

CERC Staff Paper

Amendment to Regulations on POWER SYSTEM DEVELOPMENT FUND (PSDF), Unscheduled Interchange charges and related matters Regulations, Indian Electricity Grid Code Regulations, Power Market Regulations and Measures to relieve congestion in real time operations.

The “Power System Development Fund” was constituted under the CERC (Power System Development Fund) Regulations, 2010 notified by the Central Commission after previous publication in the Official Gazette dated 4th June 2010. The CERC (Power System Development Fund) Regulations, 2010 have been laid before each House of the Parliament on 26th August, 2010.

2. Section 79(1)(c) of the Electricity Act enables the CERC to *inter alia* regulate interstate transmission of electricity. The interstate transmission of electricity involves, *inter alia*, the regulation of the grid in accordance with the specifications contained in the grid code. In interstate transmission of electricity, oversight and regulation by the CERC is necessary. Matters such as frequency, voltage and congestion in the transmission corridor have to be regulated. The CERC has formulated a mechanism to ensure that grid discipline is maintained. In order to ensure and foster adherence to the grid, a commercial mechanism has been evolved by which those who breach the discipline will be compelled to pay what is referred to as “unscheduled interchange charges”. This would be payable when the users of the grid who should adhere to scheduled dispatch and drawal of electricity do not conform to their commitments. Secondly, in order to relieve congestion in the real time, a charge called congestion charge is also applied as a commercial measure. Thirdly, a market splitting charge is also levied which is a mechanism adopted by the power exchanges where the market is split because of the congestion in transmission. This market splitting mechanism is divided into National Load Dispatch Centre bid areas or zones which are cleared individually at their respective area prices. As a consequence of such market splitting, the energy balance in every bid area is reached upon the calculation of demand and supply in individual bid areas. The available transmission corridor capacity between various bid areas is also taken

into account. Thus, the congestion amounts arise from the difference in market prices of different regions as a consequence of market splitting. A fourth charge is through reactive compensation which compels the maintenance of power voltages.

3. The above four charges, namely – **(a) unscheduled interchange charge, (b) congestion charge, (c) market splitting congestion amount, (d) reactive compensation for failure to maintain voltage** are constituents of PSDF.

4. The above charges are settled between those who pay and those who need to receive. Thus those who use transmission lines and generate are entitled to claim these charges in accordance with the mechanisms which are specified in the Regulations. After final settlement of claims take place, there are surplus amounts which lie in separate accounts maintained by the Regional Load Despatch Centres. These surplus amounts do not have any trace or origin but they have to be subjected to use because they have been generated as a result of regulation by CERC. In order to enable CERC to plough these funds back for effective purposes of regulation of interstate transmission the amounts at present are pooled by an institutional mechanism and credited into a special fund called the Power System Development Fund.

5. Transmission is a public service and of strategic importance. Uncertainty in demand growth/ fuel supplies and high impact low probability events in the system, further necessitate creation of a robust transmission system. Recognizing this aspect, the CERC has notified on 31st May 2010, a separate Regulation for grant of regulatory approval to the CTU for expansion of inter-State transmission system. Vide order dated 31st May 2010, the CERC has approved nine high capacity corridors from the power projects in Chhattisgarh and Orissa.

6. Considering the uncertainty in generation projects, there have been requests from some stakeholders for deferring some transmission projects. However while

placing such demands, it is not realized that a delayed transmission system is as good as NIL transmission system as the Right of Way (ROW) issues would only become more pronounced in days to come. It is felt that the transmission highway or asset must be in place and simultaneously concerns of beneficiaries regarding enhancement of tariff for servicing new transmission assets and tariff computation under POC regime need to be addressed. It is also observed that due to uncertainty and/or load or generation not coming up as forecasted in a particular pocket, transmission systems have to be kept open for significant periods of time (about 20-30% of the time) in order to control high voltages.

7. **Staff proposal:** The objective of the PSDF Regulations was to utilize the surplus fund generated in the UI Pool account, congestion amount account, congestion charge account and reactive energy charge account inter-alia primarily for servicing the investment made in transmission with the larger objective of removing congestion. However, the PSDF in its existing framework, faces some practical implementation challenges, especially in terms of disbursement of fund from the PSDF.

Notwithstanding the above, there is no disagreement about the rationale for a deterrent against overdrawal from the grid in the form of higher UI charge for such overdrawal, or for that matter incidence of congestion charge, reactive energy charge and congestion amount etc. In order to overcome the implementation constraints as explained above, a new framework is being suggested for utilization of the surplus fund generated on account of the aforesaid four mechanisms. The objective of the PSDF as stated above inter-alia was primarily to facilitate removal of congestion by servicing investment in transmission. The same objective is sought to be achieved in another way by relieving the burden of the beneficiaries in terms of their liability to pay transmission charges. Relief in burden of payment of transmission charges would enlist the support of the stakeholders including Designated Inter-State Customers (DICs) for any new investment in transmission which would also contribute towards removal of congestion.

7.1 Considering the above and the subsequent developments with respect to high capacity corridors, it is proposed that surplus funds transferred or being transferred from above mentioned four charges into the PSDF may be transferred back from PSDF to respective charges accounts and thereafter these surpluses may be utilized towards reduction of transmission charges. Surplus Funds accumulated till 30.06.2011 may be utilized for reduction of transmission charges of beneficiaries under the pre-existing Regional Postage Stamp method, in the proportion of transmission charges paid by them or due from them upto 30.06.2011. However, surpluses accumulated w.e.f. 01.07.2011 may be used for reduction of transmission charges in respect of DICs in proportion of transmission charges computed under new POC regime. With the proposed amendments for utilising surplus funds of aforementioned four charges towards transmission charges the underlying objective of strengthening transmission facilities of these regulations would be achieved.

7.2 In view of above it is proposed to amend PSDF Regulations and consequent changes in Unscheduled Interchange charges and related matters Regulations, Indian Electricity Grid Code Regulations, Power Market Regulations and Measures to relieve congestion in real time operations Regulations. It is further proposed that detailed procedure for utilization of surplus funds for transmission charges would be framed by NLDC. Salient features of the proposal are as under:-

- The regulations on Power System Development Fund (PSDF) may be repealed to provide that the amounts lying in the Power System Development Fund, together with interest earned thereon, shall be credited back to :- the 'Regional Unscheduled Interchange Pool Account Funds' under the Central Electricity Regulatory Commission (Unscheduled Interchange charges and related matters) Regulations, 2009; 'Congestion Charge Account' under the Central Electricity Regulatory Commission (Measures to relieve congestion in real time operation) Regulations, 2009 as amended from time to time; 'National Load Despatch Centre account' vested with the Congestion Amounts arising from the difference in market prices of different regions as a consequence of market splitting, under the Central Electricity Regulatory Commission (Power Market) Regulations, 2010; Regional Reactive Energy

Account under the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.

- CERC (IEGC) Regulations, 2010 may be amended to provide that the money remaining in the regional reactive account after payout of all VAr charges upto 31st March of every year shall be distributed to RLDCs for onward adjustments/re-distribution among the ISTS beneficiaries in proportion to the transmission charges paid by them upto 30.06.2011 under the pre existing transmission pricing regime and with effect from 01.07.2011 among the Designated ISTS Customers in proportion to the transmission charges computed under the existing transmission pricing regime.
- CERC (Measures to relieve congestion in real time operation) Regulations, 2009 may be amended to provide that the amount standing to the credit of Congestion Charge Account being the undisbursed amounts, if any, shall be distributed to RLDCs for onward adjustments/re-distribution among the ISTS beneficiaries in proportion to the transmission charges paid by them upto 30.06.2011 under the pre existing transmission pricing regime and with effect from 01.07.2011 among the Designated ISTS Customers in proportion to the transmission charges computed under the existing transmission pricing regime.
- CERC (Power Market) Regulations, 2010 may be amended to provide that the Congestion Amounts arising from the difference in market prices of different regions as a consequence of market splitting shall be credited to the 'National Load Despatch Centre account' for onward adjustments/re-distribution among the ISTS beneficiaries in proportion to the transmission charges paid by them upto 30.06.2011 under the pre existing transmission pricing regime and with effect from 01.07.2011 among the Designated ISTS Customers in proportion to the transmission charges computed under the existing transmission pricing regime.

- CERC (Unscheduled Interchange charges and related matters) Regulations, 2009 Regulation may be amended to provide that the amount left in the UI pool account fund after final settlement of claims of Unscheduled Interchange charges of the generating station and the beneficiaries shall be distributed to the RLDCs for onward adjustments/re-distribution among the ISTS beneficiaries in proportion to the transmission charges paid by them upto 30.06.2011 under the pre existing transmission pricing regime and with effect from 01.07.2011 among the Designated ISTS Customers in proportion to the transmission charges computed under the existing transmission pricing regime.
- Detailed procedure for adjustment/re-distribution on above lines may be prepared by NLDC with the approval of the Commission.

8. The stakeholders are requested to submit their views on the above proposal of Staff of CERC.