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National Electricity Plan (Transmission) 2024

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Context: The National Electricity Plan (NEP) 2024, launched by the Ministry of Power, represents a strategic move to enhance India's energy infrastructure and accelerate its transition to renewable energy.

 Introduced by Union Minister Shri Manohar Lal in October 2024, this plan provides a detailed roadmap for the expansion of India's transmission systems, supporting the government's ambitious renewable energy targets.

Key Features of the NEP 2024:

- Transmission Capacity Expansion: The plan aims to add over 1,91,000 circuit kilometers (ckm) of transmission lines and 1,270 GVA of transformation capacity by 2032. This will ensure efficient transmission of renewable energy from generation hubs to consumption centers.
- Renewable Energy Goals: A core objective of the NEP is to facilitate the integration of 500 GW of renewable energy by 2030, increasing to 600 GW by 2032. This is critical for meeting India's growing energy demands and reducing dependence on fossil fuels.
- Energy Storage Systems: Recognizing the intermittent nature of renewable energy sources like solar and wind, the plan includes provisions for 47 GW of Battery Energy Storage Systems (BESS) and 31 GW of Pumped Storage Plants. These systems will help stabilize the grid and ensure a consistent power supply.
- Green Hydrogen and Ammonia Hubs: The NEP also addresses the transmission of power to green hydrogen and green ammonia manufacturing hubs at coastal locations such as Mundra, Kandla, and Vizag, which are crucial for India's clean energy future.

Economic Impact and Investment Opportunities:

- The NEP opens up significant investment opportunities, with over INR 9,15,000 crore expected to be invested in transmission infrastructure by 2032. This will not only enhance India's energy security but also stimulate job creation, drive economic growth, and attract international investments.
- The plan aligns with the government's Make in India initiative, encouraging domestic manufacturing of renewable energy technologies and related components.

Cross-border Connectivity:

- The NEP also prioritizes inter-regional and cross-border connectivity. India's inter-regional transmission capacity is expected to increase from 119 GW to 168 GW by 2032.
- Additionally, cross-border connections with Nepal, Bhutan, Bangladesh, and Myanmar are part of the plan, alongside potential links with Saudi Arabia and the UAE.

Transmitting Energy			
	Financial year	Addition in transmission line (circuit km)	Addition in transformation capacity of sub stations (MVA
A	2014-15	22,101	65,554
TA TA	2015-16	28,114	62,849
	2016-17	26,300	81,816
	2017-18	23,119	86,193
	2018-19	22,437	72,705
	2019-20	11,664	68,230
	2020-21	16,750	57,575
XXI XX	2021-22	14,895	78,982
K	2022-23	14,625	75,902
	2023-24	14,203	70,728

Technological Advancements:

- To support the vast transmission expansion, the NEP introduces cutting-edge technologies such as hybrid substations, dynamic line ratings, high-performance conductors, and monopole structures. These technologies will improve efficiency, reduce energy losses, and ensure that renewable energy reaches consumers more effectively.
- Additionally, the plan includes provisions for skill development in the transmission sector to manage this advanced infrastructure.

Challenges and Outlook

While the NEP sets ambitious targets, it also faces several challenges:

- **Grid Integration:** Managing large volumes of renewable energy requires significant upgrades to the existing grid infrastructure.
- Land Acquisition and Financing: Acquiring land for new transmission lines and securing long-term financing are critical challenges that need to be addressed.

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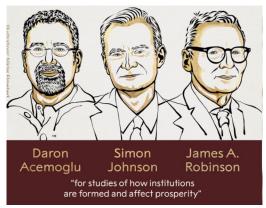
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2024 Economics Nobel Prize

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Context: The 2024 Nobel Prize in Economics has been awarded to U.S. economists Daron Acemoglu, Simon Johnson, and James A. Robinson for their groundbreaking research into the disparities in prosperity between nations.

- The Nobel committee from the Royal Swedish Academy of Sciences emphasized that these scholars have demonstrated the critical importance of societal institutions in a country's economic success.
- By emphasizing the "rules of the game" within economies, this award highlights crucial pathways to fostering equitable growth and understanding the systemic challenges nations face in achieving economic stability.
- The economics prize, officially known as the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel, has been awarded alongside the other Nobel Prizes since its establishment in 1968.



Key Insights on Economic Disparities:

- The Nobel committee pointed out that "societies with a poor rule of law and institutions that exploit the population do not generate growth or change for the better." This observation underscores the laureates' contributions in understanding the reasons behind these failures.
- The stark contrasts in wealth among nations were highlighted, noting that the richest 20% of countries today have an average income 30 times higher than that of the poorest 20%. This disparity has long spurred debate among economists regarding its root causes.
- Historical theories have attributed wealth differences to various factors, including:

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- » Colonial Legacy: Some argue that Western colonialism laid the groundwork for contemporary disparities.
- » **Natural Resources:** Others suggest that the availability of resources significantly impacts economic success.
- » **Cultural Factors:** Historical accidents and intelligence levels have also been proposed as explanations.

The Role of Institutions:

Acemoglu, Johnson, and Robinson contend that the quality of economic and political institutions is a primary factor influencing national prosperity. Their thesis, elaborated in the book Why Nations Fail, posits that institutions can be classified as inclusive or extractive:

- **Inclusive Institutions:** These feature secure property rights and political freedom, fostering long-term economic growth and higher living standards.
- **Extractive Institutions:** Characterized by insecure property rights and lack of political freedom, these institutions lead to economic stagnation and poverty.

Historical Context and Implications:

- The economists examined colonial practices to understand institutional impacts on economic trajectories. In regions where colonial powers aimed for long-term settlement, they established inclusive institutions that promoted growth, such as in the United States.
- Conversely, in areas deemed unfit for settlement, extractive institutions were implemented, prioritizing short-term resource extraction over sustainable development—an example is being colonial India.
- The laureates also addressed the question of why more countries do not adopt inclusive institutions. They argue that rulers often benefit from extractive systems and are reluctant to implement reforms that could democratize power and benefit the wider population. This entrenchment can persist unless significant popular unrest compels change.

HAL Achieves Maharatna Status

Context: Hindustan Aeronautics Limited (HAL) was recent; y awarded the prestigious Maharatna status, becoming the 14th Central Public Sector Enterprise (CPSE) in India to

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receive this recognition.

 This upgrade, approved by the Finance Minister following recommendations from the Inter-Ministerial Committee (IMC) and the Apex Committee, marks a significant milestone for HAL in the aerospace and defense sector.

Hindustan Aeronautics Limited becomes the prestigious 14th Maharatpa CPSE!

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Understanding Maharatna Status:

The Maharatna status was established to provide greater operational and financial autonomy to CPSEs that demonstrate exceptional performance and potential for global competitiveness. Companies must meet specific criteria to qualify, including:

- **Navratna Status:** The company must have previously held Navratna status.
- Stock Market Listing: It must be listed on an Indian stock exchange and comply with SEBI regulations.
- **Financial Performance:** The criteria include:
 - » An average annual turnover exceeding 25,000 crore over the last three years.
 - » An average net worth greater than 15,000 crore during the same period.
 - » An average net profit after tax surpassing 5,000 crore.
- Global Presence: The company should have significant international operations.

HAL's Financial Performance:

• For the fiscal year 2023-24, HAL reported a turnover of 28,162 crore and a net profit of 7,595 crore, underscoring its role as a leading public sector enterprise in India. This robust financial performance highlights HAL's strategic initiatives within the aerospace industry.

Implications of Maharatna Status:

- The Maharatna status will grant HAL enhanced financial autonomy, allowing it to make significant investment decisions without prior government approval.
- This newfound autonomy is expected to accelerate project implementation, foster innovation, and improve operational efficiency. As a result, HAL is positioned among the most influential public sector undertakings in India, reflecting its strategic importance both domestically and internationally.

Power Packed News

5th National Water Awards

- Recently the 5th National Water Awards were announced by the Ministry of Jal Shakti. The first prize in the Best State category has been given to Odisha, while Uttar Pradesh has got the second and
- Gujarat and Puducherry have jointly got the third place.
 On October 22, the 5th National Water Awards, 2023, will be distributed at Vigyan Bhavan in New Delhi. The award will be given by President Draupadi Murmu. Each awardee will be awarded a citation and a trophy as well as cash prizes in some categories.
- The Department of Water Resources, River Development and Ganga Rejuvenation (DoWR, RD & GR) under the Ministry of Jal Shakti has announced 38 winners including joint winners in 9 categories for the 5th National Water Awards, 2023.
- The first National Water Awards were started by the Ministry of Jal Shakti in 2018.



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- The National Water Awards (NWA) focus on the good work and efforts done by individuals and organisations across the country to realise the Government's dream of a 'Water Prosperous India'.
- These awards are meant to create awareness among people about the importance of water and motivate them to adopt best practices for water use.

DG Paramesh Sivamani is the 26th Director General of Indian Coast Guard

- On October 15, 2024, DG Paramesh Sivamani assumed office as the 26th Director General of the Indian Coast Guard (ICG).
 DG Paramesh Sivaman
- With over 35 years of experience, Paramesh Sivamani has held various significant positions both ashore and afloat, commanding major vessels like the Advanced Offshore Patrol Vessel 'Samar'.

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- An alumnus of the National Defence College and Defence Services Staff College, he was promoted to Additional Director General in September 2022.
- His tenure includes notable achievements such as anti-poaching operations, joint exercises with foreign coast guards, and significant drug seizures. For his service, he has received multiple accolades, including the Tatrakshak Medal and the President Tatrakshak Medal.



KAZIND-2024

- The 8th edition of the India-Kazakhstan Joint Military Exercise, KAZIND-2024 was concluded on October 13, 2024. Conducted from September 30 to October 13, this annual training event aimed to enhance the military capabilities of both nations, particularly in counter-terrorism operations under the United Nations mandate.
- The Indian contingent, comprising 120 personnel from the Kumaon Regiment and other services, and the Kazakhstan contingent, with 60 personnel from the Army Force, Air Defence Force, and Airborne Assault units, conducted joint exercises focusing on operations in semi-urban and mountainous terrains.
- Key tactical activities included area capture operations, response to terrorist actions, establishment of joint command posts, and cordon-and-search operations, which also utilized drones and anti-drone systems.
- KAZIND-2024 promoted interoperability and camaraderie between the armed forces of both countries, enhancing defense cooperation and strengthening bilateral relations.
- The exercise underscores the commitment of India and Kazakhstan to work collaboratively in addressing regional security challenges.

ISRO Chairman S. Somnath receives IAF World Space Award

- Recently on October 14, Indian Space Research Organization (ISRO) Chairman S. Somnath was awarded the International Astronautical Federation (IAF) World Space Award. This award was given to him for the remarkable achievements of the Chandrayaan-3 mission.
- The IAF World Space Award is one of the biggest honors in the field of space exploration. This award is given to individuals or organizations who have made unique contributions in the field of space science, technology and exploration.
- Previous winners of this award include big space agencies like NASA and individuals like Elon Musk, who have made great contributions in the field of space.
- In 2019, ISRO was honored with the IAF World Space Award for the Mangalyaan mission. This mission became the first Asian spacecraft to successfully reach Mars' orbit in its first attempt.



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