



## New Solar Projects: NTPC

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### Why in News

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Recently, **National Thermal Power Corporation Limited (NTPC) Renewable Energy Ltd (REL)** signed a Memorandum of Understanding with the **Union Territory of Ladakh** to set up the country's first **Green Hydrogen Mobility project**.

NTPC REL will also set up a **solar park at Rann of Kutch in Gujarat** from where it will also generate **green hydrogen** on a commercial scale under the **Ultra-Mega Renewable Energy Power Parks (UMREPP) scheme**.

**Hydrogen produced from renewable sources is called green hydrogen.**

### Ultra-Mega Renewable Energy Power Parks (UMREPP) scheme

- It is a scheme to develop **Ultra Mega Renewable Energy Power Parks (UMREPPs)** under the existing **Solar Park Scheme**.
  - The scheme was rolled out by the **Ministry of New & Renewable Energy (MNRE) in 2014**.
  - **Solar Park Scheme** is also a scheme of MNRE to set up a number of solar parks across various states in the country. It proposes to provide financial support by the Government of India to establish solar parks.
- The objective of the UMREPP is **to provide land upfront to the project developer and facilitate transmission infrastructure for developing Renewable Energy (RE) based Power Parks with solar/wind/hybrid and also with storage systems.**

### Key Points

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- **Green Hydrogen Mobility Project:**

- NTPC REL has planned to **ply 5 hydrogen buses**, to start with, in the region and the company will be **setting up a solar plant and a green hydrogen generation unit** in Leh towards this end.
- This will put **Leh as the first city in the country** to implement a green hydrogen based mobility project. This would be **zero emission mobility in true sense**.
- This is also **in line with the Prime Minister's vision of a 'carbon neutral' Ladakh**.
- It will **help Ladakh develop a carbon free economy** based on renewable sources and green hydrogen.

- **India's Largest Solar Park:**

NTPC REL will set up a **4.75 gigawatt (GW) renewable energy park at Rann of Kutch** in Khavada, Gujarat. This will be **India's largest solar park** to be built by the largest power producer of the country.

Kutch region in Gujarat, the **largest salt desert in the country** and host to two of India's largest coal-fired power plants, will now add another feather to its cap.

- **Other Major Projects of NTPC:**

- Recently, NTPC has also commissioned **India's largest Floating Solar of 10 MW (ac)** on the reservoir of Simhadri Thermal Power Plant, Andhra Pradesh. An additional **15 MW (ac) would be commissioned by August 2021**.
- Further, a **100 MW Floating Solar Project on the reservoir of Ramagundam Thermal Power Plant, Telangana** is in the advanced stage of implementation.

- **Other Solar Energy Initiatives:**

- **National Solar Mission** : Solar energy has taken a central place in India's **National Action Plan on Climate Change** with the National Solar Mission as one of the key Missions.
- **INDC's target**: It targets installing 100 GW grid-connected solar power plants by the year 2022.

This is in line with **India's Intended Nationally Determined Contributions (INDCs)** target to achieve about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources and to reduce the emission intensity of its GDP by 33 to 35% from 2005 level by 2030.

- **Launch of ISA**: The launch of the **International Solar Alliance (ISA)** was announced by the Prime Minister of India and the President of France in 2015, at the **21<sup>st</sup> session of the United Nations Climate Change Conference of the Parties (COP-21) in Paris, France**.
- **Government Schemes**: Such as Solar Park Scheme, Canal bank & Canal top Scheme, Bundling Scheme, **Grid Connected Solar Rooftop Scheme** etc.
- **One Sun One World One Grid**: India has an ambitious cross-border power grid plan **'One Sun One World One Grid'** that seeks to transfer solar power generated in one region to feed the electricity demands of others.

## **National Thermal Power Corporation Limited**

- NTPC Ltd. is a central **Public Sector Undertaking (PSU)** under the **Ministry of Power**.

**NTPC REL is a 100% subsidiary of NTPC.**

- It is **India's largest energy conglomerate** with roots planted way back in 1975 to accelerate power development in India.
- It aims to **provide reliable power and related solutions in an economical, efficient and environment-friendly manner**, driven by innovation and agility.

NTPC has also been **promoting usage of green hydrogen based solutions** in sectors like mobility, energy, chemical, fertilizer, steel etc.

- It became a **Maharatna company** in May 2010.
- It is located in New Delhi.

**Source: PIB**