Solar Solution Deployment Opex Model

Indus Towers Limited

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Agenda

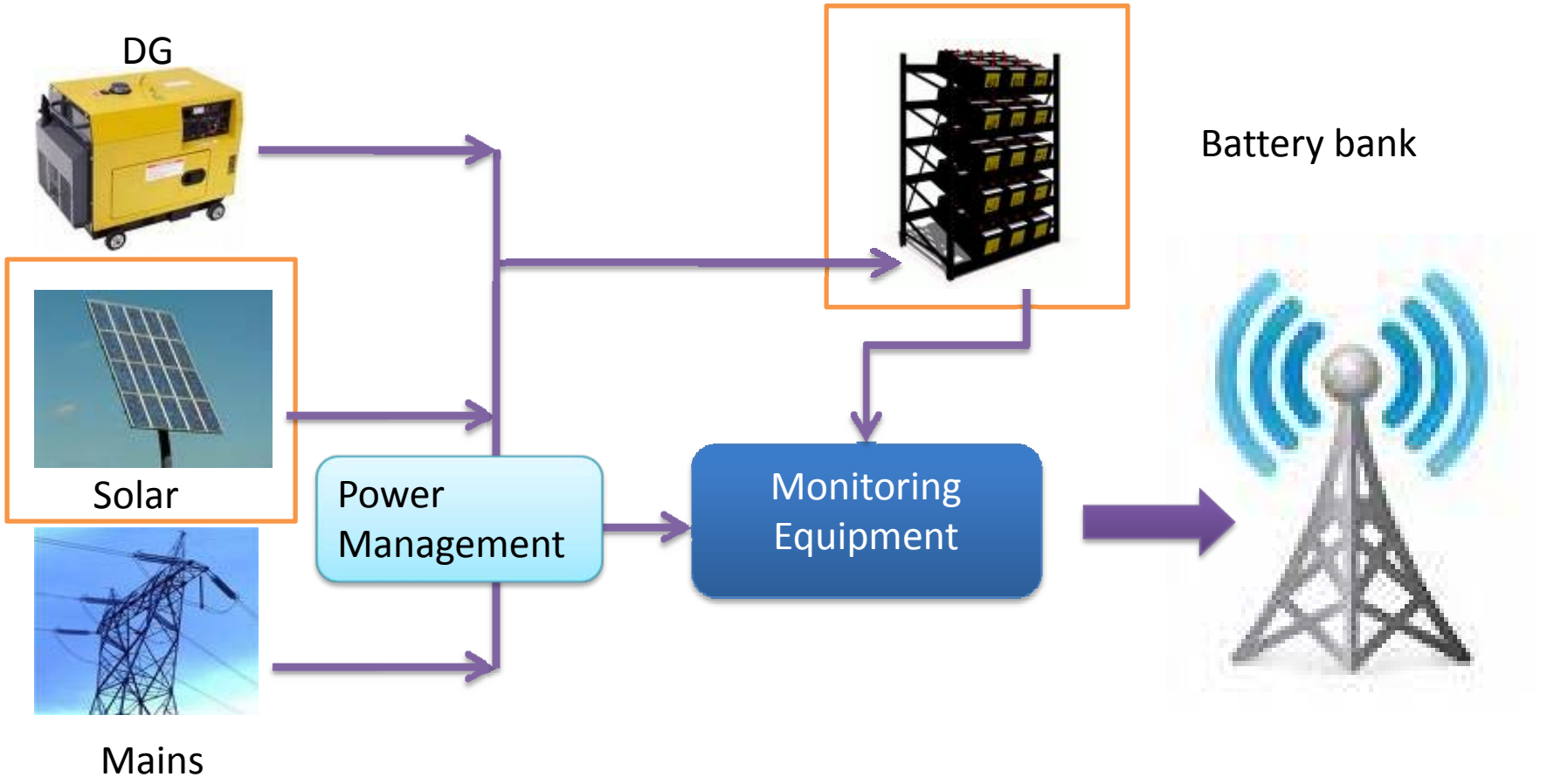
- **Solar solution model**
- **Financial benefits**
- **Project deployment**
- **Project timelines**

Agenda

- **Solar solution Model**
  - **Technical Model**
  - **O& M Model**
  - **Commercial Model**

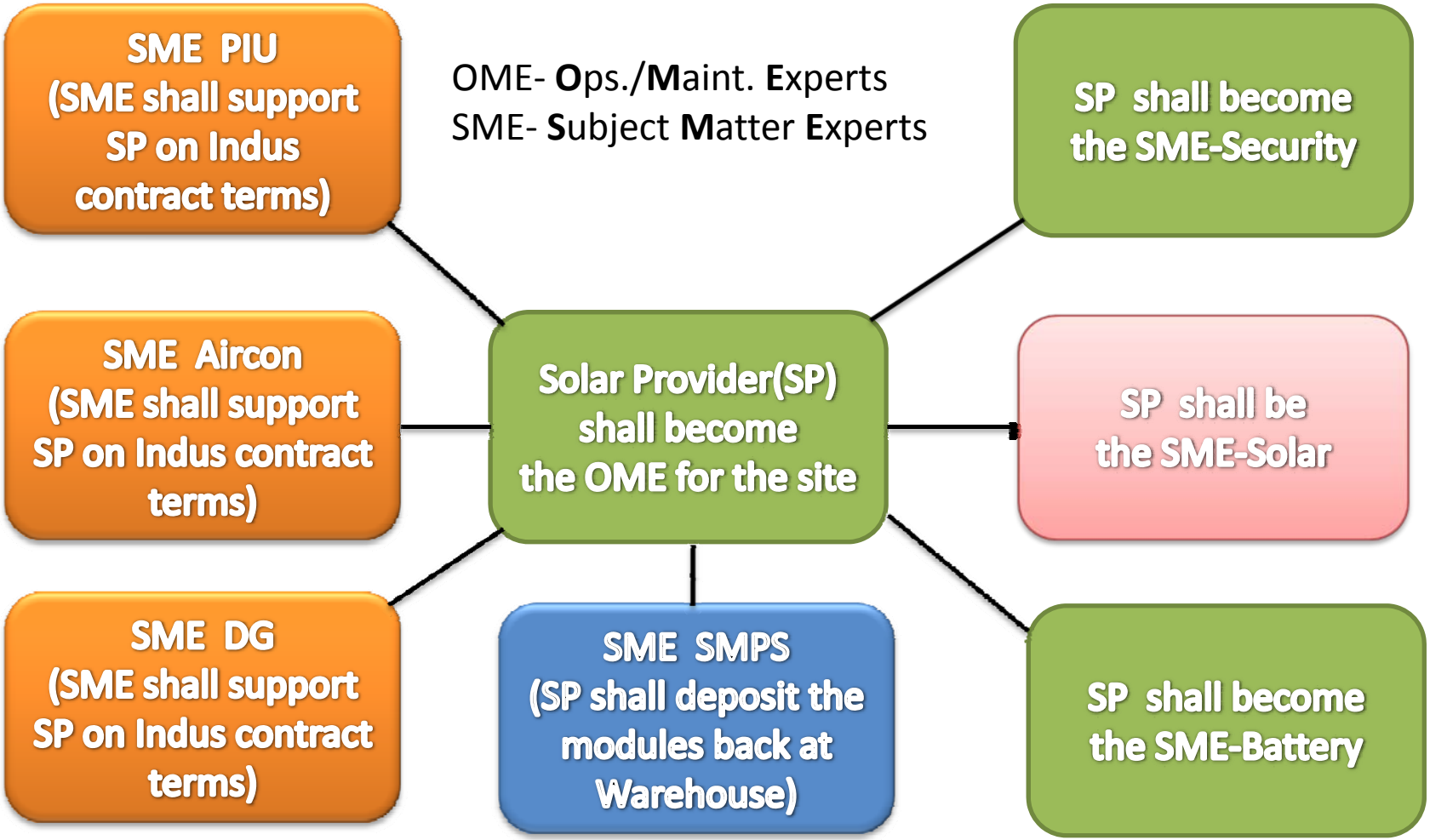


Solar solution: Technical Model



Solar- DG Hybrid Solution

Solar solution: O&M Model



Single ownership for the site

Solar solution: Commercial Model

i. 100% opex model

ii. Contract tenure of 10 years

iii. Fixed monthly fee for a dc band

iv. EB utilization

v. Price adjustments

vi. Uptime commitment (99.95%)

vii. SME orders

Model with committed energy savings

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Financial benefits: Frame-work

Sr.	Parameter	For each DC Load band	
		Present	With Solar
1	Technical Assumptions:		
1.1	Solar Capacity(kWp)		3-10
1.2	Battery Capacity/BTS	300	600
1.3	DG Run Hour/day	18~20	~8
2	Cost Comparison:		
2.1	Capex expenses	Benefit of Battery cost & increase in DG life	Capex EMI payable to SP
2.2	Diesel charges	18-20 hours/day	~8 hours/day
2.3	O&M Expenses including OME, SME & security charges	Present costs	Payable to SP
3	Net charges per site	x	y
4	Benefit without Subsidy	x-y	
5	Benefit incoporating MNRE subsidy	x-y+z	

Average benefits of the order of Rs 10-12k/site/month

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Project Deployment : Site Selection

i. More than 10 Hrs of DG Running per day

ii. Minimum Financial Benefit of Rs 5,000 per site per month (without subsidy) w.r.t. average costs for last 12 months.

iii. Sites should be clusterized to the extent possible

iv. The sites should have capacity for 10kWp solar panel deployment either through Horizontal or vertical stacking

Most critical activity in the process

Project Deployment: Major Deployment Activities

		Responsibility
i.	Site survey	SP
ii.	Validation of Survey Report	Indus
iii.	SMPS Upgrade	Indus
iv.	Landlord clearance	Indus
v.	Handover of site to SP	Indus
vi.	Resolution of Environmental issues	SP/Indus
vii.	Solar solution deployment	SP
viii.	Acceptance Tests	Indus/SP

Deployment cycle of 60 days

Project deployment: Operational Activities

		Responsibility
I.	Site management	SP
II.	Validation of dc load band	Indus
III.	Validation of EB Units consumed	Indus
IV.	Uptime sign-off	SP/Indus
V.	Publish SME performance data	Indus

Practically no change in o&m process

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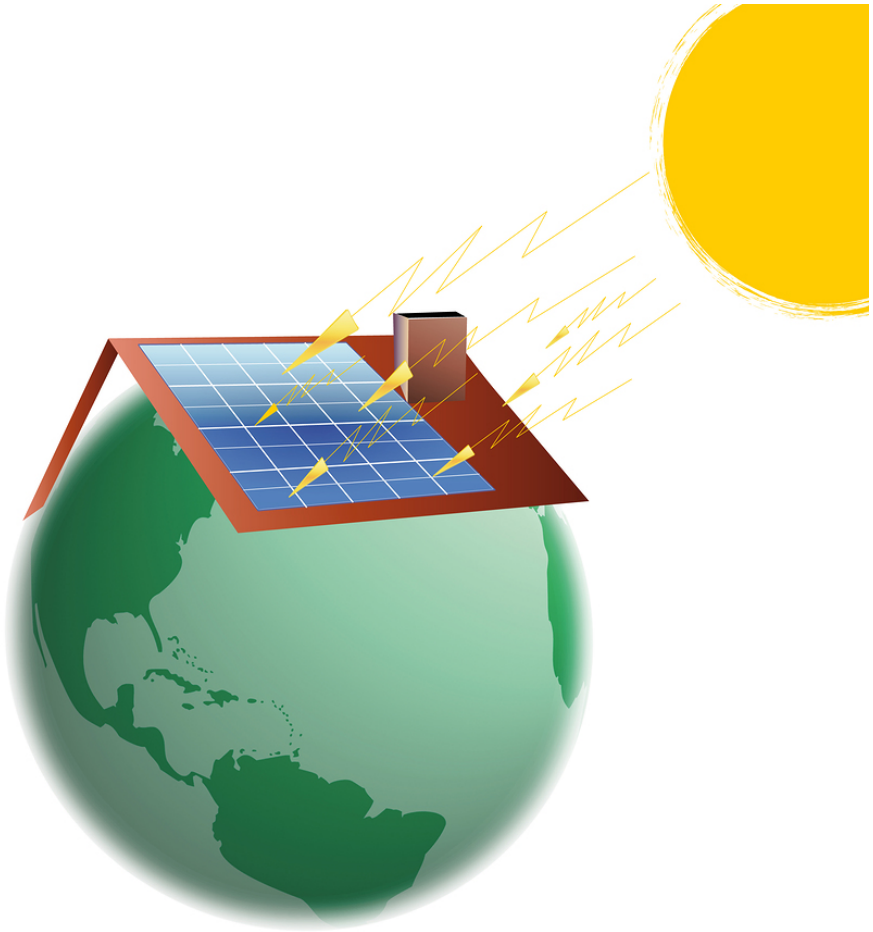
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Project Timelines

Circle	Dec-10	Jan-11	Feb-11	Mar-11	Total
UPE	150	200	200	200	750
UPW	150	200	200	200	750
West Bengal	150	175	175		500
Maharashtra	150	175	175		500
Total	600	750	750	400	2500

Fastest roll out for solar deployment in the world



THANK YOU