

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
STARRED QUESTION NO. 213
TO BE ANSWERED ON 16.03.2017

DEVELOPMENT OF NRE SECTOR

*213. SHRIMATI KIRRON KHER

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

- (a) whether the Government has taken any initiative to develop the new and renewable energy sector in collaboration with Sweden and if so, the details thereof;
- (b) whether the Government proposes to develop the Indian Green Bond market in collaboration with Sweden and if so, the details thereof ?

ANSWER

THE MINISTER OF STATE FOR POWER, COAL, NEW & RENEWABLE ENERGY AND MINES (INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

(a)& (b): A statement is laid on the Table of the House.

**STATEMENT REFERRED TO IN REPLY TO PARTS (a) AND (b) OF THE LOK
SABHA STARRED QUESTION NO. 213 TO BE ANSWERED ON 16.03.2017**

(a) Yes Madam: An MoU on India-Sweden Renewable Energy Cooperation between Ministry of New and Renewable Energy, Government of India & The Ministry of Enterprise, Energy and Communication of Sweden was signed on 19th April, 2010 (Copy enclosed).

(b) No, Madam.

Ministry of New and Renewable Energy

Note for Supplementary Questions

**Lok Sabha Admitted Starred Question No. 213
to be Answered on 16.03.2017**

On

“Development of NRE Sector”

By

Shrimati Kirron Kher, MP

Supplementary Questions:

Q. 1: When MoU between India-Sweden was signed?

Ans 1: The Memorandum of Understanding was signed between Ministry of New and Renewable Energy, Government of India & the Ministry of Enterprise, Energy and Communication of Sweden was signed on 19th April, 2010

Q.2: What will be the validity of signed MoU between India-Sweden?

Ans 2: The signed MoU between India-Sweden will remain in force till revoke/Termination of either parties

Q. 3: What the Major Areas of cooperation will focus on development of New & Renewable Energy Technologies under Signed MoU between India-Sweden?

Ans 3: The Major Areas of cooperation will focus on:

- i. Wind
- ii. Bio-energy
- iii. Waste-to-Energy
- iv. Energy Efficient

Q 4: When JWG Meeting was held and what are the Discussion Points?

Ans 4: Every year JWG was proposed to be held, Last JWG was held on 6th October, 2016 in New Delhi. Specific areas for possible collaboration underway are:

- i. Cooperation in the field of Grid integrated for renewable
- ii. Energy Storage
- iii. Wind Forecasting
- iv. Go for solution and pilots on Storage

Q 5: Is there any project signed under the existing MoU?

Ans 5: Yes, Projects was signed under the existing MoU as follows:

- i. **Pilot Project of up gradation of Biogas-Keshavpur, UP (SPV-DJB-IG and IFLS):** The proposed Pilot projects uses combination of RE Technologies with Energy Storage Systems & will deployed in Resorts and Hospitals
- ii. **Micro Grid in Andaman and Nicobar has been initiated:** Under this project, a DG Capacity of 105 MW in 53 Diesel Power Houses, one Hydro Power Station of 5.25 MW capacity & one Solar PV Power plant of 5 MW will get setup in A&N (Annexure 1).

Q 6: Strength Areas of Sweden in RE?

Ans 6: Sweden is strengthen in the field of Bioenergy, Fuel Cell, Solar Energy & Wave Energy.

Q 7: Strength Areas of India in RE?

Ans 7: India is strong in the field of Solar Energy, Wind Energy, Bio-energy & Thermal Energy.

On-going Bilateral Cooperation between Ministry of New and Renewable Energy and Swedish Energy Agency (SEA) on Micro Grids in Andaman & Nicobar Islands

Brief Note on Status of Pilot Projects

1. **Andaman and Nicobar Islands** is a group of 556 islands at the juncture of the Bay of Bengal and Andaman Sea, and is a Union Territory with a total land area of 8,249 sq.km and population of 3.81 lakh, as per census of 2011, residing at 19 islands. Power Generation in A&N Islands is largely through Diesel, which accounts for 90% of total generation; rest 10% is through Small Hydro and Solar. There are 53 Diesel Power Houses with cumulative capacity of over 105 MW at different locations having DG capacity ranging from 12 kW to 5600 kW (including a 20 MW IPP in Port Blair) and one Small Hydro Power Station having 5.25 MW capacity at Kalpong and one 5 MW Solar PV Power Plant at Port Blair set up by NTPC. The unit cost of diesel based generation is about Rs. 25 per kWh.
2. In the joint meeting held on 15 April 2015 in MNRE, it was agreed to develop pilot projects on RE based microgrids for supply of electricity in the identified locations in Andaman Islands. The size of the proposed pilot projects is expected to be in the range of 100 kW to 1000 kW.
3. SEA has accordingly, selected 3 Swedish Companies based on concept proposed for pilot project, relevance for local context, track records of the company in November 2015 to prepare feasibility report of the selected pilot projects.
4. 6 micro grids based pilot projects with an estimated investment of INR 36 crores (USD 5.4 million) have been shortlisted jointly. SEA and GOI/MNRE will provide INR 13 crores (USD 1.9 million) each as grant for setting up these pilot projects. The balance cost will be mobilised as contribution from the beneficiary organisation and/or term loan from the Financial Institutions.
5. The proposed pilot projects uses combination of RE Technologies with Energy Storage Systems and will be deployed in – i) Resorts in Havelock and Neil Islands; and ii) GB Pant Hospitals and BRAIT ([Dr.B.R.Ambedkar Institute of Technology](#)) in Port Blair.
6. Innovative bifacial transparent PV panel technology with tracking system and DC micro grids for electrification are proposed to be introduced for improving the efficiency.
7. The name of the companies prepared the report are as under -
 - STRI – E4T Integrated Solutions, Ludvika, Sweden
 - SP Technical Research Institute, Borås, Sweden
 - Maksus, Sweden

List of Islands identified for Holistic Development by M/o Home Affairs

- | | |
|---------------------------|-------------------|
| i) Havelock Island | } Already covered |
| ii) Neil Island | |
| iii) Smith Island | |
| iv) Ross Island | |
| v) Long Island | |
| vi) Little Andaman Island | |

Proposed New Initiative

Talking points on International Solar Alliance (ISA)

- At present there is no inter-governmental body in place to address the specific solar technology deployment needs of the solar resource rich countries, like ours.
- We face gaps in the potential solar energy manufacturing eco-system. Absence of universal energy access, energy equity and affordability are issues common to us.
- We launched International Solar Alliance on 30 November 2015 at Paris, France. We envision ISA is a specialized platform for cooperation among our countries to increase utilization of solar energy.
- ISA is uniquely placed to bridge the gaps through coordinated action to: lower the cost of finance; achieve Speed, Scale, and Skill for deploying available technologies; and facilitate strategic and collaborative solar R&D and capacity building.
- India has offered to host ISA at the premises of National Institute of Solar Energy (NISE) and has offered 10 acre land. We have laid the foundation stone of ISA Headquarters.
- ISA has already launched two Programmes for “*Scaling solar applications for agricultural use*”, and “*Affordable finance at scale*”.
- United States, UK and EU have expressed desire to join hands with ISA in launching 3 more new programmes on the Foundation day.
- ISA and UNDP have joined hands for cooperation for promoting ISA objectives.
- Similarly a Joint Declaration between ISA Cell and the World Bank has been signed and issued.
- The Joint declaration with World Bank is reflection of common desire to mobilize investment for the massive deployment of solar energy technologies, as enshrined in the Paris Declaration on ISA.
- This will be a beginning towards new horizons that are full of opportunities and of course challenges. We strive to evolve it through greater dialogue, interactions to provide impetus to the partnership and increase cooperation in solar energy for energy security and prosperity.
- **Support of Sweden is solicited in perusing the objectives of the ISA and promoting Solar Energy in a big way. Sweden may agree to join the Alliance and sign the Statue during signing ceremony of ISA in November, 2016 in Marrakesh, Morocco.**