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DAILY EDITORIAL ANALYSIS

TOPIC

COP31'S 35×35 ELECTRIFICATION TARGET

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Context

- A **proposed global target** to increase electricity's share in final energy consumption to **35% by 2035** ahead of **COP31 in Antalya (Türkiye)** has triggered debate over climate ambition and developmental equity.

Understanding the 35% Electrification Target (COP31)

- The proposed '**35×35 Global Electrification Pledge'** seeks to increase electricity's share in global final energy consumption **from the present 23% to 35% by 2035.**
  - It aims to **accelerate the transition** from fossil fuels to electricity, primarily from renewable sources.
- According to the **UNEP Emissions Gap Report 2026**, global greenhouse gas (GHGs) emissions reached a record 58 gigatonnes in 2025.
  - Even the full implementation of **updated Nationally Determined Contributions (NDCs)** would reduce emissions by only 5–8% by 2030 compared with 2025 levels.
  - A **1.5°C-compatible pathway** requires emissions to decline by over 43% from 2019 levels by 2030.
- The electrification initiative is therefore an attempt to accelerate climate action beyond existing national commitments.

Why Does the Target Raise Concerns For Developing Countries?

- **Different Developmental Realities:** Developed economies have greater financial resources, technological capabilities and relatively mature electricity infrastructure.
  - Developing countries need to simultaneously expand energy access, industrialise and address poverty.
- **Electrification Does Not Automatically Mean Decarbonisation:** The environmental benefits of electrification **depend on the source of electricity.**
  - If electricity generation remains dependent on coal, shifting energy consumption towards electricity may not deliver the expected emissions reductions.
- **Renewable Capacity Versus Actual Generation:** Globally, renewable energy accounts for approximately 49.5% of installed electricity capacity but only around 34% of electricity generation.
  - Solar and wind have relatively lower capacity factors because of their intermittent nature.
  - Consequently, installed capacity does not translate proportionately into actual electricity generation.
- **Infrastructure & Storage Constraints:** Renewable energy expansion requires substantial investments in transmission networks, grid modernisation, battery storage and other balancing technologies.
  - Without these, renewable electricity cannot reliably meet growing demand.
- **Financing Challenges:** Developing countries face high capital costs, limited access to affordable finance and competing developmental priorities.
  - International climate finance has not adequately addressed these infrastructure requirements.
- Thus, **imposing uniform targets without considering national circumstances** could undermine the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC).

India & 35% Electrification Target

- India's position requires a careful balance between climate commitments and its developmental requirements.
- **Present Energy Realities:**
  - Electricity accounts for approximately 23% of India's final energy consumption.
  - Renewable energy, including large hydropower, contributes around 26% of electricity generation.
  - Renewable sources account for over 50% of India's installed electricity capacity.
  - Nearly 72% of India's total energy consumption is still met through fossil fuels.

Major Challenges For India

- **Growing Energy Demand:** India's economic expansion, urbanisation, industrialisation and rising living standards will significantly increase energy requirements.
- **Industrial Dependence on Fossil Fuels:** Steel, cement, fertilisers and other energy-intensive industries continue to depend heavily on coal, oil and natural gas.

- Their electrification requires commercially viable alternatives, including green hydrogen.
- **Transport Transition:** Large-scale electrification of transport requires affordable electric vehicles, charging infrastructure and stronger battery manufacturing capabilities.
  - Biofuels and green hydrogen will also have important roles.
- **Grid Integration:** Renewable energy expansion requires investments in transmission corridors, energy storage, flexible generation and smart grids.
- **Financial Constraints:** India needs to mobilise substantial domestic and international investments without compromising infrastructure development, employment generation and affordable energy access.

What Should India's Approach at COP31 Be?

- **Support Differentiated Pathways:** India should support global electrification while opposing a one-size-fits-all approach.
  - National targets need to reflect developmental conditions and energy security requirements.
- **Prioritise Renewable Electricity Generation:** India should emphasise increasing the share of renewable energy in actual electricity generation rather than focusing exclusively on electricity's share in final energy consumption.
- **Strengthen Transmission & Storage:** Accelerated investments in green energy corridors, battery storage, pumped-storage hydropower and smart grids are essential.
- **Promote Technological Diversification:** Green hydrogen, sustainable biofuels, electric mobility and energy-efficient industrial technologies should complement renewable electricity.
- **Mobilise Affordable Climate Finance:** India should demand predictable, concessional and accessible climate finance, technology transfer and capacity-building support from developed countries.
- **Protect Developmental Space:** India's climate strategy needs to ensure affordable energy, universal access, industrial competitiveness and employment generation while progressively reducing emissions.
- **Strengthen Domestic Manufacturing:** Promoting indigenous solar modules, batteries, electrolysers and critical minerals processing can reduce import dependence and generate green employment.

Conclusion & Way Ahead

- The success of the global energy transition cannot be measured merely through installed renewable capacity or uniform electrification targets.
  - It needs to be assessed through actual emissions reductions, energy security, affordability and equitable access.
- At COP31, India should support ambitious climate action without accepting externally determined pathways that overlook its developmental realities.
- A gradual but sustained increase in renewable electricity generation, backed by storage, transmission infrastructure, affordable finance and technological innovation, offers a more pragmatic pathway towards balancing **Viksit Bharat 2047** with the **net-zero commitment of 2070.**
- Ultimately, the global energy transition needs to be guided by the **principle of *equity with ambition*,** ensuring that climate action becomes an enabler of development rather than a constraint on it.

Source: BS

Daily Mains Practice Question

[Q] Electrification alone cannot guarantee a low-carbon energy transition unless it is supported by clean electricity generation, adequate infrastructure and affordable finance. Analyze.