

AIR Spotlight - Interview with Union Minister of Power and New & Renewable Energy

AIR Spotlight is an insightful programme 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, the topic of discussion is the developments in the power and renewable energy sector in India.

Participants:

- R. K. Singh, Union Minister of Power and New & Renewable Energy.
- Bhupendra Singh, AIR Correspondent.

Context:

India has completed 75 years of independence, and against this backdrop, the article analyses the performance of the power sector, its achievements, and the road ahead.

Power Sector in India:

- Power is among the most critical components of infrastructure, crucial for the economic growth and welfare of nations. The existence and development of adequate infrastructure are essential for the sustained growth of the Indian economy.
- India's power sector is one of the most diversified in the world. Sources of power generation range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar, and agricultural and domestic waste.
- Electricity demand in the country has increased rapidly and is expected to rise further in the years to come.

Achievements of the Power Sector:

- **Access to electricity:**
 - India's power sector has established a new record in terms of access and transition.
 - India has provided access to electricity to about 28 million households in just 18 months, which is the biggest achievement.
- **Transition:**
 - In terms of transition, India has pledged that by 2030, 40 percent of the established capacity will be from non-fossil fuel sources.
 - Now, India has achieved 38.5 percent of the generation capacity from non-fossil fuel sources, and by 2030, approximately 55 to 60 percent of the capacity will be from non-fossil fuel sources.
- **The transformation from Power Deficit to Power Surplus:**
 - India was a power deficit country earlier but now, India has become a power surplus country with the addition of about 182,000 megawatts of power generation capacity.
- **Exporter of Power:**

- Now, India has become a power exporting country.
- **Availability of power:**
 - In 2015, the availability of power in the rural areas used to be about 12 hours per day.
 - Now, it has become 22 hours a day in rural areas and in urban areas, the average data is 23 and a half hours a day which also includes north-east states.
- **Environmental concerns:**
 - India is reducing its carbon footprint because of its concern for the environment. India is the only major economy in the world whose energy transition actions are consonant with a sub-two degree rise in global temperature.
 - India is the only **G-20** country in the world whose energy transition is on track for a sub-two degree rise in global temperature.
- **Distribution system:**
 - India has strengthened its distribution system hugely. India has spent approximately Rs.2 lakh crores in the last 5 years to strengthen and modify its distribution system.
 - Approximately 2,700 substations have been constructed, about 3,900 odd substations augmented their power generation capacity.
 - Replacement of about seven and a half lakh circuit kilometres of High Tension (HT) lines and Low Tension (LT) lines.
 - India has made available six lakh sixty-five thousand transformers which made the availability of power possible to around 24 hours a day.
- **One nation, one grid, and one frequency:**
 - India has become 'one nation, one grid, and one frequency' under which all the regional grids have been integrated into one national grid for providing energy produced by natural gas.
- **Modern system:**
 - India is working towards the modernization of the power generation system.
 - A new scheme of Rs.3 lakh crores has been approved under which 3,785 Supervisory Control and Data Acquisition System (SCADA), 100 Distribution management systems for all the major cities will be developed. The cities will be having a totally automated distribution system.

Various Schemes:

Deen Dayal Gram Jyoti Yojana:

- The Deen Dayal Upadhyaya Gram Jyoti Yojana is an Indian government scheme intended to provide uninterrupted power supply to the rural parts of India.

- The DDUGJY replaces the existing scheme for a similar purpose, the Rajiv Gandhi Grameen Vidyutikaran Yojana.
- The [DDUGJY](#) focuses on strengthening and augmenting sub-transmission and distribution infrastructure in rural areas including metering of distribution transformers feeders/consumers.
- The objective of the DDUGJY is to ensure rapid electrification, feeder separation, and the strengthening of rural distribution infrastructure.

Pradhan Mantri Sahaj Bijli Har Ghar Yojana (PM-Saubhagya):

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana (PM-Saubhagya) is to provide energy access to all by last mile connectivity and electricity connections to all remaining un-electrified households in rural as well as urban areas to achieve universal household
- electrification in the country.

Read more on the [Pradhan Mantri Sahaj Bijli Har Ghar Yojana](#) in the link.

Evaluation of the schemes:

- The schemes have been proved successful in connecting approximately 18,000 villages and hundreds and thousands of families.
- Once the villages get electricity connections, the economic activity picks up and the demand for electricity also increases because of increasing economic activity.
- In fact, during the Covid-19 pandemic, the demand for electricity crossed 200,000 megawatts. This could be an indication of increased economic activity.

Providing choices to consumers:

- The objective of the government is to give consumers a choice implying there will be more than one distribution company in one particular area.
- The consumer can choose the company that offers better distribution services and for this, the government has proposed an amendment to the law that is under consideration.
- With the amendment, the government will de-license the distribution sector. Earlier, de-licensing of power generation was done and it led to good results. The distribution sector should also be de-licensed because it is a system that should be run by rules and regulations and not by licenses.

Towards Green Energy:

- India is adding renewable energy on pace to reduce its carbon footprint. India has established a power generation capacity of 146,000 megawatts which includes hydro energy also.
- India has about 63,000 megawatts under installation that will make the total renewable energy generation capacity to around 209,000 megawatts.
- The Prime Minister has given the Power Ministry the target to reach 175 gigawatts of clean energy by 2022. Now, because of Covid, some extensions had to be given but the Ministry is very close to the target, said the Minister in the discussion.
- India has set a target for itself to reach 450,000 gigawatts of clean energy by 2030.

National Green Hydrogen Mission:

- The government of India recently announced the [National Hydrogen Mission](#) in the Union Budget 2021 for making a hydrogen roadmap for the country.
- India wants to reduce its dependence on imports for our energy requirements and green hydrogen is one very major option. It will be entirely produced in India and will be fossil-free or green.
- So, India is basically replacing imported natural gas with green hydrogen that is being produced in India itself.
- Hydrogen has great potential to emerge as a future source of energy.
- “The enthusiasm about hydrogen has a simple reason: whether it’s used in a fuel cell or burned to create heat, wherever hydrogen replaces fossil fuels, it slows global warming. Inclusion of “Hydrogen” as an energy carrier in the future energy portfolio presents a unique opportunity to address emerging energy sectors, including the power to gas, power to power, and power to mobility and even vehicle to grid applications.”

Go-Electric Campaign:

- The Ministry of Power, Government of India, launched the “Go Electric” Campaign on 19 February 2021 with the objective of creating awareness among masses on the benefits of adopting Electric Vehicles and Electric Cooking appliances such as induction cook hobs, electric pressure cookers, etc.
- This initiative is intended to encourage consumers to switch over to [Electric Vehicles](#) and Electric Cooking in place of currently used conventional modes and appliances, thereby, reducing the dependency of the country on imported fuel.
- The “Go Electric” Campaign is aimed at promoting the adoption of Energy Efficient Electric Vehicles and Electric Cooking appliances and is expected to help the country to achieve energy transition as well as low carbon economic growth in the future.
- These technologies being energy efficient, are expected to scale down mobility and cooking-related emissions, securing a cleaner and greener future. The share of renewables in the energy mix is expected to increase due to the integration of more renewable-based power generation. The benefits of adopting these electricity-based technologies shall be completely realized by enhancing the share of renewables in the Grid.
- Now, everybody is free to set up a charging station and no license is required for that purpose. The government is liberalizing many rules and regulations.

Protection to domestic industry:

- The government of India found that some countries were dumping solar cells and modules at a very low price in India that was harming the domestic manufacturing industry.
- The government has put a safeguard duty of 15 percent to protect the industry. Now, this safeguard will be replaced by customs duty. So, from April 2022, there will be a customs duty of 40 percent on imported modules and 25 percent on imported sales.
- This will provide protection to the domestic manufacturing industry so that the industry can grow efficiently.
- A number of companies have announced setting up manufacturing facilities in India.

Conclusion:

The government of India is committed to the growth of the power sector in India and it is continuously working towards it.

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