

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 3664
TO BE ANSWERED ON 27.03.2018
PURCHASING ENERGY FROM RENEWABLE SOURCES

3664. DR. VIKAS MAHATME

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the incentives being given for switching from supply driven programmes to demand driven programmes and technologies;
- (b) whether any alternative subsidy structures have been developed to encourage utilities to integrate wind, small hydro etc. into their systems;
- (c) if so, the details thereof;
- (d) whether the State Electricity Regulatory Commissions (SERCs) have been mandated to purchase energy from renewable sources; and
- (e) if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER (I/C)
(SHRI R. K. SINGH)

(a) The Government has provisions for incentives in the form of generation based incentives/subsidies, fiscal incentives such as accelerated depreciation, Goods & Services Taxes at low rates, concessional custom duty, income tax holiday for 10 years and viability gap funding for various projects/programmes of Renewable Energy. The details of incentives being offered by the Government in the form of Central Financial Assistance under various renewable energy schemes/programmes including wind, small hydro power, etc. in the country are given in the Annexure.

Besides, The Government vide Ministry of Power's order no. 23/12/2016-R&R, dated 13th February, 2018 have Waived off Inter State Transmission System charges and losses for inter-state sale of solar and wind power for projects to be commissioned up to March, 2022;

(b) & (c) The Ministry is implementing Green Energy Corridor scheme to encourage utilities to integrate large scale wind, small hydro, solar power, etc. generation capacity in the renewable energy rich states at a total project cost of Rs 10,141 Cr with 40% coming through KfW loan, 40% coming through NCEF and remaining 20% as States Contribution.

(d) & (e) Section 86(1) (e) of the Electricity Act, 2003, mandates State Electricity Regulatory Commissions to specify Renewable Purchase Obligation (RPO). Relevant extract of the Act states "promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee".

As per order no. 23/3/2016-R&R, dated 22nd July, 2016, Ministry of Power has declared trajectory for solar and non-solar RPOs.

Annexure referred to in reply to part (a) of Rajya Sabha Unstarred Question No. 3664 for 27/3/2018 regarding 'Purchasing energy from renewable sources'

Subsidies and Incentives being provided as Central Financial Assistance (CFA) for the installation of various renewable energy programmes.

A. GRID-INTERACTIVE RENEWABLE POWER PROGRAMMES:

1. Wind Power Projects.		
Wind Projects		Accelerated depreciation benefits upto 40%
2. Solar Power Projects.		
a) Solar PV Power projects under Jawaharlal Nehru National Solar Mission (JNNSM) Phase-II, Batch-I of total 750 MW with Viability Gap Funding (VGF) support from National Clean Energy Fund (NCEF).	Minimum Project Capacity 10 MW Maximum Project Capacity 50 MW	VGF support up to 30% of Project Cost limited to Rs.2.50 Cr/MW based on reverse bidding process for power producers.
b) Grid Connected Rooftop Solar PV Power Projects in residential, institutional and social sector	Benchmark of Rs 60 to 70 per watt depending upon the capacity.	Central Financial Assistance (CFA) up to 30% of benchmark cost for the General Category States/UTs and up to 70% of benchmark cost for Special Category States/UTs, i.e. North Eastern States including Sikkim, Uttarakhand, Himachal Pradesh, Jammu & Kashmir and Lakshadweep, Andaman & Nicobar Islands is provided to consumers for installation of grid connected solar rooftop projects. Incentives are also provided for promotion of roof top SPV power in Government sector. No subsidy is provided for commercial and industrial establishments in private sector.
c) Grid connected Solar PV Power Projects by Central Public Sector Undertakings (CPSUs).	Total size of the scheme 1000MW.	VGF support to the CPSUs/Govt. Organisations (producers) at a fixed rate of Rs.1 crore/MW for projects where domestically produced cells and modules are used and Rs. 0.50 crores/MW in cases where domestically produced modules are used.
d) Grid-connected Solar PV Power plants on Canal Banks and Canal Tops	1 MW to 10 MW	Rs 1.5 Crore/MW for Canal Bank and Rs 3.0 Crore/MW for Canal Top Projects, subject to 30% of the project cost in both the cases.
e) Solar Park Scheme	--	25 lakh per Solar park for preparation of Detailed Project Report(DPRs). 20 Lksh per MW or 30% of the project cost

		including Grid-connectivity cost, whichever is lower.
f) Solar PV scheme for Defence Establishments	--	Rs 1.1 crore / MW for all capacities.

3. Small Hydro Power (SHP) Projects

Support to new SHP projects (producers) in Government sector:

Category	Above 100 KW and up to 1000 KW	Above 1 MW – 25 MW
Special category (J&K, HP &UK) and NE States	75,000 per KW.	7.5 Crores / MW limited to 20 crore per project.
Other States	35,000 per KW.	3.5 Crores / MW limited to 20 crore per project.

Support to new SHP projects (producers) in private / co-operative / joint sector:

Areas	Upto 25 MW
NE Region, J & K, H.P. &Uttarakhand (Special Category States)	1.5 crore/ MW limited to 5.00 crore per project
Other States	1.0 crore/ MW limited to 5.00 crore per project

Renovation and Modernisation:

for Government Sector projects	Rs 1.00 crore/MW limited to 10.00 crores per project.
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4. Biomass Power and Bagasse Cogeneration Projects (producers):

Private / Joint / Cooperative / Public Sector Sugar Mills:

Type of Projects	Special Category and NE States	Other States
Biomass Power projects	Rs.25 lakh per MW*	Rs.20 lakh per MW*
Bagasse Co-generation	Rs.18 lakh per MW*	Rs.15 lakh per MW*
Co-generation projects by cooperative/public sector sugar mills:-	Per MW of surplus power (maximum support Rs. 6.0 cr / project)	Per MW of surplus power (maximum support of Rs. 6.0 cr per project)
40 bar & above	Rs.40 lakh	Rs.40 lakh
60 bar & above	Rs.50 lakh	Rs.50 lakh
80 bar & above	Rs.60 lakh	Rs.60 lakh

*Maximum support of Rs. 1.50 crore per project.

5. Waste to Energy Projects:

Type of Waste	Central Financial Assistance to Producers
Municipal Solid Waste	Rs.2.00cr./MW, Max. Support 10 Cr. /project.
Urban Waste	Rs.2.00cr./MW, Max. Support 5 Cr. /project.
Industrial waste	Rs. 0.20cr to Rs. 1.00cr/MW, Max. Support Rs.5.00cr/project.

B. OFF-GRID / DECENTRALIZED RENEWABLE ENERGY PROGRAMMES

S.No	Programme	CFA/Subsidy to consumers (limited to following ceiling or 40% of the cost of the system, whichever is less)
1.	Family Type Biogas Plants	
	a) NE Region States including Sikkim	Rs.15,000 to Rs.17,000 per plant

	(except plain areas of Assam)	
	b) Plain areas of Assam	Rs.10,000 to Rs.11,000 per plant
	c) J&K, Himachal Pradesh, Uttarakhand (excluding Terai region), Nilgiris of Tamil Nadu, Sadar, Kurseong and Kalimpong sub-divisions of Darjeeling, Sunderbans, Andaman & Nicobar Islands and SC & ST (not included in above areas)	Rs.7,000 to Rs.11,000 per plant
	d) All Others	Rs.5,500 to Rs.9,000 per plant
2.	Decentralized Solar Photovoltaic Systems.	
	a) Lighting systems/ Power packs	Subsidy of 30% of the device/ project cost
	b) Solar pumps	Subsidy of 30%, 25%, and 20% depending upon pump capacity.
	c) Solar Study lamps	Student contribution Rs 100 Balance to be paid as Central Financial Assistance.
	d) Solar Street light under AJAY scheme	75% of the project cost
3.	Concentrating Solar Thermal Technology	Subsidy @ 30% of the bench mark cost or actual cost whichever is less will be available to all types of beneficiaries in general category states and 60% to all types of Non-profit making bodies and institutions in special category states, viz., NE states, Sikkim, J&K, Himachal Pradesh, Uttarakhand and islands. International border districts will come under general category states.
4.	Micro-hydel plants/ Water mills	Subsidy/CFA to producers: Rs. 1.25 lakh/kW for Micro-hydel upto 100 kW. Rs.0.50 lakh per Watermill for Mechanical output. Rs.1.50 lakh per Watermill for Electrical Output.
5.	Biomass Gasifier	CFA/Subsidy to consumers: Rs. 15,000 /kW (with 100% producer gas engine) Rs. 2,500/kW for duel fuel engine Rs. 2.0 lakh per 300 kW for Thermal Applications 20% higher CFA for special category states