

Scheduling techniques for tamil nadu

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Agenda



- Introduction
- Regulations and highlights of effects on utilities
- RE Scheduling Mechanism
- Known problems and solutions
- Preparedness of SLDC Tamil Nadu for RE Scheduling
- Conclusion





"Regulatory commissions have recently notified many regulations which have huge impact on the operation of load despatch centres (LDC). These regulations have increased the complexity of the business processes of LDC manifold. Scheduling and accounting of RE power is one such complex process."



TNERC (FORECASTING, SCHEDULING AND DEVIATION SETTLEMENT AND RELATED MATTERS FOR SOLAR AND WIND GENERATION) REGULATIONS, 2017

Regulations and highlights of effects on utilities







SLDC perspective

- One and half hour basis for forecasting, scheduling, and accounting – limiting to 16 revisions for intra day.
- Effective from 4th time block ...
- Forecasting, provision for notifying forecast to QCA/ RE Generator
- Provision for QCA to overrule that forecast and submits its own forecast and capability
- Scheduling based on the submission of the generator
- Accounting, and deviation billing considering error % of forecast



TNERC (Forecasting, Scheduling and Deviation Settlement and related matters for Solar and Wind Generation) Regulations, 2017



• <u>QCA</u>

- Forecasting internally
- Receiving Forecast from LDC
- Choose between the two
- Coordinate with constituent REG and arrive at the capability
- Submit capability to LDC
- Receive schedule from LDC
- Receive DSM charges from LDC
- Apportion DSM charges among the constituents





SLDC perspective















QCA perspective







RE SCHEDULING



RE Scheduling Mechanism





KNOWN PROBLEMS AND SOLUTIONS

RE Scheduling







Known Problems and Solutions

- **<u>Problem</u>**: Defining the Scheduling Entity
 - **Solution:** Defining Pooling Station and QCA
 - **<u>Problem</u>**: Two or more QCAs for a pooling station
 - <u>Solution</u>: Regulation has clearly defined that there shall be only one QCA for one Pooling Station



Known Problems and Solutions



- **<u>Problem</u>**: Defining Quantum of Capacity that shall be scheduled
 - Solution: Quantum should be defined based on point of connection of the REG and measurement point at the pooling station
 - Problem: There will be difference in value between ex-bus and interconnection point when there is load connected locally
 - <u>Solution</u>: Compute similar to arriving effect of OA on the DISCOM schedule based on the point of connection of OA



Known Problems and Solutions



- **Problem**: Effect on DISCOM schedule
 - <u>Solution</u>: Shall be based on point of connection effects
- **<u>Problem</u>**: Buyer Schedule
 - <u>Solution</u>:
 - Inter-State Buyer In Inter state Scheduling by RLDC
 - Intra-State Buyer (DISCOM) Treating RE as must run plant
 - Intra-State Buyer (other than DISCOM) In Open access scheduling. Assumption is that the buyer and seller will have mechanism to address treatment of reduced injection.



15

PREPAREDNESS OF RE SCHEDULING IN SLDC TAMIL NADU

RE Scheduling





Preparedness of RE Scheduling in SLDC Tamil Nadu









Thank you

