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Pm Surya Ghar Yojna: Aims And Implications For India: An Auxiliary Research

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ABSTRACT: With the world's electricity consumption on the rise, it is imperative to have access to affordable and reliable energy. The PM Surya Ghar Yojana was launched by Prime Minister Narendra Modi on February 15, 2024, with the intention of empowering Indian households by providing them with free electricity using rooftop solar panels. Encouragement of solar energy use is the goal of the PM Surya Ghar Yojana, a government initiative. This program offers eligible houses a subsidy on the installation of solar panels on their rooftops. By harnessing the power of the sun, families can generate their own electricity, reduce their need on traditional networks, and contribute to environmental preservation. The program was started by the current administration with the goal of providing free electricity to houses that decide to put solar generating systems on their rooftops. Under the previously mentioned plan, the houses will be entitled to receive 300 units of power every month at free cost. The strategy, which targets the household market with systems up to 3 Kw, serves the bulk of residential clients in India.

INDEXTERMS - Sustainable development Goals, Green Economy, Green Growth, Solar energy, Green house effect, DISCOM, DESA, Subsidy, Renewable Energy, Climate Change

INTRODUCTION

Sembcrop, a significant international investor in India, claims that in 2023, 1,600 billion units of electricity would be needed. India is currently the fourth-most renewable energy-capable country in the world, mostly due to government initiatives that are welcoming to investors. Non-fossil fuel sources will make up 42% of the energy mix until January 2024 with the addition of about 13 GW of renewable energy capacity in 2023. India is the world's top producer of wind and solar energy, ranking fifth for solar power and fourth for wind power, respectively. India's position in the Climate Change Performance Index has thereby significantly improved, moving up from 31st in 2014 to 7th in 2023. We are the second-biggest market in Asia for the expansion of renewable energy. By 2024, renewable energy capacity is expected to have increased by 25GW. Of the 156 GW of newly built generating capacity, 103 GW comes from renewable sources. According to the Ministry of New and Renewable Energy, by 2031–2022, 469 GW of new capacity would be added overall.

PROBLEM STATEMENT

To assess and understand the near-term and the long-term economic, environmental, and social outcomes of the PM Surya Ghar Yojana for the nation and for individual beneficiaries.

"PM Surya Ghar Yojna : Objectives and implications for India : An Auxiliary Research"

INSIGHT OF THE SCHEME

1. Registration Process

1. Online registration:

- Visit the official program website.
- Provide all necessary details, including the state, the electricity distribution company, the consumer number, the mobile number, and the email address.

- Follow the instructions on the website.

2. **Application Submission**

- To log in, provide your consumer number and cellphone number.
- Fill out an application to put solar panels on your roof.
- Await DISCOM, the distribution firm, to approve the feasibility

3. **Installation and Approval**

- Once the solar power system's viability has been established, utilize approved vendors to install it.
- File an application for a net meter. After installation and DISCOM inspection, you will receive a commissioning certificate.

4. **Subsidy distribution**

To be eligible for the subsidy, which will come in 30 days, send a voided check and bank account details through the portal.

2. OBJECTIVE OF SCHEME

1. **Free power**: To provide 300 units or more per month of free power.
2. **Sustainable development**: The program contributes to sustainable development and reduces its carbon footprint by encouraging the use of solar energy.
3. **Economic empowerment**: Lower electricity bills provide families more disposable income, which encourages economic empowerment.
4. **Employment creation**: Installing and maintaining solar panels results in job openings.

3. SIGNIFICANCE OF THE SCHEME

1. **Energy security**: By generating their own electricity, households become less reliant on external energy sources.
2. **Lower electricity bills**: Families can reduce their monthly electricity costs by a significant amount.
3. **Environmental impact**: Because solar energy is clean and renewable, it produces fewer greenhouse gases.
4. **Rural electrification**: The program bridges India's energy gap between urban and rural communities by reaching rural areas.

4. SUBSIDY

The subsidy program offers a 60% rebate for systems up to 2 kW in power and a 40% discount for systems between 2-3 kW. Since the subsidy is only available for systems with a maximum capacity of 3 kW, financial help will not be given for capacities more than 3 kW. Based on current benchmark pricing, eligible beneficiaries will receive a subsidy of Rs 30,000 for 1 kW systems, Rs 60,000 for 2 kW systems, and Rs 78,000 for 3 kW systems or higher.

SUITABLE ROOFTOP SOLAR PLANT CAPACITY FOR HOUSEHOLDS

Average Monthly Electricity Consumption (units)	Suitable Rooftop Solar Plant Capacity	Subsidy Support
0-150	1-2 Kw	₹ 30,000/- to ₹ 60,000/-
150-300	2-3 kW	₹ 60,000/- to ₹ 78,000/-
> 300	Above 3 kW	₹ 78,000/-

When a consumer installs solar panels, Rs. 2.15 per unit is also generated per unit after power expenses are subtracted. Thus it's essentially more revenue that each consumer generates.

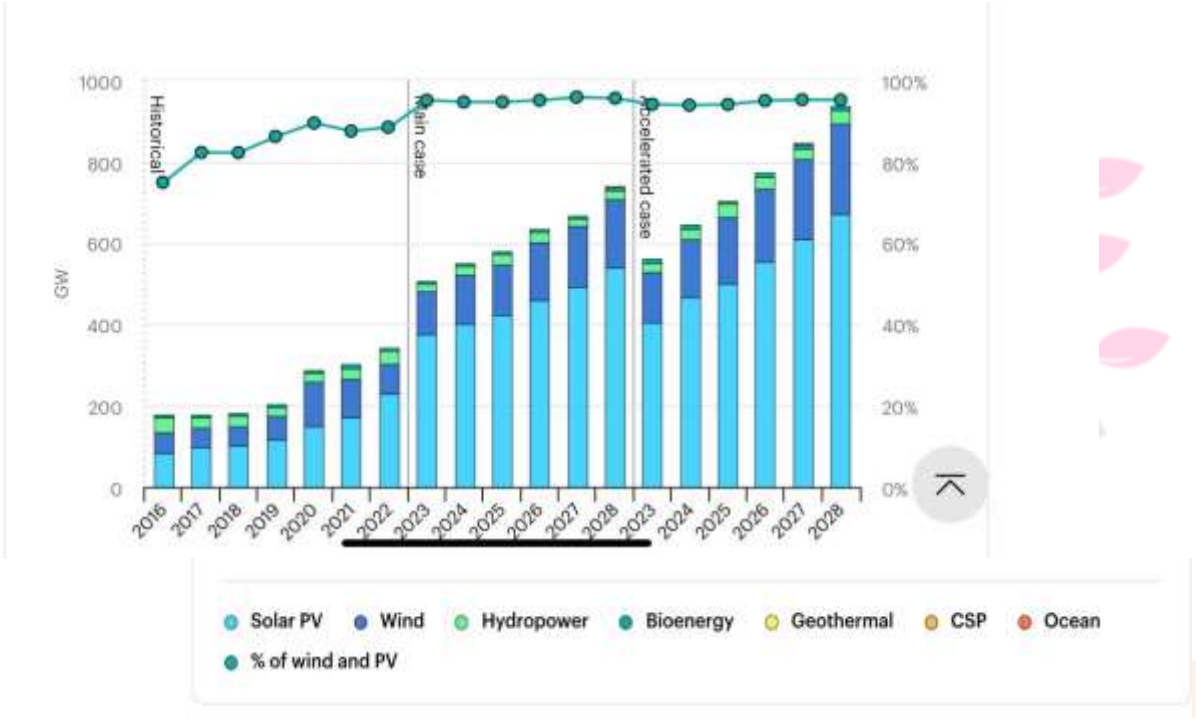
MAKE SURE EVERYONE HAS ACCESS TO MODERN, AFFORDABLE, DEPENDABLE, AND SUSTAINABLE ENERGY

"Ensure access to affordable, reliable, sustainable, and modern energy for all" is the UN General Assembly's 2015 acceptance of SDG 7, a unique and distinct goal on energy. Energy is at the heart of both the 2030 Agenda for Sustainable Development and the Paris Climate Agreement. Achieving SDG7 will open up a whole new world of opportunities for millions of people, including more chances for employment and the economy, improved health and education systems, more equitable, sustainable, and inclusive communities, and enhanced resilience and climate change protection. The Global Roadmap for Accelerated SDG 7 activities—a product of the High-level Dialogue on Energy 2021—offers a blueprint for coordinated energy-related engagement across sectors. DESA conducts and promotes relevant policy analysis, serves as the secretariat for intergovernmental energy debates, and performs the necessary capacity building to support these efforts.

CENTRAL FINANCIAL ASSISTANCE (CFA) FOR RESIDENTIAL ROOFTOP SOLAR

The program gives a CFA of 60% of system cost for systems under 2 kW and 40% of additional system cost for systems with a capacity between 2 and 3 kW. The CFA will have a 3 kW maximum. At the current benchmark pricing, this equates to a subsidy of Rs 30,000 for a 1 kW system, Rs 60,000 for a 2 kW system, and Rs 78,000 for a 3 kW system or more. Families can select a suitable rooftop solar installation vendor and apply for subsidies through the National Portal. The National Portal will provide relevant information, such as vendor ratings, benefits calculators, and appropriate system sizes, to assist households in making decisions. Households will currently have access to low-interest finance packages with rates as low as 7% and no collateral requirements for the installation of residential RTS systems up to 3 kW.

IN 2023, THE WORLD'S RENEWABLE CAPACITY ADDITIONS WERE PRIMARILY DRIVEN BY SOLAR PHOTOVOLTAIC TECHNOLOGIES



The amount of capacity added to renewable power sources will expand over the next five years, with wind and solar PV contributing a record 96% of this increase. This is due to the fact that regulations continue to support them and their generation costs are typically lower than those of both fossil and non-fossil alternatives in the majority of countries. It is anticipated that solar PV and wind additions would surpass all previous records and reach over 710 GW by 2028, having more than doubled from 2022 levels.

FINDINGS

- Incentives for encouraging RTS installations in their regions would also help Panchayati Raj Organizations and Urban Local Bodies.
  In order to set an example for the rural areas'
- adoption of rooftop solar power, a Model Solar Village will be constructed in every district across the country.
- For models based on renewable energy service companies (RESCOs), the plan provides a payment security component in addition to a subsidy for innovative RTS activities.

LIMITATIONS

They don't address the Following question,

1 What happens in the event that the installation costs are higher than the grant?
2 Can a candidate install solar panels on their rooftop if they rent a house?
3 In the event that the applicant relocated from the place of employment or housing where the RTS was installed, what would happen to it?
4 What kind of roofs are ideal for solar power systems installed on rooftops?

CONCLUSION

The United Nations Environment Program (UNEP), UN Department of Economic and Social Affairs (UNDESA), UN Conference on Trade and Development (UNCTAD), International Labour Organization (ILO), World Bank, Organization for Economic Cooperation and Development (OECD), Global Green Growth Institute (GGGI), Partnership for Action on Green Economy (PAGE), Green Growth Knowledge Platform (GGKP), Green Economy Coalition Stakeholder Forum, Green Growth Leaders, and many others have recently made efforts to address knowledge gaps and demystify these concepts on green economy and green growth.

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