

**MINUTES OF THE 17TH MEETING OF THE
CENTRAL ADVISORY COMMITTEE (CAC) OF CERC
HELD ON 20TH MARCH, 2013 AT NEW DELHI**

**VENUE : “AMALTAS” HALL, INDIA HABITAT CENTRE,
LODHI ROAD, NEW DELHI – 110 003.**

The meeting was chaired by Dr. Pramod Deo, Chairperson, Central Electricity Regulatory Commission (CERC). A list of participants is **enclosed** at *Annexure-I*.

2.0 Shri Rajiv Bansal, Secretary, CERC welcomed the members of the Central Advisory Committee of CERC.

3.0 In his opening remarks, Chairperson, CERC expressed his appreciation for the advice and valuable suggestions given by the Central Advisory Committee on several important issues facing the sector and the Central Commission in particular. The Commission has also benefitted immensely from the advice of the CAC in the past. Referring to the agenda for the day’s discussion, he mentioned that Connectivity and Long/Medium term access was yet another critical issue of facing the power sector today.

4.0 Dr. Deo said that the Central Commission has implemented the framework for long term, medium term, short term open access, trading through traders and power exchanges, power market regulations, ABT mechanism, IEGC. With these mechanisms, concerted efforts have been made towards market development. The Central Commission introduced open access in 2004 through regulations on open access in inter-State

transmission of electricity. The applicants were required to firm up the beneficiaries and quantum of drawl to avail Long Term Open Access (LTOA). The connectivity was inbuilt with the concept of long term access. With time it was realized that 'Connectivity to the grid' and 'Grant of long-term access and medium term open access' might need to be dealt separately. The National Electricity Policy and Tariff Policy also recommended that planning and implementation of transmission network should be based on anticipated need basis; and prior agreement with the beneficiaries would not be a pre-condition for network expansion.

The vision of the policies was to undertake transmission planning to achieve load generation balance, to encourage competition and development of market. In view of these developments, the Central Commission de-linked "connectivity" with Long Term Access in the new Regulations for Grant of Connectivity, Long Term and Medium Term Access in 2009. However, mere connectivity did not allow grid usage. With this philosophy in mind, the Central Commission also granted regulatory approval to CTU for creating nine high capacity transmission corridors. The intent was that absence of transmission infrastructure should not be a bottleneck for seamless power flow either through long-term and medium term / short-term open access.

However, people have raised concerns in this regard. It has been reported that generators are mainly resorting to Connectivity to avoid payment of transmission charges. They are applying for LTA with no long term tie up. It has been contended that the situation is leading to uncertain grid usage because of short term trading and sub-optimal development of grid. Different views have been floated by stakeholders. One of the views has been to again make it mandatory for the developers to tie up at least

85% of power through long term PPA for better transmission planning. He mentioned that the issue required intensive discussion under the legislative and policy framework of Indian power market to evolve a feasible solution. The Commission needs to strike a balance between the need for facilitating competition and requirement of power system planning and operation. He requested the members of the Committee to give their considered views on the agenda for discussion and help the Central Commission take a view in this regard.

5.0 The address of Dr. Deo was followed by a presentation made by Shri A.K. Saxena, Chief (Engg.), CERC. A copy of the presentation is **enclosed** at **Annexure-II**. The presentation highlighted the provisions of the Act, Policy and Regulations relating to grant of connectivity, long term access and medium term open access. The issues raised in the context and suggestions from the staff side of the Commission were also presented. The presentation summed up the following issues for discussion: - (i) whether application for connectivity should be accompanied by application for LTA; (ii) whether application for LTA should necessarily have firm points of injection and drawal; and (iii) whether PPA for a fixed quantum (%) of capacity should be firmed up in advance (say 5 years).

6.0 **Discussion**

The issues highlighted were discussed in detail. The following views were expressed by the members of the CAC.

- Transmission planning should be done keeping in view the spirit of NEP/TP. Directions in NEP are clear. If generation capacity projection and Demand projection are possible, why cannot we do transmission system projection with certain correction factor.

CTU/CEA should do transmission planning in anticipation of generation and demand.

- Over-safe operation may not fit into present scheme of market development.
- Institution and Capacity building of States is required on an urgent basis.
- PPAs generally give the flexibility of selling to a third party in the event of failure of payment by the buyer. How will this be possible without adequate transmission planning by CTU/CEA. Redundancies need to be created.
- There are challenges in transmission planning and operation without long-term open access and PPA. Concerns on both sides should be taken into consideration.
- NEP cannot be read in isolation. NEP also says, Case 1 bidding should be done. But States are not acting.
- High capacity corridors built but there is no downstream player to use this. Only 10% of the LTA granted have long term PPA.
- Building transmission without PPA will lead to idling of assets.
- Depth in market can come through LTA. But this should not constrain transmission planning.
- Create environment for long term PPA. For this, SERCs should require discoms to submit adequacy statement on power procurement.
- Connectivity should not be free of cost. There should be incentive/disincentive in terms of charges on connectivity
- Coal or hydro resource rich States demand free power. What will happen to this? Will States have long-term PPA for this free power?

7.0 **Consensus:**

After discussion, consensus was evolved on the following:

- ❖ The Regulation cannot be in conflict with Act and Policy.
- ❖ PPA should not be a pre-condition for connectivity and long-term access. But at the same long-term PPA should be encouraged through the requirement of disocom's power procurement adequacy statement by SERC.
- ❖ Redundancies should be created in the transmission system.
- ❖ State transmission planning needs to be improved.
- ❖ There is a need for levy of charges for connectivity. It should not be free. There should be financial incentive/disincentive for connectivity and LTA.
- ❖ The Commission should introduce Capacity Market with double-sided bidding.

8.0 Dr. Deo summed up the discussion by reiterating that the policy and regulatory framework should be designed by balancing the need for investment promotion and system planning and operation. He expressed gratitude for the suggestions given by the stakeholders

The meeting ended with a vote of thanks to the Chair.

LIST OF PARTICIPANTS ATTENDED THE SEVENTEENTH
MEETING OF
CENTRAL ADVISORY COMMITTEE (CAC)
HELD AT INDIA HABITAT CENTRE, NEW DELHI
ON 20TH MARCH, 2013

S. No.	NAME	
01.	Dr. Pramod Deo Ex-Officio, Chairperson, CAC	Chairperson, CERC
02.	Shri S. Jayaraman Ex-Officio Member, CAC	Member, CERC
03.	Shri V.S. Verma Ex-Officio Member, CAC	Member, CERC
04.	Shri M. Deena Dalayan Ex-Officio Member, CAC	Member, CERC
05.	Shri T.L. Sankar Advisor	Administrative Staff College of India (ASCI)
06.	Shri Vinod Dhall	Former Member, Competition Commission of India
07.	Shri R.V. Shahi	Former Secretary, MOP
08.	Shri Pradeep S. Mehta Secretary General	Consumer Unity & Trust Society (CUTS)
09.	Shri Subhash Chand Das Chairman & Managing Director	ASEB & Assam Power Distribution Corporation Limited
10.	Shri R.N. Nayak Chairman & Managing Director	Power Grid Corporation of India Limited
11.	Shri Deepak Amitabh Chairman & Managing Director	PTC India Limited
12.	Shri Anil Sardana Managing Director	Tata Power Company Limited
13.	Shri K. Ramanathan Distinguished Fellow	The Energy & Resources Institute (TERI)
14.	Ms. Pamposh Bhat Chairperson	Jwala (NGO dealing in CDM & Renewables)
15.	Shri R.K. Madan CEO (Power)	Adani Enterprises Limited

16.	Shri Satish Jindal Chief Operating Officer	JSW Power Trading Company Limited
17.	Shri Bhasker U. Mete President, GEA	Maharashtra State Electricity Power Gen. Corpn. Limited
18.	Shri Kirti J. Amin President	Kisan Vikas Sangh
19.	Shri Raj Kumar Additional Member (Electrical)	Representative of Railway Board
20.	Shri Brij Mohan Director	Representative of Dept. of Consumer Affairs
	Shri M.S. Babu Executive Director (Comml.)	Representative of NHPC Limited
21.	Shri M.K.V. Rama Rao Executive Director (Comml.)	Representative of NTPC Limited
22.	Ms. Rasika Chandihok Director (Energy)	Representative of Confederation of Indian Industry (CII)
23.	Ms. Anita	Representative of PRAYAS
24.	Shri Rajesh Sharma Chief Engineer	Representative of NHPC
25.	Shri Paramjit Singh Deputy Chief Engr.	Representative of PSTCL
26.	Shri Sambit Basu Director (Policy Group)	Representative of IDFC
27.	Shri Rajiv Bansal Secretary	CERC
	SPECIAL INVITEES	
28.	Shri S.K. Soonee CEO	POSOCO

Presentation
to
Central Advisory Committee

Connectivity, Long-Term Access,
Medium-Term Open Access and
Short-Term Open Access

20th March, 2013

Section 38 of the Electricity Act, 2003

Central Transmission Utility (CTU) to provide non-discriminatory open access to its transmission system for use by

- any licensee or generating company on payment of the transmission charges; or
- any consumer as and when such open access is provided by the State Commission under subsection (2) of section 42, on payment of the transmission charges and a surcharge thereon, as may be specified by the Central Commission.

CERC (Open Access in Inter-State Transmission) Regulations, 2004

The application for Long-Term Open Access (LTOA)

- Applicant to inform:
 - Point of drawl i.e. firmed up beneficiaries and
 - Quantum of drawl for LTOA.
- The request for LTOA deemed to include the request for connectivity.
- Transmission system augmentation/ strengthening was undertaken based on long-term open access,
- Medium and short-term open access was to be accommodated within the available spare transmission capacity created for long-term.

Provisions in National Electricity Policy (NEP),2005 (1/2)

- Need for adequately augmenting transmission capacity keeping in view massive increase in planned generation and for development of market.
- Avoiding mismatch between generation and transmission facilities.

contd.

Provisions in National Electricity Policy (NEP), 2005 (2/2)

- To meet the above objectives, NEP inter-alia emphasizes
“Network expansion should be planned and implemented keeping in view the **anticipated transmission needs that would be incident on the system in the open access regime.**”

Prior agreement with the beneficiaries would not be a pre-condition for network expansion.

CTU/STU should undertake network expansion after identifying the requirements in consultation with stakeholders and taking up the execution after due regulatory approvals.”

Provisions in National Tariff Policy (NTP), 2006

The Tariff Policy in Para 7.1 (4) also provides as under :

“In view of the approach laid down by the NEP, prior agreement with the beneficiaries would not be a pre-condition for network expansion. **CTU/STU should undertake network expansion after identifying the requirements in consonance with the National Electricity Plan and in consultation with stakeholders, and taking up the execution after due regulatory approvals.**”

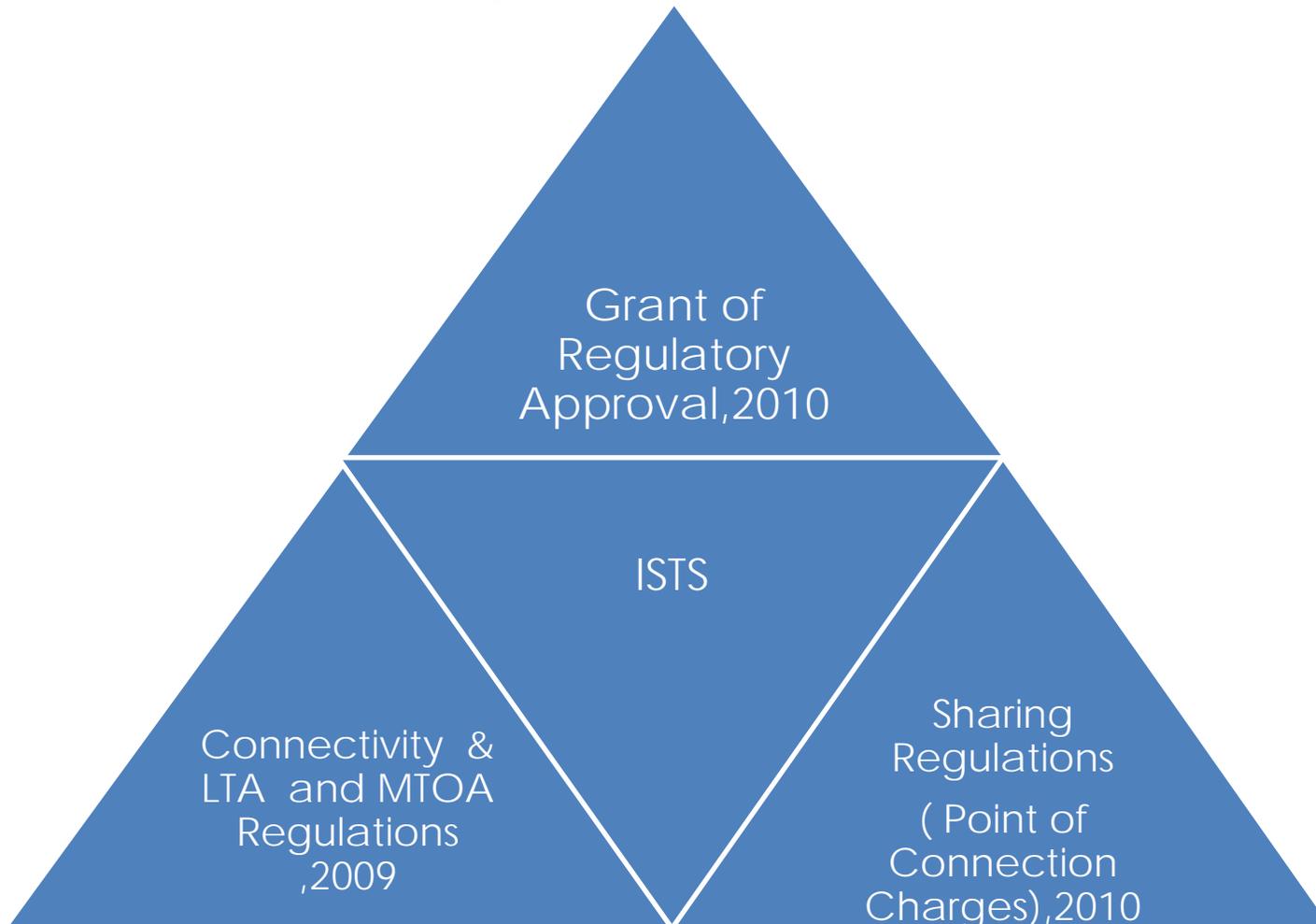
Main Emphasis of NEP/NTP

- Prior agreement with the beneficiaries would not be a pre-condition for network expansion.
 - To promote development of market
 - To encourage competition.
 - To undertake transmission planning to balance the upcoming generation and anticipated load that these generators shall be catering to.

[For implementation of above, point of connection charges introduced by the Commission which recognizes that flow of electrons do not follow the contract path and flows according to the law of physics (path of least resistance)]

Implementation of NEP and NTP

- Major initiatives in Regulatory framework for Inter-State Transmission by CERC



Genesis of Concept of Connectivity

- In view of Developer's finding it difficult to firm up beneficiaries at the time of application for LTOA and therefore to develop dedicated lines up to nearest point of connection (Pooling Point), concept of Connectivity was introduced.
- Connectivity inter-alia facilitated project planning and financing

CERC (Grant of Connectivity, LTA and MTOA in Inter- State Transmission) Regulations, 2009(1)

Regulation 8: Grant of Connectivity

While delinking “Connectivity” from “LTA”, the Commission made an enabling provision in Regulation 8(6) to ensure that the usage of Transmission system would continue to be regulated through Open Access as mandated in Electricity Act, 2003, which reads as under :

“The grant of connectivity shall not entitle an applicant to interchange any power with the grid unless it obtains long-term access, medium-term open access or short-term open access.”

- Not mandatory to apply for Long-Term Access with application for connectivity.
- But mere Connectivity with the Grid, does not allow usage of the Grid. Usage is to be governed by Open Access.

CERC (Grant of Connectivity, LTA and MTOA in Inter- State Transmission) Regulations, 2009(2)

Regulation 12 - Application for Long-term Access

- To contain **name of the entity or entities** to whom electricity is proposed to be supplied or from whom electricity is proposed to be procured **along with the quantum of power**
- Where **Augmentation** of transmission system is **required** for granting Open Access , and if **quantum** of power has not been identified in respect of person to whom it is to be supplied **or source** from where electricity is to be procured , **quantum of power and target region(s) need to be identified.**
- The **Applicant to bear the transmission charges** for such augmentation till identification of source of supply or off-take points (beneficiaries)
- Applicant i.e. Long term customer to bear transmission charges in accordance with prevailing CERC Terms and Condition of Tariff Regulations(**subsequently substituted by Sharing Regulations, i.e. Point of Connection Charges**)

CERC (Grant of Connectivity, LTA and MTOA in Inter-State Transmission) Regulations, 2009(3)

Regulation 12 - Application for Long-term Access

- Construction of such augmentation of the transmission system may be taken up by the CTU or the transmission licensee
 - in phases corresponding to the capacity which is likely to be commissioned in a given time frame
 - after ensuring that the generating company has released 10% advance for main plant packages/ Civil works/ EPC contract.

(Introduced vide Second Amendment 21.3.2012)

- Exact source of supply or destination of off-take to be firmed up and notified to nodal agency at least 3 years prior to the intended date of availing LTA or such time period estimated by CTU for augmentation, whichever is less

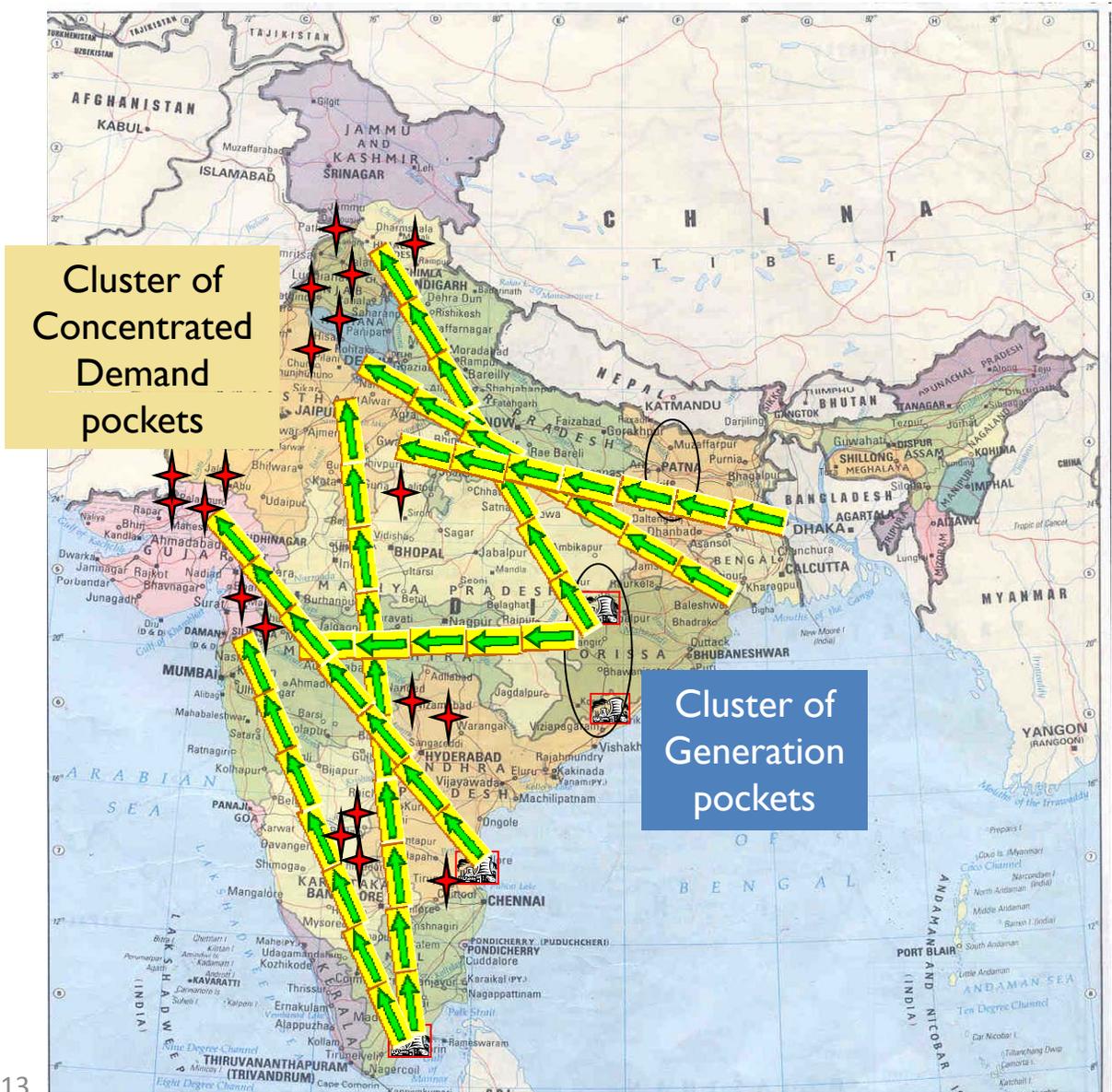
CERC (Grant of Connectivity, LTA and MTOA in Inter-State Transmission) Regulations, 2009(4)

Regulation 9- Criteria for granting long-term access or medium-term open access

- Before awarding LTA, the CTU shall have due regard to the augmentation of inter-State transmission system proposed under the plans of CEA
- MTOA shall be granted if the resultant power flow can be accommodated in the existing transmission system or the transmission system under execution:
- No augmentation shall be carried out to the transmission system for the sole purpose of granting medium-term open access:

Creation of Transmission Highways

CERC has granted approval for investment (of about Rs. 58000 crore) to CTU for Nine high capacity transmission corridors



Cluster of Concentrated Demand Pockets

Cluster of Generation Pockets

Genesis of Regulatory Reforms in Transmission

- Regulatory approvals of
 - Rs 58,000 Cr. (Petition No. 233/2009) and
 - Rs 16,500 Cr. (Petition no. 154/2011)for High Capacity Power Transmission Corridors(HCPTC)
- Most of the IPPs for which these corridors were built did not have identified beneficiaries; only target region was indicated.

Concerns



and

Possible solutions



Concerns raised in connection with Connectivity and Long-Term Open Access (1)

1. The generators are mainly resorting to only Connectivity
2. The generators applying for LTA(even for part capacity) on target regions basis with no long term tie-up for power supply
3. Commitment towards payment of transmission charges as per LTA.
4. Generators resort to STOA
5. Generators approaching CTU/CEA for transmission requirement
 - without permitting adequate time for development
 - resulting in sub-optimal development of the grid

Concerns raised in connection with Connectivity and Long-Term Open Access (2)

Para 3.3 of the Transmission Planning Criteria of CEA dated 1st February, 2013 provides as under:

- *"The long term applicants seeking transmission service are expected to pose their end-to-end requirements well in advance to the CTU/STUs so as to make available the requisite transmission capacity and minimize situations of congestion and stranded asset"*
- Firm knowledge of the buying DISCOMs/States based on long term PPAs is a pre-requisite to decide the landing point
- At least 85% power should be tied up in long-term PPAs at least five years in advance so that transmission can be properly planned and implemented.

Snap shot of Connectivity & LTA with CTU

Connectivity

- No of applications received : 171
- Installed Capacity : 1,79,998 MW
- Capacity sought to be connected : 1,71,128 MW (95%)
- No of applications approved : 74
- Capacity Approved : 61,635 MW

LTA

- No of applications received : 212
- Installed Capacity : 1,77,058 MW
- LTA Capacity sought : 1,34,370 MW (76%)
- No of LTA Granted : 143
- LTA Capacity Approved : 79,884 MW

(Source: CTU Web-Site/16-3-2012)

Prevailing Scenario in Power Sector

- Uncertainties due to Fuel Shortage and Pricing issues
- Tariff Policy provides that State DISCOMs to enter into PPAs with the Generators / Sellers only through competitive bidding route. Signing of PPA depends upon bids invited by States in Case-1 or Case-2
- Review of Standard Bid Documents for Case – 1 and Case – 2 bidding by the Government of India.
- Challenges due to renewables.

Identification of Problems

- Is the problem at Generator end or at load end or both ?
- Problem appears to be more severe at load end because of
 - Lack of proper demand projection and commensurate transmission planning at State level.
 - Lack of clear indication of their long-term transmission requirements.
 - Case-1 and Case-2 biddings are few and far apart in time.
 - Tendency to draw in Short-term and UI in case of delay in generating capacity addition or increased seasonal / situational demand.
 - Short Term Power Transaction is large only in few cases like Tamil Nadu (20-25%) due to delay in addition of planned generating capacity. In most of other cases, it is less than 10%.
 - Whether Deterministic Planning approach would be desirable/feasible in the prevailing De regulated power market and uncertainties.?

Issues Needing Sustained Attention

- Load end transmission planning needs to be given due attention
- Capacity Building by CTU/CEA on software (PSS/E) already provided by POWERGRID for System Planning
- Consequences of not planning or estimating drawal from ISTS need to be brought home :
 - Congestion charges in S1-S2 – Power cost became Rs. 17 per unit, while transmission charges are only of the order of 22-28 paise.
 - Regulatory intervention through FOR, APTEL and MOP.

Possible Solutions (1)

- Transmission planning process needs to be viewed in De-Regulated Power sector to take care possible uncertainties .
- Following steps may reduce magnitude of problem :
- First Step : Target Regions (High Demand Areas) and Concentrated Generation sources provide first degree visibility of sources and sinks of power.
- Second Step: Phased implementation of transmission system commensurate with seriousness and financial commitment of Developers commensurate with progress of Generating station.
{Regulatory approvals inter-alia underlined that the transmission system be developed in accordance with progress}
- Third Step : Last Mile connectivity of ISTS with Beneficiaries. Drawl end planning three years in advance may be done through Regional strengthening schemes keeping in view the forecasted load

Possible Solutions(2)

- State transmission planning needs to be improved, States must indicate their transmission requirements from ISTS. Consequences of lack of planning need to be driven home
- Higher penalty for overuse (Transmission Deviation)
- Insisting on PPA for LTA and linking augmentation with LTA may hamper growth of sector. Without sufficient case-I bidding, it is difficult to tie up 85% power and tell exact source–sink relation five years in advance.

Possible solutions (3)

- Generator end issues like not seeking LTA or sufficient LTA can be addressed through amendments in POC Regulation.
- Connectivity could be made as basis for payment of Transmission charges of ISTS as well as system planning.(Approved injection need to paid for). Transmission system for evacuation of the same needs to be developed.
- Regulation 8(8) of sharing Regulations already binds generator to pay transmission charges of both injection and withdrawal side till beneficiaries are identified.
- Transmission system may be developed till target region(s) on the basis of demand projections (EPS)

Possible solutions(4)

- Time line for execution of ISTS may be linked with progress of Generating projects.
- LTA will be used at operational stage and linked to PPAs. This would address the problems being faced by the System Operators.
- Due to foreseen ROW issue, one option may be to consciously develop to accommodate Short term transactions up to 10-20%. As and when more LTA materializes, Short-term transactions may come down. The beneficiaries of ISTS being same, amount collected through STOA is returned to them so that temporary implication of higher LTA charges due to slide over-sizing is compensated in form of STOA charges .

Issues for discussion

- Whether application for Connectivity should be accompanied by application for LTA ?
- Whether application for LTA should necessarily have firm points of injection and drawal?
- Whether PPA for a fixed quantum (%) of capacity should be firmed up in advance (say 5 years) ?

Thank You

Provision 22.7 of the Detailed Procedure

- To indicate **target region** if entity or entities to whom electricity is proposed to be supplied or from whom electricity is proposed to be procured along with the quantum of power have not been firmed up
- To firm up exact source of supply or destination,
 - At least 3 years prior to the intended date of availing long term access
 - At least for a capacity equivalent to 50% of the quantum of power for which LTA has been sought for through signing of PPA
- The augmentation of the transmission system to be undertaken only after fulfilment of above conditions.

(Done away vide Second Amendment 21.3.2012)
- Augmentation/strengthening of system to be done with the approval of CERC for the same even if above conditions are not met
- Augmentation/strengthening of system beyond target region to be taken up only after identification of exact source/destination.