e-Learning Workshop:
Solar Policy Intrepretation & Project Implementation Process

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Efficiency Matters: How to Streamline Process

to stay ahead in Solar Business

Kuldeep Sharma
Advisor, GiZ
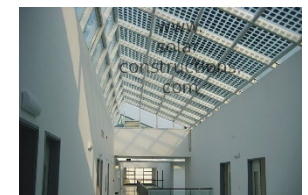
SDG's 7&13

Potentially reaching 200 Million People on Climate Change and affordable energy

Large Projects in 2019 out of 29 projects and activities

Grid Integration Study 1 & **2** for the Indian Distribution Sector

1) Across states, accepted DT Capacity is now 75%; 2) Grid Services from Solar and Storage

iSMART – demand aggregation for solar rooftop reaching 1 GW target in 2 years in 5 states and 14 Smart Cities

Study in 4 states on underperforming rooftop solar plants --- < 1300 kWh/kW
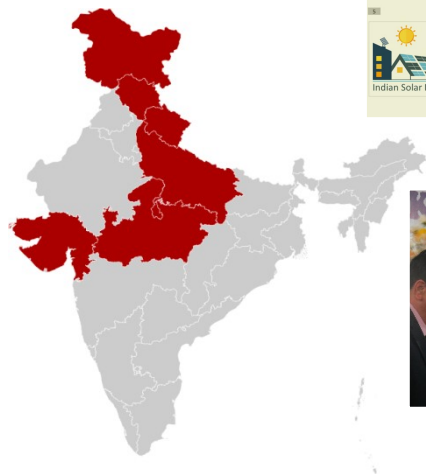
Unified Single Window Clearance Portals in 6 states. Current allocated capacity in Gujarat with Portal 1 & 2 is 725 MW
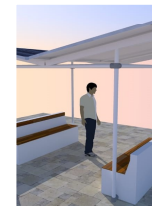
Affordable & *Portable* Solar - PV PORT & STORE 2.0 solar & storage for the mass / of the shelf / No Discom permission – Field Test of 40 systems
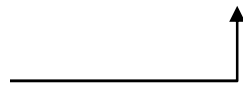
Capacity Building in Solar

- 20,000 people in sector

- 45,000 installers / Suryamitra

States in which the programme is active in

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PV Port 2.0

PV Port 1.0
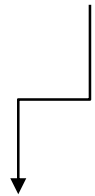
Plug 'n' Play distributed solar with storage for residential applications

Affordable, Portable, Electricity 24/7, mass-produced, self-cleaning, direct/critical load
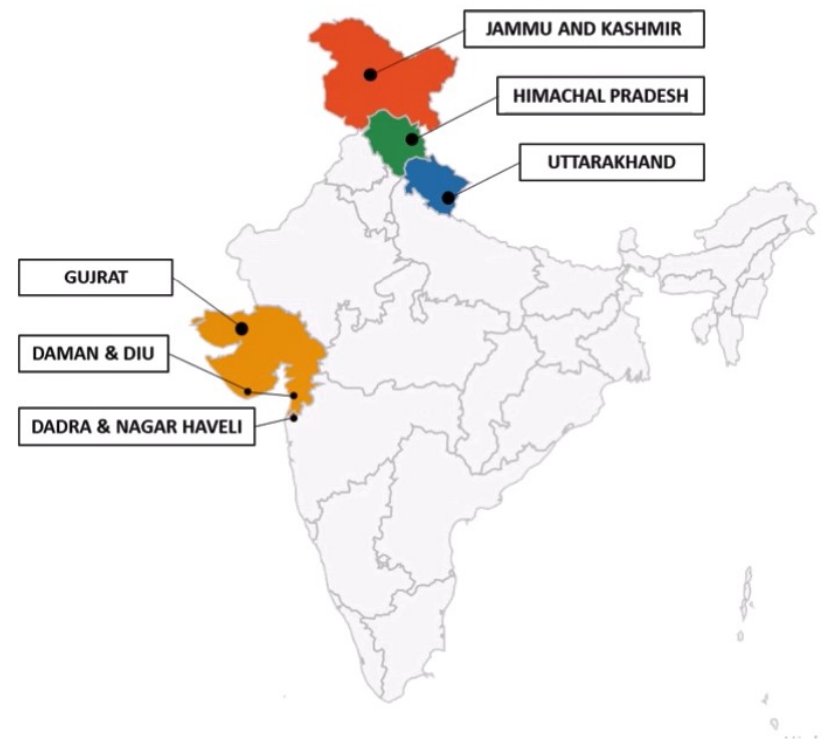
No Net Metering – pre approved by DISCOMS

Field Test with 40 Systems in Gujarat and Delhi

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info@ahasolar.in

The Indian Solar Market Aggregation for Rooftops (I-SMART) Programme

▸ **Demand aggregation** for rooftop solar in the residential, C&I, and government sectors

▸ Supported by GIZ and MNRE

▸ By October 2020, targeting:

  ▸ **1000MW** of demand aggregated

  ▸ **200MW** of new installed capacity

▸ Over **30MW** of demand aggregated to date

JAMMU AND KASHMIR

HIMACHAL PRADESH

UTTARAKHAND

GUJRAT

DAMAN & DIU

DADRA & NAGAR HAVELI

GOVERNMENT OF INDIA
MINISTRY OF NEW
AND RENEWABLE ENERGY

http://ismartsolar.in/

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PV rooftop Capacity Building in India

Impact on different levels

TROPHI Impact	Activity	Status of completion	Beneficiaries (planned)	Beneficiaries (as of today)	Projected Outreach
DISCOM MGMT	1 day Training	9/9 (20 in total by 12/2019)	180 + (220)	202	202*
DISCOM ToT	5 day ToT	5/5	80	80	7,680
SNA	2 day training	6/6	150	177	9,204
Inspection	3 day training	6/6	90	126	250
Surya Mitra ToT	5 day ToT	4/4	80	71	3,408
Total		**31/31**	**580**	**656**	**20,744****

Grid Integration Training Week in Berlin with 15 DISCOM officers conducted in Feb 2019 & planned for Feb 2020

Online Training on Solar Forecasting and Grid Integration to be offered to DISCOM officers (Duration of 6 Month)

Assumed outreach multipliers:
DISCOM ToT: Trainers give on average 6 trainings to 16 participants per year
Surya Mitra ToT: Trainers give on average 3 trainings to 16 participants per year
SNA: District Officers have one customer contact on GRTPV on average per week
*DISCOM MGMT: No multiplier but as DISCOM management influences company strategy, impact could be significant
** expected to increase the Total Outreach by 2,000

https://www.renac.de/projects/current-projects/trophi

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Outline

- What is Process Management

- Solar PV Project Management overview

- Scoping a Project – Steps Involved

- Project Implementation Models

- Works Scheduling

- Project Monitoring

▸ Process Management refers to aligning processes with an organization's strategic goals, designing and implementing process architectures, establishing process measurement systems that align with organizational goals, and educating and organizing managers so that they will manage processes effectively.

▸ Business Process Management or BPM can also refer to various automation efforts, including workflow systems, XML Business Process languages and packaged ERP systems. In this case the management emphasizes the ability of workflow engines to control process flows, automatically measure processes, and educating and organizing managers so that they will manage processes effectively.

THE BPM GUIDE

Accelerating Digital Transformation

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Benefits of Streamlining Business Process

Time-Saving

Time is precious! Make efficient use of your most important resource by streamlining the work that has to be carried out on a day to day basis.

Cost Efficiency

Long gone are the days when you have to print loads of paper and assign a clerk to transfer it to the next department. Everything is digital these days, and the workflow automation software will allow you to get work done with a minimal workforce

Identifying Bottlenecks

Time is precious! Make efficient use of your most important resource by streamlining the work that has to be carried out on a day to day basis.

Better Communication

Streamlined communication saves time, avoids hassles and ensures every member in different teams can seamlessly stay connected with one another.

The advantage of doing digital things is that you can always save documents in the cloud, more convenient to access anytime and has timestamps to categorize them. The workforce can no longer play the blame game, and everyone has to take individual responsibility for documents that need his or her timely attention.

Clear Documentation

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▸ Handle Multiple Documents

▸ Short Span of Time

▸ More Projects with lesser Revenue/Project
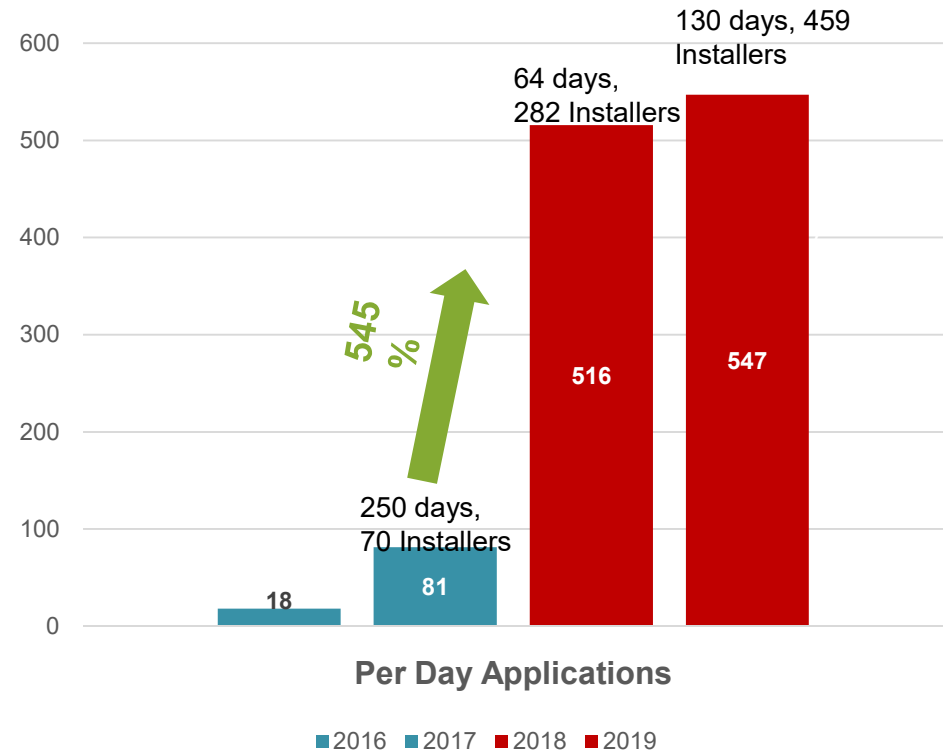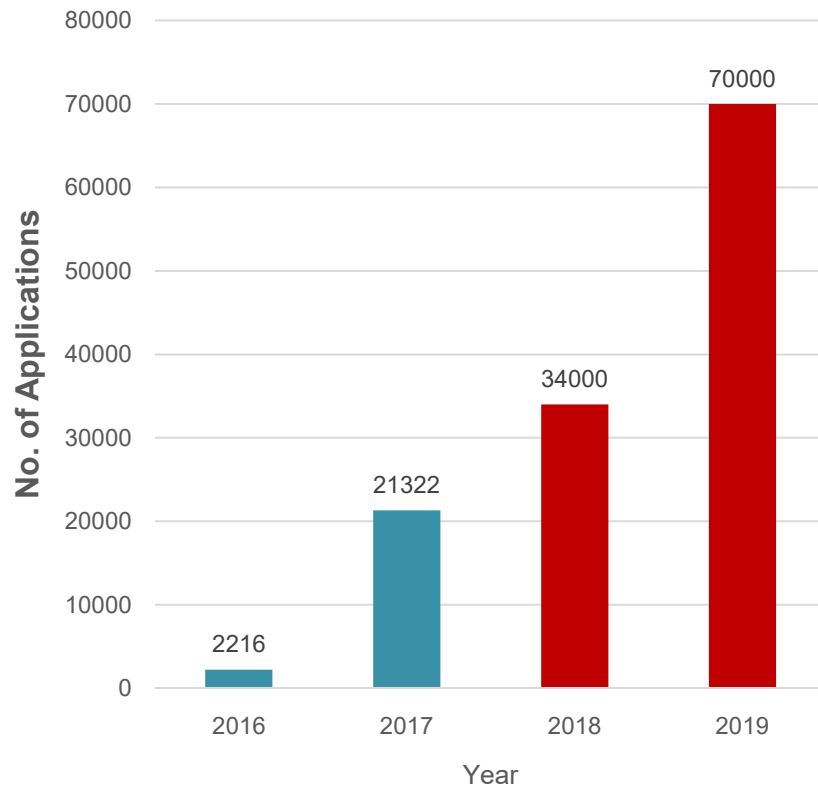
▸ Less Skilled Manpower

Ways to Streamline Process

▸ Internal Communication
  - ▸ Project ID based communication with a central access

▸ Think of those in Field
  - ▸ While streamlining Work Management System, always keep the field team in loop and provide necessary arrangements to connect them in the Work Management System developed by the company

▸ Avoid Multiple Platforms
  - ▸ It is always better to have single Platform to communicate and operate among Sales, Design and Execution Teams

▸ Go Mobile
  - ▸ Use a mobile solutions that will work no matter where you go. This approach will allow you to cut down on needless bills and allow you and your team to be able to work on the job site, in the office or even from their home

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- Streamlining and Digitalizing the Processes of State Nodal Agencies in Gujarat, Himachal Pradesh, Uttrakhand, Jammu & Kashmir
- What was done:
  - Studied the existing process of work
  - Consulted all the Stakeholders
  - Identified the Bottleneck in the Processes
  - Developed the Critical Path of Process
  - Deployed an automated process flow through a Software
- What is Achieved
  - Faster Execution
  - Saving cost of Solar PV Installer
  - Manpower cost saving for SNA
  - Secured data at Cloud
  - Remote Accessibility

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Impact of GEDA & SURYA Gujarat Online Portals in Gujarat

Chart 1 — No. of Applications by Year

- 2016: 2216
- 2017: 21322
- 2018: 34000
- 2019: 70000

Y-axis: No. of Applications (0–80000)
X-axis: Year

Chart 2 — Per Day Applications

- 2016: 18
- 2017: 81 (250 days, 70 Installers)
- 2018: 516 (64 days, 282 Installers)
- 2019: 547 (130 days, 459 Installers)

545% increase

Legend: ■ 2016 ■ 2017 ■ 2018 ■ 2019

The Graph shows the number of applications submitted before the Unified Portals in Gujarat considering he number of operational days of the scheme.

In 2017: 70 Installers submitted at a rate of 81 applications per day for 250 operational days of the Scheme

In 2018: 282 Installers submitted at a rate of 516 applications per day for 64 operational days of the Scheme

In 2019: 459 Installers submitted at a rate of 547 applications per day for ~130 operational days of the Scheme

Increase of 545% in efficiency

Legends

Before Unified Portal

After Unified Portal

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Thank you

Kuldeep Sharma

Advisor,
Indo-German Energy Programme (IGEN)
Kuldeep.sharma@giz.de

**Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH**
GIZ India Office, B – 5/2 Safdarjung
Enclave, 1st Floor
New Delhi, 110029, India

T +91 11 4949 5353 Ext. 2155
F +91 11 46036690
M +91 99678 42378

info@ahasolar.in

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für Internationale
Zusammenarbeit (GIZ) GmbH