

# New Hydroelectricity policy

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## Manifest Pedagogy

As part of environmental studies, renewable energy is an important area of preparation both at the prelims and mains stage. Policies and programs related to environment are important dimensions of the study. The background, features and expected outcomes should be kept in mind while preparing any policy.

## In news

Government decides to reclassify large hydroelectricity projects as renewable energy

## Placing it in the syllabus

Conservation, environmental pollution, and degradation, environmental impact assessment

## Static dimensions

- India's Intended Nationally Determined Contributions

## Current dimensions

- New Hydroelectricity Policy
- Impacts of the policy

## Content

### Background

Keeping in view India's commitment to a healthy planet and India's Intended Nationally Determined Contributions as per

the Paris Accord on Climate Change, India made a pledge that by 2030, 40% of installed power generation capacity shall be based on clean sources, it was determined that 175 GW of renewable energy capacity will be installed by 2022. This includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro power.

There has been a huge imbalance in the thermal-hydro mix for the last few years because of a sharp growth in thermal and complete stagnation in hydro.

In light of this considering large hydroelectricity projects as renewable energy plays an important role in achieving INDCs.

### **Salient features of India's INDC**

- To put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation.
- To adopt a climate-friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development.
- To reduce the emissions intensity of its GDP by 33 to 35 per cent by 2030 from 2005 level.
- **To achieve about 40 per cent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030**, with the help of transfer of technology and low cost international finance, including from Green Climate Fund.
- To create an additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.
- To better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management.

- To mobilize domestic and new and additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap.
- To build capacities, create domestic framework and international architecture for quick diffusion of cutting edge climate technology in India and for joint collaborative R&D for such future technologies.

### Key highlights of the policy

- Under the New Hydroelectricity Policy government approved the **renewable energy status for large hydel projects**. Previously , only smaller hydel projects of less than 25 MW in capacity were classified as renewable energy.
- The policy has made drastic change in the energy mix as shown in the below table.
- Since the large hydel projects were considered as renewable energy as a result it will be included as a separate category **under the non-solar renewable purchase obligation policy**, mandating power purchasers to source a portion of electricity from such projects.
- With the new measures, large hydro projects (LHPs) would be **allowed back loading (reducing) of tariff** after increasing project life to 40 years, increasing debt repayment period to 18 years and introduced escalating tariff of 2 percent.
- Along with a **separate fund for flood modulation costs** the policy has also provides **additional funds for infrastructure development**.

Following two tables show how the hydro policy has changed India's energy mix numbers

### Installed Capacity

	Before Policy	After Policy
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Renewable sources (% share in energy mix)	21.43%	34.40%
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### Share within renewables(in%)

Source	Before policy	After policy
Hydro	6.03	41.45
Wind	47.02	29.30
Bio-power	12.28	7.65
Solar	34.68	21.61

Source: Central Electricity Authority, GOI

### Impact of New Hydro policy

- Imbalance in the thermal-hydro mix will be minimised.
- Revised classification under the policy would help India to achieve its target of 175 GW by 2022.
- It will also help the large hydro projects to avail financial assistance through low rate credits.
- The policy would benefit PSUs, because the recent changes in the policy could effect on the stock prices of State-run hydroelectric companies such as NHPC and SJVN at a point as the government is looking to sell its stake in these companies.
- It would also put obligation on state distribution companies to purchase a certain percentage of hydropower- similar to renewable energy purchase obligations. This would help hydropower to develop its competitiveness in the market.
- This will help to avail budgetary support for hydropower related infrastructure and access green finance.