

## AIR Spotlight - Discussion with the Union Minister for Power and New Renewable Energy (MNRE)

AIR Spotlight is an insightful program featured daily on the All India Radio Newsonair. In this program, many eminent panellists discuss issues of importance which can be quite helpful in [IAS exam](#) preparation. In this article, a discussion with the Union Minister for Power is featured.

### Participants:

- R. K. Singh, Union Minister for MNRE
- Ashutosh Shukla, AIR Correspondent

### Context:

The article will discuss issues, schemes, achievements, and the measures taken to improve the power sector and renewable energy in India.

### Background:

- Energy is the fuel that powers modern civilization. Per Capita Energy Consumption is often used as a proxy for the level of development of a country.
- In India, the demand for power rapidly increased in the last two decades and is expected to grow rapidly in the future also. However, in the face of climate change and rising pollution, there is a focus on green and clean energy.
- Ensuring accessibility and availability of an adequate amount of economic and green energy is the need of the hour.

### Achievements so far:

### Power Deficit to Power Surplus:

- India was experiencing a power deficit before and inadequate generation capacity was the key contributor to power deficit but, now it has become a power surplus country in the last 4-5 years.
- The government has added 1,42,000 megawatts of power generation capacity and now, India exports power to Nepal, Bangladesh, Myanmar.

### Power Infrastructure:

- Approximately, 1,49,000 circuit kilometres have been added to the transmission capacity.

- The whole country has been connected under the One Nation, One Grid Mission.
- Distribution infrastructure has been strengthened in the last 4-5 years.
- About 2,900 new substations have been installed and about 3,800 odd substations have been upgraded.
- Approximately 5,50,000 circuit kilometres of High Tension (HT) Lines and 7,50,000 circuit kilometres of Low Tension (LT) Lines have been added.
- In 2015, the availability of power in rural areas was 12.5 hours a day and now it has increased to 22.5 hours a day and in urban areas, it has increased to 23.5 hours.

#### **AT & C Losses:**

- Aggregate Technical & Commercial (AT&C) loss is an actual measure of performance of a power distribution system as it includes both technical losses and commercial losses. It shows the gap of input energy into the system and the units for which the payment is collected.
- These losses stood at 23% in 2017 and at present, these losses are approximately 20.1%.
- The losses have come down but there is scope for improvement and the government is working towards it.

#### **Deen Dayal Upadhyaya Gram Jyoti Yojana**

- Deen Dayal Upadhyaya Gram Jyoti Yojana ([DDUGJY](#)) is designed to provide a continuous power supply to entire rural India.
- The scheme was launched under the leadership of Prime Minister Shri Narendra Modi in November 2014 announcing that "the government had decided to electrify 18,452 unelectrified villages within 1000 days, by May 1, 2018."
- The scheme is one of the flagship programs of the Power Ministry (MoP) and will facilitate a 24x7 supply of electricity.

#### **The major components of the scheme are:**

- Separation of agriculture and non-agriculture feeders facilitating judicious restoring of supply to agricultural & non-agriculture consumers in the rural areas.
- Strengthening and augmentation of sub-transmission & distribution infrastructure in rural areas, including metering of distribution transformers/feeders/consumers.
- Microgrid and off-grid distribution network & Rural electrification already sanctioned projects under RGGVY to be completed.

#### **Salient Features:**

- The existing Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) has been subsumed in the DDUGJY.

- All Discoms are eligible for financial assistance under the scheme.
- Rural Electrification Corporation Limited (REC) is the nodal agency for the implementation of the scheme.

#### **Achievements:**

- Under DDUJY, distribution companies were strengthened by providing financial assistance.
- Approximately 18,500 villages were connected under the scheme.

#### **PM-Saubhagya**

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana – ‘Saubhagya’ scheme was launched by the Hon’ble Prime Minister in September 2017.
- Under Saubhagya, free electricity connections to all households (both APL and poor families) in rural areas and poor families in urban areas were provided.
- There were around 4 crore un-electrified households in the country and they were targeted for providing electricity connections by December 2018.
- REC Limited (then known as Rural Electrification Corporation) had been designated as the nodal agency for the Saubhagya scheme.

#### **Salient Features of Saubhagya are:**

- All DISCOMs including Private Sector DISCOMs, State Power Departments, and RE Cooperative Societies shall be eligible for financial assistance under the scheme in line with DDUGJY.
- The prospective beneficiary households for free electricity connections under the scheme would be identified using Socio-Economic Caste Census (SECC) 2011 data.
- However, un-electrified households not covered under SECC data would also be provided electricity connections under the scheme on payment of Rs. 500 which shall be recovered by DISCOMs in 10 instalments through electricity bill.

#### **Achievements under Saubhagya:**

- A total of 2.817 crore households have been electrified since the launch of the scheme.
- The International Energy Agency (IEA) recognized Saubhagya as the fastest expansion of access anywhere in the world in the history of the power sector.

Read more on the [Saubhagya Scheme](#) in the link.

#### **Energy Intensity:**

- Energy intensity is the amount of energy required to produce one unit of gross domestic product (GDP). According to the Planning Commission of India, the energy intensity of India's GDP has been declining since 1981.
- Data for 2016-17 indicate that electricity consumption across sectors has risen by 23 percent, indicating increasing energy demand in the economy. However, in some good news on the energy efficiency front, the energy intensity continues to decrease despite the rise in demand.

### **Perform, Achieve, and Trade Scheme**

- The Perform, Achieve, and Trade (PAT) Scheme is a program launched by the Bureau of Energy Efficiency (BEE) to reduce energy consumption and promote enhanced energy efficiency among specific energy-intensive industries in the country.
- Those that overachieve the targets are awarded Energy Saving Certificates or ESCerts, each equal to 1 metric tonne of oil (MTOe).
- Those unable to meet their assigned targets are required to purchase ESCerts (from the overachievers) through a centralized online trading mechanism hosted by the Indian Energy Exchange (IEX).
- BEE has rolled out six PAT cycles till 31st March 2020, with a total of 1073 DCs covering 13 sectors. It is projected that total energy savings of about 26 MTOE translating into avoiding about 70 million tonnes of CO<sub>2</sub> will be achieved by March 2023.

More on the [PAT Scheme](#) in the link.

### **Production Linked Incentive Scheme:**

- In order to enhance India's manufacturing capabilities and exports, the Ministry of New & Renewable Energy (MNRE) has issued the Scheme Guidelines for 'National Programme on High-Efficiency Solar PV Modules', with an outlay of Rs. 4,500 crores.
- The Scheme has provisions for supporting the setting up of integrated manufacturing units of high-efficiency solar PV modules by providing [Production Linked Incentive \(PLI\)](#) on sales of such solar PV modules.

### **Renewable Energy in India:**

- The Indian renewable energy sector is the fourth most attractive renewable energy market in the world. India was ranked fourth in wind power, fifth in solar power, and fourth in renewable power installed capacity, as of 2020.
- With the increased support of the Government and improved economics, the sector has become attractive from investors' perspective.
- As India looks to meet its energy demand on its own, which is expected to reach 15,820 TWh by 2040, renewable energy is set to play an important role.

- The government is aiming to achieve 227 GW of renewable energy capacity (including 114 GW of solar capacity addition and 67 GW of wind power capacity) by 2022, more than its 175 GW target as per the [Paris Agreement](#).
- The government plans to establish a renewable energy capacity of 523 GW (including 73 GW from Hydro) by 2030.

### Conclusion:

- India has one of the fastest growing renewable energy capacities in the world. India has almost achieved the targets that it had set for 2030.
- Farmers must use solar energy as much as possible and consumers should become prosumers. All these things will together make India the top leading renewable energy country in the world.