SRPC secretariat comments on Staff Paper on Capacity Market for Electricity in India

Comments are solicited on the proposals as outlined in this paper for:

a. Capacity Market for RA/Capacity Obligation

RA Obligation Capacity Market (Option 1):

SRPC Secretariat:

The proposal doesn't look suitable for Indian scenario. Already there is already a well-established Resource Adequacy Procedure which needs to be ensured by Discoms and to monitored by SERCs. Tying up of capacity contract for 15 years doesn't seem economically viable. Bidding on DAM/RTM for the contracted capacity doesn't also appears viable. Changing the demand curve for buyers also distort the MCP. It appears that first the capacity needs to be offered to the capacity charges paying Discoms and balance need to be offered to market. Penalty clause looks appropriate.

RA Obligation Capacity Market (Option 2):

SRPC Secretariat:

The proposal doesn't look suitable for Indian scenario. Changing the demand curve for buyers also distort the MCP. Bidding in market and balance to be settled between buyer and seller also does not give proper market signal. It appears that first the capacity needs to be offered to the capacity charges paying Discoms and balance need to be offered to market. Penalty clause for not offer capacity looks appropriate.

Residual RA Obligation Capacity Market (Option 3):

SRPC Secretariat:

The proposal looks ok for Indian scenario. However, it is opined that the Contract Period should not be 10 years and it can be 1-3 years. Short period can be less than 1 years. Load Serving Entities may bear some capacity charges. There should be a separate capacity market for capacity under DAM and RTM and unclear quantum could be transferred to RTM. Penalty looks ok.

b. Reserve Capacity Market

SRPC Secretariat:

The reserves market needs to be strengthened. A centralized reserve market under DAM/RTM should be facilitated to procure the mandated reserves by system operators of the states. If NLDC procures on behalf of states then reserves should be used by the system operators of the state as NLDC would be maintaining reserves for its requirement. CTU/Transmission licensee providing BESS could be suitable candidates to provide such service. Further Demand response potential is still not harnessed.

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 from the drawee DICs - (i) for the period from the date of effect of these regulations till 31.03.2026, in the ratio of [50% in proportion to their drawal at the ISTS periphery] and [50% in proportion to their GNA]; and (ii) from 01.04.2026, in the ratio of the shortfall of reserves allocated by NLDC to such DICs:

SRPC Secretariat:

The above provisions need to be relooked and a structured Ancillary Charges Recovery framework should establish.

Assessment of Reserve Capacity Requirement

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NLDC shall identify the shortfall of reserves, State-wise, and initiate action for centralized procurement of reserves (equivalent to the sum of total shortfall).

SRPC Secretariat:

A centralized reserve market (Up/Down) should be created for states system operators to meet their deficit. If NLDC procures on behalf of states then reserves should be used by the system operators of the state as NLDC would be maintaining reserves for its requirement.

Dispatch Principles: Dispatch after selection of capacity

NLDC shall have the first right of scheduling and dispatch. NLDC shall provide advance notice to capacity providers of their participation in the SRAS/TRAS.

SRPC Secretariat:

A centralized reserve market (Up/Down) should be created for states system operators to meet their deficit. The scheduling rights shall be with States System Operators.

The capacity provider will have three options for scheduling and dispatch – SRAS, TRAS, and Energy Market (DAM/RTM). The capacity provider to quote the compensation charge (in SRAS market)/price (in the TRAS market) /price in the energy market (DAM/RTM).

SRPC Secretariat:

It is opined that Reserve Capacity provider should only participate in capacity market and in RTM and not in DAM.

Scenario 1: Capacity requisitioned by NLDC, Scheduled and Dispatched – the capacity provider receives from NLDC the discovered ‘capacity charge’ and the quoted ‘offer price’ (energy charge/compensation charge).

SRPC Secretariat:

Same principle be applied for State System Operator also.

Scenario 2: Capacity requisitioned by NLDC, scheduled but not dispatched - the capacity provider receives from NLDC the discovered ‘capacity charge’ and the ‘commitment charge/holding charge’ (opportunity cost) as determined by the Commission.

SRPC Secretariat:

Same principle be applied for State System Operator also.

Scenario 3: Capacity not requisitioned by NLDC – the capacity provider can participate in the energy market (DAM/RTM). The capacity provider receives ‘capacity charge’ from NLDC and the MCP from the energy market.

SRPC Secretariat:

Same principle be applied for State System Operator also. The provider should be allowed to participate only in RTM Energy Market.

Cost allocation: Capacity Charge paid to the capacity providers to be recovered directly from the reserve-deficient States as per the IEGC. Energy/Compensation Charge and commitment/charge, incentives shall be paid from the DSM & AS pool, and any deficit shall be allocated in accordance with the DSM Regulations.

SRPC Secretariat:

The above provisions need to be relooked and a structured Ancillary Charges Recovery framework should be established. A separate Capacity recovery charges should be in place and not from DSM & AS Pool.

c. Secondary/Short-term Capacity Market

Short-term Capacity Market (Option 1)

Supply side: eligible entities shall include discoms with surplus contracted capacity; generating companies with surplus capacity, and traders.

SRPC Secretariat:

Demand response/down reserve is not considered.

Demand side: eligible entities shall include discoms with deficit capacity, suppliers/capacity providers with capacity obligation to supply.

SRPC Secretariat:

Demand response/down reserve is not considered.

Scheduling and Dispatch: Such capacities shall be scheduled and dispatched on day ahead basis. Both the buyers and the sellers shall go through the day ahead market for the capacity contracted.

SRPC Secretariat:

A separate capacity market should be enabled.

To guarantee the discoms' right over the contracted capacity, the demand curve of the contracting discoms for such contracted capacity could be drawn slightly above the price cap.

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Ensuring adequate capacity in the market is likely to keep the MCP under control. At the same time, drawing the demand curve of the contracting buyer at a price slightly above the price cap will ensure the buyer receives an equivalent quantity of energy. This approach addresses the free-rider problem and concerns about double payment while ensuring efficient dispatch of generation resources.

SRPC Secretariat:

Not suggested. A separate capacity market should be enabled.

Short-term Capacity Market (Option 2)

Supply side: eligible entities shall include discoms with surplus contracted capacity; generating companies with surplus capacity, and traders.

SRPC Secretariat:

Demand response/down reserve is not considered.

Demand side: eligible entities shall include discoms with deficit capacity, suppliers/capacity providers with capacity obligation to supply.

SRPC Secretariat:

Demand response/down reserve is not considered.

Scheduling and Dispatch: Such capacities shall be scheduled and dispatched on day ahead basis. Both the buyers and the sellers shall go through the day ahead market for the capacity contracted.

SRPC Secretariat:

A separate capacity market should be enabled.

Scheduling and dispatch and cost recovery: Contracted buyers to have the first right of scheduling until the start of the day-ahead market, failing which the capacity providers can sell their energy into the energy market. The buyers shall be liable to pay the capacity charge as discovered in the auction, in either case, whether or not the buyer exercises the option to schedule.

SRPC Secretariat:

The right to Discom should be upto RTM market.

SRPC Secretariat:

Option 2 with some modification may be suitable.