## India

## Intervention on Agenda item 3(c) - 3<sup>rd</sup> Session of Committee on Energy of UNESCAP

Respected Chair and distinguished delegates

- Today, I take this opportunity to share with you the present status of power sector in India. As on 31.01.2021, India has total power generating capacity of 377.3 GW comprising 231.8 GW of Coal, Gas and Diesel based Generating Stations, 6.8 GW of Nuclear Power Plants, 45.8 GW of Hydro Power Plants and 91.2 GW of Renewable generation capacity. We have a peak demand of about 190 GW. We are planning to achieve 175 GW of RE installed capacity by 2022. A number of reforms are being taken up to fructify this ambitious plan.
- The Indian Power System is being operated as a single grid and is one of the largest AC synchronized grids in the world. As on 31.01.2021, our electricity grid has total of 4,34,963 ckm of transmission lines of various voltage levels viz. 765kV, 400kV & 220kV, including HVDC links and total transformation capacity of 10,01,013 MVA.
- India, being centrally placed in South Asian region and sharing political boundaries with many countries, is playing a major role in facilitating planning of electrical interconnections with these countries for effective utilization of regional resources. Transmission interconnections have been established with Nepal, Bhutan and Bangladesh. We have 11 kV radial interconnection with Myanmar and proposal for interconnection with Sri Lanka is also under discussion.
- In this regard, I would like to highlight some of initiatives taken by our country to promote cross-border trade of electricity in South Asia:-
  - 1) India after signing the SAARC Framework Agreement for Energy Cooperation (Electricity) in November, 2014 has made consistent efforts to enhance regional cooperation in electricity. Moving in that line, Government of India issued the Guidelines for Cross Border Trade of Electricity in December, 2016 to facilitate cross border trade of electricity. The Guidelines have provided a framework for the cross border trade of electricity with neighbouring countries of India.
  - 2) Based on certain issues raised by neighbouring countries on shareholding pattern of eligible participating Entity, participation in day ahead Transactions etc. Government of India has modified these guidelines and revised Guidelines for Import/Export of Electricity (Cross Border) was issued on 18 December, 2018.

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- 3) In line with provisions of the Guidelines, Government of India has appointed Member (Power System), CEA as Designated Authority (DA) on 24<sup>th</sup> December, 2018.
- 4) The Central Electricity Regulatory Commission had notified the Cross Border Trade of Electricity Regulations in March, 2019 which became effective in May, 2019.
- 5) The Settlement and Nodal Agency (SNA) as per the above Guidelines and Regulations has been notified by Government of India for settlement of grid operation related charges as per CERC regulations.
- 6) Guidelines on Import/Export (Cross-Border) of Electricity 2018 specifies that in case of tripartite agreements, the cross border trade of electricity across India shall be allowed under the overall framework of bilateral agreements signed between Government of India and the Government of respective neighbouring countries.
- 7) Procedure of the Designated Authority for facilitating the approval of Import and Export of Electricity is under final stage of approval and would be issued any time soon. The procedure would enable an entity from neighbouring country, with whom India has bilateral agreement to sale/buy through Indian power exchanges as per provisions in the Procedure.
- 8) India has bilateral agreements with Bangladesh, Nepal, Myanmar and Bhutan on power sector cooperation and based on this bilateral cooperation, India is having cross border trade of electricity with these neighbouring countries. Based on institutional framework enshrined in these bilateral agreements, meetings of Joint Working Group and Joint Steering Committee meetings are regularly held to facilitate cross-border trade.
- 9) The existing cross-border interconnections of India with neighbouring countries facilitate power transfer of about 4233 MW (2070MW from Bhutan, 1160MW to Bangladesh, 1000 MW to Nepal and 3MW to Myanmar) with the neighbouring countries. With the commissioning of under-construction cross-borderinterconnections which are expected in 2-3 years, the power transfer would enhance by about 2200 MW resulting in total of about 6450MW (4290MW: from Bhutan, 1160MW: to Bangladesh, 1000MW: to Nepal and 3 MW: to Myanmar). Further, various high capacity 400kV and 765kV cross-border interconnections are in planning stages which would facilitate additional power transfer capacity withneighbouring countries. India Sri Lanka interconnection through HVDC link is also under discussions.