



GETCO



GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED

STATE LOAD DISPATCH CENTRE, GOTRI, VADODARA

Telephone No.(0265)2352103, Fax No. 2352019 Email www.sldcvt.com

Ref No: GETCO/SLDC/ 51
Date: 8th April'09

By Fax: *gll*

To,
As per List

Subject: Special meeting for various issues related to energy accounting and commercial settlement in respect of Wind Energy Generators.

Dear Sir,

The meeting is hereby called to address the various issues related to energy accounting and commercial settlement in respect of wind energy generation injected within the grid and to implement revised methodology of energy accounting. The meeting is scheduled at conference room of State Load Dispatch Centre at 11:30 hours, Vadodara on 12th April'2010.

All participants are requested to remain present and submit their views. SLDC would like to implement certain changes in energy accounting method from April'2010; representative of respective companies to have to submit their consent.

Agenda note is put up on SLDC website: www.sldcguj.com

With regards,

N.H. Suthar
(N.H.Suthar)
Chief Engineer (SLDC)

Copy to:

(i) PS to MD (GETCO), Corporate Office, SP Bhavan, Vadodara.

Mailing List:

1	The Managing Director, Madhya Gujarat Vij Company Ltd., Sardar Patel Vidyut Bhavan, Race Course, Vadodara – 390007
2	The Managing Director Dakshin Gujarat Vij Company Ltd., Nana Varacha Road, Kapodra, Surat (Fax No 0261-2572636)
3	The Managing Director Paschim Gujarat Vij Company Ltd., Laxmi Nagar, Nana Mava Road, Rajkot.(Fax No. 0281-2380428)
4	The Managing Director Uttar Gujarat Vij Company Ltd., Vis Nagar Road, Mehsana-384001
5	The Executive Director, Torrent Power Ltd. Surat Electricity distribution Company, Ltd., Tilak-Medan, Surat
6	The Executive Director, Torrent Power Ahmedabad Electricity Company Ltd., Electricity House, Lal Darwaja, Ahmedabad-380 009
7	General Manager, Kandla Port Trust Ltd. At.Kandla, Gandhidham
8	The Managing Director, Torrent Energy Ltd. Dahej Special Economic Zone, Dahej, Bharuch
9	The Managing Director, Mundra Ports SEZ Ltd. Mudra Special Economic Zone, Mundra, Kutch.
10	Gujarat Energy Development Agency, 4 TH Floor, Block No.11 &12,Udhyog Bhavan, Sector-11,Gandhinagar-Gujarat
11	The Additional Chief Engineer, R&C department , Corporate Office, SP Bhavan, Race Course, Vadodara (For STU functions)

AGENDA POINTS FOR THE MEETING TO BE HELD FOR ISSUES RELATED TO WIND ENERGY GENERATION

(Date of Meeting: 12th April'10)

Background:

Gujarat Energy Development Agency (Short as "GEDA") has communicated SLDC and requested us to adhere with earlier procedure of giving credit (setoff) on monthly basis in respect of Torrent Power Ltd. Further, Surat Electricity Company of Torrent Power Ltd. have communicated that energy setoff computed by SLDC in respect of SECo is not matching with the capacity indicates power purchase agreement executed by bulk power consumers located within the area of SECo.

SLDC has further inquired upon the present system followed for calculating share of electricity by GEDA and distribution licensee to ensure the following:

- 1) Wind Generators injecting energy into grid have executed the power purchase agreement and wheeling agreement.
- 2) Setoff given by Gujarat Energy Development Agency for the energy injected by WEG is in line with the percentage decided in agreement.
- 3) Monitoring over the commissioning of wind energy generation connected with State Transmission Grid.
- 4) Furnishing information by GEDA as per the requirement of State Load Dispatch Centre

Section 32(2)(c) provides that SLDC is responsible for the accounting of energy transmitted through the grid by means of various open access transactions which includes wheeling from WEG and CPP etc. Further Section 32(2)(a) empower SLDC to carry out supervision and monitoring over intra state transmission network. **Accordingly, the energy accounting of energy injected for wheeling from wind generator through intra state transmission network which is presently being carried out by GEDA and distribution licensee is required to be monitored by SLDC.**

National Electricity Policy provides the encouragement for renewable generation. It also emphasized to have proper mechanism of energy accounting. Therefore, it is necessary that the associated mechanism in relation with wind energy generation should be in place for the smooth operation.

In view of above, the special meeting is hereby called to address the issues related with energy accounting and commercial issues related with wind energy generation in the State and to take suitable action for ensuring proper energy accounting mechanism. The decision will be taken by considering the views/consent of affected parties and through common consensus.

Agenda 1: Discrepancy in energy setoff submitted by GEDA with purchase agreement.—Monitoring system thereof

The energy injected by WEGs is purchased by various distribution licensee and open access consumers located within the area of distribution licensee. GEDA is issuing details of energy injected by WEG and issuing statement for share of electricity to each distribution licensee. GEDA is issuing statement on monthly basis for each polling station. SLDC is adjusting such quantum of electricity (Say quantum 'X') in the drawl of respective distribution companies. The distribution licensee is settling the energy charges with WEGs for the energy purchased by them (say "Y"). The remaining energy ("X-Y") purchased by open access consumers located within the respective distribution licensee is adjusted by distribution licensee giving credit in their monthly bill.

The statement for share of electricity issued by GEDA is followed by the purchase agreement executed by distribution licensee as well as open access consumers located within the area of that distribution licensee. Such consumer may be purchasing energy from WEG owners or wheeling energy from their own WEGs. In this process of allocating share of electricity by GEDA, it is required to ascertain that the share of electricity computed for each distribution licensee should be in accordance with purchase agreement.

It is informed by TPSECL that the energy setoff given by SLDC in their weekly bills is not in line with purchase agreement executed by the open access consumer of their licensee area (**Annexure-1**) consequent upon discrepancy in net energy drawl. Since SLDC is considering energy setoff based on the inputs (as per the share allocation) given by GEDA, SLDC has checked data submitted by GEDA. It is noticed that share of electricity to distribution of electricity and the agreements submitted by TPSECL is differing. SLDC is considering the energy setoff given by GEDA, therefore it is necessary that data submitted by GEDA are required to ascertain with purchase agreement.

SLDC has analyzed the entire process of allocating share of energy injected by WEGs. It is found that there is no mechanism exists in state transmission network which ensure that share of electricity allocated by GEDA are in line with purchase agreement. SLDC has obtained the different information about PPA from distribution licensee, GEDA and GETCO. It is noticed that information received from different sources are deviating. As a result, while certifying such energy by SLDC for adjusting drawl on the basis of information submitted by GEDA, there is objection from distribution licensee etc. The one of the reason is that all entities are not updated from the WEGs introduced, change in share allocation of WEGs, new power purchase agreement etc. In order to prevent/address such discrepancy, it is required to be monitor by Nodal Agency who can communicate with all concerned state entities.

Further, clause 10(iii) of Open Access Regulation 2005 issued by GERC provides the role of SLDC for commencement of bulk capacity agreement and to issue effective date of commencement of long term open access which includes the transaction from WEG also. Intra State ABT mechanism also

provides submission of energy allocation to SLDC for computation of Unscheduled Interchange of all distribution licensee of State. In consideration with role and responsibilities assigned to SLDC, it is decided that SLDC will monitor the transaction and certified the energy injected by WEG on receipt of information from GEDA w.e.f. 1st April'2010. The monitoring mechanism will be as under:

- (i) Transmission licensee and distribution licensee shall furnish the information of bulk power transfer & purchase agreement for use transmission and distribution network not later than seven days after execution.
- (ii) The respective consumer or distribution licensee as the case may be shall submit the copies of agreement executed with transmission licensee, distribution licensee and purchase agreement with a proposed date of commencement as per Open Access Regulation 2005.
- (iii) SLDC shall post the information of wind energy generators and their beneficiaries along with the name of polling station, percentage share, commencement date etc. on every month.
- (iv) GEDA shall submit the energy injection as presently followed with necessary checks that share of electricity allocated by them are in accordance with the information provided by SLDC as per para (iv).
- (v) All consumer or distribution licensees as the case may be have to ensure that the information provided by SLDC as per para (iv) are in order and update regularly. In the event of any discrepancy, same may be informed to SLDC.
- (vi) The energy allocation received from GEDA for the transaction which is not registered with SLDC may not be considered while adjusting drawl of distribution licensee.

GEDA and GETCO have to submit the details of wheeling transactions and the purchase agreement to SLDC up to 31st March'2010 before 15th of April'2010 in the prescribed format as per **Annexure-2**.

Distribution licensees, STU (GETCO), GEDA have to submit consent for above said monitoring mechanism and to submit information required by SLDC.

SLDC would like to discuss and implement from April'2010 onwards.

Agenda 2 : Submission of share allocation by GEDA on weekly basis in respect of TPL-Ahemedabad and TPL-Surat.

GEDA vide letter dated 28th January'10 (Annexure-3) requested SLDC to continue monthly basis energy accounting for wheeling instead of 15 minute weekly basis in respect of TPL-Ahemedabad and TPL-Surat on the ground that such data are submitted by GEDA for the mock trial purpose. GEDA intend to

covey that such mock trial data may not be correct and resulting in error while giving energy setoff by SLDC to TPL-Surat & TPL-Ahmedabad.

The energy computation in respect of TPL-Surat and TPL-Ahmedabad changed from the date of commissioning of TPL-Sugen. The methodology finalized by SLDC is as per mutually agreed by all concerned entities. It was decided that the energy setoff of energy injected by WEG will be given as per the methodology finalized in Intra State ABT which is on 15 minute basis. The energy accounting of TPL-Surat and TPL-Ahmedabad changed to weekly basis from the date of commissioning of TPL-Sugen. The rationale for adopting this methodology is that the energy setoff on 15 minute basis will be more accurate than the earlier methodology followed on monthly basis. Accordingly, energy allocation data submitted by GEDA on weekly basis have commercial implication. The methodology finalized (also posted on SLDC website) is obvious that data received from GEDA will be used for commercial purpose.

Further, the energy setoff taken into account is to correct the unscheduled interchange charges of TPL-Surat and TPL-Ahmedabad whereas the setoff is to be given as per statement of share allocation given by GEDA on monthly basis. Therefore, the energy setoff to open access consumer followed by distribution licensee is not changed.

The above indicate that as far as the GEDA is concerned, the methodology for setoff given to open access consumer on monthly basis is not changed. The energy setoff to distribution licensee at their periphery area is changed as per mutually agreed methodology in order to correct their unscheduled interchange. If allocation data submitted by GEDA is not correct, the GEDA has to provide correct information to SLDC for deriving correct drawl of TPL-Ahmedabad and TPL-Surat.

SLDC is in the opinion that allocation of energy can be changed but the basis of capacity allocation which is purchase agreement should not be changed. In the event of discrepancy in consideration of purchase agreement, SLDC may require to revise the energy account. TPSECL is requested to submit the purchase agreement during meeting. GEDA may clarify.

SLDC would like to discuss and decide the necessity to revise the energy account on the basis of clarification by GEDA.

Agenda 3 : Energy Setoff of energy injected by WEG to respective distribution licensee on weekly basis in Intra State ABT.

In accordance with the Section 32 of IE Act'2003, the State Load Dispatch Centre has to keep accounts of the energy transmitted through the grid. Accordingly, SLDC have to issue and certify the energy transmitted through the grid for all open access transaction. Further, Amendment Order no.3 of 2010 issued by Hon'ble GERC provides the specific treatment in respect of allocation of energy injected by WEGs and specify the role of GEDA and SLDC.

In pursuance with the aforesaid order, SLDC has communicated GEDA to start submitting the share allocation of energy injected by WEGs w.e.f. 00.00 hrs of 5th April'10 (**Annexure-4**). While preparing energy account by SLDC, energy allocation given by GEDA will be used for commercial purpose on weekly basis. It is necessary that information submitted by GEDA should be correct so as to avoid revision of weekly energy accounting. The all distribution licensee, GEDA have to take a note of above change.

Proposal

While implementing above change, GEDA should submit data with prudence check with present agreement of distribution licensee and open access consumer. The data should reach to SLDC on Wednesday for timely issuing of energy account by SLDC. The percentage energy allocation derived by SLDC on the basis of submission of GEDA will be covered in the weekly bill. However, detail verification of each WEGs wise energy data required by distribution licensee shall be done with GEDA.

Further, any query from WEG owners in respect of energy account of wind generation to be comply by GEDA. Similarly, any query in respect of weekly energy account from open access consumer which are embedded part of distribution licensee is to be addressed by respective distribution licensee. The all distribution licensee and GEDA have to submit consent for same.

GEDA and distribution licensee shall take note of above change in line with Amendment order no.3 of 2010 issued by GERC and submit the consent for procedure of addressing queries, verification from distribution licensee, open access consumers and WEGs if any.

SLDC would like to discuss and GEDA & Distribution licensee

Agenda 4 : Collection of SLDC Fees and Charged from Wind Energy Generators.

In accordance with the order of GERC, SLDC fees and charges for the use of state transmission network is to be paid by all WEG generators and long term open access consumers/distribution licensee. Since WEGs generators are in huge quantum, it is not possible to issue invoice to all individual WEG owners.

The SLDC fees and charges for energy purchased (including WEG) by distribution licensee is collected from distribution licensee. However, WEGs and open access users other than distribution licensee purchasing energy from WEGs who has to pay SLDC fees and charges directly to SLDC. The statement of SLDC fees and charges is given to GEDA for informing them to coordinate for payment.

Since GEDA is carrying out coordination with development of wind energy in the State and certifying energy injection and wheeling energy, GEDA is having all the information of WEG owners and open access consumers. Therefore, it is appropriate to coordinate GEDA with WEG/Open access consumers for SLDC fees and charges.

In view of above, it is proposed that GEDA shall coordinate all WEG owners to make payment of SLDC fees and charges. GEDA has to submit the consent for the above.

SLDC would like to discuss and GEDA is requested to submit consent.

Agenda 5: RTU Installation and Data Integration with SCADA

Wind Generators are injecting energy in the grid having capacity of 1638 MW. The energy is measured and monitored at interface points of grid. In view of wide variation in injection of energy at polling station, SLDC has emphasized necessity of real time data communication from such interface points for the purpose of monitoring purpose.

SLDC/STU has already started and installed RTU at some of the polling stations of GETCO and integrated data with SCADA system. Similarly, M/s. Suzlon has also installed RTUs in their substations. It is necessary that all forthcoming substations and existing substations where RTU is yet to installed, same is required to be expedited.

SLDC would like to share such information with present status.

Agenda 6: Compliances of Order No.2 of 2006 issued by GERC

Clause 23 of order no.2 of 2006 issued by GERC provides that for the purpose of physical measurement of energy, WEGs will have to provide ABT compliant meters. The meters were to be installed latest by 30th November 2006. The process of installation of ABT compliant meters as mentioned above shall be supervised by GEDA. The compliances of above provision by GEDA is affecting the energy accounting to be carried out by SLDC.

In exercising the role of SLDC under section 32(2) of Indian Electricity Act'2003, for Supervision and monitoring over intra state transmission network, SLDC would like to ascertain the compliances of the order no. 2 of 2006. Further, GEDA has to submit the compliances of direction issued under order no. 2 of 2006. SLDC is unaware of the any compliances submitted by GEDA in this regards.

The recent introduction of renewable energy certificate and wind power policy issued by 2009, it is anticipated to increase the capacity of non renewable energy sources in the State power system. The need of adequate energy accounting and commercial mechanisms capable to measure energy on 15 minute basis is essential.

In consideration of above, SLDC would like to know the status compliances of order no.2 of 2006 issued by GERC so that same can be reported to Hon'ble GERC for further necessary action.

SLDC would like to discuss and GEDA is requested to submit the status of meter installation.

Agenda 7: Separation of energy setoff between SEZ distribution licensees.

Recently, Hon'ble GERC has issued two numbers distribution licensee namely Torrent Energy Ltd. and Mundra Port SEZ Ltd. There may be existing consumer within the area of new distribution licensee purchasing power from WEGs. Further, within the SEZ area, the consumer may purchase energy either from existing distribution licensee or SEZ distribution licensee. Therefore, above change required to identify separation of energy allocation by GEDA between SEZ distribution licensee and existing distribution licensee.

In order to separate the such wind energy between distribution licensee and SEZ distribution licensee, the respective distribution licensee have to coordinate with GEDA, furnish details of consumers to GEDA so as to enable them to separate energy.

SLDC would like to discuss and request GEDA & distribution licensee to ensure the separation of allocation of energy injected by WEGs.

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BY Courier

ANNEXURE-1



torrent
POWER

SVC/ 10639
December 3, 2009

Chief Engineer (SLDC)
State Load Dispatch Center,
Gotri,
VADODARA 390 021

Sub: Energy Accounting Statement

Dear Sir,

This has reference to the treatment given to wind energy in Energy Accounting Statements (EAS) from August 2009 to date issued by SLDC. The principles and methodology dealing with the same are now clear. In this regard, we have following observations:

1. Wind Energy reconciliation:

- 16/11/09
- a. The EAS does not contain individual injection by wind farms of consumers as well as wind energy supplier (GPEC) is not available. Also, the data of total consumption made available by GEDA does not match with that calculated by SLDC. Hence we are not able to accurately settle setoff to consumers and clear power purchase bills of the wind energy supplier.
 - b. Time block wise data of wind energy is required for accurate accounting of UI charges and time block wise energy balancing.
 - c. Since the list of consumers who have been given setoff is not available, we are not able to confirm whether the entire consumption for which setoff has been given are consumers or suppliers of wind energy to TPL, Surat Distribution Operations.

Statement showing injection of wind energy for 24th July, 2009 (2 consumers) and 25th July 2009 (13 consumers) to 1st August, 2009: We request SLDC to kindly issue statement showing injection of wind energy for 25th July 2009 to 1st August, 2009

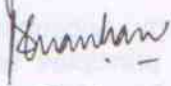
UI Rate: The UI rate has been considered at 105% for over drawal and 95 % for under drawal of the defined UI rate on 15th and 16th August, 2009. We understand this to be in line with Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008. These regulations state that it shall apply to the applications made for grant of 1[short term open access] for energy transfer schedules commencing on or after 1.4.2008 for use of the transmission lines or associated facilities with such lines on the inter- State transmission system.

In this regard, it may kindly be noted that the Surat distribution operations of TPL is directly connected to the SUGEN busbar. The injection point of SUGEN is the same as the drawal point of Surat. The GUVNL letter Rev. No.: GUVNL/COM/1452 dated 23rd October, 2008 states that Open Access is not required when Surat operations draw power through SUGEN-Surat dedicated transmission lines. Open Access is not attracted and no applications / approvals have been undertaken for the same. Hence correction in UI rate stated in the CERC regulation is not applicable in this case. SLDC may be pleased to consider the same and revise the UI rate accordingly

4. **Adjustment Calculation:** We are not able to understand the methodology and numbers involved in the calculation
SLDC may kindly be pleased to share details of adjustment calculation and publish the same with the Statements of Imbalance energy

We are thankful to the SLDC to have streamlined most issues related to ABT operations. We request SLDC to kindly decide upon these remaining issues at the earliest to enable us to close our books of accounts correctly.

Thanking you,
 Yours Sincerely,



S. V. Chauhan
 GM (Tech)

FORMAT 1 : INFORMATION OF BULK POWER TRANSMISSION AGREEMENT IN RESPECT OF WEGs (TO BE SUBMIT BY STU-TRANSMISSION LICENSEE)				
SR NO	NAME OF INJECTING UTILITY OR WEG OWNER	CAPACITY (AS PER TRANSMISSION AGREEMENT)	NAME OF RECEIVING UTILITY	DATE OF COMMISSIONING
1	2	3	4	5

FORMAT 2 : INFORMATION OF PURCHASE AGREEMENT IN RESPECT OF WEGs (TO BE SUBMIT BY DISTRIBUTION LICENSEE)				
SR NO	NAME OF INJECTING UTILITY OR WEG OWNER	CAPACITY (AS PER PURCHASE AGREEMENT)	NAME OF RECEIVING UTILITY	DATE OF COMMISSIONING
1	2	3	4	5



Gujarat Energy Development Agency

(A Govt. of Gujarat Organisation)

4th Floor, Block No. 11 & 12, Udyogbhavan, Sector - 11, Gandhinagar - 382 017. (Gujarat), India.
Ph : (079) 23247086/89/90 Fax : 23247097 E-mail : info@geda.org.in Website : www.geda.org.in

Ref No. :

GEDA/SLDC/TEC/ ૪૬૪ /

Date :

28-1-201

To,

Shri. N.H.Suthar
Chief Engineer
State Load Dispatch Centre
132 kV Gotri Sub Station Compound, Near T.B.Hospital
Vadodara 390 021

Subject: Energy Accounting of Wind farm projects

Reference: Torrent Power's letter No. TPL/11828 dated 1-1-2010

Dear Sir,

With reference to the subject cited above M/s. Torrent Power Ltd. has informed that they are being credit of the energy on the basis of the weekly generation reports of the Wind Energy Projects.

In this regards, kindly recall that in one of the meetings of the State Energy Accounting, it has been decided that the weekly generation reports, are only for the purpose of the Energy Accounting and as a part of the mock exercise of the ABT metering, and further that such weekly generation reports shall not form the basis for the commercial transactions.

You are aware that for the commercial transactions, GEDA and GETCO jointly take the readings of the energy sent out of the respective Windfarm Substations to the GETCO grid on the monthly basis, which forms the basis of allocation of the monthly energy fed to the grid by the respective Windfarm owners, and a monthly certificate of the energy fed into the grid by the individual Windfarm owners, Substation wise is sent to all concerned.

The weekly generation report is not jointly certified by GEDA/ GETCO , and further that the weekly reports would not match with the monthly data due to overlap of the weeks and approximation of the weekly generation.

It is therefore requested to adhere to the earlier procedure of giving credit on monthly basis.

Yours faithfully

S. B. Patil
Senior Executive

cc to: Shri. J.D. Tamhane, Addl. C.E.(R &C),GETCO, Race Course Circle, Vadodara 390 007
Shri. Kapil Khandelwal, V.P.(Fin.), Torrent Power Ltd., Sabarmati, Ahmedabad 380 005



GETCO

GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED

ANNEXURE-4

STATE LOAD DISPATCH CENTRE, GOTRI, VADODARA

Tel:- (0265)2352103, Fax (0265)2352019, Website : sldcguj.com, Email sldc@gebmail.com

Ref No: GETCO/SLDC/1551

Date: 4th April'09

By Fax:

To,
The Director,
Gujarat Energy Development Agency,
4TH Floor, Block No.11 &12, Udhog Bhavan,
Sector-11, Gandhinagar-Gujarat (Fax No. -079-23247097 / email : info@geda.org.in)

Subject: Bringing Generating Stations of Gujarat State, Distribution Licensees and other grid users under the purview of Intra-State Availability Based Tariff – Commercial Operationalization thereof.

Dear Sir,

In pursuance of the Clause 16 of Amendment Order No.3 of 2010 issued by Hon'ble Gujarat Electricity Regulatory Commission (short as "GERC"), it is to inform that **Intra State Availability Based Tariff shall be fully implemented with all its commercial aspects w.e.f. 5th April'2010**. Accordingly, all generating stations, distribution licensee and other grid users as specified by Hon'ble GERC vide clause no.6 of Amendment order read with order no. 3 of 2006 dated 11th August'2006 will be covered under the purview of Intra State Availability Based Tariff.

Further, as per clause no.23 of Annexure-I provides that GEDA has to provide weekly energy injected by each WEGs to SLDC indicating allocation to respective distribution licensee. The above allocation is to be determined by GEDA on the basis of power purchase agreement executed by WEG owners. It is to be note that drawl of distribution licensee will be adjusted on 15 minute basis on the basis of allocation submitted by GEDA. The 15 minute energy as per allocation will be derived as per the SEM (ABT) meter data of polling stations.

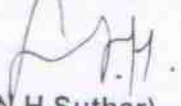
GEDA is already submitting the allocation of energy injected by WEGs for the mock trial purpose. The same energy allocation data of WEGs will now be used for the purpose of commercial energy accounting by SLDC. It is therefore requested to review the submission of energy injection by allocation and ensure that allocation given by GEDA shall be in line with purchase agreement of WEG owners and for the commercial operation of Intra State ABT.

You are requested to take note and take necessary action for compliances of above.

Thanking you,

Yours faithfully

For State Load dispatch Centre-Gujarat


(N.H.Suthar)
Chief Engineer

Copy to: (i) PS to MD(GETCO), Corporate Office, SP Bhavan, Vadodara.