



LAUNCHING
SOLAR PLANT CLEANING
and
AMC SERVICES

About the Indian SolarHub

- IndianSolarHub is online solution provider to understand what is Solar and How we can save using Solar
- Encourage more and more persons from Rural and undeveloped areas as well as Housewives to learn and start Business in Solar –As a Marketing Chanel Partner or Service Partner and Offer online courses on Solar Energy and Energy Conservation free to every user
- Form a structured network of clients, service providers, equipment providers and product providers related to Solar Energy

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INTERACTIVE SOLAR PORTAL & APP

- ✓ Individual Client
- ✓ Channel Partner
- ✓ System Integrator

2

FOR EVERY SECTOR

- ✓ Residential
- ✓ Industrial
- ✓ Commercial
- ✓ Institutional

Why To Wash Solar Modules

Soiling Losses →

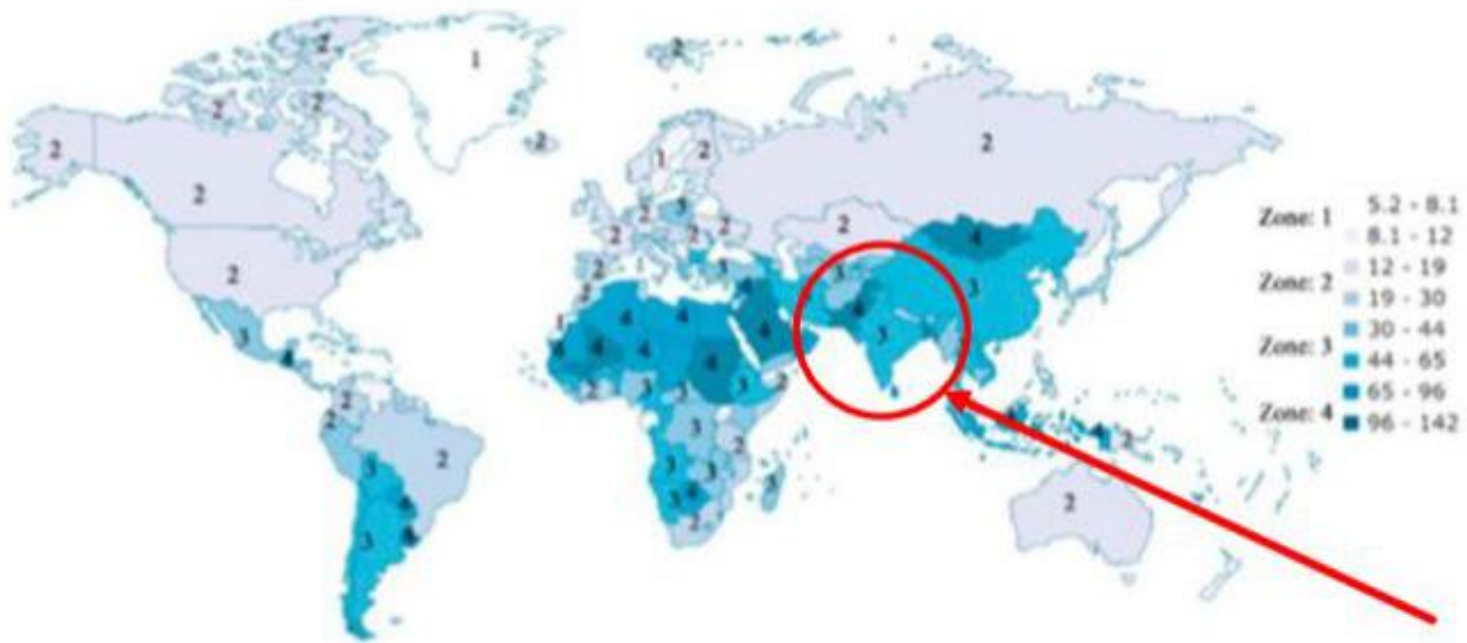
Soiling losses refer to loss in power resulting from snow, dirt, dust and other particles that cover the surface of the PV module.

Dust is generated from many sources such as pollution by wind, pedestrian volcanic eruptions, and vehicular movements among many others.

The accumulated dust over time aggravates the soiling effect. In fact, the amount of accumulated dust on the surface of the PV module affects the overall energy delivered from the PV module on a daily, monthly, seasonal and annual basis.

Different parts of the world is assessed and it was found that the India , Middle East and North Africa are the worst dust accumulation zones in the world.

Dust Intensity Around The World



India is in Zone 3 –2nd highest Dust Intensive Zone

Effect of Dust and Soiling on Performance

1	Irradiation loss due to dust around 5% is reported
2	Dirty solar array has 1.4% reduction each year.
3	The average deduction in power output in different reign, for example power output reduce in Saudi 40% , in Kuwait round 65% , Egypt 33–65% and in USA 1–4.7%
4	Dust accumulation reduce peak power around 18% e.
5	The founding shows that degradation output of 80% or less with 3% of spot dirt on the PV module
6	During one month power output reduce from 87 to 75%.
7	Efficiency reduce 26% & 40% from solar collectors and PV module, respectively
8	Voltage loss around 0.86% on other hand current reduce 13%.
9	Efficiency reduce after 1 and 6 month by 33.5% and 65.8% respectively.
10	Spraying the surface of PV can recover 95% of the reflectance losses

Indian SolarHub Solutions

Individual Customers | Clients | Organizations

- ✓ Monthly 1 or 2 visits on Site to clean the Modules
- ✓ Trained Team with knowledge of Installation and Commissioning to review and report any other factors affecting Power output
- ✓ Mechanical as well as Electrical Assistance available immediately in case of any defects observed during Cleaning.
- ✓ Option of only Washing or AMC or combined Packages
- ✓ Option of facility of Remote Monitoring and Data Management for the Solar Site.
- ✓ Any Breakdown Call will be attended in 24 Hours within Pune and 72 Hours out of Pune.

Indian SolarHub Module Cleaning Packages

Size Of System	Charges / Visit	No. of Visits	Total Cost / Annum
KW	Rs.	Nos. .	Rs.
1 to 5 KW	2,000	12	24,000
6 to 15 KW	3,500	12	42,000
16 to 25 KW	4,500	12	54,000
26 to 50 KW	6,000	12	72,000
51 to 100 KW	8,000	12	96,000

Note :-

- ✓ Client should be responsible for making water available as per requirement.
- ✓ Safe and clear Access to the Solar Site will be provided by Client.
- ✓ Any special Coatings if required due to special conditions at Site will cost additional.
- ✓ The above prices are only for Module Cleanings.
- ✓ For Sites out of Pune, additional charges for Travel and other Logistics will be extra as per Location.

Indian SolarHub AMC Packages

Size Of System	Charges / Visit	No. of Visits	Total AMC Cost / Annum
KW	Rs.	Nos. .	Rs.
1 to 5 KW	3,500	4	15,000
6 to 15 KW	7,500	4	35,000
16 to 25 KW	10,250	4	45,000
26 to 50 KW	14,000	4	60,000
51 to 100 KW	18,000	4	80,000

Note :-

- ✓ Safe and clear Access to the Solar Site will be provided by Client.
- ✓ Any Material if required will cost additional
- ✓ The above prices are only for services only.
- ✓ 2 Breakdown visits will be free per year. Others will be chargeable at Rs. 3000 per visit per day per person.
- ✓ For Sites out of Pune, additional charges for Travel and other Logistics will be extra as per Location.

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AMC + Module Cleaning Packages

Size Of System	Total Cost / Annum
KW	Rs.
1 to 5 KW	35,000
6 to 15 KW	65,000
16 to 25 KW	85,000
26 to 50 KW	1,20,000
51 to 100 KW	1,60,000

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Remote Monitoring and Data Acquisition Packages

Size Of System	Total Cost / Annum
KW	Rs.
1 to 35 KW	30,000
36 to 100 KW	50,000

Note :-

- ✓ Safe and clear Access to the Solar Site will be provided by Client.
- ✓ All equipment's installed will be property of IndianSolarHub.
- ✓ The above prices are only for services only.
- ✓ For Sites out of Pune, One time additional charges for Travel and other Logistics at the time of installation will be extra as per Location.

Register with us and...

Reduce



Operations Cost

Downtime

Breakdowns

System Degradation

Increase



Power Output

Savings

Efficiency

System Life

Chose wisely. Go Solar. Save Nature

A commercial solar system (100kW) will offset over 18,00,000 kg of carbon dioxide over 15 years, Saving the equivalent of

- ✓ CO2 absorbed by 1700 trees in their lifetime
- ✓ Amount of net CO2 exhaled by 450 humans for 15 years
- ✓ Driving a car 72,00,000 kms



Thank You !!

Contact Us on - admin@indiansolarhub.com



Website: www.unpaengineering.com | www.inosolarenergy.com



Email: info@unpaengineering.com | info@inosolarenergy.com



Address: Office No.1, 4th Floor, Clover Metropole,
NIBM , Kondhawa (Khurd), Pune 411048, Maharashtra,
India. Ph. – 020-65265007

