and operational challenges faced by WtE power projects in the country with particular inputs on variations in generation of WtE plants with respect to its actual generation output.

It is to mention that the matter has been examined through contacting WtE plants and discussions/consultation have also been made with some of the WtE developers to understand their technical and operational challenges. Our inputs in this regard are as below:

1. Waste to energy power plants (biomass, municipal solid waste, RDF based) are designed and built with the primary objectives of saving the planet from environmental hazards by processing and disposal of waste, preventing open burning of waste, and avoiding dumping of waste. Generation of electricity in the process is an important and useful byproduct.
2. The purpose of Waste to energy is to dispose off the waste and divert from dump with the objective of protecting environment.
3. As such, waste to energy plants are mandated to process the waste irrespective of the input or waste quality. Processing and disposal of waste is a critical requirement in the interest of environmental and public health. Strong emphasis

has been laid on this in objectives of “Swacch Bharat Mission” and “Namami Gange Mission”.

4. The main operational challenges with these plants is the heterogeneous and variable composition nature of waste i.e. fuel provided to this plants by the urban local bodies / farmers on as-is basis as the objective is to process and dispose the waste, regardless of quality.
5. According to the Solid Waste Management Rule 2016, “Solid Waste” means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated.....
6. Thus, it is clear that the Solid Waste is the composition of various kinds of waste which is heterogeneous in nature and also the composition of waste is very unpredictable.
7. The collection of waste totally depends on the seasonality, locality, farming pattern, society’s life style, availability of manpower etc, these factor makes the composition and characteristics of waste heterogeneous and very unpredictable. Thus composition and sharacteristics of waste keep on changing on day to day and lot to lot basis. The heterogeneous nature of waste, which is anyway is the fuel for the WtE plants, cause huge variation in the calorific value of the waste as well as variability in the moisture content in Waste. Further, Storage of Waste also cause reduction in calorific value of waste i.e. fuel of WtE. Heterogeneity is therefore manifested not just because of type of waste, but in variation in a combination of:
  - a. Availability of waste
  - b. Type of Waste
  - c. Size/shape and density of waste
  - d. Moisture content
  - e. Minerals like Chloride, salt, calcium etc. and inert/sand/silica content
  - f. Calorific value and loss of calorific value during storage/decay

These factors are beyond the control of the developers and also of other stakeholders e.g. those making available the waste to WtE plants.

8. With such heterogeneous nature of fuel, it is very difficult to predict the actual generation of WtE Plants which lead to difference in schedule and actual generation. The variation in calorific value due to heterogeneous nature can be understood by following table:

Low	High	Average	Range of Low and High Gross Calorific value (GCV) from Average

	kcal/kg	kcal/kg	kcal/kg	%	%
Mixed Municipal Waste	1100	2000	1600	-31%	25%
Refuse Derived Fuel	1800	3200	2500	-28%	28%
Agro-Waste/Biomass	2250	4423	3100	-27%	43%
			Average	-29%	32%

**[NOTE: Data from multiple sources such as state biomass assessment studies, waste assessment studies, Central Electricity Regulatory Commission Orders, State Electricity Regulatory Commission Orders, and third-party reports has been analysed while arriving at the lower, higher, and average GCV for various types of wastes.]**

Based on the above table, the deviations in calorific values are approximately within 30% range from the anticipated or assumed average values. Considering the wide range of possible deviations (approx. 30%) in calorific value of waste, there is a likely possibility of deviation of +/- 30% in actual generation from waste to energy plants.

9. Due to heterogeneity nature in waste and subsequent deviation in actual generation, WtE Plants are levied Deviation Settlement Mechanism (DSM) related penalties. WtE plants are of small capacity having electricity production as a process by-product with primary objective to decompose and process the Waste irrespective of its quality. Considering the noble cause of WtE plants it is very essential that they should be promoted and assisted to grow faster to make step towards “zero discharge” economy, but on the other hand imposition of DSM charges/penalties causing unnecessary financial burden on WtE, for the cause which are not under their control, and this may create hindrances in the proper growth of WtE and may also derail the very spirit of Gol prestigious mission i.e. “Swacch Bharat Mission” and “Namami Gange Mission”.
10. Some of the WtE plants have also stated that they are also facing challenges in recovering of their fixed cost of the WtE projects. It can be understood by an example - Assuming a WtE plant of waste processing capacity of 1000 Tonnes per day (TPD) with electricity generation installed capacity of 15 MWh processing and decomposing 1000 tonnes of waste in a day. Now due to variability in calorific value of the heterogynous Waste available to the plant, WtE plant is able to schedule say only 10 MWh even after processing of 1000 tonnes of waste i.e. full capacity of waste processing. Due to poor quality of waste, even after processing of 100% waste, WtE plant is forced to run with low Plant Load factor (PLF), it leads to the situation where there is under recovery of fixed cost and if deviation in schedule and actual generation it is also subjected to DSM/UI charges.
11. Further, it is to vbe mentioned that all India biomass-based power plants Installed Capacity is 10,339.56 MW (BM Power/cogeneration – 10170.92 and waste to energy - 168.64 MW) which is 2.67% (BM Power/cogeneration 2.65% and waste to energy < 0.5%) of India’s Total Installed Capacity i.e. 3,83,373.68 MW (as on 31.05.2021, Source- npp.gov.in). Considering the very small capacity of biomass-based power plants, there is very less or negligible effect of deviation in generation on the system stability, so the burden of deviation in



power generation on these plants operated on waste to energy principle may be considered appropriately/rationally.

12. Relevant definitions, extracts from the regulations and guidelines issued by various Commissions (CERC, GERC and DERC etc) to this effect to promote WtE Power Plants are attached in **Annexure-I**.

### Recommendations:

1. Considering the unpredictable and heterogeneous nature of the waste, the electricity generation from these plants may not be predicted accurately, hence to promote the main objective of disposal of MSW/agro-residue (agro-waste) by these plants they may be accorded the “**must run**” status.
2. Introduction of exemption limits/brackets and rationale for any charges, if any, may only be discovered after reviewing operational data from plants after such plants have been commissioned across multiple states and locations. Such an exercise may be undertaken in every 3-5 years after taking inputs from wide spectrum of stakeholders – DISCOMs, SLDC, STU/CTU, urban local body, urban development department, industry, waste to energy plant operators and technology providers.

Considering the above it is opined that the waste to energy plants based on solid waste (agro-waste/biomass and municipal solid waste) may be exempted from compliance of DSM. i.e., energy injected by such plants may be considered as the scheduled energy and no DSM charges be levied. Thus the actual generation to be treated as scheduled generation.

Or

Considering the wide range of possible deviations in calorific value of waste, it is recommended to consider a deviation limit of +/-30% for all types of waste to energy plants.

3. Deviation bands and UI/DSM charges, if at all to be considered, may be considered as follows:
  - a. 0 – 30 %: No deviation charges.
  - b. 30 – 40%: Rs. 0.50 per unit of deviation above 30% deviation.
  - c. >40%: Rs. 1.00 per unit of deviation above 40% deviation.
4. A suitable mechanism may be devised for recovery of fixed cost of WtE plants, if it holds ground, CERC may review operational data from plants, before taking any decision on it.

अशोक कुमार राजपूत/ (Ashok Kumar Rajput)  
मुख्य अभियन्ता (आर टी एवं आई / Chief Engineer  
(RT&I)

Copy to: Sh Ravi Kadam, Advisor, CERC, New Delhi.

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## 1. Key Definitions:

- Agro-waste and Municipal Solid Waste are both forms of “Solid Waste” defined under Solid Waste Management Rules 2016 notified by Ministry of Environment & Forest, Government of India.

**“solid waste” means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radioactive waste generated...”**

- The Solid Waste Management (SWM) Rules 2016 also mandate blending of refused derived fuel (RDF) along with other fuel:

**18. Duties of the industrial units located within one hundred km from the refused derived fuel and waste to energy plants based on solid waste- All industrial units using fuel and located within one hundred km from a solid waste based refused derived fuel plant shall make arrangements within six months from the date of notification of these rules to replace at least five percent of their fuel requirement by refused derived fuel so produced”**

### Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020

**‘Renewable energy source’** means renewable source of energy such as water, wind, sunlight, biomass, bagasse, **municipal solid waste** and other such sources as approved by the MNRE.

**‘Biomass’** means wastes produced during agricultural and forestry operations (for example straws and stalks) or produced as a by-product of processing operations of agricultural produce (e.g., husks, shells, de-oiled cakes,); wood produced in dedicated energy plantations or recovered from wild bushes or weeds; and the wood waste produced in some industrial operations;

**‘Refuse derived fuel’** or ‘RDF’ means segregated combustible fraction of solid waste other than chlorinated plastics in the form of pellets or fluff produced by drying, de-stoning, shredding, dehydrating, and compacting combustible components of solid waste that can be used as fuel;

**‘Municipal solid waste’ or ‘MSW’ means and includes commercial and residential wastes generated in a municipal or notified area in either solid or semi-solid form and excludes industrial hazardous wastes, but includes treated bio-medical wastes.**

## 2. Consideration by Other States

### a. Delhi

Relevant extract from DERC Order dated 21.01.2019 is as under:

*The Commission has examined the issue pertaining to various charges under open access and relaxation of the Deviation Settlement Mechanism for intra state scheduling purposes of **waste to energy pursuant to Ministry of Power meeting dated 15.11.2018 & Department of Power, GoNCT of Delhi meeting dated 07.01.2019 and considers it appropriate that the purpose of Waste to energy is to dispose off the waste and divert from dump with the objective of protecting environment. Such plants would also aid the objectives of Swachh Bharat Mission***

*“For generation projects based on Waste to Energy sources in the National Capital Territory of Delhi shall be exempted from following:-*

*.....*  
*(ii) Any commercial/financial implication in case of deviation from the scheduled power under Deviation Settlement Mechanism from the date of the commissioning of the project and the actual generation shall be treated as scheduled generation; “*

### b. Capacity Linked Exemptions from DSM/UI in Other States

Sr. No.	State	Regulator	Exemption from DSM /UI Mechanism
1	Maharashtra	MERC	<25 MW Plants;
2	Haryana	HERC	<10 MW Plants;
3	Chhattisgarh	CSERC	Renewable generating Plants having installed capacity <5 MW Plants;
4	Karnataka	KERC	<25 MW except hydro.

1. In the clause 5.1.(v) of CERC’s Deviation Settlement Mechanism Regulations, 2014 it is clearly mentioned that in the event of actual generation being less than the scheduled generation, the deviation charges for shortfall in generation shall be payable by such wind or solar generator to the regional DSM pool.
2. Clause 8.5 & 8.6 of Gujarat Electricity Regulatory Commission (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind

Generation Sources) Regulations, 2019 also mentions regarding the Deviation Charges for Solar and Wind Power generating Stations in the event of any shortfall.

3. In Clause 4.5 of Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019, dated 28<sup>th</sup> May, 2019, it has been mentioned that “Provided also that payment of additional charge for failure to adhere to sign change requirement as specified under clauses (a) & (b) of this regulation shall not be applicable to:
  - a. renewable energy generators which are regional entities
  - b. Run of river projects without pondage.
  - c. Any infirm injection of power by a generating station prior to CoD of a unit during testing and commissioning activities, in accordance with the Connectivity Regulations.
  - d. Any drawal of power by a generating station for the start-up activities of a unit.
  - e. Any inter-regional deviations.
  - f. Forced outage of a generating station in case of collective transactions on Power Exchanges.
  
4. DERC in its Order No. No. F.9 (164)/DERC/DS/2015-16/C.F 5110 dated 21.01.2019 had mentioned that

*“For generation projects based on Waste to Energy sources in the National Capital Territory of Delhi shall be exempted from following: -*

- (i) Wheeling Charges, Transmission Charges, Regulatory Asset Surcharge, Pension Trust Surcharge and Cross Subsidy Surcharge on sale of electricity within NCT of Delhi under Open Access Regulations;
- (ii) Any commercial/financial implication in case of deviation from the scheduled power under Deviation Settlement Mechanism from the date of the commissioning of the project and the actual generation shall be treated as scheduled generation;

Provided that the above exemptions shall be applicable for the useful life of the existing and future projects commissioned or Power Purchase Agreement signed on or before 31<sup>st</sup> March, 2022.

## Inputs from some of the stakeholders regarding WtE projects:

### a. MNRE

#### MNRE input for review of Deviation Settlement Mechanism (DSM) and scheduling power by CERC for MSW based WtE power projects-reg

Waste to Energy (WTE) projects are being set-up in larger public and environmental interest primarily to process and dispose agro-residue, urban, industrial and municipal solid waste. Setting up of these projects supplements the Swacch Bharat Mission and mitigates environmental and health related consequences of open burning of agro-residue and other organic waste.

2. There is significant inherent variation in generation of electricity from WTE plants on account of the nature of biomass/waste and operational differences compared to conventional power plants. WTE plants are slow responding and cannot increase or decrease steam generation like conventional thermal plants.

3. As per SWM Rules, 2016, municipalities have to implement source segregation of MSW in their respective jurisdiction areas and transport the combustible matter to WtE plants. While implementation of source segregation by municipal corporations has not been that effective, as a result unsegregated waste comprising of combustible matter mixed with inerts and compostable material reaches WtE plants. WtE plants have to invest in capital intensive Material Recovery Facility (MRF) to segregate recyclables, inerts and compostable material from MSW in order to produce Residue Derived Fuel (RDF) which also consumes large chunk of electricity generated reducing the quantum of exportable power. Municipal Corporations need to strictly implement Source Segregation of MSW so that only combustible and non- recyclable matter reaches WtE plants for scientific processing and disposal.

4. Also, since the waste supply is in control of Municipal Corporations, they should also be made part of the process. WTE plants need not be penalised for waste supply variations and inert content in waste. If Municipal Corporations are also penalised for the same, then it will bring a sense of purpose to all stakeholders. Some minimum assured waste quantity must be specified in the morning session of the plant operation. But this is difficult as different stakeholders are involved and there is no regulatory provision for the same.

5. State Electricity Regulatory Commission (SERC)/ Central Electricity Regulatory Commission (CERC) have kept WTE plants under the “Deviation Settlement Mechanism (DSM)” i.e, the plants are mandated to predict and declare a schedule of generation in 15 min time blocks and generate accordingly. Any deviation in generation (largely underinjection) from declared schedule attracts penal provisions under the UI/DSM mechanism as applicable to conventional thermal plants. The deviation penalties are significant and may cause financial stress to such WTE projects.

6. The quantum of power produced from WTE plants is negligible compared to overall generation and hence deviations from such scheduled generation of WTE plants may not affect the grid frequency, which is the main objective of DSM regulations. Also, the penal charges need to be proportional to its likely potential impact on grid frequency. If the potential impact is negligible, then WTE plants need to be totally exempt from DSM penalty charges

7. Combustion of waste produces toxic and harmful dioxins and furans which have to be destroyed by maintaining high temperature in the furnace i.e. minimum 950 degrees Celsius. Therefore, irrespective of the quantity and calorific value of waste supplied, minimum 950 deg.C temperature has to be maintained at all times in the furnace (as per SWM Rules, 2016). Hence, if during a shortfall of waste supply or lower calorific value, if the furnace temperature falls below 950 deg.C temperature, more waste has to be fired to produce same amount of power, which increases waste consumed at any time thereby creating anxiety of maintaining generation during rest of the day. Hence, waste related factors are in themselves a biggest factors affecting power generation, which is not the case with coal or biomass fired fuels.

8. Ministry has been implementing a *Programme on Energy from Urban, Industrial, Agricultural Wastes/ Residues and Municipal Solid Waste* for recovery of energy in the form of Biogas or BioCNG or Power from Urban, Industrial and Agricultural Waste / Residues such as MSW, vegetable and fruit market wastes, slaughterhouse waste, agricultural residues and industrial wastes & effluents for meeting certain niche energy demands of urban, industrial and commercial sectors in the country. The scheme was valid till 31.03.2021. Financial assistance available under the scheme for setting up of power generation plant based on MSW and other bio-waste is as follows:

- a. Power generation based on Biogas (including setting of Biogas plant): Rs 1.5 Cr to Rs 3.0 Crore per MW(Maximum Rs 10Cr/project);
- b. Power generation based MSW: Rs 5.0 Crore per MW (Maximum Rs 50Cr/project)

In addition to above, **Concessional custom duty certificates (CCDC)** are issued by the Ministry for Import of machinery and components required for initial setting up of projects for generation of Power from non- conventional materials namely agricultural, forestry, agro-industrial, industrial, municipal and urban waste, bio waste or poultry litter.

9. This Ministry, after taking inputs from stakeholders, is of the opinion that exemption of charges under intrastate Open Access should be extended to all Municipal Solid Waste to Power across the Country to improve their economic viability. Further Relaxation of the Deviation Settlement Mechanism for Municipal Solid Waste to Power Plants may be accorded.

10. List of operational waste to energy plants in the country as on 31.05.2021 is given as at **Annexure\_A**.



**List of operational waste to energy plants in the country as on 31.05.2021**

Sl. No.	State	Project Developer	Location of Plant	Cost of project (Rs in Cr)	Process used	Power (MW)
1.	Delhi	M/s Timarpur Okhla Waste Management Company Ltd. (TOWMCL)	Old NDMC Compost Plant, Okhla, New Delhi	325	Incineration	16.00
2.	Delhi	M/s East Delhi Waste processing, Barakhamba, New Delhi	Ghazipur, New Delhi	155	Incineration	12.00
3.	Delhi	M/s Delhi MSW Solutions Ltd. (Ramky Group)	Narela , Delhi	487	Incineration	24.00
4.	Madhya Pradesh	M/s Essel Infraprojects Ltd.	Jabalpur, Madhya Pradesh	178	Incineration	11.50
5.	Maharashtra	M/s Solapur Bio-energy Systems Pvt. Ltd.,	Kachra Depo, Tuljapur Road, Solapur, Maharashtra	54	Biomethanation+ Gas engine	3.00
6.	Goa	M/s Hindustan Waste Treatment Pvt. Ltd.	Saligao, Bardez, Goa		Biomethanation+ Gas engine	0.34
7.	Telangana	M/s Ramky group (Hyderabad MSW Energy Solutions Pvt Ltd)	Jawaharnagar, Hyderabad, Telangana	378	Incineration	19.8
					<b>Total</b>	<b>86.6</b>

**b. Southern Power Distribution Company of Telangana Ltd.(TSSPDCL)**

The technical and operational challenges faced by WtE power projects:

- (i) WtE (Waste to Energy) Generators submitted that they are incurring losses as they had to pay UI/DSM charges for variation in generation when compared to their schedules due to variability in waste (i.e., fuel) that the plants receiving from the ULB (Urban Local Bodies).
- (ii) They submitted that the lowest, highest and average calorific values of the waste are varying as per the following table across India.

	Low	High	Average	Range of Low & High GCV from Average	
	kcal/kg	kcal/kg	kcal/kg	%	%
Mixed Municipal Waste	1100	2000	1600	-31%	25%
Refuse Derived Fuel (RDF)	1600	3200	2500	-36%	28%
Agro- Waste/Biomass	2250	4423	3100	-27%	43%
			Avg.	-32%	32%

- (iii) Based on the above table, the deviations in calorific values are within 30% range from the anticipated or assumed average values. However, due to heterogeneous nature of waste, use of different types of waste, and variability, there is a wide range of deviation potential as the waste is not homogenous. Considering the wide range of possible deviations in calorific value of waste, it is recommended to consider a deviation limit of +/- 30% for all types of waste to energy plants.
- (iv) **To maintain the grid discipline CERC has issued DSM Regulations stipulating the penalties for over injection/under injection with respect to the schedules given by the generators. As per the DSM Regulations issued by TSERC, even the solar and wind generators are liable to pay UI/DSM charges when the deviation is more than +/- 20% of the schedules. Hence TSSPDCL requests the Hon'ble Commission to keep the deviation penalties for WtE plants on par with other conventional generators.**
- (v) Deviation bands and charges, if at all to be considered, may be considered as follows: i. 0-30%: no deviation charges ii. 30-40%: Rs. 0.50 per unit of deviation above 30% deviation iii. >40%: (ii) + Rs.1.00 per unit of deviation above 40% deviation
- (vi) **Comments: TSSPDCL requests the Hon'ble CERC to keep the deviation band & penalties as per the CERC DSM regulations for renewable sources and the TSERC has issued the DSM Regulations for renewable sources in respect of Solar/Wind and Mini Hydel with the following deviation charges:**

**Table: Deviation Charges in case of under or over injection for sale/supply of power within the State**

Sl. No.	Absolute Error in the 15-minute time block	Deviation charges payable by Wind and Solar generator through QCA or generator (s) themselves to State Pool Account
1	<= 15%	None



2	>15% but ≤25%	At Re.0.50 per unit for the shortfall or excess energy for absolute error beyond 15% and up to 25%
3	>25% but ≤35%	At Re.0.50 per unit for the shortfall or excess energy beyond 15% and up to 25%. +Rs.1.0 per unit for balance energy beyond 25% and up to 35%
4	>35%	At Re.0.50 per unit for the shortfall or excess energy beyond 15% and up to 25% +Rs.1.0 per unit for shortfall or excess energy beyond 25% and up to 35% +Rs.1.50 per unit for balance energy beyond 35%

(vii) It is recommended that CERC may advise that an appropriate methodology for recovery of fixed cost for waste to energy (municipal and agro-waste) should be evolved by respective State SERC (independent of consideration on DSM). The methodology may recommend the appropriate authority such as Urban Development/Urban Local Body with whom such fixed cost recovery may be shared.

(viii) Comments: **Hon'ble TSERC has determined the tariff for WtE plants as follows:**

Year	Fixed Cost Rs. Per unit	Variable Cost Rs. Per unit	Total Rs per unit
2018-19	3.83	3.57	7.40

### C. BSES Rajdhani Power Limited, New Delhi

- i. Since it is difficult to forecast the generation schedule of the WTE stations, its generation is considered as schedule.
- ii. But this creates difficulties for Discoms in complying with CERC DSM Regulations 2014 (As amended from time to time).
- iii. Moreover, the WTE stations are also proposed to be kept outside the ambit of CERC DSM Regulations 2014.
- iv. In view of above, CERC may be requested to not to consider the generation of WTE stations as a part of Discom's schedule as well, thereby not being considered for DSM Regulations compliance.

- v. Moreover, the STU should mandatorily provide connectivity to such WTE stations for proper intra-state energy accounting

**d. TATA Power Delhi Distribution Limited (TPDDL)**

- i. Our present allocation from Waste to Energy plants is around 13 MW which gets counted towards our Non-Solar RPO.
- ii. As such we do not face any issues / challenges in actual generation being accepted as deemed schedule.
- iii. The allocation quantum if being more in subsequent years would lead to issues related to DSM/ Sign change as per CERC DSM regulations, however as of now it is fine.

# **Annexure-4**

## **CENTRAL ELECTRICITY REGULATORY COMMISSION**

### **Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021**

#### **EXPLANATORY MEMORNDOM**

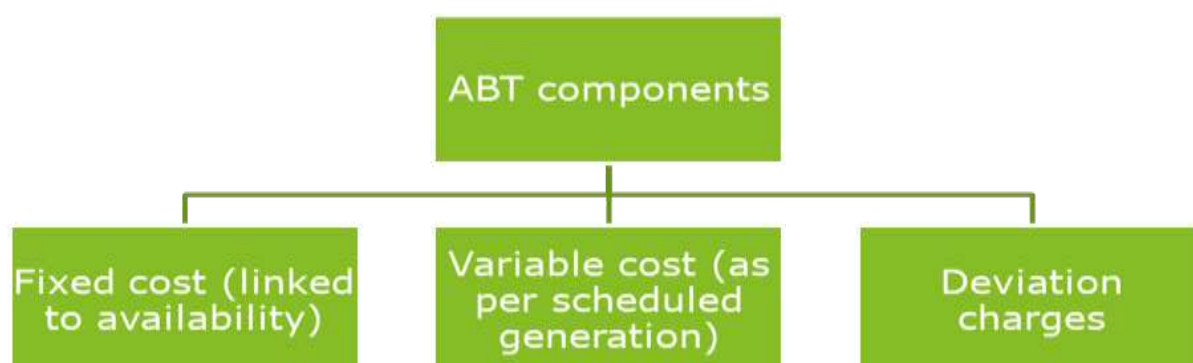
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## 1. Introduction:

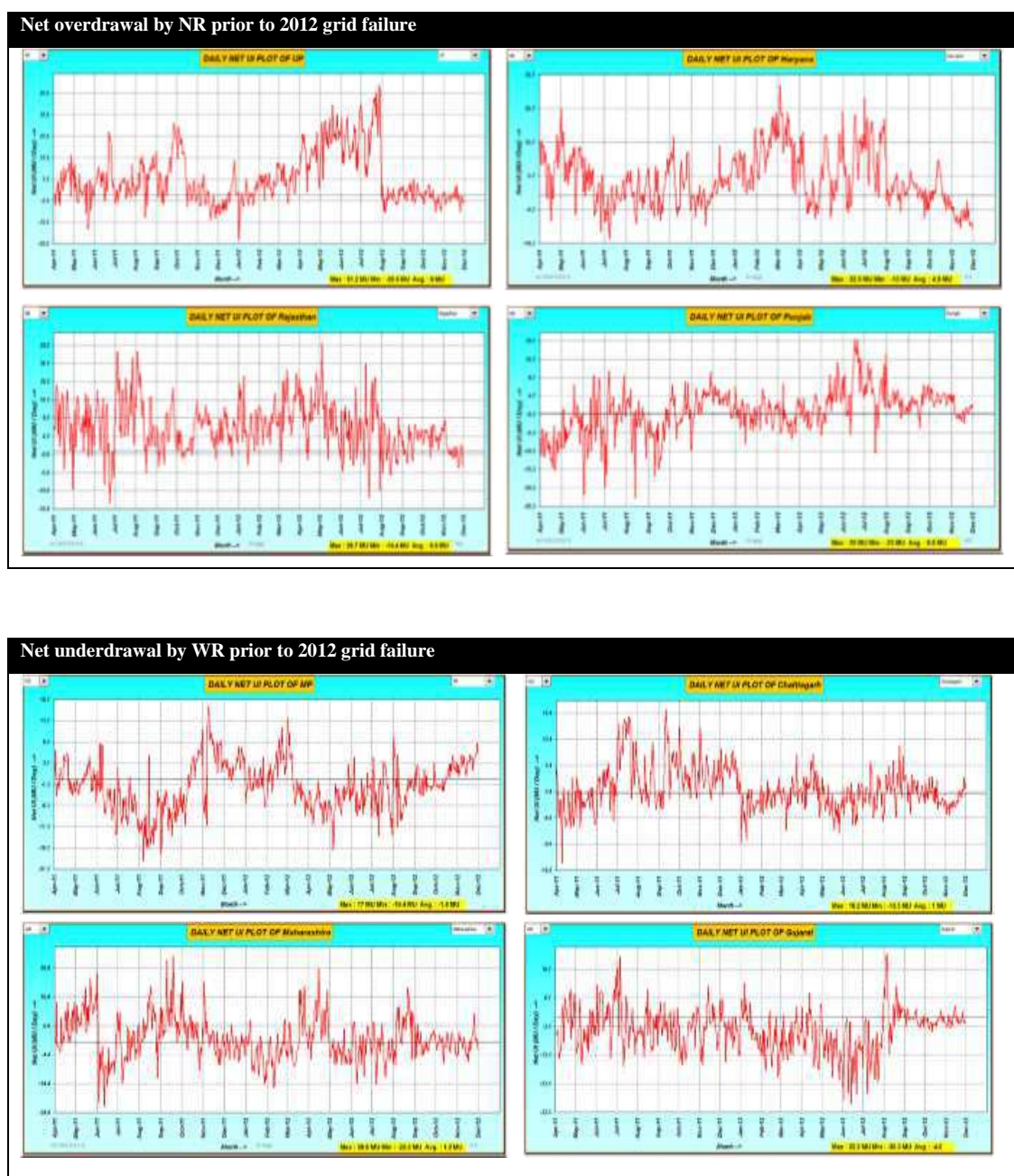
1.1 Effort to bring discipline in the grid operations started with the introduction of Availability Based Tariff (ABT) by the Commission in 2002-03, prior to which the regional grids faced large frequency fluctuations. ABT (Figure 1) introduced the concept of generation and drawal schedule to be given by the generators and the beneficiaries on a day-ahead basis. Any deviation from the scheduled generation and drawal on the day of operation was settled through Unscheduled Interchange (UI) mechanism under which the prices for settlement of deviation were linked with grid frequency.

**Figure 1: Availability Based Tariff (ABT)**



1.2 Even after the introduction of UI mechanism the distribution utilities overlooked the need for planning their generation adequacy and relied on over-drawal from the grid for meeting their consumer demand. Similarly, many generators did not always adhere to their schedules and resorted to under-injection or over-injection. Over the years, the UI mechanism has been gradually used as a de-facto trading platform by many generators and distribution utilities leading to large frequency excursions, as is evident from the operational frequency of the grid (see Figure -2) prior to 2012 grid failure.

**Figure 2: Frequency fluctuations (Prior to 2012)**



1.3 The economic impact of the 2012 grid failure attracted the attention and steps were taken towards maintaining grid discipline. Acting on the recommendations of the Enquiry Committee constituted to investigate the two grid failure events in 2012, CERC introduced the new Deviation Settlement Mechanism (DSM) in 2014 by specifying the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 (in short, ‘the 2014 DSM Regulations’).

1.4 Maintaining grid discipline and grid security were the main objectives of DSM. DSM brought in strict volume limits for over drawl/under drawal and over injection/ under injection of electricity.

Additional deviation charges were made applicable in the event of breach of the volume limits. Steps such as tightening of operational frequency band and increased deviation charges were undertaken even before DSM came into being and continued after DSM was introduced in 2014, which improved the frequency profile of the grid as can be seen in the figure (Figure 3) below.

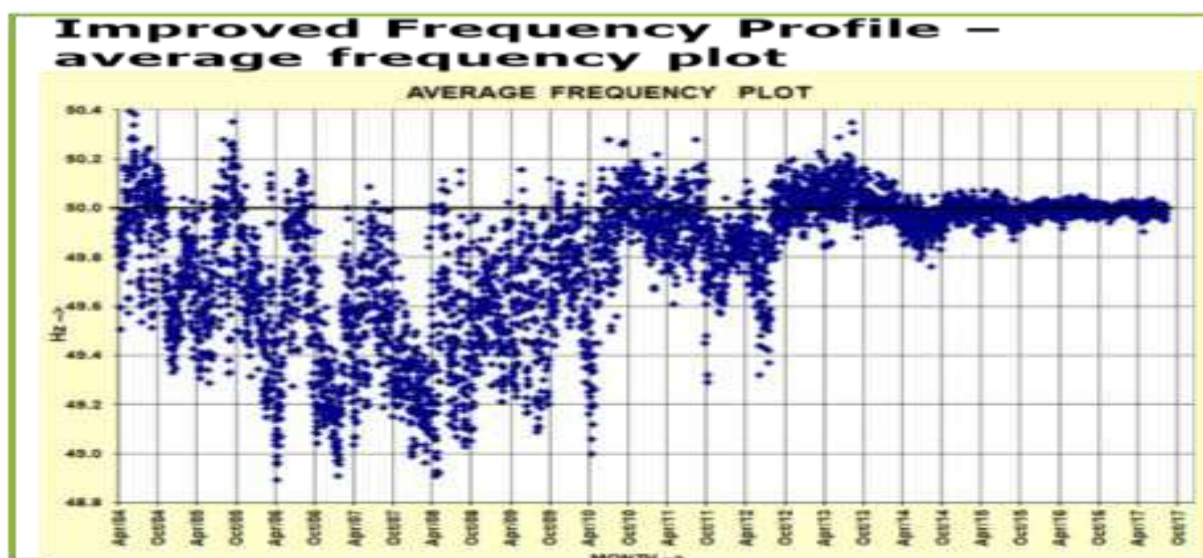
**Figure 3: Frequency band and DSM**

Period	Operational frequency band (Hz)	Ceiling rate (p / kWh)	Slope (p / kWh)
1 July 02 – 31 March 04	49.0-50.5	420	5.6
1 April 04 – 3 Sep 04	49.0-50.5	600	8
1 Oct 04 – 29 April 07	49.0-50.5	570	9
30 April 07 – 6 Jan 08	49.0-50.5	745	6-16
7 Jan 08 – 31 March 09	49.0-50.5	1000	8-18
1 April 09 – 2 May 10	49.2-50.3	735	12-17
3 May 10 – 16 Sep 12	49.5-50.2	873	15-47
17 Sep 12 – 16 Feb 14	49.7-50.2	900	16.5-28
17 Feb 14 onwards*	49.7-50.05	824	20.8-35.6

Source: CERC  
\* Slope changed post 4<sup>th</sup> amendment

Progressive tightening of permissible

Progressive increase in deviation charge



1.5 The frequency linked DSM worked on the following principles:

- By giving incentives for enhancing output capability of power plants, it enabled more consumer load to be met during peak load hours.
- Generators were paid to back down during off-peak hours if frequency rose above the specified



levels.

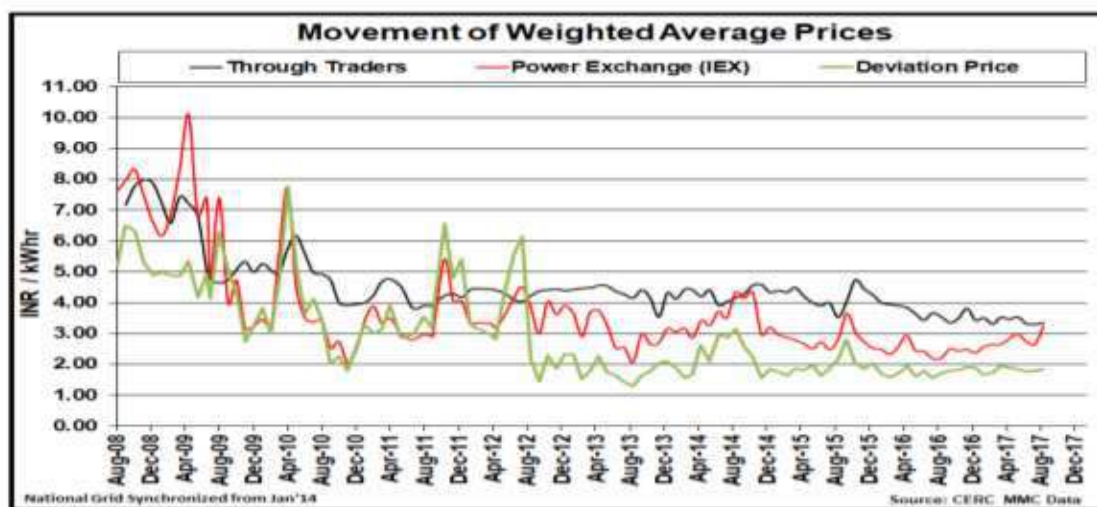
- In case of over-drawal, discoms had to pay at a higher rate during peak load hours, which discouraged them from over-drawing further. This payment went to the beneficiaries who had received less energy than was scheduled and acted as an incentive for assisting the grid in maintaining the load-generation balance, as well as compensation for energy paid for but not received.
- The high rate during low-frequency conditions induced all States to reduce their over-drawal from the grid, by maximizing their own generation.
- In low frequency condition, if a State drew less power than scheduled, it was paid back for the energy not drawn. On the other hand, during high-frequency conditions, a State could draw extra power at a low rate, and thus helped them to back down its own costlier generating stations.

1.6 DSM was further strengthened with amendments to the 2014 DSM Regulations. Through 1<sup>st</sup> Amendment, under-drawal/ over injection and over drawal/ under injection limit were added in case of frequency being at “50.10 Hz and above” and “below 49.70 Hz” respectively. The 2<sup>nd</sup> Amendment introduced the framework of scheduling and deviation for wind and solar generators, which are regional entities. With due regard to the variability of renewable energy (solar and wind) sources, relaxation in volume limits for under drawal/ over injection for renewable rich States was extended through the 3<sup>rd</sup> Amendments. Post 3<sup>rd</sup> Amendment the stability of the grid improved, however there were still some limitations that required urgent attention:

- 1) **Capturing value of lost load:** Ideally, the DSM price should capture the Value of Lost Load (VoLL) so that utilities procure adequately in advance so as to meet their universal service obligations.
- 2) **Constant prices:** The DSM prices till 2014 did not capture the difference between the peak and the off-peak value of electricity.
- 3) **Absence of transmission component:** DSM prices did not take into account the transmission congestion in different locations and the penalties remained static across geographies.
- 4) **Price convergence with organized markets:** Deviation price is generally lower as compared to Power exchange (DAM), bilateral and ancillary services prices (Please see Figure 4) and hence does not act as a deterrent against leaning on the grid for generating and drawing entities.



Figure 4: Price movement (Traders; PX; and DSM)



1.7 Price convergence with organized markets and enforcing adequate energy planning by utilities have been the focus for next set of reforms in DSM. In this regard, the Commission notified the 4<sup>th</sup> Amendment to the 2014 DSM Regulations with effect from 1<sup>st</sup> January, 2019 and 5<sup>th</sup> Amendment with effect from 3<sup>rd</sup> June, 2019. The key change has been in terms of movement from the administered DSM price determination to indexing DSM rates to market prices (Area Clearing Price or ACP of the Day Ahead Market segment of the Power Exchange). This was introduced with the following key objectives:

- Linkage to ACP would factor in the geographical aspect of prices and effect of transmission congestion.
- Linkage to ACP would capture the peak and off-peak price variations.
- Linkage to ACP would incentivise participants to procure power from organized markets.
- Entities would not deviate substantially from their schedules because of higher charges leading to increased grid discipline in terms of forecasting and scheduling.

## 2. Rationale for revisiting the present DSM:

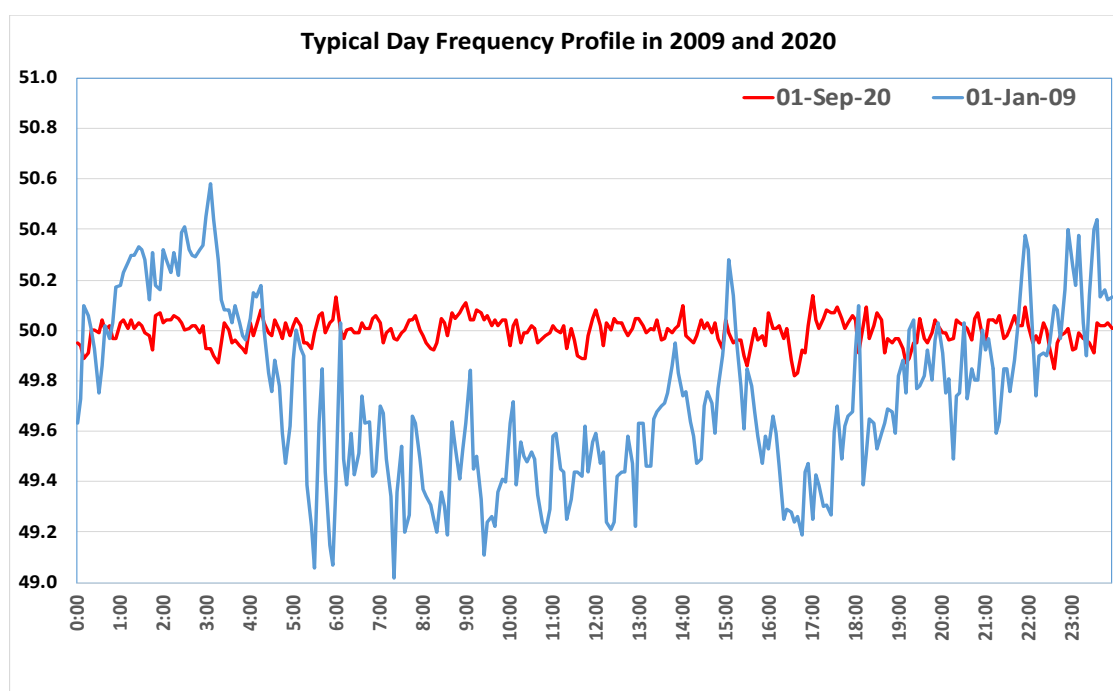
2.1 The 2014 DSM Regulations provide that the linkage of deviation charges to frequency may be reviewed by the Commission, keeping in view the changing power market conditions. Accordingly, the Commission has undertaken a review of this aspect in the light of various developments and the emerging market realities.

### Need for revisiting linkage of frequency to DSM rate

2.2 In the last 15 years, the Indian power system operation has undergone considerable change in

many ways. CERC has acted at regular intervals by narrowing the operating frequency band from 49.0 – 50.5 Hz range prior to 2009, to 49.90 – 50.05 Hz at present. Frequency plots of 1st January, 2009 and 1st September, 2020, representative of the frequency patterns before and after the above changes in operating band, are shown in the following figure (Figure 5).

**Figure 5: Frequency Profile in 2009 and 2020**



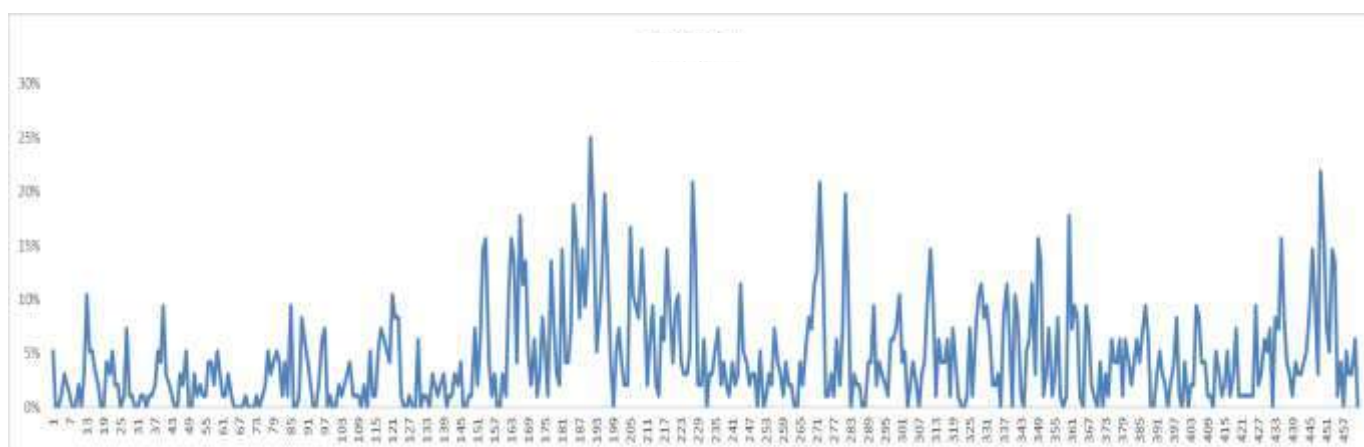
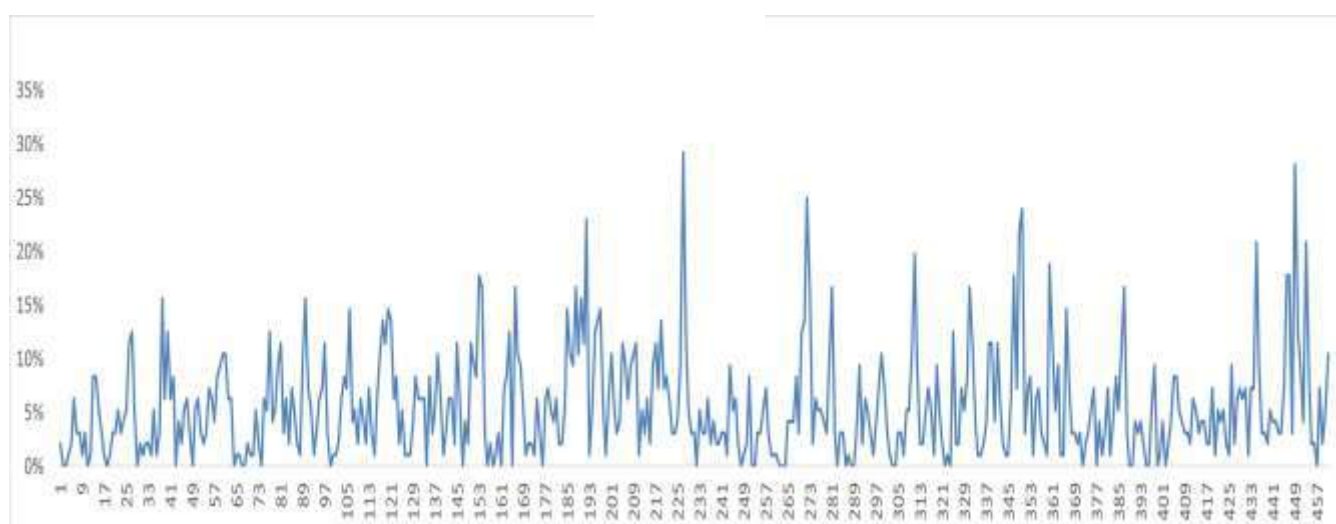
2.3 Clearly, there is a discernible improvement in power system operation (in terms of stable operation and frequency remaining within a close band) over the years. This has become possible because of various measures taken by the Commission through changes in the grid code and UI mechanism/ DSM, thereby inducing the constituents to adhere to their schedule. In the absence of large frequency excursions as at present, there hardly remains any scope for frequency linked price arbitrage. Therefore, the system frequency is no longer a correct indicator of generation being short or surplus, and also link between the system marginal price and frequency hardly exists.

2.4 Apart from the above, another development in 2016 viz. introduction of ancillary services has made linkage of DSM price to frequency largely redundant. In fact, co-existence of ancillary services and frequency linked DSM could be counter-productive. While ancillary services are deployed centrally by the system operator to restore and maintain system frequency closer to 50 Hz, the frequency linked DSM price is a decentralised tool of controlling frequency. Existence of both centralised mode of frequency regulation through Ancillary Services and decentralised mode of controlling frequency through frequency

linked DSM could lead to avoidable conflict in system operation.

2.5 Another fallout of linkage of frequency to DSM rate is the perverse tendency of the Discoms to deviate from the schedule, especially during high frequency conditions. In view of the prevailing stability in grid operation and frequency and consequent DSM price being predictable, the drawee entities can choose to deviate during high frequency hours as DSM price tend to be very are low or even zero at those times. The following illustration (Figure 6) is a case in point. It depicts percentage of slots from January 2019- April 2020 where two States have overdrawn from the grid when the grid frequency was 50.05 and higher (x-axis represents the days from January 2019 to April 2020 and y-axis represents the percentage of slots)

**Figure 6:Over-drawal during high frequency conditions**



2.6 This strengthens the case for ‘any deviation’ irrespective of the nature of such deviation caused by the utilities liable for payment of DSM charges.

*Need for revisiting the principle of indexing DSM rate*

2.7 As stated earlier, the Commission has proposed a new framework for Ancillary Services including inter alia Secondary Reserves Ancillary Services and Tertiary Reserves Ancillary Services. To this end, draft Ancillary Services Regulations have already been floated and comments of stakeholders have been received. The intent of the new framework of ancillary services is to ensure that the frequency deviations are managed by the system operator through deployment of ancillary services of various types. This being the case, it would be reasonable to price deviation from the schedule according to what it costs to compensate the deviation through the dispatch of ancillary services.

2.8 Based on the review of the market developments as discussed above, the Commission has proposed a new framework of DSM. Salient features of the proposed DSM Regulations are discussed in subsequent paragraphs.

### **3. Salient features of the proposed DSM Regulations:**

*All entities to adhere to schedule and deviation to be managed through deployment of ancillary services*

3.1 Load generation balance is the prime objective of system operation. This requires the generators and the drawee entities to adhere to their schedule. Generally, schedule is finalised on day ahead basis. However, given the uncertainty in demand and possible unanticipated changes in generating station conditions, day ahead schedules may not be adequate for the drawee entities to meet their demand or for the generators to meet their supply obligation. To address these needs, organised market platforms like Real Time Market and other avenues of energy trade closer to real time have been enabled by the Commission. The sellers and the buyers can use these avenues to sell and buy energy to correct their day ahead position. Generally, such options for energy trade remain open up to gate closure (about one hour before the actual delivery in Indian context). After the gate closure, the system operator takes over and manages the system imbalances or deviations through deployment of ancillary services. The proposed regulations reiterate this philosophy and provide that all grid connected entities shall adhere to their schedules and deviation, if any, shall be managed by the system operator through ancillary services and charges for such deviation shall be governed by the proposed DSM Regulations.

Formula for computation of deviation

3.2 The formulae for computation of deviation remain the same as in the 2014 DSM Regulations. Deviation (in percentage) for general sellers (sellers other than wind and solar generators) shall be computed with reference to their scheduled generation while that for the wind and solar generators the same shall be computed with reference to their available capacity to take care of the variability. Available capacity has been defined as the cumulative capacity rating of wind turbines or solar inverters that are capable of generating power in a given time block. The relevant provisions of the proposed DAM Regulations are quoted below:

- Deviation in a time block for general sellers shall be computed as follows:
  - (i) Deviation-general seller (in MWh) = [(Actual injection in MWh) – (Scheduled generation in MWh)].
  - (ii) Deviation-general seller (in %) =  $100 \times \frac{[(\text{Actual injection in MWh}) - (\text{Scheduled generation in MWh})]}{[(\text{Scheduled generation in MWh})]}$ .
- Deviation in a time block for WS sellers shall be computed as follows:
  - (i) Deviation-WS seller (in MWh) = [(Actual Injection in MWh) – (Scheduled generation in MWh)].
  - (ii) Deviation-WS seller (in %) =  $100 \times \frac{[(\text{Actual Injection in MWh}) - (\text{Scheduled generation in MWh})]}{[(\text{Available Capacity})]}$

3.3 The deviation (in %) for the buyers shall be calculated with reference to scheduled drawal as in the existing DSM framework:

- Deviation in a time block for buyers including RE-rich States shall be computed as follows:
  - (i) Deviation- buyer (in MWh) = [(Actual drawal in MWh) – (Scheduled drawal in MWh)].
  - (ii) Deviation- buyer (in %) =  $100 \times \frac{[(\text{Actual drawal in MWh}) - (\text{Scheduled drawal in MWh})]}{[(\text{Scheduled drawal in MWh})]}$

Normal rate of charges for deviation

3.4 As a natural corollary to the philosophy that deviation is to be managed by the system operator through deployment of ancillary services, the charges for deviation should be such that the costs of deploying ancillary services are recovered. Accordingly, the normal rate of charges for deviation for a time block has been proposed to be equal to the Weighted Average Ancillary Service Charge (in paise/kWh)

computed based on the total quantum of Ancillary Services deployed and the total charges payable to the Ancillary Service Providers for all the Regions for that time block.

3.5 However, as the Ancillary Services framework is still in the development phase, it has been proposed that for at least for a period of one year from the date of effect of the proposed regulations or such further period as notified by the Commission, the normal rate of charges for deviation for a time block shall be equal to the highest of:

- (a) the weighted average Area Clearing Price (ACP) of the Day Ahead Market segments of all the Power Exchanges; or
- (b) the weighted average ACP of the Real Time Market segments of all the Power Exchanges; or
- (c) the Weighted Average Ancillary Service Charge of all the regions,

for that time block.

3.6 In case of non-availability of ACP for any time block on a given day, ACP for the corresponding time block of the last available day shall be considered for computation of the normal rate of charges for deviation for that time block.

### *Deviation Charges for Generators*

3.7 *Generators (other than RoR, MSW and wind and solar generators)*

3.7.1 It is reiterated that the basic objective of the proposed DSM regulations is to ensure that all grid connected entities adhere to their schedule. Under the existing system the generators are paid for overinjection (which is also a deviation) on the assumption that by doing so they assist in restoring grid frequency within the permissible operating band. Going forward the responsibility of managing frequency is vested in the system operator, while the generators can continue to play the same role (of helping restore frequency within the operating band) but at the instruction of the system operator by participating in the Ancillary Services mechanism, rather than acting on their own driven by the price signals linked to frequency.

3.7.2 It is a fact that the generators (other than RoR, MSW and wind and solar generators) have much better control over their generation. They can decide time block schedule, taking into account fuel availability and technical parameters, and determine with precision their generation output. Thus, there is no case for such generators to deviate from their schedule. However, there could be some metering errors that need to be factored in while accounting for deviation of such generators. Also, inadvertent deviations from schedule may occur on account of operation of governor control (RGMO/ FGMO). Thus, for upto

2% over injection, the charges for deviation for such generators shall be zero. Over injection beyond the limit of 2% during a time block shall attract charges for deviation at the rate of 10% of the normal rate of charges for deviation applicable during that time block. This is akin to negative pricing already prevalent in markets of several developed economies, with the difference that the proposed deviation charge (for over injection beyond 2%) is nominal in Indian context.

3.7.3 In case of under injection by the generators, there could be a need for procurement of ancillary services by the system operator. Further, the regional entity generators are paid energy charge based on schedule, and as such in the event of under injection, the generators other than RoR, MSW and solar and wind generators, will have to pay deviation charge for any level of under-injection. However, recognising that deviation up to 2% of schedule could be inadvertent, it has been proposed that the generators would pay at the rate of the normal rate of deviation charges for under injection up to 2% and beyond 2%, at the rate of 110% of the normal charges for deviation applicable during that time block.

### 3.8 *Deviation charge for RoR generating station*

3.8.1 The RoR generators are dependent on the upstream flow of water for their generation. The upstream flow may vary depending on weather conditions. Such generators face inherent constraints in the absence of pondage. Therefore, in the proposed DSM Regulation, it has been provided that the deviation charges for over injection by RoR generators shall be zero. Due to the same reasons, a special dispensation has been provided to the RoR generating stations for under injection. RoR generating stations shall pay charges for deviation at the rate of the normal rate of charges of deviation for under injection upto 12% of schedule and for under injection beyond the limit of 12%, at the rate of 110% of the normal charges for deviation applicable during that time block.

### 3.9 *Municipal solid waste based generators*

3.9.1 As per MNRE, the waste to energy potential in India is in the range of 5700 MW, out of which about 400 MW has been tapped so far. CEA has submitted a detailed report after examining the case of waste to energy from technical perspective and highlighted the variability in calorific value of waste and its impact on power generation. CEA has stated that WTE projects operate with a heterogeneous combination of solid waste which are inherently variable and the same cannot be predicted and is like the meteorological parameters of wind/solar generators. It is not possible to predict the composition of city waste being delivered to the WTE projects by the municipal corporation. Though WTE projects operate on the principle of Rankine Cycle technology, they cannot be treated at par with conventional thermal power projects as the

fundamental difference lies in the type of fuel (coal vs. municipal solid waste). Heterogeneity in case of waste is manifested in variation in type of waste, size/ shape of waste, bulk density, moisture content, chloride content, salt content, inert/ sand/ silica content, type of ash etc. Since multiple types of waste are used, heterogeneity increases exponentially and the ability to predict quality of fuel decreases proportionately, let alone the predictability of effects of interaction of different types of fuels during combustion and its impact on boiler and steam generation.

3.9.2 On the issue of operational and technical impact of variability of fuel in waste to energy project, CEA further highlighted that combustion dynamics of mixed waste is not predictable. As heterogeneity increases, ability to predict generation decreases. Waste to energy plants operate in a manner where the steam generation follows the fuel. i.e., turbine does not “demand” steam from boiler but generates only as much steam is being provided by the boiler. This is known as “fuel follow” or “boiler follow” mode. In contrast, conventional power plants operate in “turbine follow” mode where the boiler delivers the steam requirement for turbine to match the schedule. In case of waste to energy plant, which operates in boiler follow mode, the only option is to reduce power generation and keep matching grid power frequency – this results in deviation from schedule. Waste to energy plants are slow responding and cannot deliver the steam as quickly as conventional coal/gas based plants. Therefore, any deviation in generation is difficult to remedy in 15 minute time intervals. If the waste quality varies or is poor, the operating parameters are varied even at the cost of electricity generation to achieve environmental parameters and compliance since primary objective is to ensure processing of waste. In Europe, waste to energy plants are allowed to use auxiliary fuel to maintain requisite environmental controls. This mitigates the variability. The use of auxiliary fuel entails additional cost which needs to be recovered. In India, the use of fossil fuel is disallowed and it amplifies the variability.

3.9.3 Accordingly, CEA has recommended exemption for waste to energy projects from payment of deviation charges within a limit of +/-30%.

3.9.4 Ministry of Power has also recommended a special dispensation for waste to energy projects in so far as deviation charge is concerned. In fact, the waste to energy projects should be seen in context of processing and disposal of waste, and their contribution to social and environmental cause. To encourage such projects, the tariff policy also provides for must off-take of energy from WTE plants.

3.9.5 With due regard to the above considerations, the Commission has extended a completely different treatment to the Municipal Solid Waste (MSW) based projects under the proposed DSM Regulations. The charges for deviation for any over-injection by such generators, as also for under-injection up to 20% from schedule, shall be zero. However, if the under-injection is beyond 20%, the normal rate of charges of



deviation shall be applicable for such under-injection beyond 20%. The regional entity generators are paid based on schedule. This implies that in the event of under injection they will be able to retain the energy charge paid to them without producing actual energy. In order to ensure that this does not become a perverse incentive, the Commission has extended free band of deviation only up to 20% of schedule, as against CEA's recommendation for exemption up to 30%. The intent is to balance the interests of the MWS projects in terms of ensuring recovery of part of the fixed cost (by allowing retention of energy charge up to 20% deviation) while at the same time making sure that system operation is not put to risk due to wide deviation from schedule.

### 3.10 *Wind and Solar Generators*

3.10.1 The generation from the wind and solar generators is uncertain and variable. Over the period, efforts are being made by such generators to address variability by deploying robust forecasting tools and techniques. However, recognising the inherent uncertainty of these resources and in order to promote generation from these green sources, the existing framework of DSM as under the 2014 DSM Regulations carves out a special dispensation for wind and solar generators. In the proposed DSM Regulations also, special dispensation has been continued but with certain changes. For over injection, they will neither be paid nor will they have to pay any deviation charge. For under injection, they have been exempted from the payment of deviation charge up to 10% deviation unlike the current tolerance band of (+/-) 15%. This is based on the experience gained over the period in terms of improved forecasting and aggregation of scheduling at the pooling station thereby reducing error for individual generators. Under injection beyond the limit of 10% during a time block shall attract charges for deviation at the rate of 10% of the normal charges for deviation applicable during that time block.

3.10.2 It is also important to note that the regional entity wind and solar generators are paid as per their schedule. As such, in order to make such generators revenue neutral, the proposed regulation provides that the solar and wind generators shall pay back to the Deviation and Ancillary Service Pool Account for the total shortfall in energy against its schedule in any time block due to under injection at the contract rate at which it has been paid based on schedule. In the absence of a contract rate, such generators shall pay at the rate of the Area Clearing Price of the Day Ahead Market for the respective time block.

### *Deviation charges for Buyers*

3.11 As in the case of generators, the Commission expects the buyers to also adhere to their schedule. Under the existing system of the 2014 DSM Regulations, the buyers are paid for under drawal (which is

also a deviation) on the belief that such an action (under drawal) helps restore grid frequency within the operating band. As stated earlier, the responsibility of managing frequency would henceforth primarily lie with the system operator in terms of the new draft Ancillary Services Regulations, and the buyers can continue to play the same role (of helping restore frequency) but at the instruction of the system operator by participating in the Ancillary Services mechanism, rather than acting on their own driven by the price signals linked to frequency. As such, the proposed regulations provide that the buyers will neither pay nor be paid for any under drawal.

3.12 Over drawal has to be discouraged under all circumstances, as this could pose serious threat to grid security. In case of over drawal by the buyers, the system operator will have to deploy the services of Ancillary Service providers. The deployment of AS will impose cost on the system and the causer needs to pay for this. As such, the buyers will have to pay for over drawal. However, recognising the fact that unlike the generators, the distribution companies have less control over the consumption of the consumers, the volume limit for deviation charges in the proposed DSM Regulations has been retained as it existed in the 2014 DSM Regulations.

3.13 Thus, when the over drawal is within the volume limit, as indicated below, buyers shall be liable to pay for deviation at the normal rate of charges for deviation:

- 1) 12% of schedule or 150 MW whichever is less in case of the buyer other than the buyer with schedule less than 400 MW and the RE rich State;
- 2) 12% of schedule in case of the buyer with schedule up to 400 MW; or
- 3) 12% of schedule or 250 MW whichever is less in case of the buyer being an RE Rich State.

Any deviation beyond the above indicated volume limit shall attract the charges for deviation at the rate of 110% of normal rate of charges for deviation.

*Deviation charges for infirm power, start up power and inter-regional deviation and cross-border transactions*

3.13 Infirm power is akin to over injection. Accordingly, the proposed regulations provide that the charges for deviation for injection of infirm power shall be zero. Start up power is akin to over-drawal and can be avoided by entering into contracts which can be scheduled. As such, the proposed DSM Regulations provide that the charges for deviation for drawal of start-up power before COD of a generating unit for drawal of power to run the auxiliaries during shut-down of a generating station shall be payable at the normal rate of charges for deviation. The charges for inter-regional deviation and for

deviation in respect of cross-border transactions, caused by way of over-drawal or under-injection, shall be payable at the normal rate of charges for deviation.

*Accounting of Deviation and Ancillary Service Pool Account*

3.14 The proposed regulations provide that there shall be a Deviation and Ancillary Service Pool Account which shall be maintained and operated by the concerned RLDC. The Deviation and Ancillary Service Pool Account shall receive credit for:

- a. payments on account of charges for deviation referred to in Regulation 8 of these regulations;
- b. payments made by:
  - i. SRAS Provider for the SRAS-Down despatched under the Ancillary Services Regulations; and
  - ii. TRAS Provider for the TRAS-Down despatched under the Ancillary Services Regulations.

Further the Deviation and Ancillary Service Pool Account shall be charged for:

- a. the full cost of despatched SRAS-Up including the variable charge or the energy charge or the compensation charge, as the case may be, for every time block on a regional basis as well as the incentive for SRAS, payable to the concerned SRAS Provider as referred in the Ancillary Services Regulations;
- b. the full cost towards TRAS-Up including the charges for the quantum cleared and despatched and the commitment charge for the quantum cleared but not despatched as referred in the Ancillary Services Regulations.

**4. Power to Relax and Power to Remove Difficulty:**

4.1 The proposed DSM Regulations provide for powers to relax and to remove difficulty to take care of unforeseen eventualities and to remove difficulty if any in implementation of the regulations.

**5. Repeal and Savings:**

5.1 With the commencement of the proposed DSM Regulations, 2014 DSM Regulations shall stand repealed. However, anything done or any action taken or purported to have been done or taken including any procedure, minutes, reports, confirmation or declaration of any instrument executed under the repealed regulations have been saved.

5.2 On commencement of these regulations, the Regional Deviation Pool Account Fund constituted under the repealed regulations shall be renamed as the Deviation and Ancillary Service Pool Account constituted under these regulations.



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सी.जी.-डी.एल.-अ.-22032022-234360  
CG-DL-E-22032022-234360

असाधारण  
EXTRAORDINARY

भाग III—खण्ड 4  
PART III—Section 4

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

सं. 147]

नई दिल्ली, मंगलवार, मार्च 22, 2022/चैत्र 1, 1944

No. 147]

NEW DELHI, TUESDAY, MARCH 22, 2022/CHAITRA 1, 1944

## केन्द्रीय विद्युत विनियामक आयोग

### प्रस्तावना

नई दिल्ली, 14 मार्च, 2022

चूंकि ग्रिड की विश्वसनीयता, सुरक्षा और स्थिरता के हित में विद्युत की निकासी या अंतःक्षेपण की अनुसूची से विचलन के व्यवस्थापन और निपटान के लिए विनियामक तंत्र प्रदान करना आवश्यक है, इसे एतद्वारा निम्नानुसार विनिर्दिष्ट किया गया है:

### अधिसूचना

**सं.एल-1/260/2021/केविविआ.**—केन्द्रीय विद्युत विनियामक आयोग, विद्युत अधिनियम, 2003 (2003 का 36) की धारा 79 की उप-धारा (1) के खंड (ग) और खंड (ज) के साथ पठित धारा 178 के अधीन प्रदत्त शक्तियों तथा इस निमित्त सामर्थ्यकारी सभी शक्तियों का प्रयोग करते हुए, और पूर्व प्रकाशन के पश्चात् निम्नलिखित विनियम बनाता है, अर्थात्:-

#### 1. संक्षिप्त नाम तथा टिप्पणियां:

- (1) इन विनियमों का संक्षिप्त नाम केन्द्रीय विद्युत विनियामक आयोग (विचलन व्यवस्थापन तंत्र और संबद्ध मामले) विनियम, 2022 है।
- (2) ये विनियम उस तारीख से प्रवृत्त होंगे जिसे आयोग द्वारा पृथक रूप से अधिसूचित किया जाएगा।

#### 2. उद्देश्य

ये विनियम वाणिज्यिक तंत्र के माध्यम से सुनिश्चित करते हैं कि उपयोगकर्ता ग्रिड से विचलित न हों और ग्रिड की सुरक्षा और स्थिरता के हित में विद्युत के आहरण और अंतःक्षेपण की अपनी अनुसूची का अनुसरण करें।

## 3. परिभाषाएं और निर्वचन

- (1) इन विनियमों में, जब तक कि संदर्भ से अन्यथा, अपेक्षित न हो,
- (क) 'अधिनियम' से विद्युत अधिनियम, 2003 (2003 का 36) अभिप्रेत है;
- (ख) समय ब्लॉक में 'वास्तविक निकासी' से क्रेता द्वारा आहरित, इंटरफेस मीटर द्वारा परिमापित विद्युत अभिप्रेत है;
- (ग) समय ब्लॉक में 'वास्तविक अंतःक्षेपण' से विक्रेता द्वारा अंतःक्षेपित, इंटरफेस मीटर द्वारा परिमापित विद्युत अभिप्रेत है;
- (घ) 'आनुषंगिक सेवा' से आनुषंगिक सेवा विनियमों में यथा परिभाषित आनुषंगिक सेवा अभिप्रेत है;
- (ङ) 'आनुषंगिक सेवा विनियम' से समय समय पर यथासंशोधित केन्द्रीय विद्युत विनियामक आयोग (आनुषंगिक सेवा प्रचालन) विनियम, 2015 अभिप्रेत है और इसमें इसका पुनराधिनियमन भी शामिल होगा;
- (च) 'क्षेत्र विलय रिंग कीमत' या 'एसीपी' से बाजार विभाजन के बाद विशेष क्षेत्र (क्षेत्रों) में सभी वैध खरीद और बिक्री बोलियों को ध्यान में रखने के बाद पावर एक्सचेंज में समय-ब्लॉक के लिए संव्यवहारित विद्युत संविदा की कीमत अभिप्रेत है;
- (छ) पवन या सौर या पवन-सौर स्रोतों के हाइब्रिड पर आधारित उत्पादन स्टेशन, जो कि प्रादेशिक कंपनियां हैं, के लिए 'उपलब्ध क्षमता', उन पवन टरबाइनों या सौर इन्वर्टरों की संचयी क्षमता रेटिंग है जो कि दिए गए समय ब्लॉक में विद्युत का उत्पादन करने में सक्षम हैं;
- (ज) 'क्रेता' से ग्रिड कोड के अनुसार अनुसूचित संव्यवहार के माध्यम से विद्युत की खरीद करने वाला व्यक्ति अभिप्रेत है;
- (झ) 'आयोग' से अधिनियम की धारा 76 की उपधारा (1) में निर्दिष्ट केन्द्रीय विद्युत विनियामक आयोग अभिप्रेत है;
- (ञ) 'संविदा दर' से विद्युत के क्रय या विक्रय के लिए, यथास्थिति, समुचित आयोग द्वारा अधिनियम की धारा 86(1)(ख) के अधीन अनुमोदित या धारा 63 के अधीन अंगीकृत या धारा 62 के अधीन यथावधारित टैरिफ या पावर एक्सचेंज में खोजी गई कीमत अभिप्रेत है;
- (ट) विद्युत के विक्रेता के लिए समय ब्लॉक में 'विचलन' से कुल वास्तविक अंतःक्षेपण घटा इसका कुल अनुसूचित उत्पादन अभिप्रेत है और विद्युत के क्रेता के लिए इसकी कुल वास्तविक निकासी घटा कुल अनुसूचित निकासी अभिप्रेत है, और इसे इन विनियमों के विनियम 6 के अनुसार संगणित किया जाएगा;
- (ठ) 'विचलन और आनुषंगिक सेवा पूल लेखा' से इन विनियमों के विनियम 9 के अनुसार प्रत्येक क्षेत्र में प्रादेशिक भार प्रेषण केन्द्र द्वारा रखरखाव और संचालित किया जाने वाला लेखा अभिप्रेत है;
- (ड) 'सामान्य विक्रेता' से पवन या सौर या पवन-सौर स्रोतों के हाइब्रिड के अलावा अन्य पर आधारित उत्पादन स्टेशन के मामले में विक्रेता अभिप्रेत है;
- (ढ) 'ग्रिड संहिता' से अधिनियम की धारा 79 की उपधारा (1) के खंड (ज) के अधीन आयोग द्वारा विनिर्दिष्ट ग्रिड संहिता अभिप्रेत है;
- (ण) 'इंटरफेस मीटर' से समय समय पर यथासंशोधित केन्द्रीय विद्युत प्राधिकरण (मीटरों का संस्थापन एवं प्रचालन) विनियम 2006 और उसके किसी भी पुनराधिनियमन के अधीन यथापरिभाषित इंटरफेस मीटर अभिप्रेत है;
- (त) 'भार प्रेषण केन्द्र' से, यथास्थिति, राष्ट्रीय भार प्रेषण केन्द्र, प्रादेशिक भार प्रेषण केन्द्र या राज्य भार प्रेषण केन्द्र अभिप्रेत है;
- (थ) 'विचलन के लिए प्रभारों की सामान्य दर' से इन विनियमों के विनियम 7 में यथा संदर्भित विचलन (पैसे/किलोवाट घंटा) के लिए प्रभार अभिप्रेत है;
- (द) 'निर्बाध पहुंच विनियम' से समय समय पर यथासंशोधित केन्द्रीय विद्युत विनियामक आयोग (अंतर-राज्यिक पारेषण में निर्बाध पहुंच) विनियम, 2008 अभिप्रेत है और इसमें इसका पुनराधिनियमन भी शामिल होगा;

- (घ) 'प्रादेशिक इकाई' से ऐसा व्यक्ति अभिप्रेत है जिसकी मीटरिंग और ऊर्जा लेखांकन प्रादेशिक भार प्रेषण केन्द्र द्वारा प्रादेशिक स्तर पर किया जाता है;
- (न) 'नवीकरणीय समृद्ध राज्य' या 'आरई-समृद्ध राज्य' से वह राज्य अभिप्रेत है जिसके नियंत्रण क्षेत्र के अधीन सौर और पवन उत्पादन स्टेशनों की संयुक्त संस्थापित क्षमता, 1000 मेगावाट या अधिक है;
- (प) 'संदर्भित प्रभार दर' से (i) सामान्य विक्रेता के संबंध में जिसका टैरिफ अधिनियम की धारा 62 या धारा 63 के अधीन अवधारित, समुचित आयोग द्वारा यथावधारित रु./किलोवाट घंटा ऊर्जा प्रभार, या (ii) यथास्थिति, सामान्य विक्रेता के संबंध में जिसका टैरिफ अधिनियम की धारा 62 या धारा 63 के अधीन अवधारित नहीं है, सभी पावर एक्सचेंजों के डे अहेड बाजार खंडों की दैनिक भारित औसत एसीपी अभिप्रेत है;
- (फ) 'आरएलडीसी फीस और प्रभार' से समय समय पर यथासंशोधित केन्द्रीय विद्युत विनियामक आयोग (प्रादेशिक भार प्रेषण केन्द्र की फीस और प्रभार और अन्य संबद्ध मामले) विनियम, 2019 के अधीन यथाविनिर्दिष्ट फीस और प्रभार अभिप्रेत हैं और इसमें इसका पुनराधिनियमन भी शामिल होगा;
- (ब) 'अपवाह नदी उत्पादन स्टेशन' या 'आरओआर उत्पादन स्टेशन' से वह हाइड्रो उत्पादन स्टेशन अभिप्रेत है जिसका अपस्ट्रीम जल संचय नहीं है;
- (भ) किसी समय ब्लॉक या किसी अवधि के लिए 'अनुसूचित उत्पादन' या 'अनुसूचित अंतःक्षेपण' से संबंधित भार प्रेषण केन्द्र द्वारा प्रदान की गई आनुषंगिक सेवा के लिए अनुसूची सहित मेगावाट या मेगावाट घंटा एक्स-बस में उत्पादन या अंतःक्षेपण की अनुसूची अभिप्रेत है;
- (म) किसी समय ब्लॉक या किसी अवधि के 'अनुसूचित निकासी' से संबंधित भार प्रेषण केन्द्र द्वारा प्रदान की गई आनुषंगिक सेवा के लिए अनुसूची सहित मेगावाट या मेगावाट घंटा एक्स-बस में निकासी की अनुसूची अभिप्रेत है;
- (य) 'विक्रेता' से ग्रिड संहिता के अनुसार अनुसूचित संव्यवहार के माध्यम से विद्युत की आपूर्ति करने वाले उत्पादन स्टेशन सहित कोई व्यक्ति अभिप्रेत है;
- (कक) 'समय ब्लॉक' से ग्रिड संहिता में यथापरिभाषित समय ब्लॉक अभिप्रेत है;
- (खख) 'डब्ल्यूएस विक्रेता' से पवन या सौर या पवन-सौर स्रोतों के हाइब्रिड पर आधारित उत्पादन स्टेशन के मामले में विक्रेता अभिप्रेत है।

- (2) यथापूर्वोक्त के सिवाय, जब तक कि संदर्भ के अनुसार या विषय वस्तु से अन्यथा अपेक्षित न हो, इन विनियमों में प्रयुक्त शब्दों और पदों का, जो यहां परिभाषित नहीं हैं, किन्तु अधिनियम या आयोग द्वारा बनाए गए अन्य विनियमों में परिभाषित हैं, वही अर्थ होगा, जो क्रमशः अधिनियम या किसी अन्य विनियम में है।

#### 4. विस्तार

ये विनियम विद्युत के अंतर-राज्यिक क्रय और विक्रय से संबद्ध ग्रिड से जुड़ी सभी प्रादेशिक इकाइयों और अन्य इकाइयों पर लागू होंगे।

#### 5. अनुसूची का अनुपालन और विचलन

- (1) ग्रिड के सुरक्षित और स्थिर प्रचालन के लिए, ग्रिड से जुड़ी प्रत्येक प्रादेशिक इकाई, ग्रिड संहिता के अनुसार अपनी अनुसूची का अनुपालन करेगी और अपनी अनुसूची से विचलित नहीं होगी।
- (2) किसी भी विचलन का प्रबंधन, आनुषंगिक सेवा विनियमों के अनुसार भार प्रेषण केन्द्र द्वारा किया जाएगा, और ऐसे विचलन के संबंध में संगणना, प्रभार और संबद्ध मामलों का निपटान, इन विनियमों के निम्नलिखित उपबंधों के अनुसार किया जाएगा।

#### 6. विचलन की संगणना

- (1) सामान्य विक्रेताओं के लिए समय ब्लॉक में विचलन की संगणना निम्नानुसार की जाएगी:

विचलन-सामान्य विक्रेता (मेगावाट घंटा में) = [(मेगावाट घंटा में वास्तविक अंतःक्षेपण) - (मेगावाट घंटा में अनुसूचित उत्पादन)]

विचलन-सामान्य विक्रेता (% में) =  $100 \times \frac{[(मेगावाट घंटा में वास्तविक अंतःक्षेपण) - (मेगावाट घंटा में अनुसूचित उत्पादन)]}{[(मेगावाट घंटा में अनुसूचित उत्पादन)]}$

- (2) डब्ल्यूएस विक्रेताओं के लिए समय ब्लॉक में विचलन की संगणना निम्नानुसार की जाएगी:

विचलन—डब्ल्यूएस विक्रेता (मेगावाट घंटा में) = [(मेगावाट घंटा में वास्तविक अंतःक्षेपण) – (मेगावाट घंटा में अनुसूचित उत्पादन)]

विचलन—डब्ल्यूएस विक्रेता (% में) =  $100 \times \frac{[(मेगावाट घंटा में वास्तविक अंतःक्षेपण) – (मेगावाट घंटा में अनुसूचित उत्पादन)]}{[(उपलब्ध क्षमता)]}$

(3) क्रेताओं के लिए समय ब्लॉक में विचलन की संगणना निम्नानुसार की जाएगी:

विचलन—क्रेता (मेगावाट घंटा में) = [(मेगावाट घंटा में वास्तविक निकासी) – (मेगावाट घंटा में अनुसूचित निकासी)]

विचलन—क्रेता (% में) =  $100 \times \frac{[(मेगावाट घंटा में वास्तविक निकासी) – (मेगावाट घंटा में अनुसूचित निकासी)]}{[(मेगावाट घंटा में अनुसूचित निकासी)]}$

## 7. विचलन के लिए प्रभारों की सामान्य दर

(1) किसी समय ब्लॉक के लिए विचलन हेतु प्रभारों की सामान्य दर, दी गई आनुषंगिक सेवाओं की मात्रा और उस समय ब्लॉक के लिए सभी प्रदेशों हेतु आनुषंगिक सेवा प्रदाताओं को देय निवल प्रभारों के आधार पर संगणित भारित औसत आनुषंगिक सेवा प्रभार (पैसे/किलोवाट घंटा में) के बराबर होगी।

परंतु यह कि इन विनियमों के प्रवृत्त होने की तारीख या आयोग द्वारा यथाधिसूचित किसी आगे की अवधि से एक वर्ष की अवधि के लिए, समय ब्लॉक के लिए विचलन हेतु प्रभारों की सामान्य दर, उस समय ब्लॉक के लिए [सभी पावर एक्सचेंजों के डे अहेड बाजार खंडों की भारित औसत एसीपी; या सभी पावर एक्सचेंजों के वास्तविक समय बाजार खंडों की भारित औसत एसीपी; सभी प्रदेशों की भारित औसत आनुषंगिक सेवा प्रभार] के उच्चतम के बराबर होगी:

परंतु यह और कि किसी दिवस को किसी समय ब्लॉक के लिए एसीपी की अनुपलब्धता के मामले में, अंतिम उपलब्ध दिवस के तदनुरूपी समय ब्लॉक के लिए एसीपी पर विचार किया जाएगा:

(2) विचलन के लिए प्रभारों की सामान्य दर को निकटतम दो दशमलव स्थान तक पूर्णांक किया जाएगा।

## 8. विचलन के लिए प्रभार

(1) विक्रेता द्वारा समय ब्लॉक में विचलन के लिए ऐसे विक्रेता द्वारा देय प्रभार निम्नानुसार होंगे:

इकाई	विचलन और आनुषंगिक सेवा पूल लेखा को विचलन के लिए देय प्रभार	
विक्रेता	अधिक अंतःक्षेपण के माध्यम से विचलन	कम अंतःक्षेपण के माध्यम से विचलन
आरओआर उत्पादन स्टेशन या नगर पालिका ठोस अपशिष्ट पर आधारित उत्पादन स्टेशन के अलावा सामान्य विक्रेता के लिए	(i) शून्य से [2% विचलन—सामान्य विक्रेता (% में)] तक: परंतु यह कि ऐसे विक्रेता को अधिक अंतःक्षेपण के लिए [2% विचलन—सामान्य विक्रेता (% में)] तक विचलन के लिए संदर्भित प्रभार दर पर वापस भुगतान किया जाएगा; और (ii) [2% विचलन—सामान्य विक्रेता (% में)] से अधिक विचलन के लिए प्रभारों की सामान्य दर के 10% पर	(i) [2% विचलन—सामान्य विक्रेता (% में)] तक संदर्भित प्रभार दर पर; (ii) [2% विचलन—सामान्य विक्रेता (% में)] से अधिक और [10% विचलन—सामान्य विक्रेता (% में)] तक विचलन के लिए प्रभारों की सामान्य दर का 120% पर; और (iii) [10% विचलन—सामान्य विक्रेता (% में)] से अधिक विचलन के लिए प्रभारों की सामान्य दर के 150% पर
आरओआर उत्पादन स्टेशन होते हुए सामान्य विक्रेता के लिए	शून्य: परंतु यह कि ऐसे विक्रेता को, [2% विचलन—सामान्य विक्रेता (% में)] तक अधिक अंतःक्षेपण के लिए संदर्भित प्रभार दर वापस भुगतान किया जाएगा।	(i) [2% विचलन—सामान्य विक्रेता (% में)] तक संदर्भित प्रभार दर पर; (ii) [2% विचलन—सामान्य विक्रेता (% में)] से अधिक और [10% विचलन—सामान्य विक्रेता (% में)] तक विचलन के लिए प्रभारों की



		सामान्य दर पर; और (iii) [10% विचलन—सामान्य विक्रेता (% में)] से अधिक विचलन के लिए प्रभारों की सामान्य दर के 110% पर।
नगर पालिका टोस अपशिष्ट पर आधारित उत्पादन स्टेशन होते हुए सामान्य विक्रेता	शून्य: परंतु यह कि ऐसे विक्रेता को [20% विचलन—सामान्य विक्रेता (% में)] तक अधिक अंतःक्षेपण के लिए संविदा दर पर या संविदा दर की अनुपस्थिति में, संबंधित समय ब्लॉक के लिए सभी पावर एक्सचेंजों के डे अहेड बाजार खंडों की भारत औसत एसीपी पर वापस भुगतान किया जाएगा।	(i) शून्य से [20% विचलन—सामान्य विक्रेता (% में)] तक: परंतु यह कि ऐसे विक्रेता [20% विचलन—सामान्य विक्रेता (% में)] तक कम अंतःक्षेपण के कारण किसी समय ब्लॉक में अपनी अनुसूची के विपरीत ऊर्जा में कमी के लिए संविदा दर के 50% पर या संविदा दर की अनुपस्थिति में, संबंधित समय ब्लॉक के लिए सभी पावर एक्सचेंजों के डे अहेड बाजार खंडों की भारत औसत एसीपी पर वापस भुगतान करेंगे। और (ii) [20% विचलन—सामान्य विक्रेता (% में)] से अधिक विचलन के लिए प्रभारों की सामान्य दर पर।
डब्ल्यूएस विक्रेता के लिए	शून्य: परंतु यह कि ऐसे विक्रेता को अधिक अंतःक्षेपण के लिए निम्नानुसार वापस भुगतान किया जाएगा: (i) [5% विचलन—डब्ल्यूएस विक्रेता (% में)] तक, संविदा दर पर, या संविदा दर की अनुपस्थिति में संबंधित समय ब्लॉक के लिए सभी पावर एक्सचेंजों के डे अहेड बाजार खंडों के भारत औसत एसीपी पर; और (ii) [5% विचलन—डब्ल्यूएस विक्रेता (% में)] से अधिक और [10% विचलन—डब्ल्यूएस विक्रेता (% में)] तक विचलन के लिए संविदा दर के 90% पर या संविदा दर की अनुपस्थिति में संबंधित समय ब्लॉक के लिए सभी पावर एक्सचेंजों के डे अहेड बाजार खंडों के भारत औसत एसीपी के 90% पर।	(i) शून्य से [10% विचलन—डब्ल्यूएस विक्रेता (% में)] तक; और (ii) [10% विचलन—डब्ल्यूएस विक्रेता (% में)] से अधिक विचलन के लिए प्रभारों की सामान्य दर के 10% पर: परंतु यह कि ऐसे विक्रेता, कम अंतःक्षेपण के कारण किसी समय ब्लॉक में अपनी अनुसूची के विपरीत ऊर्जा में कुल कमी के लिए संविदा दर पर, या संविदा दर की अनुपस्थिति में संबंधित समय ब्लॉक के लिए सभी पावर एक्सचेंजों के डे अहेड बाजार खंडों के भारत औसत एसीपी पर वापस भुगतान करेंगे।

(2) क्रेता द्वारा समय ब्लॉक में विचलन के लिए ऐसे क्रेता द्वारा देय प्रभार निम्नानुसार होंगे:

इकाई	विचलन और आनुषंगिक सेवा पूल लेखा को विचलन के लिए देय प्रभार	
क्रेता	कम निकासी के माध्यम से विचलन	अधिक निकासी के माध्यम से विचलन
क्रेता (400 मेगावाट से कम अनुसूची के	शून्य:	(i) [10% विचलन—क्रेता (% में)] या



(ख) उत्पादन इकाई की सीओडी से पूर्व स्टार्ट-अप की निकासी के लिए या उत्पादन स्टेशन के शट-डाउन के दौरान आनुषंगिकों को चलाने के लिए विद्युत की निकासी के लिए विचलन हेतु प्रभार, विचलन के लिए प्रभारों की सामान्य दर पर देय होंगे।

(4) अंतर-प्रादेशिक विचलन के लिए और अधिक-निकासी या कम-अंतःक्षेपण के कारण क्रॉस-बॉर्डर संव्यवहारों के संबंध में विचलन के लिए प्रभार, विचलन के लिए प्रभारों की सामान्य दर पर देय होंगे।

### 9. विचलन और आनुषंगिक सेवा पूल लेखा के लिए प्रभारों का लेखांकन

(1) प्रत्येक गरुवार तक प्रादेशिक भार प्रेषण केन्द्र, संबंधित प्रादेशिक विद्युत समितियों के सचिवालय को रविवार की मध्यरात्रि को समाप्त होने वाले पिछले सप्ताह के लिए, इन विनियमों के विनियम 6 के अनुसार परिकल्पित विचलन के लिए डाटा प्रदान करेंगे।

(2) प्रादेशिक भार प्रेषण केन्द्र से विचलन के लिए डाटा प्राप्त होने के बाद प्रादेशिक विद्युत समिति के सचिवालय, आगामी मंगलवार तक सभी प्रादेशिक इकाइयों को पिछले सप्ताह के लिए तैयार किया गया विचलन हेतु प्रभारों की विवरणी तैयार करेंगे और जारी करेंगे:

परंतु यह कि अंतः राज्यिक इकाइयों के लिए संव्यवहार-वार डीएसएम लेखांकन, प्रादेशिक स्तर पर नहीं किया जाएगा।

(3) प्रादेशिक विद्युत समितियों के सचिवालय द्वारा विचलन के लिए प्रभारों के मूल घटक और ब्याज घटक के लिए पृथक लेखांकन बहियां तैयार की जाएंगी।

(4) संबंधित प्रदेश के लिए प्रादेशिक भार प्रेषण केन्द्र द्वारा विचलन और आनुषंगिक सेवा पूल लेखा का रखरखाव और संचालन किया जाएगा:

परंतु यह कि आयोग किसी अन्य इकाई को विचलन और आनुषंगिक सेवा पूल लेखा का संचालन और रखरखाव करने का आदेश दे सकता है।

(5) विचलन और आनुषंगिक सेवा पूल लेखा में निम्नलिखित के लिए जमा प्राप्त किया जाएगा:

(क) इन विनियमों के विनियम 8 में संदर्भित विचलन के लिए प्रभारों के लिए भुगतान और इन विनियमों के विनियम 10 में संदर्भित विलंब भुगतान अधिभार;

(ख) निम्नलिखित द्वारा भुगतान:

(i) आनुषंगिक सेवा विनियमों के अधीन प्रेषित एसआरएस-डाउन के लिए एसआरएस प्रदाता;

(ii) आनुषंगिक सेवा विनियमों के अधीन प्रेषित टीआरएस-डाउन के लिए टीआरएस प्रदाता; और

(iii) इस प्रकार के अन्य प्रभार जैसा आयोग द्वारा अधिसूचित किया जाता है।

(6) विचलन और आनुषंगिक सेवा पूल लेखा को निम्नलिखित के लिए प्रभारित किया जाएगा:

(क) इन विनियमों के विनियम 8 के खंड (1) में यथासंदर्भित अधिक अंतःक्षेपण के लिए विक्रेता को भुगतान;

(ख) इन विनियमों के विनियम 8 के खंड (2) में यथासंदर्भित कम निकासी के लिए क्रेता को भुगतान;

(ग) आनुषंगिक सेवा विनियमों में यथासंदर्भित संबंधित एसआरएस प्रदाता को देय, एसआरएस के लिए प्रोत्साहन के साथ-साथ प्रादेशिक आधार पर प्रत्येक समय ब्लॉक के लिए, यथास्थिति, परिवर्ती प्रभार या ऊर्जा प्रभार या क्षतिपूर्ति प्रभार सहित एसआरएस-अप की संपूर्ण लागत;

(घ) आनुषंगिक सेवा विनियमों में यथासंदर्भित क्लियर और प्रेषित की गई मात्रा के लिए प्रभार और क्लियर की गई परंतु प्रेषित नहीं मात्रा के लिए प्रतिबद्धता प्रभार सहित टीआरएस-अप के प्रति संपूर्ण लागत; और

(ङ) इस प्रकार के अन्य प्रभार जैसा आयोग द्वारा अधिसूचित किया जाता है।

(7) प्रदेश के विचलन और आनुषंगिक सेवा पूल लेखा में घाटे की दशा में, अन्य प्रदेशों के विचलन और आनुषंगिक सेवा पूल लेखा में उपलब्ध अतिरिक्त राशि को इस विनियम के खंड (6) के अधीन भुगतान के निपटान के लिए उपयोग किया जाएगा:

परंतु यह कि यदि सभी प्रदेशों के विचलन और आनुषंगिक सेवा पूल लेखा में अतिरिक्त राशि ऐसे घाटे को पूरा करने के लिए पर्याप्त नहीं है, तो शेष राशि को आरएलडीसी फीस और प्रभारों के माध्यम से वसूल किया जाएगा।

**10. विचलन के लिए प्रभारों के भुगतान की अनुसूची**

- (1) विचलन के लिए प्रभारों के भुगतान को उच्च प्राथमिकता दी जाएगी और संबंधित प्रादेशिक इकाई, प्रादेशिक विद्युत समिति द्वारा विचलन के लिए प्रभारों की विवरणी को जारी करने के 7 (सात) दिनों के अंदर देय राशि का भुगतान करेगा जिसके न होने पर विलंब के प्रत्येक दिन के लिए 0.04% की दर पर विलंब भुगतान अधिभार देय होगा।
- (2) उस प्रादेशिक इकाई से, जो पूर्व वित्तीय वर्ष के दौरान किसी भी समय इन विनियमों में विनिर्दिष्ट समय के अंदर विचलन के लिए प्रभारों का भुगतान करने में असफल होता है, उससे चालू वित्तीय वर्ष के आरंभ होने से दो सप्ताह के अंदर संबंधित प्रादेशिक भार प्रेषण केन्द्र के पक्ष में पूर्व वित्तीय वर्ष में विचलन के लिए उनके औसत देय साप्ताहिक देयता के 110% के समतुल्य साख पत्र खोलने की अपेक्षा की जाएगी।
- (3) विचलन के लिए प्रभारों की विवरणी जारी होने की तारीख से 7 (सात) दिनों के अंदर विचलन और आनुषंगिक सेवा पूल लेखा में भुगतान करने में असफल होने की दशा में, प्रादेशिक भार प्रेषण केन्द्र चूक की सीमा तक संबंधित प्रादेशिक इकाई के साख पत्र को भुनाने का पात्र होगा और संबंधित प्रादेशिक इकाई 3 दिनों के अंदर साख पत्र की राशि की प्रतिपूर्ति करेगी।

**11. शिथिल करने की शक्ति**

आयोग, लिखित में रिकॉर्ड किए जाने वाले कारणों के लिए और प्रभावित होने वाले संभावित पक्षकारों को सुनवाई का अवसर देने के बाद, सामान्य या विशेष आदेश द्वारा स्व-प्रेरणा से या प्रभावित पक्षकार द्वारा इसके समक्ष किए गए आवेदन पर, इन विनियमों के किसी भी उपबंध को शिथिल कर सकता है।

**12. कठिनाई दूर करने की शक्ति**

यदि इन विनियमों को प्रभावी करने में कोई कठिनाई उत्पन्न होती है, तो आयोग स्वप्रेरणा से या किसी प्रभावित पक्षकार द्वारा किए गए आवेदन पर, ऐसे पद्धति निर्देश जारी कर सकता है जो इन विनियमों के उद्देश्य को प्रोत्साहित करने हेतु आवश्यक समझे जाएं।

**13. निरसन और व्यावृत्तियां**

- (1) इन विनियमों में अन्यथा उपबंधित के अनुसार, केन्द्रीय विद्युत विनियामक आयोग (विचलन व्यवस्थापन तंत्र और संबद्ध मामले) विनियम, 2014 इन विनियमों के आरंभ की तारीख से निरसित होंगे।
- (2) ऐसे निरसन में किसी बात के होते हुए भी, कोई प्रक्रिया, कार्यवृत्त, रिपोर्ट, पुष्टिकरण या निरसित विनियमों के अधीन निष्पादित किसी लिखत की घोषणा सहित की गई कोई बात या की गई कोई कार्रवाई या किए गए से तात्पर्य होना, इन विनियमों के सुसंगत उपबंधों के अधीन किया गया समझा जाएगा।
- (3) इन विनियमों के आरंभ होने पर, निरसित विनियमों के अधीन गठित प्रादेशिक विचलन पूल लेखा निधि का इन विनियमों के अधीन गठित विचलन और आनुषंगिक सेवा पूल लेखा के रूप में पुनःनामकरण किया जाएगा, और
  - (क) प्रादेशिक विचलन पूल लेखा निधि में जमा की गई धन की पूर्ण राशि को विचलन और आनुषंगिक सेवा पूल लेखा में जमा किया गया समझा जाएगा;
  - (ख) प्रादेशिक विचलन पूल लेखा निधि को देय और इससे देय सभी राशि को विचलन और आनुषंगिक सेवा पूल लेखा को देय और इससे देय समझा जाएगा;
  - (ग) प्रादेशिक विचलन पूल लेखा निधि के किसी संदर्भ का, विचलन और आनुषंगिक सेवा पूल लेखा के संदर्भ के रूप में अर्थ लगाया जाएगा।

सुशांत के. चटर्जी, प्रमुख (विनियामक मामले)

[विज्ञापन-III/4/असा./701/2021-22]

**CENTRAL ELECTRICITY REGULATORY COMMISSION****PREAMBLE**

New Delhi, the 14th March, 2022

Whereas it is necessary to provide for a regulatory mechanism for treatment and settlement of deviation from schedule of drawal or injection of electricity in the interest of reliability, security and stability of the grid, it is hereby specified as follows:

**NOTIFICATION**

**No. L-1/260/2021/CERC** - In exercise of the powers conferred under Section 178 read with clauses (c) and (h) of sub-section (1) of Section 79 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, namely:

**1. Short title and commencement**

- (1) These regulations may be called the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022.
- (2) These regulations shall come into force on such date as may be notified by the Commission separately.

**2. Objective**

These regulations seek to ensure, through a commercial mechanism that users of the grid do not deviate from and adhere to their schedule of drawal and injection of electricity in the interest of security and stability of the grid.

**3. Definitions and Interpretation**

(1) In these regulations, unless the context otherwise requires,-

- (a) **'Act'** means the Electricity Act, 2003 (36 of 2003);
- (b) **'actual drawal'** in a time block means the electricity drawn by a buyer, measured by the interface meters;
- (c) **'actual injection'** in a time block means the electricity injected by the seller, measured by the interface meters;
- (d) **'Ancillary Services'** means the Ancillary Services as defined in the Ancillary Services Regulations;
- (e) **'Ancillary Services Regulations'** means the Central Electricity Regulatory Commission (Ancillary Services Operations) Regulations, 2015 as amended from time to time and shall include any re-enactment thereof;
- (f) **'Area Clearing Price' or 'ACP'** means the price of electricity contract for a time-block transacted on a Power Exchange after considering all valid buy and sale bids in particular area(s) after market-splitting;
- (g) **'Available Capacity'** for generating station based on wind or solar or hybrid of wind-solar resources which are regional entities, is the cumulative capacity rating of wind turbines or solar inverters that are capable of generating power in a given time block;
- (h) **'Buyer'** means a person purchasing electricity through a transaction scheduled in accordance with the Grid Code;
- (i) **'Commission'** means the Central Electricity Regulatory Commission referred to in sub-section (1) of Section 76 of the Act;
- (j) **'Contract rate'** means the tariff for sale or purchase of power, as determined under Section 62 or adopted under Section 63 or approved under Section 86(1)(b) of the Act by the Appropriate Commission or the price as discovered in the Power Exchange, as the case may be;
- (k) **'Deviation'** in a time block for a seller of electricity means its total actual injection minus its total scheduled generation; and for a buyer of electricity means its total actual drawal minus its total scheduled drawal, and shall be computed as per Regulation 6 of these regulations;
- (l) **'Deviation and Ancillary Service Pool Account'** means the Account to be maintained and operated by the concerned Regional Load Despatch Centre in each region as per Regulation 9 of these regulations;
- (m) **'General seller'** means a seller in case of a generating station based on other than wind or solar or hybrid of wind-solar resources;

- (n) **‘Grid Code’** means the Grid Code specified by the Commission under clause (h) of sub-section (1) of Section 79 of the Act;
- (o) **‘Interface meters’** means interface meters as defined under the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time and any re-enactment thereof;
- (p) **‘Load Despatch Centre’** means National Load Despatch Centre, Regional Load Despatch Centre or State Load Despatch Centre, as the case may be;
- (q) **‘Normal Rate of Charges for Deviation’** means the charges for deviation (in paise/kWh) as referred to in Regulation 7 of these regulations;
- (r) **‘Open Access Regulations’** means the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 as amended from time to time and shall include any re-enactment thereof;
- (s) **‘Regional Entity’** means a person whose metering and energy accounting are done at the regional level by Regional Load Despatch Centre;
- (t) **‘Renewable Rich State’** or **‘RE-rich State’** means a State whose combined installed capacity of solar and wind generating stations under the control area of the State is 1000 MW or more;
- (u) **‘Reference Charge Rate’** means (i) in respect of a general seller whose tariff is determined under Section 62 or Section 63 of the Act, Rs/ kWh energy charge as determined by the Appropriate Commission, or (ii) in respect of a general seller whose tariff is not determined under Section 62 or Section 63 of the Act, the daily weighted average ACP of the Day Ahead Market segments of all the Power Exchanges, as the case may be;
- (v) **‘RLDC Fees and Charges’** means the fees and charges as specified under the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019 as amended from time to time and shall include any re-enactment thereof;
- (w) **‘Run-of-River Generating Station’** or **‘RoR generating station’** means a hydro generating station which does not have upstream pondage;
- (x) **‘Scheduled generation’** or **‘Scheduled injection’** for a time block or any period means the schedule of generation or injection in MW or MWh ex-bus including the schedule for Ancillary Services given by the concerned Load Despatch Centre;
- (y) **‘Scheduled drawal’** for a time block or any period means the schedule of drawal in MW or MWh ex-bus including the schedule for Ancillary Services given by the concerned Load Despatch Centre;
- (z) **‘Seller’** means a person, including a generating station, supplying electricity through a transaction scheduled in accordance with the Grid Code;
- (aa) **‘Time Block’** means the time block as defined in the Grid Code;
- (bb) **‘WS seller’** means a seller in case of a generating station based on wind or solar or hybrid of wind-solar resources.
- (2) Save as aforesaid and unless repugnant to the context or the subject matter otherwise requires, words and expressions used in these regulations and not defined, but defined in the Act, or any other regulation of this Commission shall have the meaning assigned to them respectively in the Act or any other regulation.

#### 4. Scope

These regulations shall be applicable to all grid connected regional entities and other entities engaged in inter-State purchase and sale of electricity.

#### 5. Adherence to Schedule and Deviation

- (1) For a secure and stable operation of the grid, every grid connected regional entity shall adhere to its schedule as per the Grid Code and shall not deviate from its schedule.
- (2) Any deviation shall be managed by the Load Despatch Centre as per the Ancillary Services Regulations, and the computation, charges and related matters in respect of such deviation shall be dealt with as per the following provisions of these regulations.

#### 6. Computation of Deviation

- (1) Deviation in a time block for general sellers shall be computed as follows:

Deviation-general seller (in MWh) = [(Actual injection in MWh) – (Scheduled generation in MWh)].

Deviation-general seller (in %) =  $100 \times \frac{[(\text{Actual injection in MWh}) - (\text{Scheduled generation in MWh})]}{[(\text{Scheduled generation in MWh})]}$ .

- (2) Deviation in a time block for WS sellers shall be computed as follows:

Deviation-WS seller (in MWh) = [(Actual Injection in MWh) – (Scheduled generation in MWh)].

Deviation-WS seller (in %) =  $100 \times \frac{[(\text{Actual Injection in MWh}) - (\text{Scheduled generation in MWh})]}{[(\text{Available Capacity})]}$ .

- (3) Deviation in a time block for buyers shall be computed as follows:

Deviation- buyer (in MWh) = [(Actual drawal in MWh) – (Scheduled drawal in MWh)].

Deviation- buyer (in %) =  $100 \times \frac{[(\text{Actual drawal in MWh}) - (\text{Scheduled drawal in MWh})]}{[(\text{Scheduled drawal in MWh})]}$ .

## 7. Normal Rate of Charges for Deviations

- (1) The normal rate of charges for deviation for a time block shall be equal to the Weighted Average Ancillary Service Charge (in paise/kWh) computed based on the total quantum of Ancillary Services deployed and the net charges payable to the Ancillary Service Providers for all the Regions for that time block:

Provided that for a period of one year from the date of effect of these regulations or such further period as may be notified by the Commission, the normal rate of charges for deviation for a time block shall be equal to the highest of [the weighted average ACP of the Day Ahead Market segments of all the Power Exchanges; or the weighted average ACP of the Real Time Market segments of all the Power Exchanges; or the Weighted Average Ancillary Service Charge of all the regions] for that time block:

Provided further that in case of non-availability of ACP for any time block on a given day, ACP for the corresponding time block of the last available day shall be considered:

- (2) The normal rate of charges for deviation shall be rounded off to the nearest two decimal places.

## 8. Charges for Deviation

- (1) Charges for deviation in a time block by a seller shall be payable by such seller as under:

Entity	Charges for deviation payable to Deviation and Ancillary Service Pool Account	
<b>Seller</b>	<b>Deviation by way of over injection</b>	<b>Deviation by way of under injection</b>
For a general seller other than an RoR generating station or a generating station based on municipal solid waste	(i) Zero up to [2% Deviation-general seller (in %)]; Provided that such seller shall be paid back for over injection @ the reference charge rate for deviation up to [2% Deviation-general seller (in %)]; and (ii) @ 10% of the normal rate of charges for deviation beyond [2% Deviation-general seller (in %)].	(i) @ the reference charge rate up to [2% Deviation-general seller (in %)]; (ii) @ 120% of the normal rate of charges for deviation beyond [2% Deviation-general seller (in %)] and up to [10% Deviation-general seller (in %)]; and (iii) @ 150% of the normal rate of charges for deviation beyond [10% Deviation-general seller (in %)].
For a general seller being an RoR generating station	Zero: Provided that such seller shall be paid back for over injection up to [2% Deviation-general seller (in %)] @ the reference charge rate.	(i) @ the reference charge rate up to [2% Deviation-general seller (in %)]; (ii) @ normal rate of charges for deviation beyond [2% Deviation-general seller (in %)] and up to [10% Deviation-general seller (in %)]; and

		(iii) @ 110% of the normal rate of charges for deviation beyond [10% Deviation-general seller (in %)].
For a general seller being a generating station based on municipal solid waste	Zero: Provided that such seller shall be paid back for over injection up to [20% Deviation-general seller (in %)] @ contract rate, or in the absence of a contract rate, @ the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block.	(i) Zero up to [20% Deviation-general seller (in %)]: Provided that such seller shall pay back for the shortfall in energy against its schedule in any time block due to under injection up to [20% Deviation-general seller (in %)] @ 50% of the contract rate, or in the absence of a contract rate, @ 50% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block; and (ii) @ normal rate of charges for deviation beyond [20% Deviation-general seller (in %)].
For WS seller	Zero: Provided that such seller shall be paid back for over injection as under: (i) @ contract rate, or in the absence of a contract rate, @ the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, up to [5% Deviation -WS seller (in %)]; and (ii) @ 90% of the contract rate, or in the absence of a contract rate, @ 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for deviation beyond [5% Deviation-WS seller (in %)] and up to [10% Deviation-WS seller (in %)].	(i) Zero up to [10% Deviation-WS seller (in %)]; and (ii) @ 10% of the normal rate of charges for deviation beyond [10% Deviation-WS seller (in %)]:  Provided that such seller shall pay back for the total shortfall in energy against its schedule in any time block due to under injection, @ the contract rate, or in the absence of a contract rate, @ the weighted average ACP of the Day Ahead Market segments of all Power Exchanges, for the respective time block.

(2) Charges for deviation in a time block by a buyer shall be payable by such buyer as under:

Entity	Charges for deviation payable to Deviation and Ancillary Service Pool Account	
Buyer	Deviation by way of under drawal	Deviation by way of over drawal
Buyer (other than the buyer with schedule less than 400 MW and the RE-rich State)	Zero: Provided that such buyer shall be paid back for under drawal as under: (i) @ 90% of normal rate of charges, for deviation up to [10% Deviation-buyer (in %) or 100 MW Deviation-buyer (in MWh) in a time block, whichever is lower]; and (ii) @ 50% of normal rate of charges,	(i) @ normal rate of charges for deviation up to [10% Deviation-buyer (in %) or 100 MW Deviation-buyer (in MWh) in a time block, whichever is lower]; (ii) @ 120% of normal rate of charges for deviation beyond [10% Deviation-buyer (in %) or 100 MW Deviation-buyer (in MWh) in a time block, whichever is lower] and up to [15% Deviation-buyer (in %) or 200 MW Deviation-buyer (in MWh) in a time block, whichever is lower]; and (iii) @ 150% of normal rate of charges for deviation



	for deviation beyond [10% Deviation-buyer (in %) or 100 MW Deviation-buyer (in MWh) in a time block, whichever is lower] and up to [15% Deviation-buyer (in %) or 200 MW Deviation-buyer (in MWh) in a time block, whichever is lower].	beyond [15% Deviation-buyer (in %) or 200 MW Deviation-buyer (in MWh) in a time block, whichever is lower].
Buyer (with schedule up to 400 MW)	Zero: Provided that such buyer shall be paid back for under drawal @ 90% of normal rate of charges for deviation up to [20% Deviation-buyer (in %) or 40 MW Deviation-buyer (in MWh) in a time block, whichever is lower].	(i) @ normal rate of charges for deviation up to [20% Deviation-buyer (in %) or 40 MW Deviation-buyer (in MWh) in a time block, whichever is lower]; and (ii) @ 120% of normal rate of charges for deviation beyond [20% Deviation-buyer (in %) or 40 MW Deviation-buyer (in MWh) in a time block, whichever is lower].
Buyer (being an RE Rich State)	Zero: Provided that such buyer shall be paid back for under drawal as under: (i) @ 90% of normal rate of charges for deviation up to [10% Deviation-buyer (in %) or 200 MW Deviation-buyer (in MWh) in a time block, whichever is lower]; and (ii) @ 50% of normal rate of charges for deviation beyond [10% Deviation-buyer (in %) or 200 MW Deviation-buyer (in MWh) in a time block, whichever is lower] and up to [15% Deviation-buyer (in %) or 300 MW Deviation-buyer (in MWh) in a time block, whichever is lower].	(i) @ normal rate of charges for deviation up to [10% Deviation-buyer (in %) or 200 MW Deviation-buyer (in MWh) in a time block, whichever is lower]; (ii) @ 120% of normal rate of charges for deviation beyond [10% Deviation-buyer (in %) or 200 MW Deviation-buyer (in MWh) in a time block, whichever is lower] and up to [15% Deviation-buyer (in %) or 300 MW Deviation-buyer (in MWh) in a time block, whichever is lower]; and (iii) @ 150% of normal rate of charges for deviation beyond [15% Deviation-buyer (in %) or 300 MW Deviation-buyer (in MWh) in a time block, whichever is lower].

- (3) (a) The charges for deviation for injection of infirm power shall be zero.  
(b) The charges for deviation for drawal of start-up power before COD of a generating unit or for drawal of power to run the auxiliaries during shut-down of a generating station shall be payable at the normal rate of charges for deviation.
- (4) The charges for inter-regional deviation and for deviation in respect of cross-border transactions, caused by way of over-drawal or under-injection shall be payable at the normal rate of charges for deviation.

#### 9. Accounting of Charges for Deviation and Ancillary Service Pool Account

- (1) By every Thursday, the Regional Load Despatch Centres shall provide the data for deviation calculated as per Regulation 6 of these regulations, for the previous week ending on Sunday mid-night to the Secretariat of the respective Regional Power Committees.
- (2) After receiving the data for deviation from the Regional Load Despatch Centre, the Secretariat of the Regional Power Committee shall prepare and issue the statement of charges for deviation prepared for the previous week, to all regional entities by ensuing Tuesday:  
Provided that transaction-wise DSM accounting for intra-State entities shall not be carried out at the regional level.
- (3) Separate books of accounts shall be maintained for the principal component and interest component of charges for deviation by the Secretariat of the Regional Power Committees.
- (4) There shall be a Deviation and Ancillary Service Pool Account to be maintained and operated by the Regional Load Despatch Centre for the respective region:

Provided that the Commission may by order direct any other entity to operate and maintain the Deviation and Ancillary Service Pool Account.

- (5) The Deviation and Ancillary Service Pool Account shall receive credit for:
- (a) payments on account of charges for deviation referred to in Regulation 8 of these regulations and the late payment surcharge as referred to in Regulation 10 of these regulation;
  - (b) payments made by:
    - (i) SRAS Provider for the SRAS-Down despatched under the Ancillary Services Regulations;
    - (ii) TRAS Provider for the TRAS-Down despatched under the Ancillary Services Regulations; and
    - (iii) such other charges as may be notified by the Commission.
- (6) Deviation and Ancillary Service Pool Account shall be charged for:
- (a) payment to seller for over injection as referred to in clause (1) of Regulation 8 of these regulations;
  - (b) payment to buyer for under drawal as referred to in clause (2) of Regulation 8 of these regulations;
  - (c) the full cost of despatched SRAS-Up including the variable charge or the energy charge or the compensation charge, as the case may be, for every time block on a regional basis as well as the incentive for SRAS, payable to the concerned SRAS Provider as referred in the Ancillary Services Regulations;
  - (d) the full cost towards TRAS-Up including the charges for the quantum cleared and despatched and the commitment charge for the quantum cleared but not despatched as referred in the Ancillary Services Regulations; and
  - (e) such other charges as may be notified by the Commission.
- (7) In case of deficit in the Deviation and Ancillary Service Pool Account of a region, surplus amount available in the Deviation and Ancillary Service Pool Accounts of other regions shall be used for settlement of payment under clause (6) of this Regulation:

Provided that in case the surplus amount in the Deviation and Ancillary Service Pool Accounts of all other regions is not sufficient to meet such deficit, the balance amount shall be recovered through the RLDC Fees and Charges.

#### **10. Schedule of Payment of charges for deviation**

- (1) The payment of charges for deviation shall have a high priority and the concerned regional entity shall pay the due amounts within 7 (seven) days of the issue of statement of charges for deviation by the Regional Power Committee, failing which late payment surcharge @ 0.04% shall be payable for each day of delay.
- (2) Any regional entity which at any time during the previous financial year fails to make payment of charges for deviation within the time specified in these regulations, shall be required to open a Letter of Credit (LC) equal to 110% of their average payable weekly liability for deviations in the previous financial year in favour of the concerned Regional Load Despatch Centre within a fortnight from the start of the current financial year.
- (3) In case of failure to pay into the Deviation and Ancillary Service Pool Account within 7 (seven) days from the date of issue of statement of charges for deviation, the Regional Load Despatch Centre shall be entitled to encash the LC of the concerned regional entity to the extent of the default and the concerned regional entity shall recoup the LC amount within 3 days.

#### **11. Power to Relax**

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of these regulations on its own motion or on an application made before it by the affected party.

#### **12. Power to Remove Difficulty**

If any difficulty arises in giving effect to these regulations, the Commission may on its own motion or on an application filed by any affected party, issue such practice directions as may be considered necessary in furtherance of the objective of these regulations.

**13. Repeal and Savings**

- (1) Save as otherwise provided in these regulations, the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 shall stand repealed from the date of commencement of these Regulations.
- (2) Notwithstanding such repeal, anything done or any action taken or purported to have been done or taken including any procedure, minutes, reports, confirmation or declaration of any instrument executed under the repealed regulations shall be deemed to have been done or taken under the relevant provisions of these regulations.
- (3) On commencement of these regulations, the Regional Deviation Pool Account Fund constituted under the repealed regulations shall be renamed as the Deviation and Ancillary Service Pool Account constituted under these regulations, and
  - (a) all sums of money credited to the Regional Deviation Pool Account Fund shall be deemed as credited to the Deviation and Ancillary Service Pool Account;
  - (b) all amounts due to and from the said Regional Deviation Pool Account Fund shall be deemed as being due to and from the Deviation and Ancillary Service Pool Account; and
  - (c) any reference to the Regional Deviation Pool Account Fund shall be construed as reference to the Deviation and Ancillary Service Pool Account.

SUSHANTA K. CHATTERJEE, Chief (Regulatory Affairs)

[ADVT.-III/4/Exty./701/2021-22]

## CENTRAL ELECTRICITY REGULATORY COMMISSION

### NEW DELHI

#### Coram:

**Shri P. K. Pujari, Chairperson**

**Shri I. S. Jha, Member**

**Shri Arun Goyal, Member**

**Shri P. K. Singh, Member**

**No. L-1/260/2021/CERC**

**Dated: 1<sup>st</sup> June, 2022**

**In the matter of Central Electricity Regulatory Commission (Deviation Settlement and Related Matters) Regulations, 2022 –Statement of Objects & Reasons (SOR) thereof.**

### STATEMENT OF REASONS

#### Introduction

- a) The Central Electricity Regulatory Commission (hereinafter referred to as the “CERC” or “the Commission”) initiated the process of notifying CERC (Deviation Settlement and Related Matters) Regulations, 2022 (hereinafter referred to as “the DSM Regulations 2022”) in exercise of powers conferred under Section 178 read with clauses (c) and (h) of sub-section (1) of Section 79 of the Electricity Act, 2003 (36 of 2003) (here in after referred to as the “the Act”) and all other powers enabling it in this behalf. On September 07, 2021, the Commission issued the Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021 (hereinafter referred to as the “Draft Regulations”) along with the Explanatory Memorandum for the same wherein the reasons and analysis relied upon

for framing the Draft Regulations were explained.

- b) **Comments/suggestions/objections** from the stakeholders and interested persons on the Draft Regulations were sought by October 08, 2021, which was extended till October 22, 2021 based on the request of stakeholders. In response, the Commission received submissions from eighty seven (87) stakeholders. The list of stakeholders is attached as **Annexure I** to this document. Subsequently, Public Hearing on the Draft Regulations was conducted on November 24, 2021 through video conferencing. The list of stakeholders who presented during the Public Hearing is attached as **Annexure II**.
- c) The Commission, complying with the provisions of the Act and the Electricity (Procedure for Previous Publication) Rules, 2005 proceeded to finalize the DSM Regulations 2022. The Commission considered the comments of the stakeholders on the Draft Regulations, views of the participants in the Public Hearing as well as their written submissions received during and after the Public Hearing. The Regulations have been finalized after due consideration of various issues raised. The analysis of the issues and findings of the Commission thereon are discussed in the subsequent paragraphs.
- d) On March 14, 2022, the Commission has notified the DSM Regulations 2022, keeping in view the mandate of the Act and the submissions of the stakeholders. However, the Commission will notify separately the date from which these Regulations will come into force.
- e) It may be noted that all the suggestions given by the stakeholders have been considered, and the Commission has attempted to elaborate all the suggestions as well as the Commission's decisions on each suggestion in the Statement of Reasons. However, in case any suggestion is not specifically elaborated, it does not mean that the same has not been considered. Wherever possible, the comments and suggestions have been summarised clause-wise, along with the Commission's analysis and ruling on the same. However, in some cases, due to overlapping of the issues/comments, two clauses have been combined in order to minimise repetition. The Commission has also made certain suo-motu consequential changes in order to ensure consistency among clauses.
- f) The main issues raised during the public consultation process, and the Commission's analysis and decisions on the issues, which underlie the Regulations as finally notified, are given in the subsequent paragraphs.

## 1. Short title and commencement

### 1.1. Short title and commencement [Regulation 1 (2)]

The Commission had proposed the following in Clause 2 of Regulation 1 of the Draft Regulations:

#### ***Commission's Proposal***

*(2) These regulations shall come into force on such date as may be notified by the Commission separately.*

#### **Comments received**

UPERC, IIT-K suggested that as the Ancillary Service (in short "AS") Regulations 2021 shall have a bearing on the DSM Regulations, the AS Regulations should be published first along with methodology and computations.

TSTRANSCO, APP requested to postpone the implementation of the draft Regulations till the full implementation/ maturity of the AS market as the introduction of draft Regulations would deprive the DSCOMS from the receivables of hundreds of crores for under drawal and would place penalty for over drawal which in turn will impact consumer tariff.

Various stakeholders (Adani Power (Mundra), APP, BASK Research and RE Connect) suggested a trial run period for 6 months after 1 year from the date of finalization of AS Regulations 2021 on various grounds including smooth transition of linking 'Normal Deviation Charges' to 'Weighted Average Ancillary Service Charges' methodology; development of better understanding of the market; deviation bands and energy settlement etc.

#### **Analysis and Decisions**

The Commission has gone through the suggestions made by various stakeholders. Some of the stakeholders have suggested to implement the AS regulations before finalising the draft Regulations, while others have suggested to postpone the implementation of draft Regulations till the full implementation/ maturity of the AS market. Some stakeholders also suggested to undertake trial run of the draft Regulations. The Commission reiterates that the provision enabling notification of the

date of effect of these regulations as decided by the Commission is aimed at ensuring that implementation aspects are duly taken care of, before bringing the regulations into effect. As such, no change is required in the clause regarding ‘Short title and commencement’.

## **2. Definitions and Interpretation**

### **2.1. Definition of Available Capacity (Regulation 3(1)(g))**

#### **Commission’s Proposal**

The Commission had proposed the following definition of Available Capacity in Regulation 3(1)(g) of the Draft Regulations:

*(g) ‘Available Capacity’ for power projects based on wind or solar which are regional entities, is the cumulative capacity rating of wind turbines or solar inverters that are capable of generating power in a given time block*

#### **Comments received**

PCKL suggested that the available capacity should be the cumulative capacity rating of the wind turbine or solar inverter or hybrid capable of generating power in a given time block.

Vector Green suggested that the definition should be broadened to include and align it with changing technologies such as hybrid Solar and Wind with or without storage.

#### **Analysis and Decisions**

The Commission has noted the suggestion(s) and made suitable change in the definition of “Available Capacity” in the final regulations (DSM Regulations 2022) to provide for wind or solar or hybrid of wind-solar resources.

### **2.2. Definition of Contract rate (Regulation 3(1)(j))**

#### **Commission’s Proposal**

The Commission had proposed the following definition of Contract rate in Regulation 3(1)(j) of the Draft DSM:

*(j) ‘Contract rate’ means the tariff for sale or purchase of power, as determined under Section 62 or adopted under Section 63 or approved under Section 86(1)(b) of the Act by the Appropriate Commission or the price as discovered in the Power Exchange, as the case may be.*

#### **Comments received**

Tata Power suggested to include price as indicated under Bilateral Power Purchase

Agreements, signed between Consumers (including group captive and captive consumers) and generators in the definition.

PCKL suggested to include the phrase “or the rate declared by the AS provider” in the definition.

### **Analysis and Decisions**

The Commission has gone through the comments and is of the view that the definition is adequate and needs no change. Bilateral contracts between discoms and generators are generally approved under section 86(1) (b) of the Act and hence covered under the definition. The cases where contract rates are not available (for instance, in respect of captive consumers, etc.) are also suitably dealt with, at appropriate places in the regulations. The suggestion relating to the ‘rate as declared by the AS provider’ is not relevant in the context of the definition of ‘contract rate.’

## **2.3. Definition of Renewable Rich State (Regulation 3(1)(t))**

### **Commission’s Proposal**

The Commission had proposed the following definition of Renewable Rich State in Regulation 3(1)(t) of the Draft Regulations:

*(t) ‘Renewable Rich State’ or ‘RE-rich State’ means a State whose combined installed capacity of solar and wind power projects under the control area of the State is 1,000 MW or more.*

### **Comments received**

SLDC (Gujarat) suggested to define ‘Rich RE States’ as the State with combined installed capacity of wind and solar projects to be above 10,000 MW and to define States with installed capacity between 1,000 MW and 10,000 MW as ‘Reasonable Rich RE state’ and that with less than 1,000 MW combined installed capacity as ‘Less RE penetration state’. IWPA suggested to differentiate between Renewable Rich State (1,000 MW and 10,000 MW installed capacity) and Renewable Super Rich state (more than 10,000 MW installed capacity) for differentiating the treatment of infirm power being handled by them. They contested that it would be a real discrimination if 1,000 MW of infirm power is treated in the same manner as 10,000 MW of infirm power as far as grid safety and stability is concerned.

Greenko Group suggested that a State should be termed as RE rich State only if 1000



MW and more of RE generation is connected with the transmission network of the State. This is because the RE generators connected with CTU may be selling power to other States and thus not contributing in the consumption of the State in which they are generated.

Jhabua Power suggested to define a State as RE rich if the RE installed capacity for the State is greater than 20% of its total installed capacity plus central sector drawal.

PCKL suggested to link the definition with an installed capacity of 5,000 MW or more in order to meet the goal of GoI to achieve 450 GW of renewable energy target by 2030. EAL – IIT(Kanpur) suggested to defined Renewable Rich with reference to the contracted capacity of variable renewable energy (VRE) by all entities connected to the ‘control area of the State’ as variability and uncertainty associated with the schedule of a State depends on the ‘contracts that it handles for consumption within the state.’

Prayas Energy Group suggested to link the definition of Renewable Rich State as a percentage (i.e. 10% or 20%) of the total installed capacity in the State. Mahindra

Susten suggested to link the definition to percentage of total consumption in previous financial year and hence it should be dynamic based on yearly basis.

HPSEBL suggested that States with installed capacity of hydro above a certain limit should also be classified as RE rich state.

PCKL suggested that states with installed capacity for WS power of 5000 MW or more should be termed as RE rich state.

### **Analysis and Decisions**

Various stakeholders have suggested that the definition of the RE rich State should be revisited. New categories such as ‘Reasonable Rich RE State’, RE super rich States etc. have been suggested depending upon the installed capacity of RE. Some of the stakeholders have suggested that the definition of RE should be made dynamic and should be linked to the percentage of installed capacity of the State or with reference

to the contracted capacity of VRE by all the entities connected to the 'control area of the State' to capture variability and uncertainty associated with the schedule of a State demand or with percentage of total consumption in previous financial year. It was also suggested to include hydro projects in the computation of RE installed capacity.

The Commission introduced the concept of RE rich states through the 3<sup>rd</sup> Amendment of the DSM Regulations, 2014 to enable such states to manage higher capacity of variable RE sources like wind and solar. However, the Commission had, in the SoR for the said Amendment Regulations, also highlighted the importance of better forecasting, scheduling and balancing capability for handling the intermittent nature of RE. To this end the Commission introduced the Framework on Forecasting, Scheduling and Deviation Settlement of Wind and Solar projects (regional entities) in 2015.

The Commission also laid the ground for the introduction of spinning reserves and ancillary services for the management of RE integration. The introduction of AS Regulations is a step towards operationalisation of market for reserves. The Commission is of the view that the introduction of AS framework and maintenance of reserves at the State level would help in better management of the grid in the wake of addition of infirm RE capacity in the system. The Real Time Market will also go a long way in managing the variability of RE.

The Commission would like to reiterate that these measures and not the relaxation of DSM band is the way forward for RE integration. However, to manage the transition to large scale penetration of infirm RE, the special dispensation for RE rich States has been provided. Further, given the fact that the country has set the target of RE capacity addition to the tune of 450 GW by 2030, most of the States having potential for RE would far outreach the threshold level of 1000 MW and as such, the Commission does not find any rationale behind further sub-categorisation of States based on different levels of RE penetration. The Commission would also like to clarify that the definition of RE rich State or for that matter the special dispensation for RE rich States, has been provided with due regard to the variability of these resources and as such the Commission is not inclined to consider any resource other than wind and solar for the purpose of definition of RE rich State.

Thus, the Commission feels there is no need for revisiting the definition of RE rich State.

#### **2.4. Definition of Run-of-River Generating Station (Regulation 3(1)(v))**

##### **Commission's Proposal**

The Commission had proposed the following definition of Run-of-River Generating Station in Regulation 3(1)(v) of the Draft Regulations:

*(v) 'Run-of-River Generating Station' or 'RoR generating station' means a hydro generating station which does not have upstream pondage.*

##### **Comments received**

AD Hydro suggested to include small hydro projects with pondage of about 3 hours as RoR projects as generation from such small hydro project is completely governed by the upstream projects and the impact of pondage is insignificant. It is thus suggested to include such projects under Wind and Solar or to introduce separate section for RoR projects having an immediate downstream project.

EAL (IIT- K) suggested to rename the RoR seller as "Constrained Dispatchable seller".

##### **Analysis and Decisions**

The Commission has examined the suggestions and would like to clarify that the definition of RoR generating station has been adopted from the CERC Regulations on Terms and Conditions of Tariff. Further, special dispensation has been carved out in the DSM Regulations for these generating stations with due regard to their constraints arising out of absence of upstream pondage. Accordingly, the Commission does not find any need for revisiting this definition or renaming this term.

#### **2.5. Definition of Area Clearing Price (Regulation 3(1)(f))**

##### **Commission's Proposal**

The Commission had proposed the following definition of 'Area Clearing Price' in Regulation 3(1) (f) of the Draft Regulations:

*(f) 'Area Clearing Price' or 'ACP' means the price of electricity contract for a*

*time-block transacted on a Power Exchange after considering all valid buy and sale bids in particular area(s) after market-splitting.*

#### **Comments received**

O2 Power suggested to link the ACP with in Real Time Market (RTM) or any other contract which is closeto the delivery.

#### **Analysis and Decisions**

The Commission is of the view that the definition of ACP is adequate and does not need any change. At appropriate places in the DSM Regulations 2022, the term ACP has been used with reference to DAM or RTM, as the case may be.

### **2.6. Definition of Seller (Regulation 3(1)(y))**

#### **Commission’s Proposal**

The Commission had proposed the following definition of Seller as proposed in Regulation 3(1) (y) of the Draft Regulations is extracted below:

*(y) “Seller” means a person, including a generating station, supplying electricity through a transaction scheduled in accordance with the Grid Code;*

#### **Comments received**

IWPA suggested to provide clarity whether “captive wind and solar generators” have been included under the definition of seller.

#### **Analysis and Decisions**

The Commission would like to clarify that as per the provisions of the Act read with the Electricity Rules, 2005, a power plant qualifies to be a captive generating plant if at least 51% of the electricity generated from the plant is consumed for the captive use. Beyond this limit of 51% of generation, the said captive generation plant can sell electricity like any other generating station. The definition of “Seller” in the DSM Regulations 2022 need be interpreted in the light of these provisions of the Act and the Rules.

## 2.7. Definition of General seller (Regulation 3(1)(m))

### Commission's Proposal

The Commission had proposed the following definition of "General seller" in Regulation 39(1) (m) of the Draft Regulations:

*(m) 'General seller' means a seller in case of a power project based on other than wind or solar resources.*

### Comments received

SRPC suggested to include, under the definition of General seller, the thermal generators participating under the scheme for Flexibility in Generation and Scheduling of Thermal Power Stations to reduce emissions as per MoP letter dated 05.04.2018 as these thermal generators may sell the solar generation from the plants being installed at their premises under STOA/PX.

EAL (IIT- K) suggested to rename General Seller as "Dispatchable seller"

PCKL suggested to redefine general seller as "a seller in case of a power project based on other than wind or solar resources or hybrid of wind and solar."

### Analysis and Decisions

The Commission noted the suggestions of the stakeholders and has decided to include the expression "hybrid of wind-solar" in the definition of General seller and has modified the definition accordingly in the final Regulations as under:-

*"(m) 'General seller' means a seller in case of a generating station based on other than wind or solar or hybrid of wind-solar resources;"*

However, the Commission is of the view that there is no need for re-naming the term "General Seller".

## 2.8. Definition of Buyer (Regulation 3(1)(h))

### Commission's Proposal

The Commission had proposed the following definition of Buyer in Regulation 3(1) (h) of the Draft Regulations:

*(h) 'Buyer' means a person purchasing electricity through a transaction*

*scheduled in accordance with the Grid Code.*

### **Comments received**

BRPL suggested to clarify whether buyer would include a Distribution Licensee or the SLDC.

### **Analysis and Decisions**

The Commission has examined the comments and is of the view that the definition of “Buyer” is amply clear. Buyer includes any person purchasing electricity as per the Act. SLDC does not engage in purchase and sale of electricity as per the Act.

## **2.9. Definition of WS seller (Regulation 3(1) (aa))**

### **Commission’s Proposal**

The Commission had proposed the following definition of WS seller in Regulation 3(1) (aa) of the Draft Regulations:

*(aa) ‘WS seller’ means a seller in case of a power project based on wind or solar energy.*

### **Comments received**

SRPC suggested to include, hybrid wind-solar projects under the definition of WS seller. EAL (IIT-K) suggested to rename the WS seller as “Non- Dispatchable Seller” and also suggested to provide clarity on the deviation charges applicable for hybrid projects (based on wind, solar and MSW).

PCKL suggested to redefine WS seller as ‘a seller in case of a power project based on wind or solar energy or hybrid of wind and solar.’

### **Analysis and Decisions**

The Commission has gone through the suggestions and is of the view that there is no need to re-name the term “WS Seller.” However, the Commission has accepted the suggestion of including the expression “hybrid of wind-solar resources”, and the definition has thus been modified as under:-

*”(bb) ‘WS seller’ means a seller in case of a generating station based on wind or solar or hybrid of wind-solar resources”*

## 2.10. Definition of Deviation (Regulation 3(1)(k))

### Commission's Proposal

The Commission had proposed the following definition of Deviation in Regulation 3(1) (k) of the Draft Regulations:

*(k) Deviation' in a time block for a seller of electricity means its total actual injection minus its total scheduled generation including the schedule for Ancillary Services; and for a buyer of electricity means its total actual drawal minus its total scheduled drawal including the schedule for Ancillary Services, and shall be computed as per Regulation 6 of these regulations;*

### Comments received

Adani Power, APP suggested that deviation due to grid disturbance should not be considered as deviation by the entity.

SRPC suggested to exclude the reference “including the schedule for Ancillary Service” in the definition of “Deviation” as the definition of “Scheduled Generation” & “Scheduled Drawal” have explicitly taken care of schedule for Ancillary Services.

### Analysis and Decisions

The Commission has analysed the suggestions of the stakeholders. Adani Power and APP suggested that deviation due to grid disturbance should not be considered as deviation by the entity. The Commission would like to clarify that grid disturbance is an exceptional situation and the treatment of schedule revision in case of grid disturbance is dealt with in the Grid Code. Deviation is computed with reference to schedule after factoring in the revision in schedule, if any, as per the provisions of the Grid Code.

SRPC has suggested to exclude the reference “including the schedule for Ancillary Service” in the definition of “Deviation”. The Commission has accepted the suggestion of the SRPC and has modified the definition of Deviation in the final Regulations as under:-

*“(k) 'Deviation' in a time block for a seller of electricity means its total actual injection minus its total scheduled generation; and for a buyer of electricity means its total actual drawal minus its total scheduled drawal, and shall be*

*computed as per Regulation 6 of these regulations;”*

## **2.11. Definition of Regional Entity**

### **Commission’s Proposal**

The Commission had proposed the definition of ‘Regional Entity’ in the draft Regulations as under:-

*‘Regional Entity’ means a person whose metering and energy accounting are done at the regional level by Regional Load Despatch Centre;*

### **Comments received**

UPCL suggested that definition of Regional Entity should be retained as per CERC (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations 2019.

### **Analysis and Decisions**

The Commission has examined the comment and would like to clarify that the definition of Regional Entity has been taken from the Grid Code and is in consonance with that in the CERC (Fees) and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019.

## **3. Scope**

### **3.1. Scope (Regulation 4)**

The Commission had proposed the following in Regulation 4 of the Draft Regulations:

#### **Commission’s Proposal**

*These regulations shall be applicable to all grid connected regional entities and other entities engaged in inter-State purchase and sale of electricity.*

#### **Comments received**

BRPL suggested to make effective the proposed Regulations after one year of implementation of AS Regulations.

APP, Azure Power, FICCI, APRAAVA Energy, Hero Future Group, Mytrah suggested that the proposed Regulations should be applied prospectively to new RE projects only as the existing RE projects have submitted their bids after working out a



threshold tariff considering penalties as per the existing DSM framework. If the existing projects are brought under the proposed Regulations there would a situation of policy uncertainty resulting from the breach of the doctrine of promissory estoppel and almost 60,000 MW of WS projects are going to be adversely impacted. Further, FICCI suggested that upcoming RE projects should be allowed to buy/sell power from power markets (using real time/ancillary markets) so as to correct their position on real time basis and to reduce the impact of deviations on grid and optimize their portfolio.

ERPC suggested to include the phrase “*and cross border*” after the word ‘purchase’ in the scope as Eastern Region is connected with other countries and Deviation Accounts are also issued for these cross-border transactions.

CEEW suggested to expedite the implementation of SAMAST to bring in uniformity and automation in energy accounting for successful implementation of these DSM regulations.

CEEW suggested to clarify the process of accounting for deviations of SRAS and TRAS providers who are connected to the ISTS because as per the Draft Regulations, the deviation accounting of such SRAS and TRAS providers shall be done by the RLDC but they are also subject to the state level deviation settlement regulations where accounting is done by the SLDCs.

DNS GL Energy suggested to introduce frequency linked DSM rates beyond IEGC range for SLDC also so they can also support during contingency.

IEX pointed out that the proposed mechanism will work properly only if there is enough deterrent in terms of higher deviation charges for the entities to not deviate from their schedule. The proposal to levy deviation charges at 110% of the normal rate may not act as a strong deterrent for the entities. The deviation charges should be at higher level, say at 150% -200% of the normal rate.

### **Analysis and Decisions**

The Commission has gone through the suggestions. Some of the stakeholders (APP,

Azure Power, FICCI, APRAAVA Energy, Hero Future Group, and Mytrah etc.) suggested that the proposed Regulations should be applied prospectively to the new RE projects only, else this will be against the doctrine of promissory estoppel. The Commission is of the view that this contention does not sustain as it does not apply against legislative action. The principles of estoppel cannot override the provisions of a statute or law. Where a statute imposes a duty by positive action, estoppel cannot prevent it. In the instant case, DSM is in the nature of a deterrent charge against violation of grid discipline and special dispensation in regard to payment of DSM charges cannot be claimed to be a promise or a right in perpetuity. Furthermore, by these regulations any substantive rights of the stakeholders are not getting infringed. The Regulations are subject to periodic change and the investors are expected to factor in these realities before making any investment.

CEEW suggested to clarify the process of accounting for deviations of ISTS connected SRAS and TRAS providers where accounting of such SRAS and TRAS services rendered shall be done by the RLDC but they, being connected by ISTS are subject to accounting done by the SLDCs. The Commission would like to clarify that these procedural aspects shall be suitably addressed in the detailed procedure of the nodal agency designated for Ancillary Services.

ERPC suggested to include the phrase “*and cross border*” after the word purchase in the scope. The Commission would like to clarify that the treatment of deviation in respect of cross-border transactions is already covered under clause (4) of Regulation 8 of the DSM Regulations 2022.

DNS GL Energy suggested to introduce frequency linked DSM rates beyond IEGC range for SLDC also so they can also support during contingency. CEEW suggested to expedite the implementation of SAMAST to bring in uniformity and automation in energy accounting for successful implementation of these DSM regulations. The Commission feels, these are under the jurisdiction of the State Commissions and the Commission has been sensitising the State Commissions through the Forum of Regulators, on the need for matching mechanism at the State level in the larger interest of grid security.

The Commission also feels that there must be a balance between the wrong doing and the penalty imposed against such wrong doing, and the Commission feels the deterrent charges stipulated under the DSM Regulations 2022 would be sufficient to ensure grid discipline.

#### **4. Adherence to Schedule and Deviation**

##### **4.1. Adherence to Schedule and Deviation (Regulation 5)**

The Commission had proposed the following under Regulation 5 of the Draft DSM:

##### **Commission's Proposal**

- (1) Every grid connected regional entity shall adhere to its schedule as per the Grid Code and shall not deviate from its schedule, thereby adversely affecting the secure and stable operation of the grid.
- (2) Any deviation shall be managed by the Load Despatch Centre as per the Ancillary Service Regulations, and the computation, charges and related matters in respect of such deviation shall be dealt with as per the following provisions of these regulations.

##### **Comments received**

NTPC submitted that “No Deviations” from the Scheduled Generation, is neither technically possible nor operationally feasible as inadvertent and natural deviations are part of operation of thermal power plants.

DVC suggested that there should be more clarity on areas covered under the AS Regulations and computation of various charges for entities like DVC which has an integrated business operation in power generation, transmission & distribution.

PGCIL requested that power allocation for HVDC sub-stations of POWERGRID may be exempted from proposed DSM Regulations and billing for HVDC sub-station may be considered based on actual consumption of electricity.

SLDC Odissa suggested that charges for under draw/ over injection at 50.10 and above should be continued.

Torrent Power suggested that the existing market price-linked mechanism for DSM should continue. Further, Ancillary service market should not be considered as a reference point for Normal Rate.

### **Analysis and Decisions**

The Commission has considered the submissions of the stakeholders. The Commission does share the understanding that it may not be technically or operationally feasible for the generators to ensure zero deviation all the time, and has accordingly made suitable provisions in the DSM Regulations 2022 to address this concern. However, the effort of all the grid connected entities should be to adhere to and not deviate from the schedule.

In the context of the comment of DVC, the Commission would to clarify that the status of DVC being an integrated entity is already defined in the Grid Code and its scheduling as a regional entity is also governed as per the provisions of the Grid Code. As such, deviation for DVC would be treated with reference to the schedule finalised as per the Grid Code.

As regards the comments of PGCIL in relation to its HVDC sub-stations, the Commission would like to reiterate that the requirement of consumption by these sub-stations has to be anticipated in advance and contractual arrangements for scheduled transaction should be entered into, to avoid reliance on the DSM for meeting such consumption requirement.

In reference to the suggestion of Odissa SLDC that charges for under drawl /over injection at 50.10 and above should be continued, the Commission would like to clarify that this suggestion no longer remains relevant in view of the fact that the DSM Regulations 2022 do away with the linkage of DSM Charges from the frequency.

Torrent Power suggested that Ancillary service market should not be considered as a reference point for Normal Rate, and instead the existing market price-linked mechanism for DSM should continue. In this context, the Commission would like to reiterate that the basic philosophy of the DSM Regulations 2022 is that all grid

connected entities shall adhere to their schedules and deviation, if any, shall be managed by the system operator through ancillary services and charges for such deviation shall be governed by the DSM Regulations. When the grid is managed by the operator through the deployment of Ancillary Services, it becomes incumbent on the operator to pay for the AS procured from the Deviation and Ancillary Service Pool Account. However, during the transition period the DSM charge is already linked to the market price.

## 5. Computation of Deviation

### 5.1. Computation of Deviation (Regulation 6)

The Commission had proposed the following under Regulation 6 of the Draft Regulations:

#### Commission's Proposal

(1) Deviation in a time block for general sellers shall be computed as follows:

$$\text{Deviation-general seller (in MWh)} = [(\text{Actual injection in MWh}) - (\text{Scheduled generation in MWh})].$$

$$\text{Deviation-general seller (in \%)} = 100 \times [(\text{Actual injection in MWh}) - (\text{Scheduled generation in MWh})] / [(\text{Scheduled generation in MWh})].$$

(2) Deviation in a time block for WS sellers shall be computed as follows:

$$\text{Deviation-WS seller (in MWh)} = [(\text{Actual Injection in MWh}) - (\text{Scheduled generation in MWh})].$$

$$\text{Deviation-WS seller (in \%)} = 100 \times [(\text{Actual Injection in MWh}) - (\text{Scheduled generation in MWh})] / [(\text{Available Capacity})]$$

(3) Deviation in a time block for buyers shall be computed as follows:

$$\text{Deviation- buyer (in MWh)} = [(\text{Actual drawal in MWh}) - (\text{Scheduled drawal in MWh})].$$

$$\text{Deviation- buyer (in \%)} = 100 \times [(\text{Actual drawal in MWh}) - (\text{Scheduled drawal in MWh})] / [(\text{Scheduled drawal in MWh})]$$

### **Comments received**

PXIL suggested to compute deviation in case of WS seller similar to a general seller.

TANTRANSCO, EAL (IIT-K), MSEDCL suggested to use scheduled generation instead of available capacity for the computation of Deviation - WS seller (in %) in order to give real picture of forecasting error.

Tata Power also suggested deviation caused due to transmission constrains should not be considered as deviation. Further, Tata Power, BALCO, Adani Power, NTPC suggested that deviation caused during Ramping up (synchronisation or else) and Ramping down should not be penalised.

CESC suggested to clarify that the unit of Available capacity is MWh where as India Grid Trust suggested it to be clarified as MW.

Enel Green Power, Vector Green Energy and IWPA (Norther Region) suggested that Pooling station concept should be adopted for forecasting and the QCAs should be responsible for forecasting on behalf of RE developers connected to a pooling station. Regional balancing will ensure better and efficient utilization of Wind and Solar technologies by allowing them a larger collective margin for deviation. Thus, the deviation for WS sellers should be computed on regional basis and the net deviation charges shall be apportioned among the WS sellers of respective regions.

Prayas suggested that the Commission should set a definitive timeline or a sunset clause (say March, 2023/24) by which all W-S generators will have to align their deviation accounting to their scheduled generation rather than their available capacity.

BASK Research indicated that term ‘buyer’ over archingly covers all buyers, including the distribution utilities and also the open access consumers. Considering the difference in volume and flexibility of adistribution utility and open access consumers, the deviations charges should be defined for both separately.

### **Analysis and Decisions**

The Commission has considered the suggestions of the stakeholders.

Some of the stakeholders have suggested to align the formula of deviation for WS seller with that of General seller or draw a sunset clause in this regard. The Commission would like to clarify that this formula (with Available Capacity instead of scheduled generation in the denominator) is based on the existing practice and has been retained in the DSM Regulations 2022 in due recognition of the uncertainty that still goes with wind and solar generation. Reference in this context is invited to the Statement of Reasons (SOR) of the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) (Second Amendment) Regulations, 2015 through which this formula of deviation was introduced. The relevant extract from the SOR is quoted below:

*“6.2.2 The Commission has noted that with the current definition, instances such as low/no generation cases cannot be covered. With due regard to these constraints and with a view to ensuring optimum and genuine forecasting, the Commission has decided to define the error percentage normalized to available capacity, instead of schedule. This will ensure that the error quantity corresponds to the physical MW impact on the grid, the forecasting models are aligned to minimize the actual MW deviations, and the error definition holds valid in all seasons. Revised definition shall be:  $Error(\%) = (Actual\ Generation - Scheduled\ Generation) / (Available\ Capacity) \times 100$  Where, Available Capacity (AvC) is the cumulative capacity rating of the wind turbines/ solar inverters that are capable of generating power in a given timeblock. A suitable procedure along with appropriate format shall be developed by the NLDC for the submission of Available Capacity by the wind/solar generators to the concerned RLDC.*

*6.2.3 AvC would be equal to the Installed Capacity, unless one or more turbines/inverters are under maintenance or shutdown. Any attempt at misdeclaration, that is declaration of capacity when it is actually not available due to reasons of maintenance or shutdown etc would be treated as gaming and would be liable to action under appropriate provisions of the Act or the Regulations.”*

The Commission believes, this rationale still holds good and any departure from this practice at this stage of development of RE sector would be counter-productive and might adversely affect RE integration. Further, from system operation point of view what matters is the MW deviation in a time block which is reflected in the numerator of the formula. It is expected that the wind and solar generators would be encouraged by this dispensation, improve forecasting and minimise the deviation in the numerator. Hence, the Commission has decided to retain the formula in the final regulations.

Tata Power has suggested that the deviation caused due to transmission constraints should not be considered as deviation. Further, some of the stakeholders suggested that deviation caused during Ramping up (synchronisation or else) and Ramping down should not be penalised. The Commission would like to clarify that the circumstances under which schedule can be revised, are specified in the Grid Code. Deviation under the DSM Regulations shall be computed with reference to the schedule or revised schedule finalised as per the Grid Code.

As regards the suggestion of aggregation through pooling station or QCA, the Commission would like to under score that this is a subject matter of the Grid Code and beyond the scope of the DSM Regulations.

## **6. Normal Rate of Charges for Deviations**

### **6.1. Normal Rate of Charges for Deviations (Regulation 7(1))**

#### **Commission's Proposal**

The Commission had proposed Normal Rate of Charges for Deviation in Regulation 7(1) of the Draft Regulations, as follows:

*“The Normal rate of charges for deviation for a time block shall be equal to the Weighted Average Ancillary Service Charge (in paise/ kWh) computed based on the total quantum of Ancillary Services deployed and the total charges payable to the Ancillary Service Providers for all the Regions for that time block.*

*Provided that for a period of one year from the date of effect of these regulations or such further period as may be notified by the Commission, the normal rate of charges for deviation for a time block shall be equal to the highest of [the weighted average*



*ACP of the Day Ahead Market segments of all the Power Exchanges; or the weighted average ACP of the Real Time Market segments of all the Power Exchanges; or the Weighted Average Ancillary Service Charge of all the regions] for that time block: Provided further that in case of non-availability of ACP for any time block on a given day, ACP for the corresponding time block of the last available day shall be considered."*

### **Comments received**

MSEDCL suggested that linking charges for deviation with RTM of all the markets will require implementation of better IT enabled services for informed decision making. Development of such services will require time and resources.

EAL (IIT-K), Jhabua Power suggested that the normal rate for charges for deviation should be linked to a product which is close to real time i.e. RTM and AS markets and not the DAM.

EAL (IIT-K) also suggested that in case of market splitting 'weighted average price' across all market areas/regions should be used for the calculation of normal rate of charges for deviation.

Tata Power suggested to use ACP of DAM only when ACP of AS is not available.

HPPC (Haryana), JITPL, Adani Power, Adhunik Power, Tata Power, Kreat Energy suggested to clarify and provide detailed illustration/calculation of "Weighted Average Ancillary Service Charge" and "Charges for Deviation" and "weighted average ancillary service charges of all the regions".

IEX suggested to clarify as to how normal rate of charges for deviation would be determined if no Ancillary Services are deployed during a time block or if due to lower demand in the system the System Operator issues TRAS down instructions and the Ancillary Service Provider pays to the Deviation and Ancillary Services pool, thereby leading to a situation where there is inflow rather than outflow from the DSM pool.

HPPC (Haryana), UPERC, BRPL, Greenko Group, Prayas, Penna Cement suggested to link normal rate of charges for deviation to the lowest of all the three segments (AS, DAM, RTM) for all the regions for that time block during the interim period because due to volatility, linking normal rate charges with highest of all the three segments will lead to exposure to higher cost.

Adhunik Power suggested to provide pre-defined charges of deviation.

Adani Power, APP, BALCO, MB Power, NLCIL suggested to define an agency and platform where daily block-wise ancillary service charges and Normal rate of charges for deviation are published in detail and in advance.

Dhariwal Infrastructure suggested that charges of deviation should be published prior to the start of the respective time block.

Some of the stakeholders (FICCI, SLDC Odisha, Adani Power, Azure Power, SRPC, TANTRANSCO, BALCO, Dhariwal Infrastructure, MPPGCL, Prayas etc.) suggested the charges for deviation should be equal to or be capped at

- a) percentage of the project tariff or the contract rate, or
- b) weighted average of all the regions of AS charges rate and RTM rate, or
- c) energy cost of the respective plants, or
- d) combination of the rates of all the PPA and the market discover rate through exchange, or
- e) the contract rate at which it has been paid based on schedule/ contract rate and in the absence of such rate at the rate of ACP of the DAM, or
- f) ACP of the DAM (i.e. existing DSM rate)

so as to provide certainty and visibility of penalty which they can take into consideration while bidding.

Some of the stakeholders (ISMA, HPPC, NLCIL, SRPC, ERPC, Balco, ISMA, HPPC, TANTRANSCO) suggested to put a cap on charges of deviation which should be

- a) equal to Rs 3.034/ kWh or as determined by the Commission, or

- b) equal to Rs 8/ kWh, or
- c) to provide different cap rates for buyer (Rs 8.00/ kWh) and seller (Rs 3.03/ kWh)

due to limited participation of the generators in AS market and highly volatile nature of the market where the price is driven primarily by the buyers, or due to supply demand mismatch, or due to coal shortage scenario.

Kreat Eenergy suggested that deviation charges applicable for a period of one year from effective date of regulation may have an upper capping.

UPERC, Greenko Group suggested that the normal rate of charges for deviation should be linked to “net” charges payable to AS providers and not to “total” charges payable to such providers as there may be a situation when charges are paid to AS provider for Up service in some regions while charges are paid by AS provider for down service in some other regions.

Advance publication for Charges for Deviation was also suggested by some other stakeholders (APP, WIPPA, NLCI, NTPL, BALCO).

Mr Asit Singh suggested that all the deviations of nuclear stations (which are not under ABT) should be settled by the beneficiaries with the pool based on share allocation % as per the available billing rates which will ensure net neutrality of nuclear station deviation’s for nuclear stations and for its beneficiaries and pool account.

CESC suggested to clarify whether in the absence of ACP of any of the three proposed segments on a particular day, the ACP for the corresponding time block of the last available day shall be considered.

CEEW suggested to have a dedicated public portal to track deviation and associated penalty across States, and also to provide a transition mechanism or fund that addresses the financial burden, especially for the stressed discoms.

M/S Deloitte suggested that the proposed framework may inadvertently result in

higher relaxation for WS Sellers at certain time periods, when the normal rate of charges of deviation are discovered to be relatively less.

Dhariwal Infrastructure suggested that linking charges for deviation with AS charges should not be implemented till the Market reflects a larger participation in the country.

NTPC pointed that Deviation Charges are designed to be a centralized concept i.e. same rate would apply to Deviations happening in all the Region, whereas the AS Mechanism is essentially a regional concept though procurement is proposed to be done at a centralized market. Hence it is not clear how the Regional Charges would be made applicable for Deviations happening across all the Regions.

PCKL suggested to use MCP instead of ACP as interregional rate.

PXIL suggested to include the following proviso *“Provided that in case of congestion in transmission corridor, market splitting shall be adopted. Provided further entities shall settle deviations at deviations charges considering market splitting even if such entities have not transacted during such time block where market splitting has occurred.”*

SLDC Gujarat, POSOCO and IIT-K suggested that the hybrid model for charge of DSM should be adopted. The charges for deviation should be frequency linked as well as the methodology proposed in the regulation. WBSEDCL suggested to review the frequency independent grid regulation.

UPPCL suggested that normal rate of charges for deviation should be equal to the least of all the prices discovered in order to decrease the financial hardship on DISCOMs.

TCCL commented that AS market has not matured enough and suggested to continue with the present methodology.

Torrent Power submitted that the existing mechanism should continue and suggested

that the normal rate of charges for deviation for the period of 1 year or further period as notified should be 'lower' of the weighted average ACP of the Day Ahead Market; or the weighted average ACP of the Real Time Market; or the Weighted Average Ancillary Service Charge for that time block.

WBSEDCL requested to postpone the implementation of the proposed DSM Regulation till the full implementation/maturity of the AS market.

WRPC suggested that "while considering the "Weighted Average Ancillary Service Charge", the ancillary services provided by the gas stations based on competitive gas, RLNG and Liquid Gas generation may be omitted, if the quantum of generation from these services is more than say, 30% of the total Ancillary Service quantum.

### **Analysis and Decisions**

The Commission has examined the suggestions made by the stakeholders. The suggestions received from UPERC and Greenko Group for normal rate of charges for deviation should be linked to "net" charges payable to AS providers and not on "total" charges payable to such providers has been noted and the Commission has accordingly modified the Regulation.

Some stakeholders have suggested that the DSM Charges should be designed on hybrid mode by combining the methodology of the proposed regulation and the frequency linked rate. Others suggested to view the decision of delinking DSM charge from frequency.

In this context, the Commission would like to reiterate that the aspect of, and the rationale behind delinking DSM Charges from frequency has been dealt with extensively in the Explanatory Memorandum to the draft Regulations. Here, the Commission would like to add that the country has already paid heavy price for indiscriminate unscheduled interchange induced by commercial considerations as is reflected in the Report on the Grid Disturbance on 30<sup>th</sup> July 2012 and Grid Disturbance on 31<sup>st</sup> July 2012 (submitted by CEO, POSOCO and CMD, CTU), the relevant extract is quoted below:

*"Para 2.10*

*Observations from the antecedent conditions*

*It may be seen from the data in the table and the enclosed exhibits that*

- *The **frequency and voltage** in the entire NEW grid were **within the standards** prescribed in the Indian Electricity Grid Code.*

....

- *There was **extremely heavy over-drawal** by the constituents of NR grid and **heavy under-drawal/ over-injection** by the constituents of WR.”*

The Report goes on to explain the causes and consequences of grid indiscipline. Relevant extract is quoted below:

*“Para 9.3*

*Grid indiscipline*

*The Regulations allow deviations from the schedule as long as the operating parameters are within the prescribed standards. There have been occasions when the utilities have continued to overdraw/ under inject even at low frequency or over generate/ under draw at high frequency. The various instances of grid indiscipline in the form of noncompliance of various provisions of the IEGC and the directions of RLDCs have been brought to the notice of the Hon’ble CERC in the form of petitions. The Hon’ble Commission has imposed penalties in large number of case. Yet the problem of grid indiscipline continues to be a large concern. On 30th July 2012 at 02:30 hrs, just before the disturbance the under drawal/over injection by the constituents of Western Region and the overdrawal by the constituents of Northern Region was as under:*

*The under drawal/over injection by the Western Region constituents and the over drawal by the Northern Region constituents continued despite several appeals and directions to restrict the deviation from schedule by the utilities indulging in grid indiscipline. Thus grid indiscipline was a major cause for both the grid disturbances. Grid discipline is of paramount importance and needs to be adhered to by all Users.”*

In fact, the report of the Enquiry Committee constituted under the Chairmanship of Chairperson, CEA had also emphasised on the need for phasing out frequency control

through Unscheduled Interchange (UI). The relevant extract is quoted below:

*“REPORT OF THE ENQUIRY COMMITTEE ON GRID DISTURBANCE IN NORTHERN REGION ON 30th July 2012 AND IN NORTHERN, EASTERN & NORTH-EASTERN REGION ON 31st JULY 2012*

*“Recommendations*

**9.2 Frequency Control through Generation reserves/Ancillary services**

*9.2.1 Frequency band needs to be further tightened and brought close to 50 Hz. POSOCO may file an urgency application in Supreme Court for early resolution of the issue in view of the recent grid disturbances. (Action: POSOCO Time Frame: 1 month)*

*9.2.2 A review of UI mechanism should be carried out in view of its impact on recent grid disturbances. **Frequency control through UI may be phased out in a time bound manner and Generation reserves/Ancillary services may be used for frequency control.** Appropriate regulatory mechanism needs to be put in place for this purpose. POSOCO should take up the matter with CERC. (Action: POSOCO Time Frame: 3 months)”*

Over the period, several developments have taken place. For instance, the Commission has introduced the AS Regulations which envisage that after the gate closure, the system operator shall take over and manage the system imbalances or deviations through deployment of ancillary services. It is also felt that the co-existence of centralised ancillary services and frequency linked DSM could be counter-productive. While ancillary services are deployed centrally by the system operator to restore and maintain system frequency closer to 50 Hz, the frequency linked DSM price is a decentralised tool of controlling frequency. Existence of both centralised mode of frequency regulation through Ancillary Services and decentralised mode of controlling frequency through frequencylinked DSM could lead to avoidable conflict in system operation. The Commission believes that frequency management should not be left to the market participants whose behaviour is driven by commercial consideration. The message through the DSM Regulations 2022 is that all grid connected entities should adhere to schedules and that deviations

should only be inadvertent to be managed by the system operator through deployment of Ancillary Services.

Some stakeholders have suggested that the normal rate for charges for deviation should be linked to a product which is close to real time (i.e. RTM and AS markets), while others have suggested AS still being at its infancy should not be the basis for determination of DSM Charge. Some others have suggested that the normal DSM rate should be linked to the lowest and not the highest of the market based charges.

The Commission would like to reiterate that a natural corollary to the philosophy that deviation is to be managed by the system operator through deployment of ancillary services, is that the charges for deviation should be such that the costs of deploying ancillary services are recovered. Accordingly, the normal rate of charges for deviation for a time block has been proposed to be equal to the Weighted Average Ancillary Service Charge (in paise/ kWh) computed based on the total quantum of Ancillary Services deployed and the total charges payable to the Ancillary Service Providers for all the Regions for that time block.

As the AS is deployed on real time basis to manage the imbalance in the grid, the suggestions of the stakeholders to link the DSM Charge to a product closer to real time will get addressed once this provision is rolled out. However, as the Ancillary Service framework is still in the development phase, the Commission has decided that for the transition period of at least one year from the date of effect of the DSM Regulations, 2022, the normal rate of charges for deviation for a time block shall be equal to the highest of the weighted average Area Clearing Price (ACP) of the Day Ahead Market segments of all the Power Exchanges; or the weighted average ACP of the Real Time Market segments of all the Power Exchanges; or the Weighted Average Ancillary Service Charge of all the regions. The rationale behind linkage to the highest of different market prices is to create deterrent and discourage the grid connected entities from resorting to DSM for meeting their energy need.

As regards the suggestion to provide detailed illustration/calculation of “Weighted Average Ancillary Service Charge”, “Charges for Deviation” and “weighted average ancillary service charges of all the regions”, the Nodal Agency shall provide necessary details and illustrations (including the treatment of cases when the ACP or



the AS rate for a particular time block is not available) in the detailed procedure under the DSM Regulations 2022.

Several stakeholders have suggested to define an agency and platform where daily block-wise ancillary service charges and Normal rate of charges for deviation are published in detail and in advance. At the outset, the Commission would like to state that ex-ante publication of DSM rate has the potential of inducing perverse incentive to lean on DSM in the event of DSM charge being lower than a contract rate. It can also create an opportunity of arbitrage between the DSM and other market based products. The Commission has emphasised time and again that the grid connected entities should adhere to and not deviate from schedule. As such, knowledge of DSM rate in advance might not be of any relevance for the grid connected entities so long as they adhere to this principle. However, the NLDC shall publish the normal rate of Charges for DSM in its website at regular intervals and at the earliest once all components of charges for a particular time block are available with it.

Various stakeholders have suggested to link or to cap the charges of deviation w.r.t. various rates or a fixed rate. The Commission feels that capping could also lead to perverse incentive for over-drawing from the grid in situations when the DSM rate because of capping is lower than the market price or the AS price. The DSM charge has been designed based on the principle that AS would be deployed to manage deviation and the costs towards deployment of AS would be recovered from the causers of deviation. As such, any cap imposed could also lead to under-recovery of such costs towards ancillary services. Accordingly, the Commission has decided not to accept the suggestion of any cap on DSM rate.

## **7. Charges for Deviations**

### **7.1. For a general seller other than an RoR generating station or a generating station based on municipal solid waste (Regulation 8 (1))**

The Commission had proposed the Charges for deviation in a time block payable by a general seller other than an RoR generating station or a generating station based on municipal solid waste seller, in Regulation 8(1) as under:

***“Deviation by way of over injection***

- (i) Zero up to 12% Deviation-general seller (in %);
- (ii) @ 10% of the normal rate of charges for deviation beyond 12% Deviation-general seller (in %)

***Deviation by way of under injection***

- (i) @ normal rate of charges for deviation up to 12% Deviation-general seller (in %);
- (ii) @ 110% of the normal rate of charges for deviation beyond 12% Deviation-general seller (in %).”

**Comments received**

Adani Power, APP, DVC suggested to review the prescribed deviation limit of 2% as any fall in grid frequency, generation from the unit should increase as per generator droop up to a maximum of 5% of the generation subject to a ceiling limit of 105% of the MCR of the unit having regard to machine capability as per clause 5.5(a) of the IEGC (5th amendment) regulations and also due to differences between meter readings of SCADA – SEM.

Mr Asit Singh suggested to provide a bandwidth of +/- 20 MW due to variation between SCADA (used for system operations accounting) and SEM (used for energy accounting) values.

NHDC, NHPC pointed out that under IEGC hydro generators are mandated to increase generation upto 110% of their MCR when the frequency falls below certain level. Further, the action of Governors would respond upto 110% of the rated load on reduction in grid frequency. Thus, the limit of 2% band width should be revisited.

Tata Power, Adani Power, BALCO, NTPC suggested that it is difficult to maintain exact zero deviation because of real-time coal quality (including wet coal during rainy seasons), periodical soot blowing and ambient parameter variation, mill changeover, etc. Due to the above indicated factors, Tata Power suggested not to introduce penalty for deviation in the range of +/- 2%.

JITPL suggested to provide a bandwidth of +/-20 MW with payment to generator for over injection and payment from the generator for under injection being at 3.034/

kWh under this bandwidth.

NTPC suggested to provide an operational margin of +/-3% with no deviation penalty. Further, under this bandwidth the generators should be paid for over injection or should be charged for under injection with ECR.

Adani suggested to extend the facility of scheduled revision to short-term generators on lines of long-term/medium-term PPA based generators, in case of partial generation on account of technical abnormality. They also suggested that in case unit trips from one station, an option of supplying power from the fleet should be allowed.

Dhariwal Infrastructure suggested to provide suitable cap rate for underinjection by generating station in case of unit tripping till the timeschedule is revised to zero.

NTPC, Kreate Energy suggested that penalty provisions may not be made applicable in case of Unit tripping.

It was also suggested by Adani Power that when the station/unit is under reserve shut down (RSD), any import may be net off with subsequent export, as RSD is proposed by LDC.

Adani Power suggested that in case of forced outage declaration, there should be no charges for deviation and revision in schedule should be allowed from the 2<sup>nd</sup> time block itself.

Tata Power, Adhunik Power suggested that in such cases the charges for deviation should be 50% of normal rate upto 6<sup>th</sup> time block.

BALCO suggested that the charges for deviation to be levied in case of forced outage should be determined as a combination of the rates of all the PPAs and the market discovered rate through exchange.

Torrent Power suggested there should not be any penalty to a seller for over injection beyond 2%. Since the proposed regulation has already provided for Zero recovery of

charges [as specified in subclause 8(1)(i)] for over injection by a general seller, such Zero charge itself is a sufficient deterrent for restricting any generator from over-injection.

Adani Power, Tata Power, MSPDC, Dhariwal Infrastructure, APP, Nabha Power, NTPC, NLCIL suggested that no penalty should be levied for variation on account of RGMO. Instead the generator should be compensated for over injection due to RGMO action. WBPDC suggested to relax the norms up to 5% in both the directions due to RGMO action.

Mr. ShivamPuri suggested to pay the deviation charges upto 5 % of deviation which is bound to occur by virtue of governor action. POSOCO suggested that due to RGMO there will be deviation which under the draft Regulations would result in penalty to the generators.

Tata power also suggested that over injection penalty should be linked to the PPA of the plant.

BALCO suggested that charges for deviation should not be levied on generators for over injection when gridfrequency is below 50 Hz. Further, over- injection due to FGMO there should an incentive and not any penalty. NLCIL, MSPDC also suggested not to penalise for deviation due to FGMO action. It was also suggested that the proposed provision (which provides only disincentive to the generators) is contrary to the ABT mechanism. Thus, the proposed bandwidth of 2% should be done away with.

MPPGCL suggested that considering metering errors and governor response the proposed deviation limit of 2% may be increased to 4%.

Indicating that due to high spot market prices, the impact of deviation would be much higher on the plants selling power under LTOA/ MTOA than on the plants selling power under market, Dhariwal Infrastructure suggested to cap the charges for deviation (both for over injection and under injection) at least for deviation upto 5%.

DNV GL Energy suggested that for non-dispatchable generators, both payable and receivables should have limits, up to which they are not penalised.

ERPC suggested that upto 12% over injection, charges for deviation should be zero and beyond this limit it may be kept at 10% of normal charges for deviations. ERPC also suggested that forced outage period due to Force Majeure events maybe excluded from the ambit of DSM penalty and the payment received by such generators during that period may be returned to Deviation and Ancillary Service Pool Account.

ERPC also suggested not to penalise generators for over injection when the grid frequency is low (49.80 Hz).

EAL (IIT-K) suggested to provide compensation to the generators at the normal rate of charges for deviation for over injection up to 2%.

Kreat Energy suggested that Deviation Percentage (%) should be gradually reduced after reviewing the performance for 1-2 years.

Jhabua Power, Adani, BALCO suggested that graded system with varying charges for deviation against each grade should be adopted with incentive for over injection.

MSPDCL also suggested that there should be multiple slabs applicable for deviation. Further, due to technical issues, which are quite frequent, the supply of gas by ONGC and others is not constant, which impacts the generation from gas units. Thus, the gas units should not be penalised for deviation in generation due to such variation in gas availability.

MB Power suggested to keep the deviation bandwidth at 10%. Further, in the event of simultaneous over-injection by a generating station and over drawl by a buyer, levy of deviation charges on both such generating station and buyer will result in unreasonable payment into the deviation charge pool account. Thus, till the maturity of the AS market certain incentives be allowed for the generators for over-injection in grid during low frequency and/or under-injection in grid during high frequency and these incentives may be phased out in a staggered manner.

MB Power also suggested that generators should not be penalized in case of deviation resulting from transmission line outage. Further, no deviation charges be levied on those generators who are not given Technical Minimum schedule by their beneficiaries, as in such case, the generator will have no option but to over inject for efficient operations of the generating station. It was also suggested that if the generating station/unit is under RSD, any import may be net off with subsequent export, and the generator should not be penalized for RSD auxiliary consumption in terms of deviation charges.

NTPC indicated that as per the laid down Procedures, the generator has an option to go for RSD whenever schedules are given below their technical minimum levels. But practically it is not possible as the stations are given low schedules only for a short period of time (few blocks) and the generator is expected to ramp up to higher schedules (many time full schedules) during other blocks. The station has to be kept on-bar to meet the peak demands. Thus, any deviations arising due to scheduling below Technical Minimum limits by beneficiaries need to be exempted for the purpose of DSM. It is submitted that while calculating the deviations in such cases, SG (Scheduled generation) should be taken as Technical Minimum for those blocks while calculating deviations.

NTPL suggested that blocks where the schedule ramp in preceding block was less than 0.5%/ min and for block where there is change in the direction of schedule ramp rate, the achievement of 50% ramping may be considered as no deviation.

NTPC also suggested that the generators which are under SCED have a varying schedule most of the time. These stations get the final schedule due to SCED optimization in just the last block before delivery block leaving them with no time to adjust themselves as per final schedule and to avoid deviation.

NHPC suggested to retain the provision of the existing Regulations pertaining to over injection by sellers. Further, calculation of deviation payable by the generators till 7<sup>th</sup> or 8<sup>th</sup> time block should also be retained as per the existing Regulations.

NTPL suggested that it is impossible to achieve scheduled generation and maintain AG/SG as 100% due to the intervention of NLDC under AGC scheduling under RLDC (i.e. RLDC scheduling in one direction and AGC scheduling in opposite direction), SCED scheduling, RRAS scheduling, and URS Power sales in RTM. Thus, for over- injection upto 2% generators should be paid at the previous month ECR. Further, under-injection upto 2% should be penalised at 100% of the normal rate of charges for deviation capped to previous month ECR and deviation beyond 2% should be penalised at 110% of normal rate of charges for deviation.

Sitapuram Power Limited stated that for generating stations below 50MW, the 2% deviation of over-injection is very low and requested to increase it to 10%.

Shree Cement suggested that the payment should be made to the generators based on normal rate of charges for deviation upto 2%. Penalty should not be imposed for over-injection beyond 2% of schedule as sometime it would not be in the hands of generators to operate below their technical minimum operation limit.

### **Analysis and Decisions**

Several suggestions have been received to increase the deviation limit upto 4% or 5% or +/- 20 MW due to variation between SCADA and SEM values, due to reason attributed to error in meter readings of SCADA and SEM.

The Commission reiterates that the SCADA-SEM mismatch etc. are operational issues and must be resolved at the earliest by the concerned stakeholders. Grid security cannot be compromised on account of inactions on such issues. The Commission is of the view that any mismatch between the SCADA and SEM meter data must be resolved in an appropriate manner by coordinating with the entities responsible for maintaining such infrastructure. It is expected that all stakeholders shall maintain accuracy of both SCADA and SEM data in the interest of secure and reliable grid operation. The Commission based on discussion with the experts feels that the bandwidth of 2% provided by the commission would be sufficient to take care of the SCADA-SEM mismatch.

NHDC and NHPC indicated that action of Governors would respond upto 110% of

rated load on reduction in grid frequency. Many stakeholders suggested providing a bandwidth of 5% with payment for over injection within this bandwidth due to RGMO/ FGMO actions or no levy of charges for deviation on generator for over injection when grid frequency is below 50 Hz. Some stakeholders suggested to provide a band width of 2% or 3% or 10% or +/- 20 MW, without penalty and with payment to generators for over injection within this band on account of technical challenges such as real-time coal quality (including wet coal during rainy seasons), periodical soot blowing and ambient parameter variation, mill changeover, etc. Some stakeholders suggested that over injection beyond 2% should not attract charges for deviation as no payment for over-injection is itself a sufficient penalty. NTPL suggested that it is impossible to maintain AG/SG as 100% due to the intervention of NLDC under AGC scheduling under RLDC (i.e. RLDC scheduling in one direction and AGC scheduling in opposite direction), SCED scheduling, RRAS scheduling, and URS Power sales in RTM. Thus, for over injection upto 2% generators should be paid at the previous month ECR. Further, under injection upto 2% should be penalised at 100% of the normal rate of charges for deviation capped to previous month ECR and deviation beyond 2% should be penalised at 110% of normal rate of charges for deviation.

It is important to note that the sellers (Other than those based on RoR, MSW and WS) have much better control over their generation. Therefore, they are expected to better manage their generation and stick to their schedule. However, there may be some deviation due to technical reasons beyond their control as made out by the generators, especially on account of FGMO/RGMO, primary response requirement, etc. Based on the suggestions of experts on the subject and comments of stakeholders the Commission has decided that no deviation charges shall be levied within band of +/- 2%. Further, within this band the generators would have to pay back to the Deviation and Ancillary service pool account for under injection or will get paid from the Pool Account, for over injection, as the case may be, based on the energy charge rate/reference charge rate as defined under these Regulations. This will not only address the technical constraints beyond the control of the generators but will also suitably compensate them for inadvertent over-injection.

Some stakeholders suggested to provide the facility of scheduled revision to short-



term generators in case of partial generation on account of technical abnormality, option for revision of schedule from two time blocks in case of forced outage, option of supplying power from other stations of the fleet in case of tripping of a unit, removal/ capping of penalty (Rs 3.034/ kWh/ 50% of normal rate/ combination of the rates of all the PPA and the market discover rate through exchange) in case of Unit tripping/ under injection in case of unit tripping till the time schedule is revised to zero.

The schedule revision to short-term generators is beyond the scope of present Regulations. Further, Unit tripping due to any reason is a forced outage condition and can be prevented with proper O&M/ R&M. Unit tripping would result in deployment of AS by the system operator which involves cost which must be recovered from those causing deployment of such ancillary services. Pertinently, the generator is paid based on schedule despite Unit tripping until the schedule is revised. So, it's a trade off between DSM Charge and Energy Charge and the generator has to factor this in while maintaining the generating station. In fact, on the demand side the discoms also face vagaries of load variation but are not exempted from payment of DSM Charge due to such variation. As such, the suggestion of the generators for a special dispensation to take care of the Unit tripping cannot be agreed to.

Some stakeholders suggested to introduce graded system with varying charges for deviation. The Commission has noted the suggestion and has provided in the final regulations a graded framework of DSM charge to discourage over-injection or under-injection.

Some stakeholders suggested that high spot market prices make the impact of deviation more profound on the plants selling power under LTOA/ MTOA than on the plants selling power under market. It was also suggested by some stakeholders that the Gas units should not be penalised for deviation in generation due to variation in gas availability. The Commission is of the view that the price at which a generator sells power is a commercial choice of that generator. The commercial arrangements of the generators cannot be given precedence over grid security. It is for the generators to make arrangements to mitigate the challenges arising out of their contractual issues. DSM Charges are meant to act as deterrent and cannot be

compared with or pegged at the contract rate under all circumstances.

Some stakeholders suggested not to levy Charges for Deviation on over injection by generators who are not given Technical Minimum schedule by their beneficiaries. Further, it was also suggested that if the generating station/unit is under RSD the generator should not be penalized, and any import may be net off with subsequent export. Some stakeholders suggested that while calculating the deviation in such cases, SG (Scheduled generation) should be taken as Technical Minimum for those blocks while calculating deviations.

The Commission has taken note of the issue. However, giving schedule or not is the contractual arrangement between the generator and the beneficiary which is outside the purview of the present Regulations. The contractual issues between the generator and the beneficiary cannot be a ground for allowing interference with grid instability. Further, the issue of netting of import with export will create a lot of undesirable accounting issues. The grid connected entities have the option of purchasing power from the Market or selling excess generation in the Market including RTM and AS Markets. They should use these platforms for managing their energy requirements rather than relying on the grid for meeting their needs.

## **7.2. For a general seller being an RoR generating station (Regulations 8 (1))**

7.2.1. The Commission had proposed Charges for deviation in a time block by a general seller being an RoR generating station in the draft Regulations as under:

### ***“Deviation by way of over injection***

*Zero*

### ***Deviation by way of under injection***

*(i) @ normal rate of charges for deviation up to 12% Deviation-general seller (in %);*

*(ii) @ 110% of the normal rate of charges for deviation beyond 12% Deviation-general seller (in %).@*

### **Comments received**

Tata Power suggested to either provide 48MW bandwidth for computation of deviation for RoR projects with schedule upto 400 MW due to dependence of such

plants on water flow, which may be uncontrollable or to provide such RoR generators the opportunity to correct their under injection position in RTM.

Abellon suggested that such generators should be paid for over injection above 2% also as the generation depends upon available discharge at real time and is beyond the control of the generators.

DNS Energy also suggested that as the over injection and under injection from hydro projects are due to various extraneous factors beyond the control of the generators, any over injection should be compensated and the charges for deviation for under injection should be capped at Rs 3/ kWh.

Greenko Group suggested that over injection upto 12% should be compensated at PPA rate/ contract rate and above 12% over injection the compensation should be 90% of the PPA/ contract rate.

DNS Energy suggested that all hydro projects should be treated as RE as the generation of hydro projects also depends on various extraneous factors (weather condition, generation pattern of upstream projects etc.) which are beyond the control of generators. Further, hydro projects have been classified as RE projects vid MoP notification 08.03.2019.

Abellon also suggested to remove the cap of 2% for over injection as the transmission losses vary due to loading by other participating entities and ambient conditions. FICCI suggested that the deviation limit of hydro plants should be the same as that of RE projects due to unpredictability of the water inflow in hydro projects.

NHPC suggested that such projects should be incentivised if over injection occurs due to increase in inflow as “Must Run” status has been provided by the CERC to such projects.

### **Analysis and Decisions**

Some of the stakeholders suggested for the removal of 2% band for over-injection while others suggested for providing 12% band for the RoR projects as their

generation depends on various external factors. Highlighting the classification of hydro projects as RE vide MoP notification 08.03.2019, some of the stakeholders suggested to provide treatment of hydro projects as RE projects and to provide “Must Run” status to such hydro projects. Some of the stakeholders also suggested to cap under injection by hydro projects to Rs 3/ unit and for providing compensation to such projects for over injection.

Under the clause (d) of Issue 2 of the SOR for Central Electricity Regulatory Commission (Deviation Settlement and Related Matters) (Fifth Amendment) Regulations 2019, the Commission has clarified that the recognition of large hydro as Renewable by the Ministry of Power was for a specific purpose, including for purchase obligation by the obligated entities. The Ministry of Power’s notification itself clarifies that large hydro projects would not be automatically eligible for various special dispensation available to the renewable projects. Further, the issue of Must Run status is beyond the scope of the DSM Regulations.

The Commission analysed the comments of the stakeholders in relation to the RoR projects and held discussion with the experts on the subject. Based on the analysis, the Commission has provided certain special dispensation, for instance a tolerance band of +/- 20%, to RoR projects with due consideration to the constrains of such projects.

### **7.3. For a general seller being a generating station based on municipal solid waste (Regulations 8 (1))**

7.3.1. The Commission had proposed Charges for deviation in a time block by a generating station based on municipal solid waste as under:

***“Deviation by way of over injection***

*Zero*

***Deviation by way of under injection***

*(i) Zero up to 20% Deviation-general seller (in %);*

*(ii) @ normal rate of charges for deviation beyond 20% Deviation-general seller (in %). limit.”*

#### **Comments received**

EAL (IIT-K) suggested to ensure that the charges for deviation for MSW based

projects in case of under-injection should not be zero.

Tata Power suggested refund of payment to the pool for the quantum of under-injection so as to avoid gaming.

Abellon suggested to allow the bandwidth to +/- 30% as has been suggested by CEA due to heterogenous nature of fuel and variation in the calorific value of the fuel.

Mr Asit Singh suggested to provide payments for over injection upto 20% from schedule.

CEA suggested that the deviation limit for levying zero deviation charge may be kept as 30% instead of 20% for an MSW project. Further, the same exemption should be extended to all types of Waste to Energy (WTE) Plants.

### **Analysis and Decisions**

EAL (IIT-K) suggested that the charges for deviation for MSW based project in case of under-injection should not be zero while Tata Power suggested refund of payment to the pool for the quantum of under injected energy so as to avoid gaming. On the other hand, CEA, Mr Asit Singh and Abellon suggested to allow the exemption band up to +/- 30%.

The Commission has examined the suggestions and is of the view that the generation from MSW generators is more uncertain than conventional generators due to heterogeneous nature of the fuel and other factors. Further, MSW projects contribute to environment protection by gainfully disposing the wastes. Hence such projects deserve special dispensation. However, grid stability is the responsibility of all the constituents of the grid. As such, the exemption band of +/- 20% as proposed in the draft Regulations has been retained in the final Regulations. But suitable provision has been made in the final Regulations to provide for pay in / pay out for under-injection / over-injection from MSW projects.

#### **7.4. For WS seller (Regulations 8 (1))**

7.4.1. The Commission had proposed Charges for deviation in a time block payable

by a WS seller as under:

***“Deviation by way of over injection***

*Zero*

***Deviation by way of under injection***

*(i) Zero up to 10% Deviation-WS seller (in %);*

*(ii) @ 10% of the normal rate of charges for deviation beyond 10% Deviation-WS seller (in %):*

*Provided that such seller shall pay back to the Deviation and Ancillary Service Pool Account for the total shortfall in energy against its schedule in any time block due to under injection, (a) at the contract rate at which it has been paid based on schedule, or (b) in the absence of a contract rate at the rate of the Area Clearing Price of the Day Ahead Market for the respective time block.”*

**Comments received**

EAL (IIT-K) suggested to ensure uniformity in charges of deviation between general sellers and RE based sellers. FICCI suggested to provide deviation limit of +/-15% to wind projects as the predictability of wind power is less than solar.

Tata Power suggested to pay the generators from the pool for over injected quantity of energy if they are mandated to return payment for the quantum of under injection.

Adani Power suggested that no payment for over injection would attract WS sellers to always over-schedule their power irrespective of DSM charge levied on them if the highest discovered weighted average ancillary service charge of ACP is less than PPA/contract rate and vice versa. Hence, over injection should be paid for. APP suggested to retain the provisions of the DSM Regulations 2014 for over injection and under-injection.

APRAAV Energy suggested to keep the existing band of +/- 15% as the deviation error within this band is accurate for about 85% to 90% of instances. However, if this band is reduced to 10% then the accuracy of deviation error would fall to about 60% thereby increasing the resultant penalties from currently 10%-15% (approx.) of instances to about 40% of instances. APP suggested to consider revision of the

bandwidth to 12% which help solar/wind generators to quickly adopt to this change without paying excessive penalty.

APRAAV Energy also suggested to provide payments to the generators for over injection as non-payment for overinjection would be akin to forced clipping of RE generation which will be a violation of must run status granted under Regulation 5.2 of the Indian Electricity Grid Code, 2010 (‘IEGC).

APRAAV also suggested the aggregation of WS forecasting and DSM mechanism at State/Regional level to iron out the vast RE resource variations between various RE projects.

Azure Power, FICCI suggested that the proposed DSM regulation would lead to penalty on overall revenue increasing from 0.5 - 0.6% to 4 - 4.5% considering Zero payment in case of over injection from schedule.

WIPPA, APP suggested that the impact of the proposed Regulation on the Top Line of the three wind sites it conducted study on will be from 5% to 7%.

BASK Research Foundation suggested to revisit the 10% exemption band and to bring it at par with global standards.

Hero Future Group suggested that at least +/-15% deviation limit be allowed for both Solar & Wind technologies till technological breakthrough is achieved for 100% forecasting for wind and solar sources of generation.

India Grid Trust, Mahindra susten, NTPC suggested to retain the 15% band for WS sellers. India Grid Trust, Mahindra susten further suggested that the generators should be paid for over injection at least upto a certain limit so that net tariff for Solar generators becomes revenueneutral.

NTPC suggested that over-injection and under- injection upto 15% band should be compensated at the contract rate and in the absence of contract rate at the ACP of DAM for that particular time block.

Enel Green Power suggested to compensate for over injection at Re 1.0/ kW h and the charges for deviation for under-injection beyond 10% should be 10% of the PPA rate/ Contract rate because the DAM rate for the months of August, September, and October hovered around Rs 5/ unit.

Greenko Group suggested that over-injection upto 12% should be compensated at PPA rate/ contract rate and above 12% over injection the compensation should be 90% of the PPA/ contract rate.

Kreat Energy indicated that studies conducted by their Team found that the error due to Weather forecast even from best weather forecasting organization has been in the range of 10%-12% for Solar and 13%-15% for wind. Even by deploying AI based algorithm for power module, the accuracy is still not achievable at the level of 95% for all the time blocks.

EAL (IIT-K) suggested that payment on the basis of scheduled energy for RE projects with relaxed deviation limits and limited penalty for deviation, provides ample incentive to generators to over schedule.

FICCI suggested to tighten the current band to get more discipline in the system, and for better grid stability and reliability but suggested to allow deviation band on both sides.

Hero Future Group, IWPA (Northern Region) suggested that WS generators should be allowed to buy/sell power from spot markets on real time basis to square up their position and avoid penalty on deviation.

IWPA (Northern Region) suggested that the deviation band should be increased to +/- 20% on both sides without any deviation charge. Further, for over injection generators should be compensated as per the existing regulations.

Manikaran Analytics suggested that no payment for over-injection would demotivate the WS sellers who have been accorded must run status and thus will motivate the generators to opt for over scheduling. Further, as under the Ancillary Service



Regulations 2015, the WS generators are exempted from participating as AS provider due to ramping constraints, the WS generators are left with no option for availing benefits for over injection. It was also submitted that implementation of the proposed Regulations would impact the revenue of the WS generators by upto 11.5% per annum.

Manikaran Analytics also suggested to retain the 15% band presently provided to WS sellers or at best be reduced by 1% or 2%.

PXIL suggested that with the introduction of Integrated DAM the Area Clearing Price of Renewable segment for that time block should be utilised for computing deviation charge for that time block for WS sellers.

Prayas suggested to remove incentive to over-schedule and under-inject for Wind and Solar generators by either tightening the under-injection error band (upto 8%) or providing a graded payment for over-injection like 50-75% of the fixed rate upto 10/15% over-injection and zero payment for >10/15% over-injection. Further, in the absence of a contract rate (for OA/CPP sellers), the payment into the pool by wind-solar generators for under-injection could be at the Green DAM ACP.

Mytra suggested that at one hand the Commission is proposing to reduce the deviation band from 15% to 10% for WS generators and on the other hand the real time revisions are limited to 16 per day. Thus, the Commission should waive off the restriction of number of revisions for WS generators so that they may adhere to the schedules.

IEX suggested that the process of attributing the deviation to different market segments and ascertaining the prices for different segments for calculation of the DSM Charges may be clarified as a RE Generator may be participating in different market segments (GDAM, DAM, GTAM and TAM) which may lead to discovery of different prices for different time blocks based on the nature of the product.

Some of the stakeholders (FICCI, WIPPA, Azure Power) suggested to link the charges for deviation of RE project to the their PPA tariff as it will place all the

projects at the same position when it comes to penalty.

Apraava Power indicated that with the linking of the deviation charge rate with the Market rate for RE power, the impact will be more profound on the RE generators selling power under PPA mode than on generators selling power in Market due to the difference in their per unit revenue.

Torrent Power suggested that under-injection quantum of WS generation may be paid to the pool at (a) 80% of normal rate of charges for deviation or (b) the weighted average PPA rate without additional penalty else pool should also pay at contract rate for additional energy injected in case of over-injection.

Vector Green Energy Pvt. Ltd. suggested that the WS seller should receive payment from the Deviation and Ancillary Service Pool Account for the total excess energy against its schedule in any time block due to over injection.

WIPPA suggested that graded system with varying charges for deviation against each grade should be adopted with incentive for over injection.

### **Analysis and Decisions**

The Commission has analysed the submission of the stakeholders. Several stakeholders have suggested that the existing exemption band of +/-15 % should be retained for the WS sellers. The Commission is of the view that implementation of the framework of forecasting, scheduling and Deviation settlement for wind and solar generation sources and the aggregation of wind/solar projects at the pooling station level have helped reduce the forecasting error over the period. This justifies reduction of the exemption band to +/- 10%.

As regards the suggestion of applicability of the reduced exemption band to the new projects only and continuation of the existing band of +/- 15% for the existing projects for their project viability, the Commission would like to reiterate that DSM is not a trading platform nor is it a mechanism that guarantees fixed revenue for any project. DSM is a deterrent mechanism and as such basing project viability on revenue from DSM cannot be considered a sound business decision. It's a common

knowledge that Regulations are subject to change periodically and it is expected that the project developers duly factor in these realities while conceptualising a project. Further, the forecasting techniques have been improving and aggregation of pooling stations is also becoming a norm. The benefits of these developments are equally available to the existing projects as well. As such, the Commission is not inclined to consider the suggestion of continuing with the exemption band of +/- 15% for the existing WS sellers while applying the reduced exemption band only for the new projects.

It would also be pertinent to mention in this context that a special dispensation has already been provided to the WS sellers in the formula for computation of deviation. As explained earlier, this method of deviation calculation already gives a lot of relief to the WS sellers. Another comfort extended to the WS sellers in the final Regulations is the provision for payment to such sellers in the event of over-injection. The Commission feels these provisions adequately balance the interests of the WS sellers as well as the host States, who have to manage the variability caused by such sellers. At the same time, this addresses the requirement of secure and stable grid operation.

## **8. Charges for Deviations**

### **8.1. Buyer (other than the buyer with schedule less than 400 MW and the RE-rich State) (Regulations 8 (2))**

The Commission proposed the Charges for deviation in a time block payable by a buyer (other than the buyer with schedule less than 400 MW and the RE-rich State) as under:

*“Deviation by way of under drawal*

*Zero*

*Deviation by way of over drawal*

*(i) @ normal rate of charges for deviation up to 12% Deviation-buyer (in %) or 150 MW Deviation-buyer (in MWh) in a time block, whichever is lower;*

*(ii) @ 110% of normal rate of charges for deviation beyond the above limit.”*

#### **Comments received**

Tata Power suggested to compensate the buyer for the quantum of underdrawal energy either at weighted average AS charges or cost of procurement of power.

BRPL suggested to cap for the under drawal to 12% just like cap on over drawal.

DVC informed that it is catering to many open access consumers like Indian Railways and JBVNL, which are of national importance and emergency load, which cannot be curtailed even if the over drawl is beyond permissible limits. Under the proposed DSM Regulations, these open access consumers have the liberty to overdraw power at a nominal cost i.e. 110% of normal charge of deviation which is much below the average cost of DVC pooled power. Thus, the charges of deviation, for these open access consumers, beyond 12% deviation should be 110% of Average Cost of Supply of the OpenAccess provider or ACP whichever is higher.

For the Discoms participating in AS market as service providers, during SRAS down, the Discoms would be over drawing, which will attract over drawal penalty. HPPC suggested to provide clarity on the applicable charges of deviation for the Discoms under such situations.

MSEDCL suggested that non-compensation to discoms for under drawal will encourage them to stay in over drawal mode, endangering the grid security. Further, Ancillary services may not be sufficient to support the requirement of grid. Hence, the under drawing discoms upto given limit, should also receive payment may be with reduced rate and this will also help to stabilize the grid.

MSEDCL suggested that high demand fluctuations due to seasonal variation may necessitate under drawal of power. Hence, deviation within a certain limit needs to be allowed for under drawal also.

UPPCL suggested that under drawl by a utility when supporting the grid should be considered as Ancillary Service and the drawee entity should be paid in case of under drawl from the pool. UPPCL also suggested for relaxation for States having scheduling more than 5000 MW. This is because such states have to deal with various variables.

WBSEDCL suggested to shorten the time between RTM auction and delivery of power from one hour to half hour immediately.

### **Analysis and Decisions**

Most of the stakeholders suggested for compensation for underdrawal on various grounds including, treatment of under drawal while supporting the grid, maintaining parity between under drawl and over drawal, demand fluctuation due to seasonal variation. They also argued that non-compensation for under drawal encourages buyers to stay in over drawal mode endangering the grid security. BRPL suggested to provide a cap of 12% in under drawal in line with over drawal.

MSEDCL suggested for compensation to drawing discomsupto given limit at a reduced rate while Tata Power suggested compensation for under drawal either at weighted average AS charges or cost of procurement of power. DVC suggested to raise the Charges for Deviation for the deviation caused by the entities of national importance (Indian Railways and JBVNL) which over draw from the DVC grid and urged linking the Charges for Deviation for such open access entities with higher of Average Cost of Supply of the Open Access provider or ACP.

WBSEDCL suggested to shorten the time between RTM auction and delivery of power from one hour to half hour. UPPCL also suggested for relaxation for states having schedule of more than 5000 MW.

The Commission has studied the submission of the stakeholders. Based on the suggestions of the stakeholders and discussion held with experts on the subject, the Commission has decided to provide a band of 10% for over drawal and under injection with specified pay in and pay out for such buying entities. However, the Commission has decided to increase the charges for over drawal beyond 10% in a graded manner, so as to infuse greater discipline amongst the drawee entities. It is expected that the DSM Charges so designed would encourage the drawee entities to invest more in scientific load forecasting techniques to ensure lesser deviation.

Further, the suggestion of the stakeholder to shorten the time between RTM auction and delivery of power from one hour to half hour is beyond the scope of these Regulations.

## 8.2. Buyer (being an RE Rich State) (Regulations 8 (2))

The Commission had proposed Charges for deviation in a time block payable by a buyer being an RE Rich State as under:

***“Deviation by way of under drawal***

*Zero*

***Deviation by way of over drawal***

*(i) @ normal rate of charges for deviation up to 12% Deviation-buyer (in %) or 250 MW Deviation-buyer (in MWh) in a time block, whichever is lower;*

*(ii) @110% of normal rate of charges for deviation beyond the above limit.”*

### **Comments received**

EAL (IIT-K) suggested that as most of the larger states may qualify as RE rich state, relevance of additional deviation limit for RE rich states would then no longer exist, and would need to be re-evaluated. Further, higher deviation limit would continue to dissuade investment in demand side management and economical energy storage

FIICI suggested to allow 15% deviation for under drawal by buyers as some discoms curtail RE when it comes to deciding between underdrawl and curtailing State gird connected RE projects.

Citing the situation of Gujarat which already has an installed capacity of 14,000 MW in the state, GUVNL suggested that states should be exempted from DSM charges to the extent of over drawal by the State on account of deviation by RE Sources. Alternatively, the applicable DSM charges should be made in line with the DSM charges applicable to RE generators for the deviation, to the extent of deviation made by RE generators from their schedule.

GUVNL also suggested that during the scenarios of heavy drawal by the State (when buy bid is 3 to 4 times the sell bids), the existing DSM Regulations may be made applicable for over drawal.

IWPA suggested to provide a deviation limit of 250 MW for both under and over drawal for “RE rich states” (with RE installed capacity between 1000 MW and 10,000MW) and a deviation limit of 500 MW for “RE Super rich states” (withan

installed capacity above 10,000 MW) in the absence of such limits the SLDCs will start curtailing the REpower, as experienced in the past.

Kreat energy suggested to enhance the deviation limit for buyer to 500 MW as the sudden cloud effect causes zigzag pattern in solar generation with variation of more than 400 MW, affecting the load pattern of RE rich states like Gujarat, Karnataka, Rajasthan, etc.

MSEDCL highlighted that due to high penetration of RE energy, the deviation limit provided for the state should be increased to 500 MW from the existing level of 250 MW.

SLDC Gujarat suggested that the limit for deviation for RE rich State having combined RE (Wind + Solar) capacity more than 10000 MW should be enhanced to  $\pm$  500 MW

### **Analysis and Decisions**

Most of the stakeholders suggested to increase the deviation limit of buyer to 500 MW due to higher penetration of RE energy and the associated uncertainty in RE generation. FICCI suggested allowing 15% of deviation for under drawal by buyers as some discoms curtail RE more to avoid under drawal. GUVNL suggested linking over drawal by the State with deviation in RE generation. GUVNL also suggested to implement the proposed DSM Regulations only under the scenarios of heavy drawal by the state i.e. when buy bid is 3 to 4 times the sell bids.

The Commission has studied the submissions of the stakeholders and is of the view that with reduction in the exemption band of deviation for WS sellers from the prevailing 15% to 10% and as a result of other measures towards grid integration of RE taken by the Commission, the deviation from RE generation is going to decrease substantially in future. Further, with the deployment of improved forecasting techniques and tools the Discoms would be able to make better forecast of their schedule. The deployment of improved forecasting tools by the buyers is also important so as to provide necessary support to the System Operator in managing the grid.

In view of the suggestions of the stakeholders, the Commission has reviewed the tolerance band for RE rich States and introduced in the final Regulations the provision of compensation for under drawal in a graded manner. However, to discourage deviations, the Commission has also decided to provide differentiated but higher rate of Charges for Deviation for over drawal. The Commission believes that this approach will balance the interests of the RE rich States as well RE generators while at the same time ensuring grid security.

## **9. Deviation Charges for infirm power**

**9.1.** The Commission proposed the charges for deviation for injection of infirm power in Regulation 8 (3) (a) of the draft Regulations as under:

*“The charges for deviation for injection of infirm power shall be zero.”*

### **Comments received**

Adani Power, BALCO, APP suggested to retain the provisions of the DSM Regulations 2014 w.r.t. the infirm power.

EAL (IIT-K) suggested that the duration of injection of infirm power be limited to two weeks in the case of RE and up to two months for thermal and hydro generating stations.

Greenko Group suggested to provide compensation for infirm injection at the PPA/ contract rate but to limit the duration for such benefit to the generator to 60 days prior to COD.

Greenko Group, NHDC, NHPC suggested that higher revenue realization and the excess recovery thereof would be accounted for reduction in the capital cost of the project. Thus, the existing provision pertaining to this section should be retained.

Kreat Energy suggested that the charges for deviation for infirm Power drawl to run the unit should be capped.

NTPC indicated that no payment of infirm power before commissioning would lead to capitalization of the entire fuel cost used during commissioning activities, thereby



pushing up the total capital cost of a project and increase the AFC burden on the beneficiary states. For an 800 MW plant impact on Normative FC could be around 6-8 Paise/Unit. Thus, the payment should be made for the infirm power injected into the grid from the Deviation and Ancillary Service Pool Account.

UPRVUNL suggested that charges for deviation for injection of infirm power should be equal to charges for deviation for drawl of start-up power before COD.

### **Analysis and Decisions**

Some of the stakeholders (Adani Power, BALCO, APP) suggested to retain the provisions of the DSM Regulations 2014 w.r.t. the infirm power, while others suggested to reduce the duration of injection of infirm power. Some of the stakeholders suggested to compensate infirm injection at the PPA/ contract rate or should be made equal to charges for deviation for drawl of start-up power before COD. while others suggested capping the rate of compensation. NTPC suggested that in the absence of compensation for infirm power, the entire fuel cost would be capitalised during commissioning activities, thereby pushing up the total capacity cost of a project and increase the AFC burden on the beneficiary States.

The Commission would like to emphasise that going forward, every grid connected entity is mandated to adhere to schedule. In such a scenario, injection of infirm power without corresponding buyer will lead to imbalance in the system. The basic message is that the generators should make necessary arrangements for scheduled transaction of their infirm power. The Commission is of the view that sufficient avenues are available for the generators to sell their infirm power in the market. Hence, the generators should explore those options rather than using grid as a market for injection and obtaining compensation. The revenue generated from the scheduled transaction of infirm power can be used to mitigate the burden of the beneficiaries of the generating station. As regards the duration for which infirm power can be injected, the Commission would like to clarify that this aspect is beyond the scope of the DSM Regulations.

## 10. Deviation Charges for start-up power

**10.1.** The Commission had proposed the charges for deviation for drawal of start-up power before COD of a generating unit or for drawal of power to run the auxiliaries during shut-down of a generating station, in Regulations 8 (3) (b) of the draft Regulations as under:

*“The charges for deviation for drawal of start-up power before COD of a generating unit or for drawal of power to run the auxiliaries during shut-down of a generating station shall be payable at the normal rate of charges for deviation.”*

### Comments received

Mahindra Susten suggested that start-up power for auxiliaries especially for solar may be charged at 90% of the contract rate because RE power especially solar technologies usually do not generate during night time when the requirement for start-up power/auxiliaries is required. So effectively schedule will always be zero which is inherent nature of technology. Thus, as a measure of equity and technology constraint, such charges may be linked to contract rate.

UPRVUNL suggested that the charges for deviation for drawal of start-up power before COD of a generating unit or for drawal of power to run the auxiliaries during shut-down of a generating station should be payable at the rate of energy charges or @ 40% of the normal rate of charges for deviation.

Tata Power suggested that for WS seller, charges for start-up power and drawal of power to run the auxiliaries during shutdown of a generating station should be payable at the PPA Tariff. O2 Power suggested that any consumption when WS seller is in consumer mode should be payable by the seller at the contract rate of Charges for Deviations.

BALCO suggested that the charges for deviation for start-up power should be exempted or capped at the same level as per the existing mechanism.

JITPL pointed out that any penalty applicable on deviation related to start up power should be at a reasonable rate to avoid unnecessary burden on the generator under such special cases.

Kreat Energy suggested that the charges for deviation for start-up power drawl to run the unit should be capped.

MPPKVCL suggested that generators may act as consumers when they require power for synchronisation purpose and for auxiliary consumptions during shut down. The supply and distribution of electricity to cater to the need of consumer is a regulated activity under the preview of State Commission. Accordingly, such power should not be charged under DSM but as per the Tariff Order issued by the respective Commissions. Thus, this section should be omitted from the proposed Regulations.

MPPGCL suggested that in the absence of provision for the generator to submit requisition for drawl of power (negative declaration) and for MP SLDC to schedule this drawl of power, the drawal of power by such unit should not be governed by the DSM Regulations. Accordingly, MPPGCL suggested that during normal operating conditions (since the frequency binding on seller and buyer are withdrawn in these draft Regulations), the treatment/ settlement/ adjustment for energy drawl by such generating station to meet its plant consumption undershutdown, be done by netting off the energy drawn by such generating station on monthly /annual basis with energy generated by that generating station and supplied to the contracted distribution licensee.

NTPL suggested that the charges for deviation should be capped to previous month's ECR.

### **Analysis and Decisions**

Some of the stakeholders suggested that Charges for Deviation for drawal of start-up power to be 50% of the contract rate while others suggested that start up power and auxiliaries for solar plants be charged at 90% of the contract rate especially for consumption by solar plants at night. It has also been suggested by some stakeholders to link the charges for deviation for start-up power and auxiliary by solar plants with their PPA rate. NTPL suggested capping the charges for deviation to previous month's ECR.

JITPL suggested that proper mechanism should be developed and communicated to RLDC/ SLDCs to ensure that approval/ permission for procurement of start-up power

is provided in a time bond way. MPPKVVCL suggested that the present provision should be deleted from the proposed Regulations as the consumption of power by generators being in consumer mode should be as per the Tariff Order issued by the respective state. MPPGCL suggested the treatment/ settlement/ adjustment for energy drawl by such generating station be done by netting off the energy drawn by such generating station on monthly/ annual basis with energy generated by that generating station and supplied by the contracted distribution licensee.

The Commission is of the view that the drawal of start-up power from the grid without schedule is not desirable. Drawal of (start-up or auxiliary) power from the grid without schedule would lead to system imbalances in the absence of corresponding level of generation in the system. The Commission is of the view that the generators have sufficient avenues of procuring power to meet their requirement of start-up power and auxiliary power including that during the night hours and they should explore these avenues to ensure scheduled transaction without affecting the grid. If they fail to do so, they would be subjected to deviation charge at the normal rate of charges for deviation.

## **11. Charges for inter-regional deviation and deviation in respect of cross-border transactions**

**11.1.** The Commission had proposed the charges for inter-regional deviation and for deviation in respect of cross-border transactions, in Regulations 8 (4) as under:

*“The charges for inter-regional deviation and for deviation in respect of cross-border transactions, caused by way of over-drawal or under-injection shall be payable at the normal rate of charges for deviation.”*

### **Comments received**

WBSEDCL sought clarity regarding the treatment of deviation of cross border sources with respect to the schedule at Indian boundary declared by Bhutan NLDC.

Statkraft suggested that there should be seamless applicability of the deviation charges as more distinctions may lead to more distractions or complications as our power system is complex.

### **Analysis and Decisions**

The Commission feels the provision is amply clear and adequate. Further detailing in regard to scheduling and accounting for deviation shall be stipulated by the NLDC/RLDC/RPC in the accounting procedure.

## **12. Accounting for Charges for Deviation and Ancillary Service Pool Account**

### **12.1. Regulation 9(1)**

#### **Commission's Proposal**

*(1) By every Thursday, the Regional Load Despatch Centres shall provide the data for deviation calculated as per Regulation 6 of these regulations, for the previous week ending on Sunday mid-night to the Secretariat of the respective Regional Power Committees.*

#### **Comments received**

SRPC suggested to modify the clause as indicated below:

*“(1) By every Thursday, the Regional Load Despatch Centers shall provide the implemented schedules of concerned regional entities and the actual net injection / drawal of concerned regional entities, blockwise, based on the Interface Energy Meter (IEM) readings along with the processed data of meters for the previous week ending on Sunday mid-night to the Secretariat of the respective Regional Power Committees.”*

ERPC suggested that this may be modified as below:

*“(1) By every Thursday, the Regional Load Despatch Centres / National Load Despatch Centres shall provide the data for deviation calculated as per Regulation 6 of these regulations, for the previous week ending on Sunday mid-night to the Secretariat of the respective Regional Power Committees.”*

ERPC suggested that NLDC being the Nodal Agency for the implementation of the Ancillary Service Regulations 2021 and for management of SRAS data, it may be included in the regulatory provision for SRAS data sharing with RPCs for timely computing DSM Accounts by RPC secretariat.

ERPC commented that an additional clause 9 (8) on the real time SCADA drawl data may be added.

### **Analysis and Decisions**

The Commission is of the view that the provision is adequate. Further detailing can be worked by the NLDC/RLDC/ RPC and suitably provided in the accounting procedure.

### **12.2. Regulation 9(2)**

#### **Commission's Proposal**

*(2) After receiving the data for deviation from the Regional Load Despatch Centre, the Secretariat of the Regional Power Committee shall prepare and issue the statement of charges for deviation prepared for the previous week, to all regional entities by ensuing Tuesday:*

*Provided that transaction-wise DSM accounting for intra-State entities shall not be carried out at the regional level.*

#### **Comments received**

SRPC suggested that the clause may be modified as below:

*“(2) After receiving the data for deviation from the Regional Load Despatch Centre, the Secretariat of the Regional Power Committee shall prepare and issue the statement of charges for deviation prepared for the previous week, to all regional entities by ensuing Tuesday.”*

### **Analysis and Decisions**

The Commission is of the view that the provision is adequate. Further detailing can be worked by the NLDC/ RLDC/ RPC and suitably provided in the accounting procedure.

### **12.3. Regulation 9(3)**

#### **Commission's Proposal**

*(3) Separate books of accounts shall be maintained for the principal component and interest component of charges for deviation by the Secretariat of the Regional Power Committees.*

**Comments received**

WRPC suggested that since the collection and disbursement of the charges of deviations is done by RLDCs, the responsibility of separate books of accounts for the principal component and interest component of charges for deviation be maintained by RLDCs. Further, WRPC suggested that these accounts shall be made available to all the regional entities on the web site of RLDCs and the information shall also be put up in the appropriate sub Committees/ Committee of RPCs.

**Analysis and Decisions**

The Commission is of the view that the provision is adequate. Further detailing including in terms of maintenance of books of accounts can be worked by the NLDC/ RLDC/ RPC and suitably provided in the accounting procedure.

**12.4. Regulation 9(5)****Commission's Proposal**

*“(5) The Deviation and Ancillary Service Pool Account shall receive credit for:  
(a) payments on account of charges for deviation referred to in Regulation 8 of these regulations:  
.....”*

**Comments received**

SRPC suggested that the clause may be modified as below:

*“(5) The Deviation and Ancillary Service Pool Account shall receive credit for:  
(a) payments on account of charges for deviation referred to in Regulation 8 of these regulations along with the late payment surcharge, if any.”*

SRPC also suggested that interest amount due to late payment surcharge @0.04%/day should also be credited to the Pool account.

**Analysis and Decisions**

The Commission has noted the suggestion of SRPC regarding late payment surcharge and suitably modified the provision in the final Regulations.

## 12.5. Regulation 9(7)

### Commission's Proposal

*(7) In case of deficit in the Deviation and Ancillary Service Pool Account of a region, surplus amount available in the Deviation and Ancillary Service Pool Accounts of other regions shall be used for settlement of payment under clause (6) of this Regulation:*

*Provided that in case the surplus amount in the Deviation and Ancillary Service Pool Accounts of all other regions is not sufficient to meet such deficit, the balance amount shall be recovered through the RLDC Fees and Charges.*

### Comments received

GUVNL suggested that it would not be prudent to recover the deficit in Deviation and Ancillary Service Pool Account from DISCOMs as such deviation/ deficit may not be attributable to DISCOMs.

Tata Power suggested that instead of recovering the deficit amount through RLDC Fees and Charges, the same may be recovered from the entity which has caused the Ancillary Services to be dispatched as the recovery of such deficit from RLDC Fees and Charges would unfairly burden the non-defaulting entities too. Instead, the causer pay principal should be followed.

It was also suggested to add new Clause below Clause 9 (7)

*“The surplus amount, if any in the Deviation and Ancillary Service Pool Accounts as on last day of the month, shall be transferred to "Power Systems Development Fund" specified by the Commission in the first week of the next month and shall be utilized, for the purpose specified by the Commission.”*

Tamil Nadu Transmission Corporation Ltd and Transmission Corporation of Telengana Limited suggested that Deviation and Ancillary Service Pool Account should be maintained only at regional level. Interlinking with other region and RLDC Fees and charges should not be done as this will discourage the disciplined and well planned region.



WBSEDCL and RPG Power Trading Company Ltd inquired about the treatment of surplus fund available in the Deviation and Ancillary Service Pool Account after settlement of payments. SLDC (Odissa) suggested that the surplus in the Pool Account should be disbursed between entities on weekly basis for specified reasons.

Adani Power highlighted that the draft regulation is silent on monthly billing mechanism/ payment flow and its adjustment toward DSM and suggested to lay down strict guidelines on payment defaulters.

### **Analysis and Decisions**

The Commission has examined the comments of the stakeholders and would like to reiterate that the surplus if any accumulated in any regional DSM pool cannot be viewed as money available to the participants in the concerned region. DSM is a deterrent mechanism and the charges paid by the grid connected entities are for violation of grid discipline and such entities cannot have any claim over surplus if any created in the DSM pool. Further, the provision of usage of surplus in one region to make good the deficit in another region is as per the present practice. The provision of the net deficit to be charged to the RLDC fees and charges is premised on the fact that there could be situations when the ancillary services have to be paid for despite having no deviation, for instance, payment of commitment charges for holding the AS capacity etc. As these charges to be paid for maintaining grid security, it is appropriate to socialise these costs through RLDC fees and charges. Therefore, the Commission does not find any reason for change in this clause.

## **13. Schedule of Payment of charges for deviation**

### **13.1. Regulation 10(1)**

#### ***Commission's Proposal***

*(1) The payment of charges for deviation shall have a high priority and the concerned regional entity shall pay the due amounts within 7 (seven) days of the issue of statement of charges for deviation by the Regional Power Committee, failing which late payment surcharge @0.04% shall be payable for each day of delay.*

#### **Comments received**

Some stakeholders commented that the time period allowed for the payment of

deviation charges should be 12 days as per the existing Regulations or 7 days (excluding public holidays) or 10 days or 14 days or 30 days with incentive of 1.5% for making payment within 5 days/ 1% for making payment after 5 days or 45 days with rebate 1.5% to 2% for making payment within one week.

Tata Power suggested that rate of late payment surcharge may be linked to SBI MCLR, while KPTCL suggested late payment surcharge should be fixed at @0.02%.

### **Analysis and Decisions**

Regarding rate of late payment surcharge, the Commission is of the view that there is no need for any change in this regard and hence the provision as proposed in the draft Regulations has been retained.

## **13.2. Regulation 10(2)**

### **Commission's Proposal**

*(2) Any regional entity which at any time during the previous financial year fails to make payment of charges for deviation within the time specified in these regulations, shall be required to open a Letter of Credit (LC) equal to 110% of their average payable weekly liability for deviations in the previous financial year in favour of the concerned Regional Load Despatch Centre within a fortnight from the start of the current financial year.*

### **Comments received**

POSOCO suggested that the extant DSM regulation allows a deviation volume limit of 12% for overdrawing buyers. Accordingly, the new regional entity buyers may be advised to open Letter of Credit (LC)/ Bank Guarantee (BG) equivalent to the energy charge corresponding to for 12% of their contacted capacity/ installed capacity. Further, the LCs must be made unconditional, revolving and irrevocable so that RLDCs can encash them whenever the default continues beyond a defined period in case of default in payment of weekly DSM charges by such entities.

Adani Power suggested that if any regional entity fails to make payment of Charges for Deviation including Additional Charges for Deviation by the time specified in these regulations during the current fiscal year, it should be required to open an LC

equal to 110% of weekly outstanding liability in favour of RLDC within a fortnight from the due date of payment.

SLDC (Gujarat) suggested that LC should be equal to 200% of their average payable weekly liability for deviations in the previous financial year because the LC amount may not be sufficient in case of continuous default to make payment of charges for deviation within the time specified in these regulations.

### **Analysis and Decisions**

The Commission is of the view that the provision is adequate and takes care of the deterrence sought to be enforced in payment of DSM charges by the entities liable to pay such charges. Hence, no change is warranted in this clause.

### **13.3. Regulation 10(3)**

#### **Commission's Proposal**

*(3) In case of failure to pay into the Deviation and Ancillary Service Pool Account within 7 (seven) days from the date of issue of statement of charges for deviation, the Regional Load Despatch Centre shall be entitled to encash the LC of the concerned regional entity to the extent of the default and the concerned regional entity shall recoup the LC amount within 3 days.*

#### **Comments received**

SLDC (Gujarat) suggested to continue the Regulation 10 (5) of (Deviation Settlement Mechanism and related matters) Regulations, 2014 w.r.t. proposed 10 (3) regulation.

### **Analysis and Decisions**

The Commission is of the view that the provision is adequate and takes care of the deterrence sought to be enforced in payment of DSM charges by the entities liable to pay such charges. Hence, no change is warranted in this clause.

### **13.4. Other suggestions**

There were some suggestions from the stakeholders which were not specific to any Regulation of the Draft Regulations. However, the Commission has studied these comments also and has provided its analysis and Decisions on the same.

**1) Suggestion 1:**

Tata Power suggested to:

- a. allow Discoms to be DR providers and to compensate the Discoms for this service at AS charges.
- b. reduce the timelines for real time market, so that entities may trade and correct their positions at real time.
- c. SERCs may also be asked to notify Deviation Settlement Regulations which are consistent with the CERC DSM Regulations and CERC Ancillary Service Regulations.
- d. the Hon'ble Commission may also notify Regulations related to creation of Spinning Reserves in the system.
- e. right to withhold the payment in case of dispute.

**Analysis and Decision**

The Commission is of the view that these suggestions are beyond the scope of the DSM Regulations.

**2) Suggestion 2:**

Tata Power suggested that energy supplied by from RE generators eligible for RPO/HPO under SRAS-Up and TRAS-Up, should get accounted for RPO & HPO of the concerned DISCOM which is overdrawing the power.

**Analysis and Decision**

The Commission is of the view that these suggestions are beyond the scope of the DSM Regulations.

**3) Suggestion 3:**

Mr Asit Singh suggested that till the Intra-state SRAS/TRAS is implemented in the States, differential/controlled/regulated payment for over injection/ under drawl can be considered with strict volume limits to avail the reserves from states/ sellers for which they have margins and to avoid the inherent deficit Load Generation Balance.

**Analysis and Decision**

The Commission would like to reiterate that DSM mechanism cannot be used to meet the reserves requirement. The Commission has already detailed out the road map for

reserves and States are expected to take steps with or without a formal regulation to maintain reserves.

**4) Suggestion 4:**

Enel Green Power has stated that the current restriction of allowing only 16 revisions per day as per IEGC to RE generators should be removed and suitable amendments may be introduced in IEGC.

**Analysis and Decision**

The Commission is of the view that this suggestion is beyond the scope of the DSM Regulations.

**5) Suggestion 5:**

Greenko Group suggested that towards the RPO compliance obligation of the buyers with respect to schedule, deviations by all wind and solar generators which are regional entities should first be netted off for the entire pool on a monthly basis and any remaining shortfall in renewable energy generation must be balanced through purchase of equivalent solar and non-solar Renewable Energy Certificates (RECs), as the case may be, by NLDC by utilising funds from the Pool Account.

IEX suggested that this mechanism is necessary to enable claiming of RPO on the basis of schedule energy.

**Analysis and Decision**

The Commission feels that RPO compliance is the obligation of the buying entities. Going forward, it is expected that the obligated entities and the concerned SERCs shall evolve mechanism to account for RPO compliance in cases where payment is made based on scheduled energy.

**6) Suggestion 6:**

HPPC suggested that definition of “Time block” should not be altered to implement time block of 5 minutes from the existing 15 minutes. This is because the SRAS provider mentioned in the draft Ancillary Regulation, becomes operational after 30 seconds and sustains up to 15 minutes. Hence, 5 minutes time block would require the generators to have a very high ramp rate (MW/Min) which is not feasible at present.

### **Analysis and Decision**

This suggestion of the stakeholder is beyond the scope of these Regulations.

#### **7) Suggestion 7:**

Kreat Energy and MSEDCL suggested that deviation settlement mechanism linked with frequency is a must for grid stability. MSPGCL suggested that it is too early for payment to be delinked from frequency as AS market is not mature enough. MSEDCL suggested that regional entities shall be benefitted for maintaining grid frequency in real time operations which in turn would encourage regional entities to ensure grid frequency within the desired band at all times. On the other hand, Prayas termed the effort to move to a centralised mode of frequency regulation through Ancillary Services rather than continuing with the existing decentralised frequency linked DSM framework, as a necessary and logical move going ahead.

Nabha Power suggested that before the Regulations are notified, the Commission must mandate GPS based metering for accounting of energy for all LDCs to ensure accurate computing of Deviations and elimination of prevalent meter drift errors.

### **Analysis and Decision**

In the Explanatory Memorandum to the draft Regulations, the Commission has clearly indicated the reasons for delinking of the DSM from frequency. The reasons provided are indicated below:

- 1) In the absence of large frequency excursions as at present, there hardly remains any scope for frequency linked price arbitrage. Therefore, the system frequency is no longer an indicator of generation being short or surplus, and there exists no longer any link between the system marginal price and frequency.
- 2) Introduction of ancillary services has made linkage of DSM rate to frequency redundant. In fact, co-existence of ancillary services and frequency linked DSM could be counter-productive. Ancillary services are deployed centrally by the system operator to restore and maintain system frequency closer to 50 Hz. On the other hand, the frequency linked DSM rate is a decentralised tool of controlling frequency. Existence of both centralised mode of frequency regulation through Ancillary Services and

decentralised mode of controlling frequency through frequency linked DSM could lead to avoidable conflict in system operation.

- 3) Another fallout of linkage of frequency to DSM rate is the perverse tendency of the Discoms to deviate from the schedule, especially during high frequency conditions. In view of the prevailing stability in grid operation and frequency and consequent DSM rate being predictable, the drawee entities can choose to deviate during high frequency hours as DSM rates are low or zero at those times.

In view of the above, the Commission does not find any cause of concern for delinking of DSM with frequency.

As regards the suggestion of energy accounting based GPS based meters, the Commission would like to emphasise that it would be an added advantage as it would decrease the efforts in data collection and compilation. However, energy accounting is not dependent on the implementation of GPS based metering system.

#### **8) Suggestion 8:**

Some stakeholders suggested that the DSM Charges for co-generation should be same, as applicable to a generating station based on municipal solid waste. It was also suggested that proposed DSM Charges are impractical for small sellers such as captive generators, co-generators, and other generators selling surplus power to the grid as per open access regulations. For example, a small generator, exporting surplus power up to 25 MW to the grid, for them 2% deviation from schedule is merely 500 KW (maximum). Such small deviation, which could be due to various operational / technical constraints, meter related issues etc. will not affect grid stability significantly. Thus, for such small generators deviation up to 1 MW or 20% from the schedule, whichever is higher, with zero Charges for Deviation should be allowed.

#### **Analysis and Decision:**

The Commission would like to reiterate that the grid connected entities are expected to follow their schedule. Seen from an individual buyer or seller point of view, the size of deviation might appear small, but from the system point of view the deviations could assume larger proportion if several such small buyers and sellers start resorting

to deviation. As such, the Commission is not inclined to consider this suggestion.

### **Suggestions from POSOCO:**

#### **9) Suggestion 9:**

Implementation of Scheduling, Accounting, Metering and Settlement of Transactions (SAMAST) in Electricity in the States has been taken up by the Technical Committee of the Forum of Regulators. Delinking of DSM from frequency, being proposed in the draft Regulations, would lead to confusion and further delays in implementation for intra-state ABT.

#### **Analysis and Decision**

Regulation making is an evolving process, and the Commission hopes the Forum of Regulators and its Committees would take note of the developments at the Centre and formulate a complementary AS and DSM framework for the States.

#### **10) Suggestion 10:**

For the past few years, on an average, Ancillary Service ‘Down’ is given for 33–45 time-blocks in a day. Therefore, there would be complex issues with pricing of deviation linked with Ancillary Services despatch as in some time blocks in a day when Ancillary Service “Up” may not be required to be deployed or only “Down” may have been deployed. Further, it would be limited to a particular set of generators which would not represent the true marginal cost.

#### **Analysis and Decision**

The Commission would like to clarify that the new Ancillary Service framework has opened the door for all types of resources, including for energy storage and demand response. As such, the argument that the AS would be limited to a particular set of generators is not correct. All ancillary services deployed will have to be accounted and paid for/to. Accordingly, the Commission does not envisage any problem in linking DSM price to AS price. In any case, the DSM Regulations 2022 have already provided for a transition period before the DSM price is linked to AS price and it is expected that NLDC as the nodal agency would take necessary steps to resolve implementation challenges if any.



**11) Suggestion 11:**

In the short-term markets such as day-ahead and real time, bids don't factor in the ramping constraints as it is assumed that it would be implicitly factored by the bidding entity. It has been observed that due to non-clearing of short-term trades in day-ahead and real time markets, there is excessive leaning on the grid by the entities. It results in sudden change in schedules leading to huge deviations of grid entities. Hence, factoring of ramping constraints in the short-term market bidding along with focus on ramping reserves needs to be there. These drawbacks have to be removed through provisions in the Grid Code with respect to scheduling. Delinking the frequency component in DSM without adequate provisions in the former would create insecure conditions.

**Analysis and Decision**

While the Commission appreciates the need for a framework to take care of the ramping constraints, it is difficult to comprehend how linkage of DSM charge to frequency would help address this problem, especially when the message that DSM is not a trading platform is loud and clear. Whether in the short-term market or in the scheduling framework under long-term or medium-term contracts, the generator has to give schedule based on its ramping capability and failure to adhere to schedule due to the ramping constraints which it could not anticipate, would make it liable for payment of DSM charges. Nonetheless, the Commission is already engaged in finalising the revised Grid Code and would address the issues regarding ramping capability while underscoring the need for honouring the same.

**12) Suggestion 12:**

For the period of January 2020 - October 2021, in around 9.7 % of time blocks, frequency remained above 50.05 Hz. There are even some days when more than 45 % of the time, frequency remained above 50.05 Hz. There could be aspects of gaming involved too if the deviation charge for over-injection/under drawal would be made zero. In the absence of any price signal linked with frequency and in the scenario of shortfall in procurement of 'Down' Ancillary services by Nodal Agency, it would be detrimental to grid security. Further, zero deviation charge payable for under-drawals would lead to a sharp increase in Renewable Energy curtailment from commercial considerations alone rather than technical reason. Hence, deviation in any direction by

all grid entities must be priced at all times in the interest of grid security. Any Under Drawal/ Over Injection above 50.10 Hz and for Over Drawal/ Under-Injection below 49.90 Hz, additional charges for deviation would need to be considered.

### **Analysis and Decision**

The Commission would once again like to reiterate that frequency management is the responsibility of the system operator and going forward, the Commission would expect the NLDC/RLDC to estimate the requirement for, and procure the ancillary services in advance which it can deploy to maintain frequency close to 50 Hz. As regards the suggestion of compensation for over injection and under drawal, the Commission has already addressed this issue in the final Regulations.

#### **13) Suggestion 13:**

As per CERC Order in Petition 142/MP/2012, RLDCs may invoke Regulation 25A of Open Access Regulations and deny open access to such entities whenever they wilfully and persistently default in payment of regulatory charges including DSM charges. As per the said Order such default trigger date is defined as 90 days from the due date of payment. Consequently, the defaulting regional entities are taking advantage of the 90 days default trigger date provision for initiating the regulatory measures by RLDCs and wilfully delaying in payment of weekly DSM charges to 30-40 days. Thus, by making payments after 30-40 days, these entities are avoiding to get regulated by RLDCs and continuing with the same cycle for each weekly DSM account. Further, RLDC can invoke this clause (25A of Open Access Regulations) only to stop STOA transactions and not the LTA & MTOA transactions. It may be appreciated that the amount of weekly deviation charges is very less when compared with the payable generation and transmission charges. Accordingly, to address this issue of persistent delay/default in DSM charge payment, it is suggested that if any regional entity defaults the DSM payments for a long period (i.e. beyond 30 days), RLDCs shall curtail/ restrict their schedules (LTA/ MTOA/ STOA) in a graded fashion say 25% restriction for first week of default, followed by 50% the next week and so on

### **Analysis and Decision**

The Commission appreciates the concern of POSOCO in this context but is of the view that the suggestion of curtailment of schedules is beyond the scope of the DSM Regulations.

#### **14) Suggestion 14:**

Deterministic imbalances, such as schedule leaps at hourly boundaries in Indian case, could be efficiently targeted by passive balancing. In India, there is need for hybrid approach of distributed passive balancing (through frequency linked DSM) as back-up to integrated active balancing by LDCs.

### **Analysis and Decision**

The Commission would like to reiterate that the line of demarcation between passive balancing to help the grid and the deliberate imbalance causation driven by commercial considerations to earn through frequency-linked-DSM, is very thin, as has been highlighted in the preceding paras (reference Reports on the Grid Disturbance on 30<sup>th</sup> July 2012 and Grid Disturbance on 31<sup>st</sup> July 2012).

Through the new DSM framework, the Commission expects the same set of generators and discoms who were purportedly providing 'passive balancing' to provide active balancing through participation in SRAS and TRAS, under scheduled transactions and not through unscheduled interchange. Nonetheless, the Commission has already made suitable provisions in the final Regulations about compensation for over injection and under drawal, which could also be seen as an avenue for passive balancing by the entities in a limited way.

#### **15) Suggestion 15:**

The respective distribution licensees need to publish yearly adequacy statement of generation (basket of resources) & transmission on a rolling basis. These statements need to consider reasonable margins for generation and transmission to take care of the contingencies. The determination of resource adequacy guidelines for each region is important including LoLP (Loss of Load Probability), VoLL (Value of Lost Load) and Optimal Reserve Margin. These provisions need to be strengthened through the

National Electricity Policy and the Indian Electricity Grid Code and implementation enforced through the SERCs.

### **Analysis and Decision**

The suggestions of POSOCO are beyond the scope of the present Regulations. However, the Commission appreciates the suggestions and would take up the suggestions during the revamping of the Grid Code.

#### **16) Suggestion 16:**

In accordance with the stipulations in Clause 5.3 of the IEGC regarding demand estimation, each SLDC has to prepare the block wise daily forecast of demand on day-ahead basis by 1500 hrs of current day for next day taking into account various factors such as historical data, weather forecast data, outage plan of units / transmission elements, etc. Each state control area may also give block-wise reserves quantum. This provision is required to be given in the regulations for enforcement and compliance. Robust forecasting would be key for activation and deployment of reserves to tackle the deviations, by the system operators.

### **Analysis and decision**

The suggestions of POSOCO are beyond the scope of the present Regulations. Demand forecasting is important for the load serving entities. It not only helps these entities in optimal contracting of resources but also helps them manage their schedule. These aspects would be suitably addressed while revamping the Grid Code.

#### **17) Suggestion 17:**

DSM, per-se, does not balance the system; it is simply an ex-post mechanism for defraying the costs of balancing and at the same time incentivizing good contracting and portfolio management behaviour on the part of grid entities. Therefore, deviation (as physical 'real time' manifestation in grid having impact on grid security and reliability) and settlement (commercial impact of deviation whether helping the grid or otherwise with incentive/disincentive) are two different yet complementary aspects. DSM has been recognized an integral part of Grid Code and hence, any change in fundamentals of DSM would necessitate amendment in the Grid Code a-priori.

### **Analysis and Decision**

The Commission appreciates the statement that ‘DSM does not balance the system’. In fact, it is this message that the Commission has been trying to convey through the new DSM framework. This statement also belies the assertion of DSM being a passive balancing mechanism. As regards the linkage of DSM with Grid Code, the Commission would like to clarify that DSM deals with ‘deviation’ from ‘schedule’ and schedule is governed by the provisions of the Grid Code.

#### **18) Suggestion 18:**

Frequency is an inseparable component of deviation. The frequency control component, represents the value of the response and underlying reserves activation used to deliver the balancing energy necessary to offset unscheduled energy by individual entities. In addition to frequency control component, the deviation also consists of the energy component, representing the value of the energy included in the Inadvertent Interchange. Further, the third component i.e. the transmission component, representing the reliability value of the transmission congestion and which is in the form of energy price. Hence, world over, any deviation settlement mechanism would have to factor the three components of energy, reliability and frequency control for deviation handling (security) and formulating suitable commercial aspects.

It can be inferred that that there is a long journey ahead in terms of stabilization of frequency profile in line with international standards. It is a fact that there is improvement in power system operation (in terms of stable operation and frequency remaining within a close band) over the years with various regulatory interventions by Hon’ble Commission. Still, there are large frequency excursions experienced on daily basis with constraints in the demand and supply with frequency touching 49.50 Hz as recently as 07th October, 2021.

### **Analysis and Decision**

The Commission finds it difficult to comprehend how frequency is an ‘inseparable component’ of deviation. Frequency is a reflection of load-generation balance and change in frequency is a consequence of deviation. As explained above, there could

be situations when the deviation occurs without affecting frequency. However, the Commission appreciates the assertion that a lot needs to be done to stabilise frequency profile and the new framework of AS and DSM and the upcoming revised Grid Code are all aimed at achieving stable frequency in the larger interest of grid security.

**19) Suggestion 19:**

At an All India level, the RLDCs despatch typically 45% of the country's generation and so NLDC/RLDCs would need to spend amount in the range of ₹ 2000-5000 crores annually. The DSM regulatory pool account must have sufficient funds to facilitate ancillary services despatch and the differential DSM rates would be needed to capture this aspect.

**Analysis and Decision**

The Commission believes, the DSM Regulations 2022 do address this aspect adequately. There are provisions for use of surplus in one region to meet the deficit in another region, followed by the provision of overall deficit to be made good by the RLDC fees and charges.

**20) Suggestion 20:**

At present, SCED optimization is taking place after unit commitment has taken place based on requisitions by constituents. Formulation for Security Constrained Unit Commitment has been operational in offline mode since June 2020, and its results over an eight months period were shared in the SCED detailed feedback report submitted to Hon'ble Commission. The Expert Group constituted by the Central Commission to review Indian Electricity Grid Code also proposed that the Security Constrained Unit Commitment (SCUC) exercise may be carried out to facilitate reliability of supply to the regional entities/beneficiaries taking into account optimal cost, adequate reserves, ramping requirements factoring security constraints. In order to ensure availability of adequate secondary and tertiary reserves with sufficient ramping capability, there is a need to identify the generating unit for purpose of unit commitment at the national level on at least 3-day rolling basis. In addition to the above, subjects like more frequent declaration of variable charges, declaration of incremental heat rate curves, need for lower turn down level, mandate for reserves, national pool account, and optimization considering full transmission network have

been flagged in the Pilot on SCED detailed feedback report.

### **Analysis and Decision**

The suggestions of POSOCO are beyond the scope of the DSM Regulations and would be taken up during the formulation of revised Grid Code and other relevant Regulations.

#### **21) Suggestion 21:**

Maintaining ACE within limits is an immediate requirement for grid security. Automatic control mechanisms like AGC at the interstate level can only work effectively if the States maintain ACE within reasonable limits. The culture of maintaining reserves also has to be adopted by every control area. There is a need for a paradigm change from monitoring of simple deviations to monitoring of “Area Control Error (ACE)”.

### **Analysis and Decision**

The suggestions of POSOCO are beyond the scope of the DSM Regulations and would be taken up during the formulation of the revised Grid Code and other relevant Regulations.

#### **22) Suggestion 22:**

There is a need for putting in place the complete framework of Resource Adequacy, portfolio management and balancing through generation reserves as available in all developed systems worldwide before we de-link frequency from DSM.

### **Analysis and Decision**

The suggestions of POSOCO are beyond the scope of the DSM Regulations and would be taken up during the formulation of the revised Grid Code and other relevant Regulations.

#### **23) Suggestion 23:**

In order to facilitate the administration of the market trades, another essential requirement is the need for assessment of transfer capability State-wise in advance. Though some of the States have started declaring TTC/ATC, many States are yet to

start reporting these parameters. This would have to then translate to creation of more bid areas in the PX (with each state control area as a bid area). Only this would make the Area Control Prices more robust and factor network congestion.

### **Analysis and Decision**

The suggestions of POSOCO are beyond the scope of the DSM Regulations.

#### **24) Suggestion 24:**

There are instances in the recent past wherein the States have procured upto 18 % of their demand through DAM and upto 10.9 % from RTM. Further, certain States had drawal schedule consisting of more than 40 % through DAM and upto 14.5 % from RTM. There is an urgent need to review the thresholds regarding relative proportion of energy procured in long-term and short-term markets including real time market. The dependence of the states on day ahead market and real time market as mode of last minute procurement poses a threat to grid security. Such high volumes would also lead to price volatility in the market. There is a pervasive grid security threat arising from inflexibility of contracts at the state level with over reliance on short term markets. There is a need for metrics such as resource adequacy for measuring portfolio management diligence of all market players.

### **Analysis and Decision**

While the suggestions of POSOCO are appreciated, they are beyond the scope of the DSM Regulations.

#### **25) Suggestion 25:**

Entities are resorting to imbalance as it is a risk-free option and payments are not required to be made before the delivery unlike other types of short-term contracts. The other challenge is pertaining to handling real time scenario which may be different from the anticipated scenario, while price discovery is in Power exchange. This may be either due to either load crash or any other unforeseen circumstances. The evaluation of DSM price vector based on the market prices would correctly evaluate the opportunity cost based on the expectations of buyers and sellers. This adequate compensation would help to extract the demand response and contribute positively



towards system reliability. Thus, linkage of DSM rates to market prices would be more appropriate. The base charges for deviation must be linked with 'ex-ante' market discovered prices. The Commission may also like to review the Rs 20 per kWh ceiling currently in vogue at the PX.

### **Analysis and Decision**

The Commission has already explained in detail the rationale behind linkage of DSM charge to AS price, the basic idea being to enable recovery of the cost of AS which is deployed to correct the deviation. However, a transition period has been kept during which the DSM charge would be linked to market prices. The suggestion for review of the ceiling currently in vogue at PX is beyond the scope of the DSM Regulations.

### **26) Suggestion 26:**

The present DSM mechanism defines volume limits violation, which attracts penalties in terms of additional charges varying from 20% to 100% of the applicable DSM rate for that time block. The utilities have been representing that there are instances such as generating unit tripping etc. and, in such cases, the volume limits get violated. However, during such an event, the violations can occur in the initial few blocks and the utility must quickly respond by taking actions to achieve balance once again. Another contention is that the deviation limits are violated because of variability of renewable generation. It needs to be appreciated that variation of renewables does not happen in the few-minute time frames and variability of renewables can be handled with better load and RE forecasting techniques as is being done elsewhere in the world. Every state control area needs to monitor its ACE and have appropriate tools to minimize the deviations. The regional level ACE for the October 2020 – September 2021 makes it clear that even if the top 10 states with high demand implement AGC at intra-state level, majority of the issues with the ACE may be addressed. In the interest of secure grid operation, all the volume limits along with associated additional charges for violating the deviation limits should be retained in the proposed market linked DSM price mechanism.

### **Analysis and Decision**

The Commission has already put various volume limits in the DSM Regulations 2022 and believes that the compensation and deterrent charges specified would be

sufficient for ensuring secure grid operation and would deter the grid connected entities from deviating from their schedule.

**27) Suggestion 27:**

There is a need of national pool account to avoid transfer of fund to deficit region from surplus region while making payment to the recipients of Deviation Pool Account. The disbursement can be done in an integrated manner from the national pool without any procedural delay.

**Analysis and Decision**

In the DSM Regulations 2022, there are provisions for use of surplus in one region to meet the deficit in another region, followed by the provision of overall deficit to be made good by the RLDC fees and charges. The Commission believes, this will address the concern of POSOCO.

Sd/-  
(P.K. Singh)  
Member

Sd/-  
(Arun Goyal)  
Member

Sd/-  
(I. S. Jha)  
Member

Sd/-  
(P. K. Pujari)  
Chairperson

**Annexure – I**

List of the stakeholders who submitted written suggestions/ observations on the draft Regulations.

<b>S No</b>	<b>Name of the Stakeholder</b>
1	Association of Power Producers (APP)
2	Federation of Indian Chamber of Commerce and Industries (FICCI)
3	Indian Sugar Mills Association (ISMA)
4	India Wind Power Association (IWPA)
5	Wind Independent Power Producer Association
6	Uttar Pradesh Electricity Regulatory Commission (UPERC)
7	Calcutta Electric Supply Corporation (CESC)
8	Haryana Power Purchase centre (HPPC) for Haryana discoms
9	BRPL
10	M.P. PashchimKshetra Vidyut Vitran Company Ltd (MPPKVVCL)
11	Maharastra State Energy Distribution Company Ltd (MSEDCL)
12	India Energy Exchange (IEX )
13	Power Exchange India Limited
14	Adani Power (Mudra) Ltd
15	Adhunik Power and Natural Resources Ltd (APNRL)
16	Jhabua Power Limited (Jhabua Power)
17	Madhya Pradesh Power Generating Co. Ltd. (MPPGCL)
18	Maharastra State Power Generation Company Ltd (MSPGCL)
19	Nabha Power
20	Shree Cement
21	Sitapuram Power Limited - Zuari Cement
22	Satluj Jail Vidyut Nigam Ltd
23	Narmada Hydroelectric Development Corporation Ltd (NHDC)
24	National Hydro Power Corporation (NHPC)
25	AD Hydro Power Ltd
26	Apraava Energy
27	Azure Power
28	Continuum Green Energy (India) Pvt. Ltd.
29	DANS Energy Pvt Ltd
30	Enel Green Power India Private Limited
31	Greenko Group
32	Hero Future Energy
33	Kreate Energy
34	Mahindra Susten Pvt Ltd
35	MB Power
36	Mytrah Energy (India) Private Limited
37	O2 Power
38	Phillips Carbon Black Limited (PCBL)
39	RE Connect Energy
40	RE New Power Pvt Ltd
41	Torrent Power Ltd (TPL)
42	Damodar Valley Corporation (DVC)
43	Prayas Energy Group

44	Sembcorp Energy India Limited
45	Statkraft India Pvt Ltd
46	Vector Green Energy Pvt Ltd (VGEPL)
47	Indian Wind Power Association -Northern Region
48	Jindal India Thermal Power Limited
49	Manikaran Analytics Ltd
50	National Thermal Power Corporation (NTPC)
51	Neyveli Lignite Corporation India Ltd (NLCIL)
52	NLC Tamil Nadu Power Limited (NTPL)
53	Tata Power, Additional Comments
54	Central Electricity Authority (CEA)
55	Gujarat Urja Vikas Nigam Ltd (GUVNL)
56	Power Company of Karnataka Ltd (PCKL)
57	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd (UPRVUNL)
58	West Bengal Power Development Corporation Ltd (WBPDCCL)
59	Asit Singh
60	Mr Bhanu Bhusan
61	Mr Nadeem Ahmed Khan
62	Mr Shanti Prasad, (Es Chairman, RERC)
63	Mr ShivamPuri
64	BASK Research Foundation
65	Deloitte
66	Energy Analytics Lab (EAL)- IIT Kanpur
67	Centre for Energy, Environment and Water (CEEW)
68	Southern Region Power Committee (SRPC)
69	Western Regional Power Committee
70	Eastern Region Power Committee (ERPC)
71	State Load Dispatch Centre (SLDC) - Odisha
72	State Load Dispatch Centre (SLDC) - Gujarat
73	Abellon Clean energy , Additional Comments
74	POSOCO
75	RPG Power Trading Company Ltd (RPTCL)
76	Tamil Nadu Transmission Corporation Ltd
77	Karnataka Power Transmission Corporation Ltd
78	Power Grid Corporation of India Ltd (PGCIL)
79	Transmission Corporation of Telangana Ltd
80	India Grid Trust
81	Bharat Aluminium Company Ltd (Balco)
82	Dhariwal Infrastructure Ltd (DIL)
83	HP ALDC
84	Penna Cement Industries Limited
85	Uttar Pradesh Power Corporation Ltd
86	West Bengal State Electricity Distribution Company Ltd (WBSEDCL)
87	DNV GL Energy India Private Limited

Annexure – II

List of Participants who made submission during the public hearing

S No	Name of Stakeholder
<b>Presentation</b>	
1	POSOCO
2	Mr Bhanu Bhusan
3	Indian Wind Power Association
4	Jhabua Power ltd
5	Azure Power
6	Manikaran Analytics
7	NLC India Ltd
8	REConnect Energy
9	Power Exchange of India Ltd
10	Tata Power
11	TistaUrja
12	NLC Tamil Nadu Power Ltd
13	National Thermal Power Corporation
14	Acmay Solar Holdings
15	Sembcorp Green Infra Ltd
<b>Oral Submissions</b>	
16	Mr Prasanna
17	Prayas Energy group
18	Transmission Corporation of Telangana
19	Torrent Power
20	ABC Solar India Pvt Ltd
21	DANS Energy
22	Jindal India Thermal
23	M.P. Power Management Ltd
24	Goa Tamnar Transmission Project Ltd
25	CLP Wind farm
26	M.P. Power Generation Company Ltd
27	Damodar Valley Corporation Ltd
28	MrSoni
29	Mr Kiran V
30	Transmission Corporation Ltd – Karnataka
31	Adani Green

# Annexure-7

CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI

No. L-1/260/2021/CERC

31<sup>st</sup> October 2022

## NOTIFICATION

Whereas the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 were published in Part-III, Section 4, No. 147 of the Gazette of India Extraordinary on 22.03.2022.

Whereas, the Clause (2) of Regulations 1 of the said regulations provides that the Regulations shall come into force on such date as may be notified by the Commission separately.

And, now, therefore, it is notified that the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 shall come into force with effect from 05.12.2022.

Sd/  
(Harpreet Singh Pruthi)  
Secretary

Government of Gujarat  
Energy and Petrochemicals Department  
G.R. No. WTE/11/2022/1316/B1  
Sachivalaya, Gandhinagar  
Date: 02/11/2022

**READ:**

- 1) Gujarat Waste to Energy Policy-2016 vide this Department's Resolution No. REN-11-2015-1343-B, dated 28/03/2016.
- 2) Amendment of Gujarat Waste to Energy Policy-2016 vide this Department's Resolution No. REN-11-2015-1343-B1, dated 01/05/2018.
- 3) Amendment of Gujarat Waste to Energy Policy-2016 vide this Department's Resolution No. REN/11/2021/WG/B1, dated 28/06/2021.
- 4) Amendment of Gujarat Waste to Energy Policy-2016 vide this Department's Resolution No. REN-11-2015-1343-B1, dated 13/04/2022.

**1. PREAMBLE**

The Government of Gujarat recognizes that immense challenges are being faced by the World today on account of need to meet growing energy demand, securing sustainable energy and reducing carbon emissions. The Government also recognizes that the best recourse to tackle with the challenges associated with climate change is transitioning from fossil-fuel dominant energy-mix to the energy-basket having increased share of non-fossil fuel based resources.

Recognizing the need to give impetus to the emerging 'Waste to Energy' technology and considering the potential use of Municipal Solid Waste (MSW) as one of the source of renewable energy and with an intent of environment friendly disposal of MSW as a contribution towards the "Swachh Bharat Abhiyan", the Government of Gujarat announced its first 'Waste to Energy Policy 2016' (notified vide GR dated 28.03.2016 & 01.05.2018 and extended vide GR dated 28.06.2021 and 13.04.2022). This Policy is expired on 31.07.2022.

Recently, Government of India has declared updated India's Nationally Determined Contribution (NDCs) to the United Nations. As per the updated

NDC, India now stands committed to reduce Emissions Intensity of its GDP by 45 percent by 2030, from 2005 level and achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030. This update to India's existing NDC translates the 'Panchamrit' announced at COP 26 into enhanced climate targets. The update is also a step towards achieving India's long term goal of reaching net-zero by 2070.

## 2. VISION

Gujarat has 170 Urban Local Bodies (ULBs) comprising of 8 Municipal Corporations and 162 Municipalities and the solid waste generated in these urban areas can support WTE Plants of around 100 MW capacity.

In line with the target set under NDC and to reaffirm our commitment to work towards a low carbon emission pathway, while simultaneously endeavoring to achieve sustainable management of Municipal Solid Waste and taking into consideration the fact that WTE Plants based on MSW need to be significantly harnessed in the State, Gujarat announces this '**Waste to Energy Policy-2022**' facilitating a robust regulatory framework encouraging Private Sector Participation, while keeping in balance the interest of all Stakeholders.

## 3. OBJECTIVES

The objectives of the "**Gujarat Waste to Energy Policy-2022**" are as enlisted below:-

- a) To help improve efficiency and effectiveness of collection and disposal of MSW, thereby contributing to 'Swachh Bharat Mission'
- b) To facilitate and promote disposal of MSW in more environment friendly manner
- c) To facilitate and promote utilization of MSW as renewable resource for generation of electricity
- d) To reduce the requirement of lands for disposal of MSW, thereby saving precious public resource for alternative public purpose
- e) To promote investment, employment generation & skill enhancement in Renewable Energy Sector
- f) To lay down rational framework for smooth implementation of Policy



#### 4. TITLE

This policy shall be known as the "**Gujarat Waste to Energy Policy — 2022**".

#### 5. OPERATIVE PERIOD

5.1 This Policy will come into effect from the date of its notification and shall remain in operation for a period of five years i.e., up to 01/11/2027.

5.2 Earlier Gujarat Waste to Energy Policy-2016 and its amendments, stand extended till the date of notification of Gujarat Waste to Energy Policy-2022.

#### 6. ELIGIBLE UNIT

6.1 Any individual, company or body corporate or association or body of individuals, Urban Local Bodies / Urban Development Authorities whether incorporated or not, or artificial juridical person will be eligible for setting up Power Plants utilizing Municipal Solid Waste either for the purpose of captive use or for sale to Obligated Entities i.e. Distribution Licensees or to any other Third Party, including Urban Local Bodies / Urban Development Authorities, subject to the provisions of this Policy and in accordance with the Electricity Act 2003, as amended from time to time.

6.2 The use of electricity for own consumption at its end use location/s by the owner of WTE Projects shall be considered as Captive use.

6.3 Only New Plant & Machinery shall be eligible for installation under this Policy.

6.4 Since the management and handling of MSW is to be as per the provisions of the Solid Waste Management Rules, 2016, the WTE Projects shall comply with the MSW Rules and relevant provisions of Environment related Acts, Rules & Regulations as amended from time to time.

#### 7. STATE GOVERNMENT FACILITATION & NODAL AGENCIES FOR PROJECT IMPLEMENTATION

7.1 **Gujarat Energy Development Agency (GEDA)** shall be the State Government Nodal Agency for facilitation and implementation of the Gujarat WTE Policy — 2022.

- 7.2 The Nodal Agency will facilitate and assist the project developers to undertake the following activities in achieving the objectives of the Policy.
- (1) Registration of projects
  - (2) Respond to queries and problems of Project Developers
  - (3) Accreditation and recommending WTE Projects for registering with Central Agency under REC mechanism
  - (4) Certifying commissioning of Projects
- 7.3 The modalities, procedure, terms & conditions, etc. for registration of Projects shall be formulated by the Nodal Agency. The Nodal Agency shall facilitate the Project Developers by developing a 'Single Window web-system' for project registration. The Project Developers shall be required to upload the requisite documents on this web-portal. The registration completion and approval thereof shall be processed online and made available on the web-portal itself. To enable faster registration process, smooth functioning and for providing adequate assistance to the Project Developers, the Nodal Agency shall prescribe Standard Operating Procedure (SOP) / Guidelines, web-portal service helpdesk, etc.
- 7.4 **Urban Development Department (UDD)/Swachh Bharat Mission Department** shall be the Key Nodal Agency for project implementation. To enable smooth functioning and faster implementation, UDD shall prescribe Standard Operating Procedure (SOP) / Guidelines, web-portal service helpdesk, etc. to ensure procedural uniformity amongst the concerned UDCs / ULBs / Municipal Corporations for undertaking various activities viz. identification of potential eligible sites, preparation of DPRs, tendering, preparation of RfP document, concession agreement, land lease agreement, etc.
- 7.5 UDD / SBM Dept. will facilitate and assist the project developers to undertake the following activities in achieving the objectives of the Policy.
- (1) Respond to queries and problems of Project Developers
  - (2) Certification of stock of MSW along with Gross Calorific Value (GCV) thereof
  - (3) Co-ordinating applications for Grant / Capital Subsidy from Centre and/or State Govt. or any such Authority
- 7.6 Gujarat Urja Vikas Nigam Ltd (GUVNL) shall formulate a dedicated '**Project Monitoring Cell**' consisting of one representative of GEDA and one representative of UDD for reviewing and monitoring the progress

of project implementation. The Project Developer shall be required to furnish quarterly progress reports and the Project Monitoring Cell in close co-ordination with concerned Civic Authority shall monitor the projects' progress, address issues (if any) & provide necessary guidance / clarifications, conduct inspection (if required), etc. and thereby endeavor to assist the Project Developers in fast-tracking implementation of Projects.

- 7.7 A **Committee** constituted under the Chairmanship of Principal Secretary (Energy & Petrochemicals Dept.) shall facilitate resolution of policy level issues, grievances / concerns (if any) of existing Projects / Projects under Intervening Period of two Policies / New Projects, removing difficulties, etc. to ensure smooth implementation of the Policy.
- 7.8 The **Projects in pipeline**: The projects which are under-construction / implementation but are not commissioned as on date of notification of this Policy will be termed as 'Pipeline Projects'. Such projects, if commissioned by March-2024 shall be eligible for benefits under the WTE Policy 2016 and Amendments thereto.

## **8. ELIGIBLE SITE AND ROLE OF CONCERNED CIVIC AUTHORITIES viz. UDD / ULB / MUNICIPALITIES**

- 8.1 Civic Authorities (viz. Urban Development & Urban Housing Department (UDD), Gujarat Urban Development Company (UDC), Municipal Corporations, Urban Local Bodies (ULB) / Urban Development Authorities (UDA), Municipalities etc. as the case may be), shall identify / select eligible site in proximity to the landfill sites or any other suitable land and prepare Pre-feasibility reports / Detailed Project Report (DPR) for MSW based Power Projects. Alternately, WTE Developers may select eligible site in proximity to landfill sites or any other suitable land, in consultation with concerned Civic Authorities, prepare Pre-feasibility reports / DPR and submit the same to UDD / ULB for its techno-commercial appraisal / approvals.
- 8.2 Based on the DPR, the UDD / ULB etc. shall prepare Request for Proposal (RFP) document for the purpose of inviting Competitive Bids for selection of developer for setting up for MSW based Projects, by following relevant provisions of Gujarat Infrastructure Development (GID) Act, 1999 and amendments thereto from time to time.
- 8.3 For this purpose, the concerned authorities / UDDs / ULBs shall provide land at token lease rent of Re. 1 (rupee one) per annum for setting up

the power project for a period of 25 years or life of the project or term of power purchase / wheeling agreement, whichever is earlier.

- 8.4 The UDDs / ULBs shall not charge any tax, cess, royalty, levies or any other charges on the MSW based power project such as stamp duty charges, land allotments charges etc. Stamp Duty payable to Government, if any, on the lease/ development agreement will have to be borne by the ULB concerned.
- 8.5 The UDDs / ULBs shall provide MSW to the WTE Project Developer at the Project Site without charging any cost.
- 8.6 The UDD / ULBs shall develop a robust 'Monitoring Mechanism' and undertake the following activities:
  - a) Monitoring of quantum of MSW stock viz. MSW delivered, processed and consumed by the Project Developer
  - b) Certification of quantum of stock of MSW along with GCV thereof
  - c) Certification of quantum of usage of fossil-fuel and its conformity to the permissible ceiling prescribed by MNRE / GERC
  - d) Certification of quantum of usage of any other waste of RE nature or biomass with total MSW and its conformity to the permissible ceiling prescribed by GERC from time to time
  - e) Creation and maintenance of Information System / Monthly Database for keeping track of MSW stock, fuel usage, operational parameters, etc.
  - f) Undertake periodic and/or random inspection of the Plant for fulfilment of plant performance, compliance of standards as per Solid Waste Management Rules 2016, Environment Protection Act 1986, norms / rules & regulations framed by MoEF, CPCB, GPCB, NGT, etc.
- 8.7 The UDD / ULBs shall install a robust 'CCTV Surveillance System'/any other latest Surveillance System at the Project Site / in the premises of the Project for the purpose of monitoring.

## **9. TARIFF & ITS MODALITIES**

- 9.1 The primary contribution of WTE Projects being disposal of MSW and its environment-friendly management, the cost implication i.e. tariff payable for purchase of power from the WTE Projects shall be shared amongst the Distribution Licensees and the concerned Civic Authorities viz. UDD / ULB / Municipal Corporations, as the case may be.

9.2 The detailed modalities for the same shall be as under:-

- a) The Concerned Civic Authority - UDD / ULB / Municipal Corporation shall undertake Competitive bidding for selection of Developer/s for WTE Projects. The UDD/ULB shall approach GERC for approval of the “discovered tariff” under such Competitive Bidding. The tariff finally approved by the GERC shall be termed the “approved tariff”.
- b) The Concerned Civic Authority - UDD / ULB / Municipal Corporation shall bear 20% of such “approved tariff”. The balance 80% of the “approved tariff” shall be termed as the “PPA Tariff” payable by GUVNL.
- c) The concerned Civic authorities - UDD / ULB / Municipal Corporations may avail grant from CCD or State Government towards tariff implication equal to 20% of the “approved tariff”.
- d) A Tripartite Agreement shall be executed amongst the WTE Project Developer, the Nominated Agency - GUVNL, and the concerned Civic Authority, under intimation to Climate Change Department (CCD), Urban Development Department (UDD) and Energy & Petrochemicals Dept (EPD), Govt. of Gujarat.
- e) The WTE Project Developer shall raise monthly energy invoices to GUVNL at tariff approved by GERC (i.e. at the “approved tariff”) as per the terms and conditions of the PPA, along with copy of duly certified State Energy Account (SEA) published by SLDC.
- f) GUVNL will pay to the WTE Project Developers the cost of energy supplied as per the PPA tariff (80% of the approved tariff by GERC). It will also pay the amount towards the 20% payable by the concerned civic authority from the grant made available to it by CCD / UDD / ULB. Such 20% of the “approved tariff” shall be made available to GUVNL by CCD / UDD / ULB on quarterly advance basis.
- g) Every quarter, GUVNL will send payment/generation status report to the CCD & EPD in respect of energy and amount paid to the WTE Project Developer.
- h) The electrical component of power shall be utilized by local distribution company where the WTE Project is located. Such power shall be charged to Local DISCOM at Average Power Purchase Pooled Cost (APPC) of GUVNL for the year of commissioning of the WTE Project. APPC shall mean power purchased at generator bus excluding renewable power purchase, transmission cost and power purchased for sale to other than consumers.

- i) The difference between the “PPA Tariff” and APPC charged to Local DISCOM shall be considered as cost of Renewable Attribute. On payment of this cost, the Distribution Company shall be eligible for allotment of equivalent number of units of Renewable Attribute. On monthly basis such Renewable Attribute units and their cost shall be apportioned by Nominated Agency – GUVNL to all Distribution companies (including Private Distribution Licensees, Distribution Licensees/ Deemed Distribution Licensees supplying power in SEZs area etc.) in proportion to their power consumption of previous year.
- j) GUVNL will raise two separate bills to Distribution Companies (i) for supply of electrical component of power as mentioned above, & (ii) for renewable attributes as mentioned above. Distribution Companies shall be required to make payment to GUVNL within 7 days from issuance of bill failing which they shall be liable to pay delayed payment charges as per terms of the PPA.
- k) Such apportioned Renewable Attribute units shall be considered for meeting RPO for the respective DISCOM.
- l) Transmission charges and losses, wheeling Charges and losses shall be borne by the concerned local distribution company which uses the electrical component.

## **10. GRID INTEGRATION & SUPPORT FROM STATE UTILITIES**

- 10.1 Grid stability and security is of prime importance. Since the penetration of infirm nature of Renewable Energy may endanger grid security, adequate protection measures are necessary.
- 10.2 Grid integration shall be in accordance with the Central Electricity Authority, (Technical Standards for Connectivity to the Grid), Regulations, 2019, as amended from time to time.
- 10.3 Interconnection voltages shall be governed as per Gujarat Electricity Grid Code 2013 and GERC’s applicable Regulations / Orders, etc. as amended from time to time.

## **11. GRID CONNECTIVITY AND EVACUATION FACILITIES**

- 11.1 The evacuation facility shall be as approved by Gujarat Energy Transmission Corporation Limited (GETCO) / Distribution Licensees after carrying out System Studies, Feasibility Studies, etc.

- 11.2 The WTE Project Developer shall establish dedicated evacuation line for evacuation of power upto GETCO Substation, install RTUs (Remote Terminal Units), etc. at their own cost.
- 11.3 The voltage level for evacuation of power in the grid shall be in accordance with the Gujarat Electricity Grid Code 2013, GERC Supply Code 2015, other applicable GERC Orders / Regulations and amendments thereof.

## **12. METERING & ENERGY RECORDING**

- 12.1 The metering point and interconnection point shall be the point of connection at the nearest GETCO substation where feasibility and connectivity is granted by GETCO.
- 12.2 The WTE Project Developers shall provide energy metering and communication facility in accordance with the following:-
- (a) CEA (Installation and Operation of meters) (Amendment) Regulations 2014 and its subsequent amendments,
  - (b) Gujarat Electricity Grid Code 2013 and its subsequent amendments
  - (c) GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and its subsequent amendments
  - (d) GERC Distribution Code 2004 and its subsequent amendments
- 12.3 For the purpose of energy accounting, the ABT compliant meter shall be installed at the metering point, as per GERC's applicable Regulations, Orders, etc. from time to time.
- 12.4 Interface metering shall conform to the CEA (Installation and Operation of Meters) Regulations 2014 and amendments thereto. GETCO / DISCOM may also stipulate specifications in this regard.
- 12.5 The electricity generated shall be metered and readings taken jointly by WTE Project developer with a representative of DISCOM and GETCO at the metering point, on monthly basis.
- 12.6 The WTE Project Developers shall also install Remote Terminal Unit (RTU) at their own cost for transferring the real time data to SLDC for its monitoring purpose, and in accordance with the GERC orders from time to time.
- 12.7 State Load Dispatch Centre shall certify actual injected energy and energy drawn (if any) from local DISCOM on monthly basis.

### **13. PROJECTS SET UP FOR SALE OF ELECTRICITY TO DISTRIBUTION LICENSEES**

- 13.1 The WTE Project Developer may sell power to the Distribution Licensee on long term basis.
- 13.2 The tariff and its modalities shall be as per the provisions under Clause 9 of this Policy as detailed out above.
- 13.3 For entering into PPA with Distribution Licensee, the WTE Project Developer shall be required to provide Bank Guarantee at Rs. 5 lakhs per MW or part thereof. The Bank Guarantee shall be refunded, if such Developer achieves commercial operation within time period mentioned in PPA. In case the Developer fails to achieve commercial operation as specified in the PPA, the Bank Guarantee shall be forfeited.

### **14. PROJECTS SET UP FOR WHEELING OF ELECTRICITY FOR CAPTIVE CONSUMPTION OR THIRD PARTY SALE (INCLUDING PROJECTS REGISTERED UNDER RENEWABLE ENERGY CERTIFICATE (REC) MECHANISM):**

#### **14.1 FOR CAPTIVE CONSUMPTION / THIRD PARTY SALE:**

##### **14.1.1. Wheeling of power to consumption site at 66 kV voltage level and above**

The wheeling of electricity generated from WTE Projects to the desired location(s) within the State shall be allowed on payment of transmission charges and transmission losses applicable to normal Open Access Consumer.

##### **14.1.2. Wheeling of power to consumption site below 66 KV level**

In case injection or drawl is at 66 KV and drawl or injection is at 11 KV, wheeling of electricity generated from WTE Project to the desired location(s) within the State, shall be allowed on payment of transmission charges and transmission losses, applicable to normal Open Access Consumer and 50% of wheeling Charges and 50% of Distribution losses of the energy fed to the grid as applicable to normal open access consumers.

##### **14.1.3. Injection at 11 kV and drawl at 11 kV and below voltage level**

When the point of injection and drawl at 11 kV or below voltage level lies within the same distribution area, the user shall pay 50% of wheeling Charges and 50% of losses of the energy fed to the grid, as applicable to normal open access consumers.



Provided, in case the point of injection and drawl at 11 kV or below voltage level lies in different distribution area, the user shall pay 50% of wheeling Charges and 50% of losses of the energy fed to the grid, as applicable to normal open access consumers for each DISCOM. Moreover, transmission charges and transmission losses as applicable to normal Open Access Consumer shall also be payable.

#### **14.2 FOR WHEELING TO MORE THAN ONE LOCATION**

WTE Project Developers who desire to wheel electricity to more than one locations, shall pay 5 paise per unit on energy fed in the grid to the DISCOM concerned in whose area power is consumed in addition to above mentioned transmission charges and loses, as applicable.

#### **14.3 PROJECTS UNDER REC MECHANISM**

14.3.1. WTE Project Developers availing Open Access for captive use / third-party sale under REC mechanism shall be governed in accordance with the CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations and amendments thereto.

14.3.2. Such projects shall be allowed to wheel the electricity on payment of applicable transmission charges / losses, wheeling charges / losses and other charges as applicable to other normal open access consumers.

#### **14.4 CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE**

14.4.1. Cross Subsidy Surcharge and Additional Surcharge shall not be applicable for WTE Projects under Captive Route.

14.4.2. Cross Subsidy Surcharge and Additional Surcharge shall be exempted for WTE Projects under Third Party Sale also.

### **15. ENERGY ACCOUNTING & SURPLUS POWER INJECTION**

15.1 The energy accounting for all WTE Projects shall be in accordance with the MOP's Green Energy Open Access Rules 2022 and applicable Regulations framed by Forum Of Regulators / GERC from time to time.

- 15.2 Banking of energy shall be allowed upon payment of applicable banking charges as determined by GERC from time to time.
- 15.3 For net import of power, Distribution Company will charge applicable tariff of respective category to the consumer including fixed / demand charge, energy charges, peak charge, other charges / penalty etc. as applicable to other consumers.
- 15.4 Surplus power (if any), after giving set off, shall be purchased by Distribution Company at rates specified in table hereinbelow. Fixed / demand charge, peak charge, other charges / penalty etc. shall be as applicable to other consumers.

Particulars	Rates of surplus power	Treatment of RPO
<b>Case 1</b> – Consumer not taking RE Attribute for fulfilling its RPO	Rs. 1.75 / unit	Entire generation to be considered towards DISCOMs' RPO
<b>Case 2</b> – Consumer taking RE Attribute for fulfilling its RPO	Rs. 1.75 / unit	Surplus energy to be considered towards DISCOMs' RPO
<b>Case 3</b> – Consumer registered under REC Mechanism	Rs. 1.50 / unit	Surplus energy to be considered towards DISCOMs' RPO

- 15.5 The rate of surplus power (if any), after giving set off to be purchased by DISCOM in case of MSMEs setting up Projects for captive consumption (and not registered under REC Mechanism) shall be Rs. 2.25 per kwh for first 5 years and thereafter those mentioned at table above.

## **16. CONCESSIONAL BENEFITS & EXEMPTIONS**

- 16.1 Electricity Duty on energy generation and consumption shall be in accordance with the provisions of the Gujarat Electricity Duty Act 1958 and its amendments from time to time.
- 16.2 Exemption from demand cut to the extent of 50% of installed capacity of WTEs in case of captive consumption and third party sale within Gujarat.

## **17. FORECASTING & SCHEDULING**

Because of the varying calorific value of waste due to its heterogeneous nature, the energy generation from MSW plants may not be accurately

predicted. However, it may be predicted in a range, but in order to ensure grid discipline and grid security, the WTE Projects shall abide by the provisions of Intra-State ABT, Forecasting, Scheduling & Deviation Settlement Mechanism as per the CERC's Order/Regulation & National Policy/Guidelines as amended from time to time.

## **18. REACTIVE POWER**

The Pricing for drawl of Reactive Power shall be as decided by GERC in the GETCO Tariff Orders from time to time.

## **19. OPERATION & MAINTENANCE**

19.1 The Operation and Maintenance of dedicated evacuation line shall be carried out at the cost of the WTE Project Developers as per applicable technical standards and best practices.

19.2 Consumers, Utilities and WTE Project Developers shall comply with the provisions of applicable Regulations, Standards and Codes notified by various Authorities viz. GERC, CEA, etc. on aspects of metering, connectivity, open access, forecasting & scheduling, safety, etc.

## **20. REGULATION**

The Hon'ble Gujarat Electricity Regulatory Commission shall be guided by this Policy while framing its rules, regulations and orders.

## **21. RESTRICTIONS**

21.1 The power project shall not use fossil fuel in excess of ceiling provided by GERC in line with the Policy / Guideline of Ministry of New and Renewable Energy (MNRE).

21.2 Mixing of any waste of renewable nature or biomass with the total municipal solid waste shall be allowed only upto the percentage ceiling specified / limit prescribed by the Policy / Guideline of Ministry of New and Renewable Energy (MNRE). The UDD / ULBs shall develop a robust 'Monitoring Mechanism' for the same as the main aim of this policy is disposal of Municipal Solid Waste.

**22. MID TERM REVIEW**

The State Government may undertake a mid-term review of this Policy in view of any technological breakthrough or for removal of any difficulty and/or inconsistency with Electricity Act 2003, as amended from time to time.

**23. POWER TO REMOVE DIFFICULTIES**

If any difficulty arises in giving effect to this policy, the State Government may issue clarification / interpretation to remove such difficulties either on its own or based on representations from Stakeholders.

**24. POWER TO INTERPRET**

If there is any confusion or dispute about the meaning, intent or purpose of any provision of this Policy, the interpretations given by Energy and Petrochemicals Department, Govt. of Gujarat shall be final and binding to all concerned.

Notwithstanding anything contained in this resolution, the provisions of the Electricity Act- 2003 and GERC order(s) as issued from time to time, shall prevail, for the purpose of the implementation of this Policy.

This issues with the concurrence of the Urban Development Department dated 22/08/2022, Climate Change Department dated 23/08/2022, Finance Department dated 21/10/2022 and Government dated 02/11/2022 on the Department's file of even number.

By order and in the name of the Governor of Gujarat



(Manoj Patel)

**Additional Secretary to Govt.  
Energy & Petrochemicals Department**

**Copy FWCs to:**

- 1) \*The Principal Secretary to Hon. Governor of Gujarat, Raj Bhavan, Gandhinagar.
- 2) The Addl. Chief Secretary to. Hon. Chief Minister, Sachivalaya, Gandhinagar.

- 3) The P.S. to Hon. Minister (Fin. and E&P), Sachivalaya, Gandhinagar.
- 4) The P.S. to Hon. MoS (Agri. and E&P), Sachivalaya, Gandhinagar.
- 5) The Secretary, Ministry of Power, Govt. of India, Shram Shakti Bhavan, New Delhi.
- 6) The Secretary, Ministry of New & Renewable Energy, CGO Complex, New Delhi.
- 7) The Secretary, Central Electricity Regulatory Commission, New Delhi.
- 8) The Chairman, Central Electricity Authority, New Delhi
- 9) The Addl. Secretary to Chief Secretary, Sachivalaya, Gandhinagar.
- 10) \*The Secretary, GERC, Gift City, Gandhinagar.
- 11) \*The Registrar, Gujarat High Court, Ahmedabad.
- 12) \*The Secretary, Vigilance Commission, Gandhinagar.
- 13) The Principal Secretary, Finance Department, Sachivalaya, Gandhinagar.
- 14) The Principal Secretary, Climate Change Department, Sachivalaya, Gandhinagar.
- 15) The Principal Secretary, Urban Department, Sachivalaya, Gandhinagar.
- 16) \*The Secretary, Gujarat Legislature Secretariat, Sachivalaya, Gandhinagar.
- 17) The Resident Commissioner, Gujarat State, New Delhi
- 18) The Account General, Ahmedabad/ Rajkot.
- 19) All Departments of Secretariat, Sachivalaya, Gandhinagar.
- 20) The Chairman, Power Finance Corpo. Ltd, New Delhi
- 21) The Managing Director, Gujarat Urja Vikas Nigam Ltd, Vadodara
- 22) The Managing Director, Gujarat Power Corporation Ltd, Gandhinagar.
- 23) The Director, Gujarat Energy Development Agency, Gandhinagar.
- 24) The Managing Director, Uttar Gujarat Vij Company Ltd, Mehsana.
- 25) The Managing Director, Madhya Gujarat Vij Company Ltd, Vadodara.
- 26) The Managing Director, Daxin Gujarat Vij Company Ltd, Surat.
- 27) The Managing Director, Paschim Gujarat Vij Company Ltd, Rajkot.
- 28) The Managing Director, Gujarat State Electricity Corpo. Ltd, Vadodara.
- 29) The Managing Director, Gujarat Energy Transmission Corpo. Ltd, Vadodara.
- 30) The Chief Electrical Inspector & Collector of Electricity Duty, Gandhinagar.
- 31) The Director, Torrent Power Ltd, Samanvay, 600, Tapovan, Ambavadi, Ahmedabad

\*By Letter.

**From:** Aatrey Pandya - Abellon

**Sent:** 14 November 2022 19:42

**To:** ACE Rathod <acesldc.getco@gebmail.com>

**Cc:** Vishal Patel - Abellon <vishal@abellon.com>; Manoj Patel - Abellon <manoj.p@abellon.in>; Regulatory - Abellon <regulatory@abellon.com>

**Subject:** Request to SLDC

To,  
Additional Chief Engineer  
State Load Despatch Centre,  
Gujarat International Finance Tec-City  
Gujarat 382355

Dear Sir,

This is with regards to the Power Purchase Agreement (“PPA”) dated 30.05.2018 signed between Godwatts WTE Jamnagar Pvt Ltd (“GWJPL”) and Gujarat Urja Vikas Nigam Limited (“GUVNL”) which states that there shall be no commercial impact of deviation from scheduled power to the GWJPL for period of one year from the date of commissioning of the project and thereafter commercial implications of the ABT orders shall be applicable. The clause No. 5.3 of the PPA is reproduced below:

*“5.3 Provisions of the intra-State ABT and Forecasting and Scheduling Regulations/Orders will be applicable to the Project. Further, Power Producer shall settle DSM charges directly with SLDC. However, there shall be no commercial impact of deviation from scheduled power to the Power Producer for a period of one year from the date of the commissioning of project and thereafter, the commercial implications of the ABT order shall be applicable.”*

As per Article 4.2 of the PPA, Jamnagar WTE is bound to comply with the Intra State ABT Orders along with its amendments from time to time;

On 22.03.2022, the CERC issued the CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 (“**DSM Regulations 2022**”). The DSM Regulations 2022 provide for an exemption from payment of deviation charges to the extent of +/-20% deviation by MSW projects. GERC has been adopting CERC UI Regulations and CERC Deviation Settlement Mechanism Regulations from time to time, as per the ABT Orders and the Grid Code.

GWJPL has commissioned the WTE project on 15.11.2021, as per Clause 5.3 of PPA and as per WTE Tariff Order 2016 there was no commercial impact on GWJPL for DSM for the duration of one year.

**Our Request:**

In view of the above mentioned CERC notification to be implemented on 5<sup>th</sup> December 2022, we request SLDC to continue the aforesaid mechanism of not having any commercial implications of DSM for the interim period till Ld. GERC implements the DSM Regulations 2022.

**Goodwatts WTE Jamnagar Pvt Ltd.**

Thanks & Regards,

Aatrey Pandya | Sr. GM – Corporate Affairs  
Tel: +91-79-66776100 | M: +919099964346



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