Solar Energy Corporation of India Limited

A Government of India Enterprise

Schedule-A Central Public Sector Undertaking

09.10.2020

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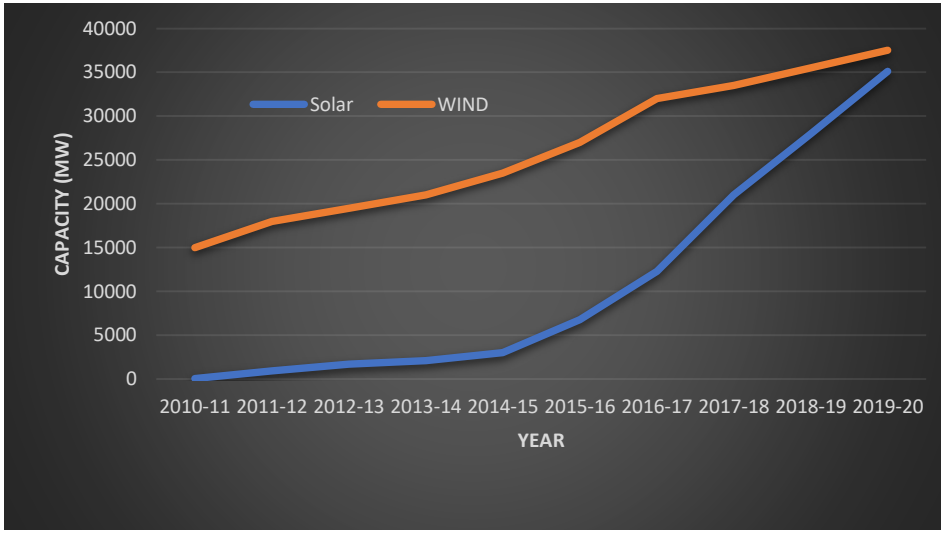
India in RE Sector

National target by 2022	:	Solar 100 GW	Wind 60 GW	Other RE 15 GW
National target by 2030	:	Solar 300 GW	Wind 140 GW	Other RE 10 GW
Commissioned	:	Solar 35.1 GW	Wind 37.8 GW	Other RE 14.7 GW
Capacity under implementation	:	Solar 40 GW	Wind 10 GW	Hybrid 3 GW

- **Strategy for promotion of RE**
  - Regulatory risk – SBG, RE policy
  - Implementation risk – Solar parks
  - Payment risk : SECI as implementing agency



Role of SECI

- **SECI**
  - Central PSU: 100% Owned by GoI
  - Demand aggregation.
  - Intermediary procurer.
  - 25 year PPA, Bankable PPAs.
  - Promotion of solar parks.
  - Transparent bidding process.
  - Ease of doing business.

Capacity Awarded : 10330 MW

Lowest tariff : Rs 2.44/kWh

$ 0.033/kWh

Capacity Awarded : 31621 MW

Lowest tariff : Rs 2.36/kWh

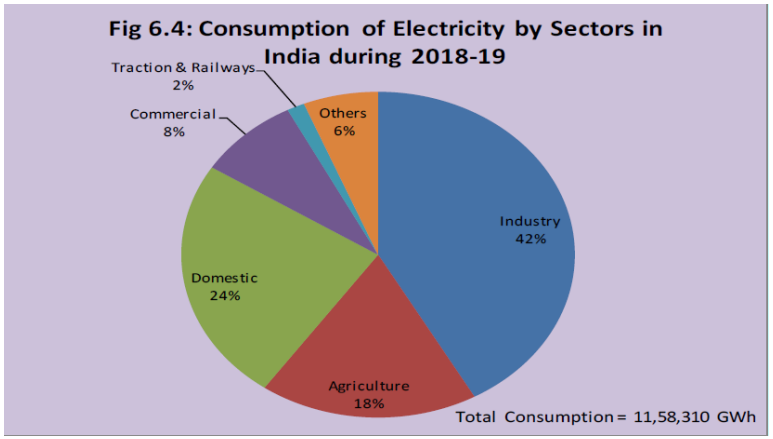
$ 0.031/kWh

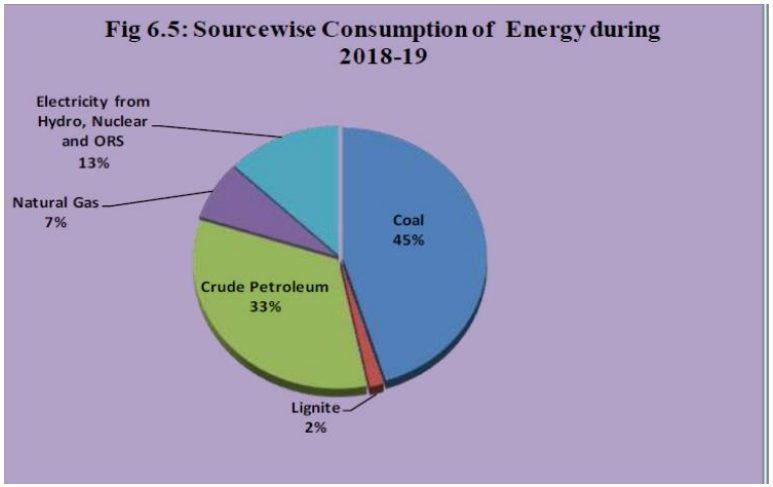
Promoted 40 Solar parks with 26144 MW capacity

Why Green Hydrogen

- **RE- Solar & Wind**
  - Demand – Predictable
  - Available- Intermittent

- **Hydrogen**
  - Makes Solar & Wind predictable
  - Storage
  - Another RE source
  - Scalable





Source: Energy Statistics 2020

Green Hydrogen in Fertilizer industry

- India -largest producer & consumer of Urea

Annual Consumption 2019-20	Annual Production 2019-20
32 MMT	24.45 MMT

- Hydrogen requirement for Urea production;

Urea	24.45 MMT
Ammonia	13.86 MMT
Hydrogen	4.89 MMT
Hydrogen 10% requirement	0.489 MMT **(approx. 12.8 GW Solar or 10.23 GW Wind energy required)**

- 1st stage: 10% of Green Hydrogen - huge market in India

Proposal for Pilot Project

- SECI
  - Intends to install a 2000 tonne per annum Green Hydrogen Plant near a Fertilizer production facility in India
  - Nodal agency between RE Energy supplier, H2 production unit and Fertilizer industry
  - Looking for a Green Hydrogen producer with cutting edge technology to supply the Green hydrogen at a competitive price.

- Successful implementation may lead to a nation wide scheme

Infrastructure requirement

- Likely infrastructure support expected for pilot Project

Sl. No.	Infrastructure required	Support offered
1	Land for development of Electrolyser & H2 storage	SECI may coordinate with state govt. to facilitate the land availability
2	Energy Requirement	SECI may coordinate with RE Energy producers for supply
3	Buyer	SECI may tie up with Fertilizer industry for long term sale of Green Hydrogen
4	Capital and Operational Expenditure	GH2 plant developer to arrange Capital and Operational expenditure
5	Technology	GH2 plant developer to bring the technology, the proposal is Tech-agnostic.

Expectation from EU

- Share the learnings, expectations, dos and don’ts
- Support in Technical aspects of implementation
- Active participation

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Thank You