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# Topic wise content



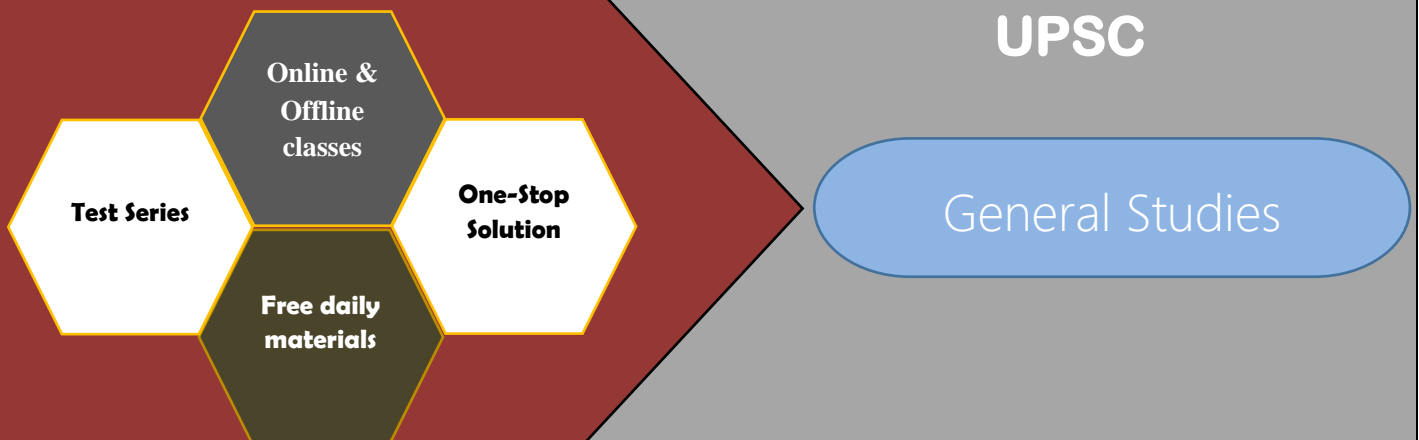
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## India Energy Outlook 2021 IEA

Notes for civil services preparation



## India Energy Outlook 2021: IEA

- Recently, the **International Energy Agency (IEA)** has released the **India Energy Outlook 2021 Report** which explores the opportunities and challenges ahead for India as it seeks to ensure reliable, affordable and sustainable energy for a growing population.
- The India Energy Outlook 2021 is a **new special report from the IEA's World Energy Outlook**

### Key Points

- **Third Largest Energy Consumer by 2030:**
  - India will **make up the biggest share of energy demand growth at 25%** over the next two decades, as it **overtakes the European Union as the world's third-biggest energy consumer by 2030.**
    - Presently, **India is the fourth-largest** global energy consumer behind **China, the United States and the European Union.**
- India's **energy consumption is expected to nearly double** as the nation's **Gross Domestic Product (GDP)** expands to an estimated USD 8.6 trillion by 2040 under its current national policy scenario.
- **Prior to the global pandemic**, India's energy demand was **projected to increase by almost 50% between 2019 and 2030**, but growth over this period is **now closer to 35%.**

### Industrialisation is a Major Driving Force:

- Over the last three decades, India accounted for about **10% of World Growth in Industrial Value-added** [in Purchasing Power Parity (PPP) terms].
- **By 2040**, India is set to account for almost **20% of Global Growth in Industrial value-added**, and to lead global growth in industrial final energy consumption, especially in steel making.

### Reliance on Imports:

- India's growing energy needs will make it **more reliant on fossil fuel imports** as its **domestic oil and gas production has been stagnant** for

years despite government policies to promote petroleum exploration and production and renewable energy.

- Rising oil demand **could double India's oil import bill** to about USD 181 billion by 2030 and nearly treble it to USD 255 billion by 2040 compared with 2009.

### Oil Demand:

- India's **oil demand** is seen **rising by 74% to 7 million** barrels per day by **2040** under the existing policies scenario.
- A **five-fold increase in per capita car ownership** will result in India leading the oil demand growth in the world.
- Its **net dependence on oil imports** - taking into account both the import of crude oil and the export of oil products - **increases to more than 90% by 2040 from the current 75%** as domestic consumption rises much more than production.

### Gas Demand:

- India will become the **fastest-growing market for Natural gas**, with demand **more than tripling by 2040**.
- Natural gas **import dependency** increased from **20% in 2010** to almost **50% in 2019** and is set to grow further to **more than 60% in 2040**.

### Coal Demand:

- **Coal currently dominates India's electricity sector**, accounting for over 70% of overall generation.
- **Coal demand** is seen **rising to 772 million tonnes in 2040** from the current 590.
- **Renewables Energy Resources Demand:**
  - India's share in the **growth in renewable energy** is the **second-largest** in the world, **after China**.

### International Energy Agency

- The International Energy Agency is an **autonomous Intergovernmental Organization** established in 1974 in Paris, France.

- IEA mainly focuses on its energy policies which include **economic development, energy security and environmental** These policies are also known as the 3 E's of IEA.
- India became an **Associate member of IEA in March 2017** but it was in engagement with IEA long before its association with the organization.
  - Recently, India has **inked a Strategic Partnership Agreement with the IEA** to strengthen cooperation in global energy security, stability and sustainability.
- **The World Energy Outlook Report** is released by the IEA
- **IEA Clean Coal Centre** is dedicated to providing independent information and analysis on how coal can become a cleaner source of energy, compatible with the UN Sustainable Development Goals.

### Way Forward

- As the world seeks ways to accelerate the pace of transformation in the energy sector, **India is in a unique position to pioneer a new model for low-carbon, inclusive growth.** If this can be done, it will show the way for a whole group of energy-hungry developing economies, by demonstrating that **robust economic expansion is fully compatible with an increasing pace of emissions reductions** and the achievement of other development
- India is already a global leader in solar power, and **solar combined with batteries will play a massive part in India's energy future.** But India will need a whole host of technologies and policies to chart this new path.
- As new industrial sectors emerge and clean energy jobs grow, India will also need to ensure that **no one is left behind, including in those regions that are heavily dependent on coal today.**

