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भारत सरकार/ Government of India  
नवीन और नवीकरणीय ऊर्जा मंत्रालय / Ministry of New & Renewable Energy  
(Solar R&D Division)

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**Subject: State wise Estimated Solar Power Potential in the Country**

NATIONAL INSTITUTE OF SOLAR ENERGY (**NISE**) has carried out an exercise of calculating the State wise solar potential in the country (**Annexure-I**). The calculation have been made taking data from Census 2011. The calculation have also taken into consideration data from India Waste Land Atlas 2010, Ministry of Rural Development (**Annexure-II**).

Comments are invited from Experts/Public on E-mail mentioned below

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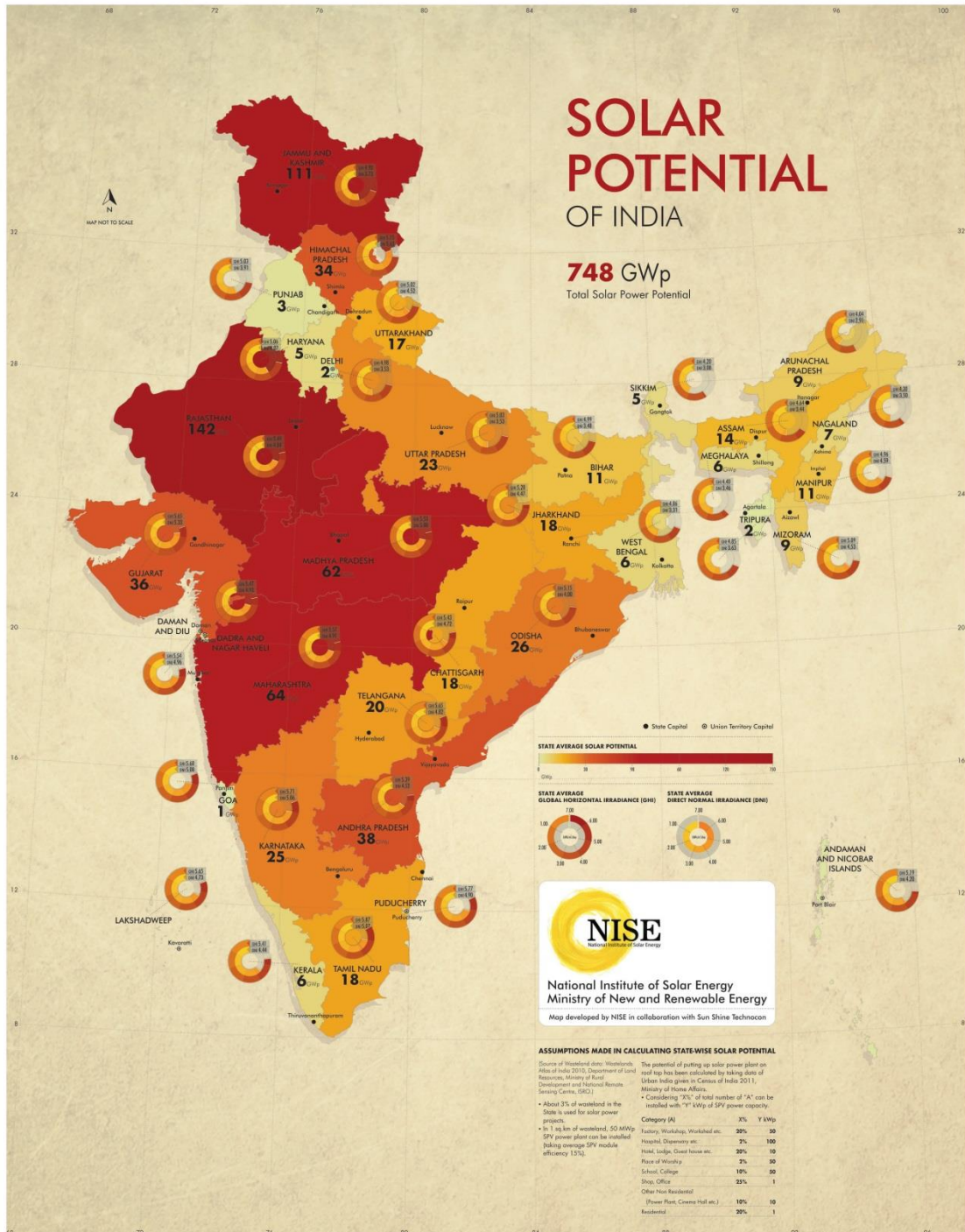
**Annexure-I**

<b>State wise Estimated Solar Power Potential</b>	
<b>Total Solar Power in GWp:</b>	<b>748.98 GWp</b>
<b>State</b>	<b>Solar Potential (GWp)</b>
Andhra Pradesh	38.44
Arunachal Pradesh	8.65
Assam	13.76
Bihar	11.20
Chhattisgarh	18.27
Delhi	2.05
Goa	0.88
Gujarat	35.77
Haryana	4.56
Himachal Pradesh	33.84
Jammu & Kashmir	111.05
Jharkhand	18.18
Karnataka	24.70
Kerala	6.11
Madhya Pradesh	61.66
Maharashtra	64.32
Manipur	10.63
Meghalaya	5.86
Mizoram	9.09
Nagaland	7.29
Orissa	25.78
Punjab	2.81
Rajasthan	142.31
Sikkim	4.94
Tamil Nadu	17.67
Telangana	20.41
Tripura	2.08
Uttar Pradesh	22.83
Uttarakhand	16.80

West Bengal	6.26
UT	0.79
<b>Total</b>	<b>748.98</b>

# SOLAR POTENTIAL OF INDIA

**748 GWp**  
Total Solar Power Potential



**NISE**  
National Institute of Solar Energy  
Ministry of New and Renewable Energy  
Map developed by NISE in collaboration with Sun Shine Technocon

**ASSUMPTIONS MADE IN CALCULATING STATE-WISE SOLAR POTENTIAL**

Source of Wasteland data: Wasteland Atlas of India 2010, Department of Land Resources, Ministry of Rural Development and National Remote Sensing Centre, ISRO.

- About 3% of wasteland in the State is used for solar power projects.
- In 1 sq km of wasteland, 50 MWp SPV power plant can be installed (taking average SPV module efficiency 15%).

The potential of putting up solar power plant on roof top has been calculated by taking data of Urban India given in Census of India 2011, Ministry of Home Affairs.

- Considering 70% of total number of "A" can be installed with "1" MWp of SPV power capacity.

Category (A)	%	T MWp
Factory, Workshop, Warehouse etc.	30%	30
Hospital, Dispensary etc.	2%	100
Hotel, Lodge, Guest house etc.	20%	10
Place of Worship	7%	30
School, College	10%	50
Shop, Office	25%	1
Other Non Residential (Power Plant, Cinema Hall etc.)	10%	10
Residential	20%	1

**SUN SHINE TECHNOCON**  
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- Considering "X%" of total number of "A" can be installed with "Y" kWp of SPV power capacity.

Category (A)	X%	Y kWp
Factory, Workshop, Workshed etc.	20%	50
Hospital, Dispensary etc.	2%	100
Hotel, Lodge, Guest house etc.	20%	10
Place of Worship	2%	50
School, College	10%	50
Shop, Office	25%	1
Other Non Residential		
(Power Plant, Cinema Hall etc.)	10%	10
Residential	20%	1