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HYDRO POWER MARKET IN INDIA 2020

Market Developments, New Hydro Policy, Project Pipeline and Future Outlook

- ❖ Report (PDF)
- ❖ Data-set (Excel)

This insightful study will help you:

- ❖ Analyse the recent trends and developments in the hydropower generation market
- ❖ Understand the impact of inclusion of hydro in renewable energy sector
- ❖ Assess the impact of COVID-19 on hydropower projects
- ❖ Determine the under-construction capacity, stalled projects and other upcoming projects
- ❖ Analyse the operational performance of existing plants
- ❖ Understand the cost and tariffs structure and market opportunities in hydropower sector
- ❖ Learn about key developers in the hydropower space

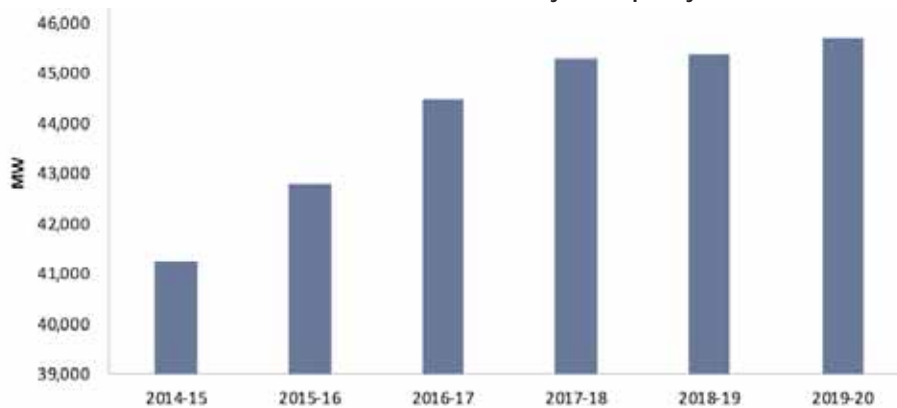
Report Summary and Key Insights

As of March 2020, the installed hydropower generation capacity stood at 45,699 MW, growing at a CAGR of 2 per cent between 2015 and 2020. During 2019-20, the total hydro capacity addition stood at 300 MW. Despite tremendous potential of 148 GW in the country, the hydro sector has grown at a slow rate mainly owing to issues related to long gestation period of hydroelectric plants (HEPs), geological surprises, local resistance, delays in environmental clearance, and limited offtakers. As a result, the share of hydro in overall generation has declined considerably over the years - from 17% in 1996-97 to 11% in 2019-20.

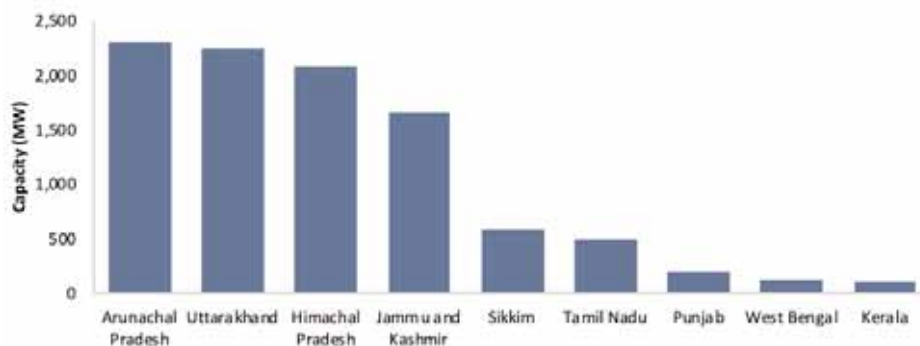
Although generation from HEPs has not suffered much due to COVID-19 and the subsequent lockdown, operation and maintenance (O&M) plans of utilities and work at under-construction projects has suffered some delays.

A key positive during the past year was the notification of new hydropower policy (2019) and the draft Electricity Act (Amendment) Bill, 2020. While the former has provisions enabling renewable energy status for all HEPs irrespective of size, the latter lays down guidelines for hydropower obligations (HPO) or mandatory minimum purchase of electricity from HEPs. The policy measures have indeed brought cheer to the hydro industry but need to be backed by solid action on ground.

Year-wise trend in installed hydro capacity



State-wise under-construction hydro capacity (As of May 2020)



As of May 2020, 26 HEPs aggregating to 9,808 MW (including 1,500 MW of pumped storage capacity) are under construction in the country (excluding stalled projects) across the central, state and private sectors, entailing an estimated investment of Rs 870 billion. Projects aggregating to 3,166 MW are currently stalled owing to liquidity issues with the developers, contractual and legal disputes, as well as environmental, resettlement and rehabilitation issues. The under-construction and stalled HEPs have recorded time and cost overruns ranging from 9 months to 20 years.

Given the role of hydro in load balancing and grid stability, policymakers should focus more on the segment in the coming years especially as share of variable solar and wind energy increases. Recently, hydro's flexibility was demonstrated in during to 'Pan-India Lights Off' India's HEPs restored electricity to millions of households seamlessly after a 31 GW decline in demand. Going forward, concerted efforts of all stakeholders is required to ensure sector growth and viability.

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 - NHPC
 - SJVNL
 - NHDC
 - THDC
 - NEEPCO
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 - DVC
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 - Maharashtra State Power Generation Corporation
 - Telangana State Power Generation Corporation
 - Tamil Nadu Generation and Distribution Corporation
 - Odisha Hydro Power Corporation
 - Kerala State Electricity Board
 - Andhra Pradesh Power Generation Corporation
 - Sardar Sarovar Narmada Nigam Limited
 - Uttarakhand Jal Vidyut Nigam Limited
 - Teesta Urja Limited
 - ❖ Private Sector
 - JSW Energy
 - Tata Power Company Limited
 - JP Power Ventures
 - AHPC
 - Others:
 - Malana Power Company Limited
 - Gati Infrastructure
 - Everest Power Private Limited
 - Dans Group
 - Sneha Kinetic Power Projects Limited

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Contact details:

Sumita Kanjilal, Information Products
 India Infrastructure Publishing Pvt. Ltd.
 B-17, Qutab Institutional Area, New Delhi 110016, India
Mobile: +91-9958299609
 Email: sumita.kanjilal@indiainfrastructure.com
 Tel: +91-11-46560421, 41034600, 41034601
 Fax: +91-11-26531196