

Grid - Connected Rooftop PV Systems



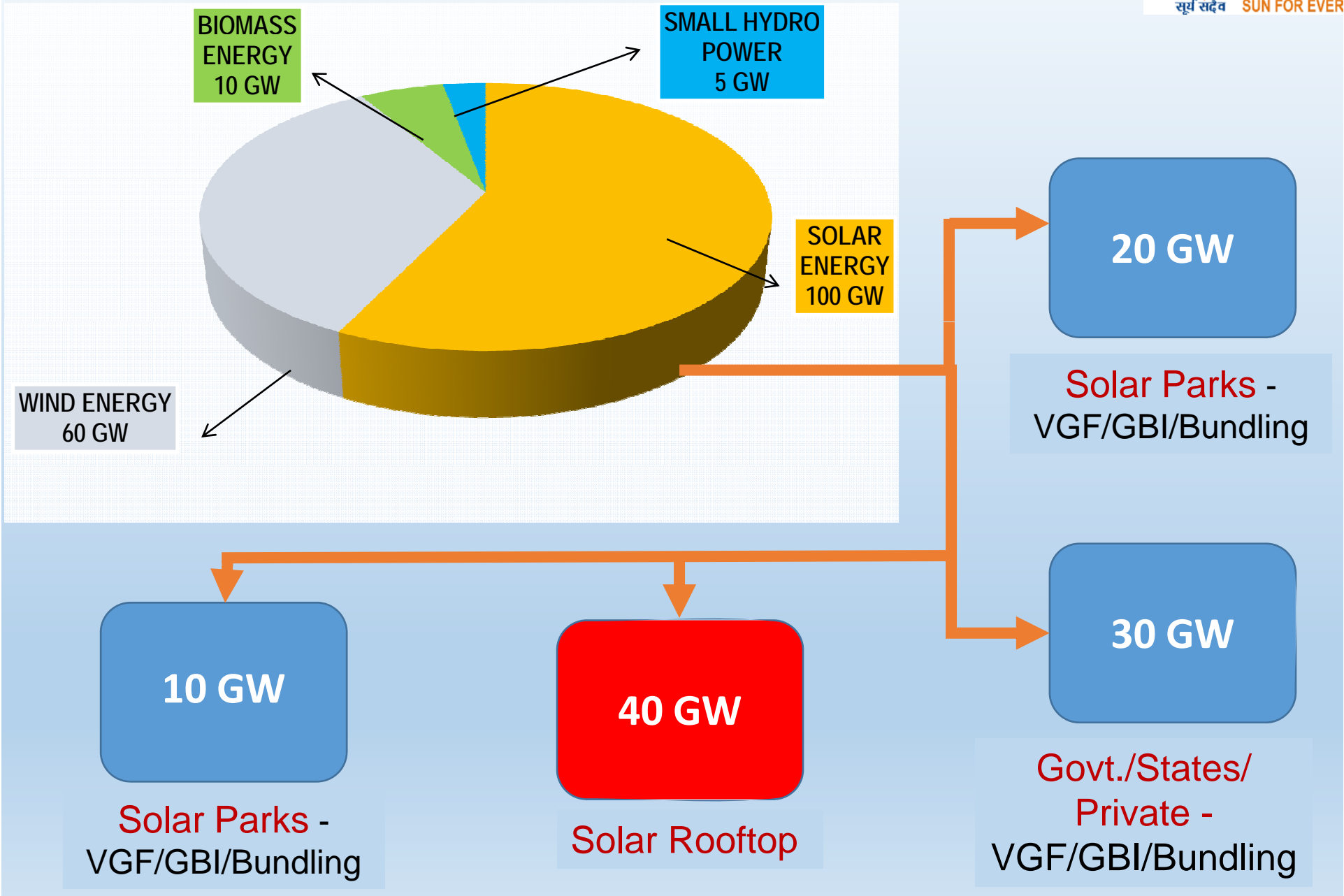
भारतीय सौर ऊर्जा निगम लिमिटेड

(भारत सरकार का उपक्रम)

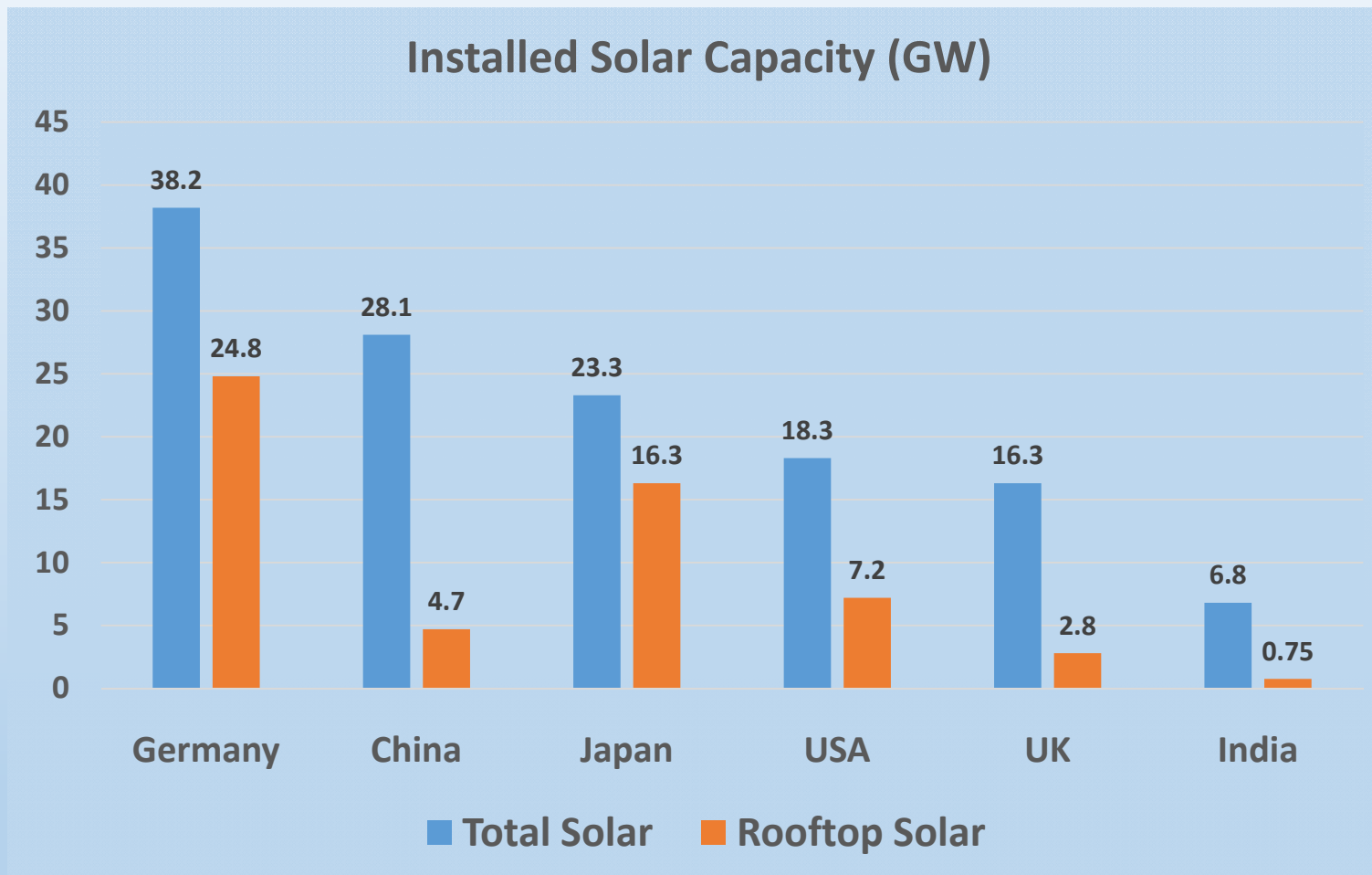
1st Floor, Religare Building

D-3 District Centre, Saket, New Delhi-110017

Renewable Energy Targets :175 GW by 2022



Solar Energy: Global Scenario



Source: TERI/KFW/MNRE

About SECI



- *SECI came into existence on 20th September, 2011 with a Cabinet approval of the Govt. of India with authorised share capital of Rs. 2000 Cr.*
- Main objects include:
 - ✓ To channelize Government investments into Solar energy sector;
 - ✓ To implement MNRE schemes in commercial mode for large-scale capacity addition;
 - ✓ To build, own and operate Solar projects;
 - ✓ To set industry benchmarks of quality and performance;
 - ✓ To be the first-mover in technology for widespread replication;
 - ✓ To generate competition in the solar energy market and to make it self-sustaining;
 - ✓ To take India's solar expertise across the country and beyond.
- *Registered as "Section 3" company under Companies Act - 2013*
- *Net Profit in FY 15-16: Rs. 21 crores (tentative)*
- *Recently converted to commercial company. Mandate expanded to cover entire RENEWABLE ENERGY domain.*

SECI's Activities

Solar project development

- Setting large scale/rooftop solar projects of its own and for others

VGF schemes for large scale projects

- 750 MW, 2000 MW, 5000 MW schemes and other special schemes

Rooftop schemes

- Brought in competition, resulted in projects across 20 States, 70+ cities

Solar parks scheme

- Also executing 6 solar parks as JV partner

Power trading

- Large-scale interstate trading of Solar power for the first time

Project Management Consultancy

SECI Rooftop Activities : Ongoing



Grid connected Rooftop Scheme – (Phase I to IV)
PAN India:

80 MWp

73 MW Rooftop scheme for Warehouses

50 MWp Rooftop Scheme for CPWD in RESCO
mode

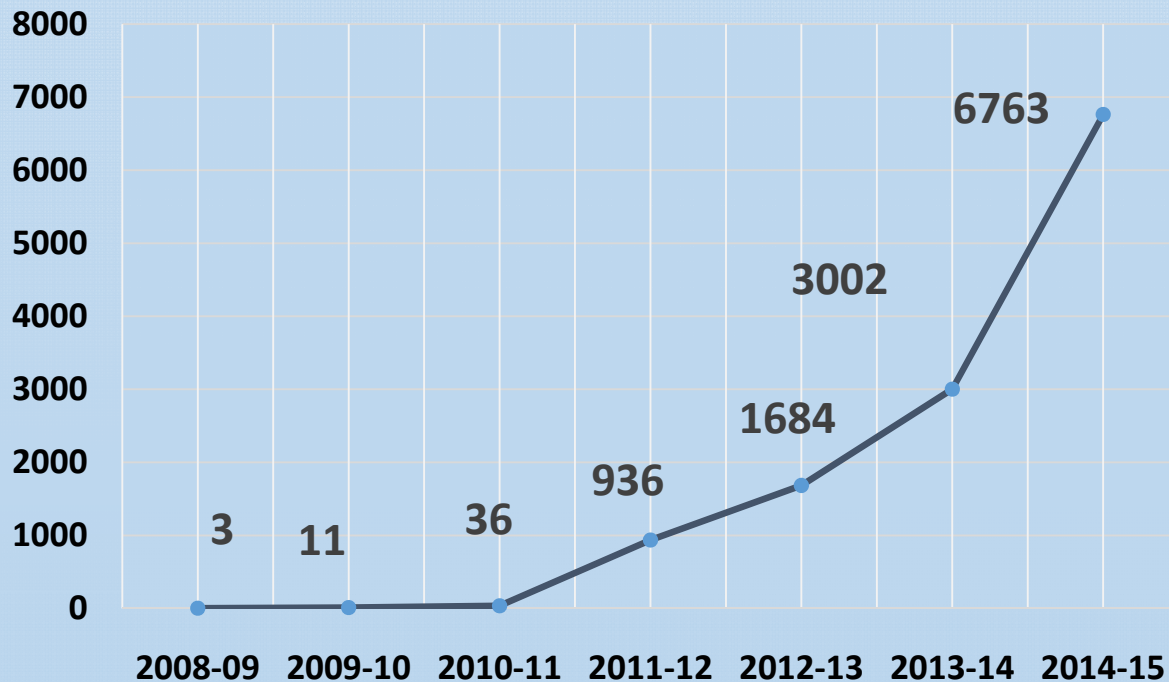
500 MWp Rooftop Scheme under 30% Subsidy –
PAN India

1000 MWp Rooftop Scheme without Subsidy

Growing Solar Installations in India



Installed Solar Capacity (MWp)



Source: MNRE, as on 31st March 2016

State/UT	(MW)	%
Rajasthan	1269.93	18.78%
Gujarat	1119.17	16.55%
Tamil Nadu	1061.82	15.70%
Madhya Pradesh	776.37	11.48%
Andhra Pradesh	572.97	8.47%
Telangana	527.84	7.81%
Punjab	405.06	5.99%
Maharashtra	385.76	5.70%
Karnataka	145.46	2.15%
Uttar Pradesh	143.50	2.12%
Chhattisgarh	93.58	1.38%
Odisha	66.92	0.99%
Uttarakhand	41.15	0.61%
Jharkhand	16.19	0.24%
Haryana	15.39	0.23%
Delhi	14.28	0.21%
Kerala	13.05	0.19%
West Bengal	7.77	0.11%
Chandigarh	6.81	0.10%
Andaman & Nicobar	5.10	0.08%
Bihar	5.10	0.08%
Tripura	5.00	0.07%
Daman & Diu	4.00	0.06%
J & K	1.00	0.01%
Lakshadweep	0.75	0.01%
Arunachal Pradesh	0.27	0.00%
Himachal Pradesh	0.20	0.00%
Mizoram	0.10	0.00%
Puducherry	0.03	0.00%
Others (PSU/Channel Partners) under Rooftop	58.31	0.86%
TOTAL	6762.85	100.00%

Rooftop Solar Installed Capacity in India



As on 31st March 2016

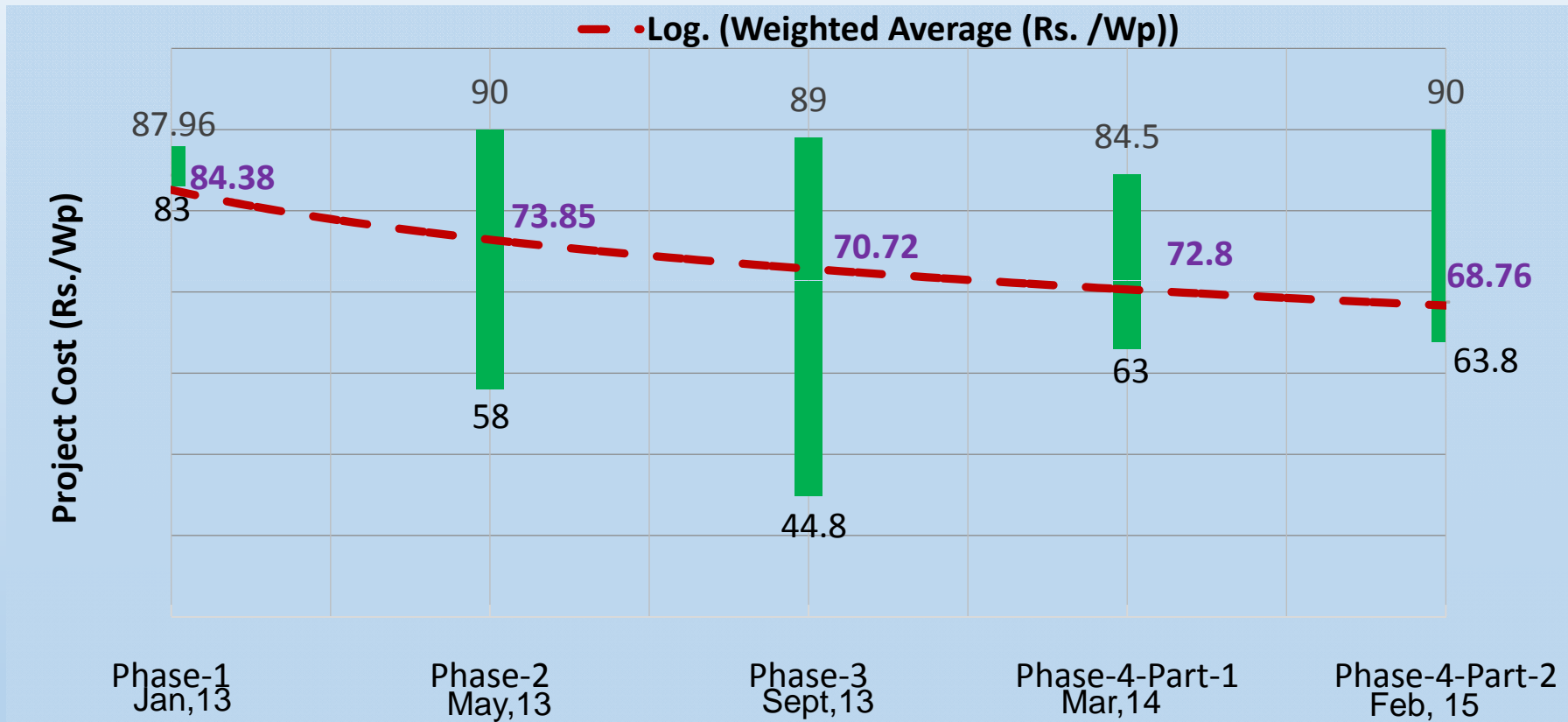
State/UT	(MW)	%
Tamil Nadu	85.4	11.54%
Gujarat	62.6	8.46%
Maharashtra	62.3	8.42%
Punjab	55	7.43%
Karnataka	47	6.35%
Rajasthan	44.4	6.00%
Uttar Pradesh	43.4	5.86%
Telangana	37	5.00%
Andhra Pradesh	36	4.86%
Haryana	35	4.73%
Delhi	32	4.32%
Chhattisgarh	30	4.05%
North Eastern States	20.3	2.74%
Kerala	19	2.57%
Bihar	16	2.16%
Madhya Pradesh	16	2.16%
Chandigarh	13	1.76%
Odisha	12	1.62%
Uttarakhand	12	1.62%
West Bengal	12	1.62%
Jharkhand	10.5	1.42%
Jammu & Kashmir	9.1	1.23%
Others	30	4.05%
Total	740	100%

Source: Bridge to India

Price trend of Rooftop projects



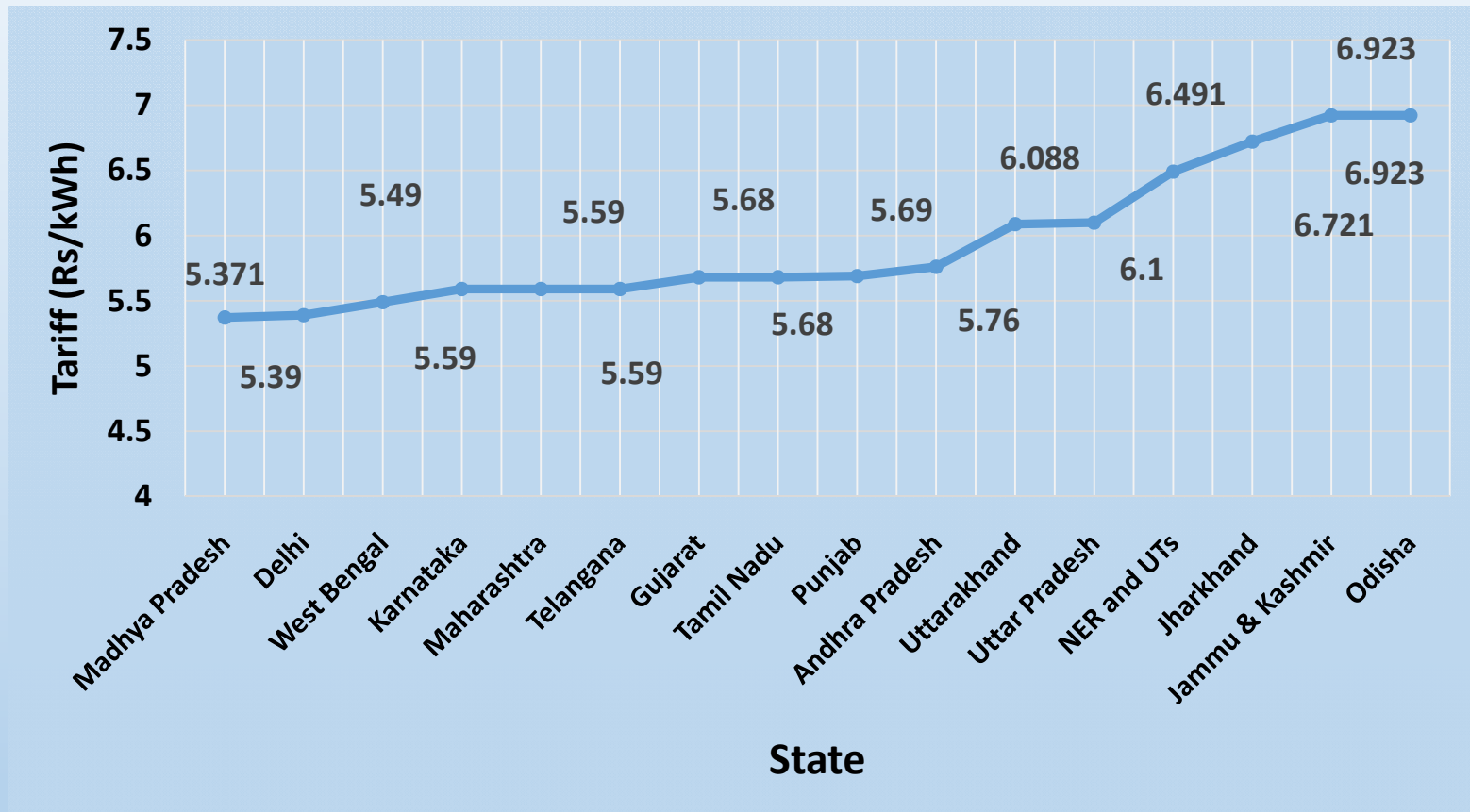
Trend of Project cost in Various Phases of Grid Connected rooftop Scheme



- Open Competitive bidding process have resulted in lowering of Benchmark cost from **Rs. 130/Wp** to **Rs. 80/Wp**
- Discovered project costs through competition are even lower than the benchmark cost

*These project cost includes MNRE CFA

Trend of Solar Rooftop PV Levellised Tariff

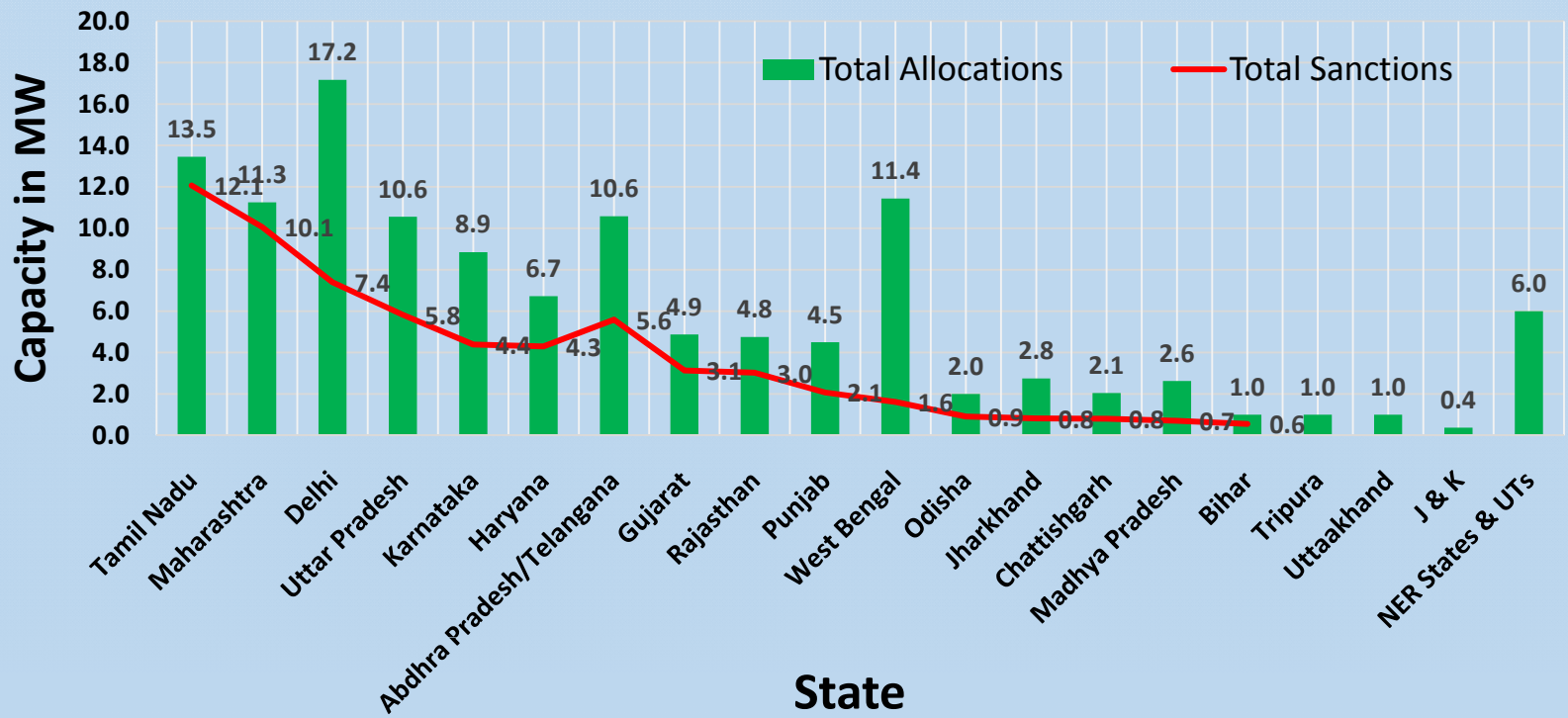


Weighted average tariff : Rs. 5.74/kWh
Maximum: Rs. 6.92/kWh
Minimum : Rs 5.37/kWh

State-wise capacities in SECI's schemes

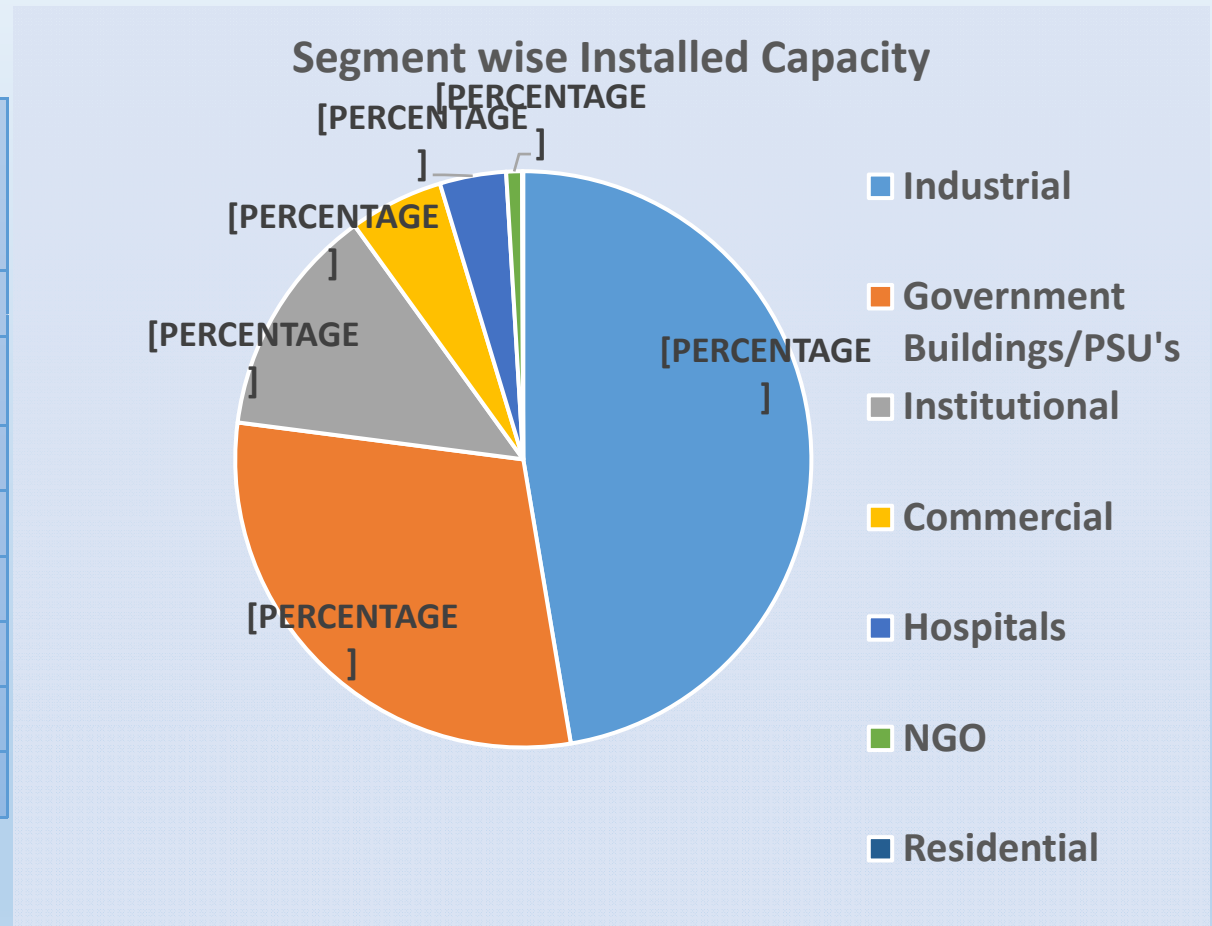
Total Capacity Allocated : 123 MWp
Total Capacity Sanctioned : 63 MWp

State-wise Allocation and Project Sanctions



Segment-wise distribution of Rooftop SPV Power Plants

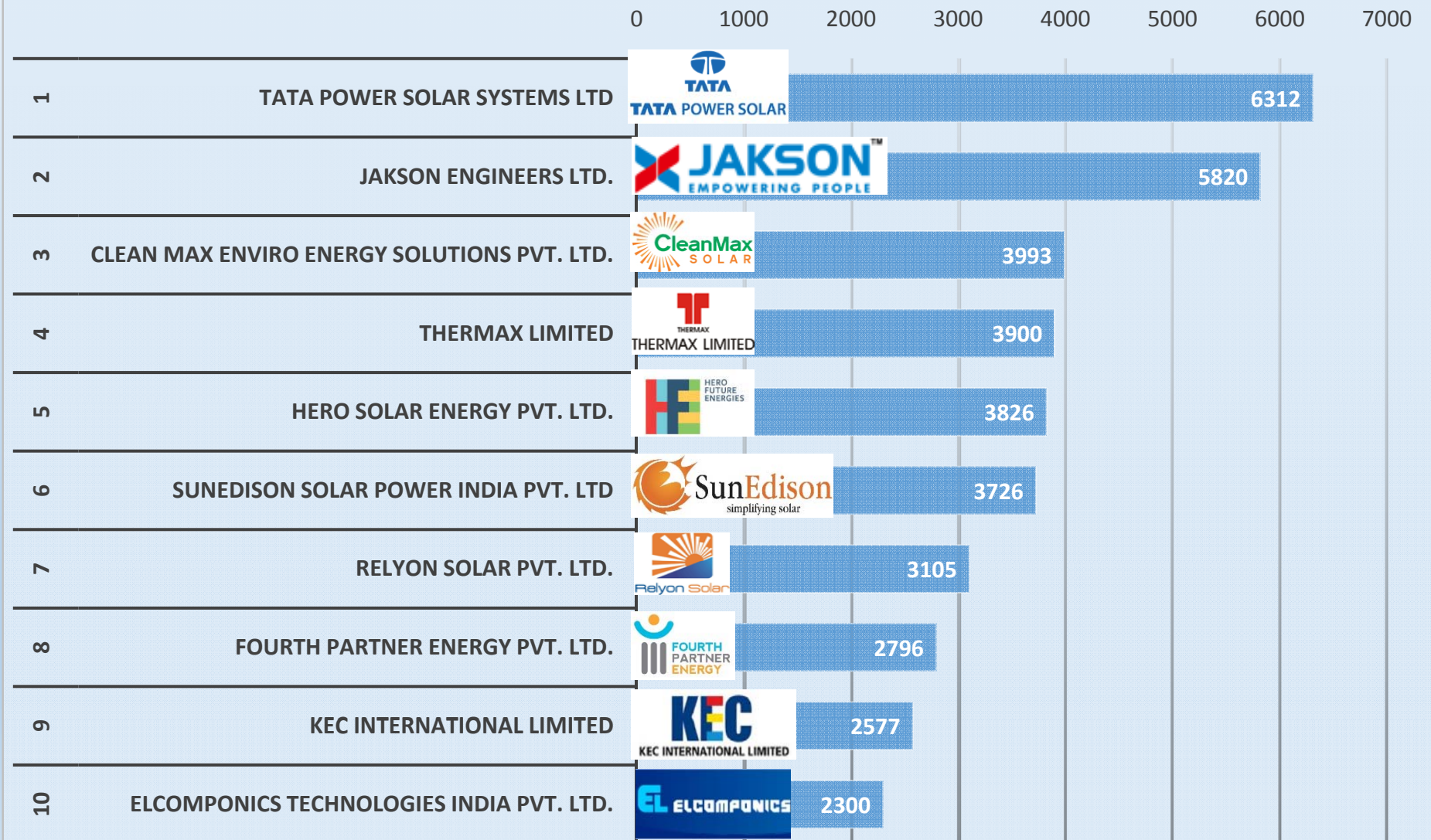
Sector	Installed Capacity (kWp)
Industrial	30452
Government Buildings/PSUs	19090
Institutional	8363
Commercial	3393
Hospitals	2393
NGO	572
Residential	40
	64302



Top 10 vendors in SECI's Rooftop Program



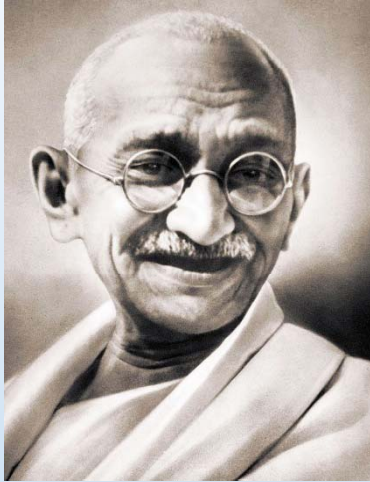
Total Sanctioned Capacity (kWp)



Rooftop Solar Policy Status in Country



State	Solar Policy	Net Metering Policy
Andhra Pradesh	2015	Yes
Bihar		
Chhattisgarh	2012	Yes
Delhi	Draft	Yes
Gujarat	2015	Yes
Haryana	2014	Yes
Himachal Pradesh	2014	Yes
Jammu & Kashmir	2013	
Jharkhand	2015	Yes
Karnataka	2014	Yes
Kerala	2013	Yes
Madhya Pradesh	2012	Yes
Maharashtra		
Odisha	2013	Yes
Punjab		Yes
Rajasthan	2011	Yes
Tamil Nadu	2012	Yes
Telangana	2015	Yes
Uttar Pradesh	2013	Yes
Uttarakhand	2013	Yes
West Bengal		Yes



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Thank you
Contact us
www.seci.gov.in