



Rooftop Solar: Challenges of Seeking Prospective Customers

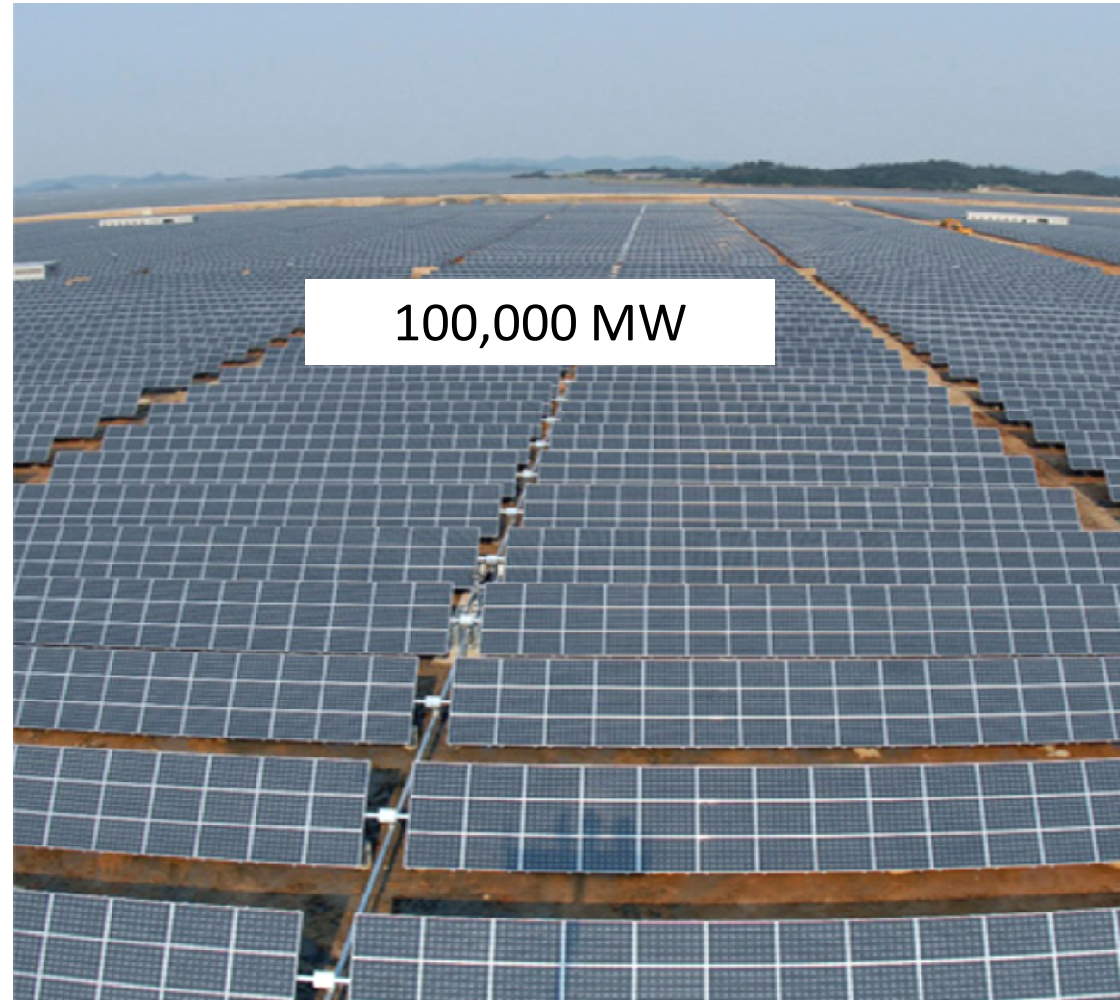
Amplus Solar

10 January 2017, Ritu Lal



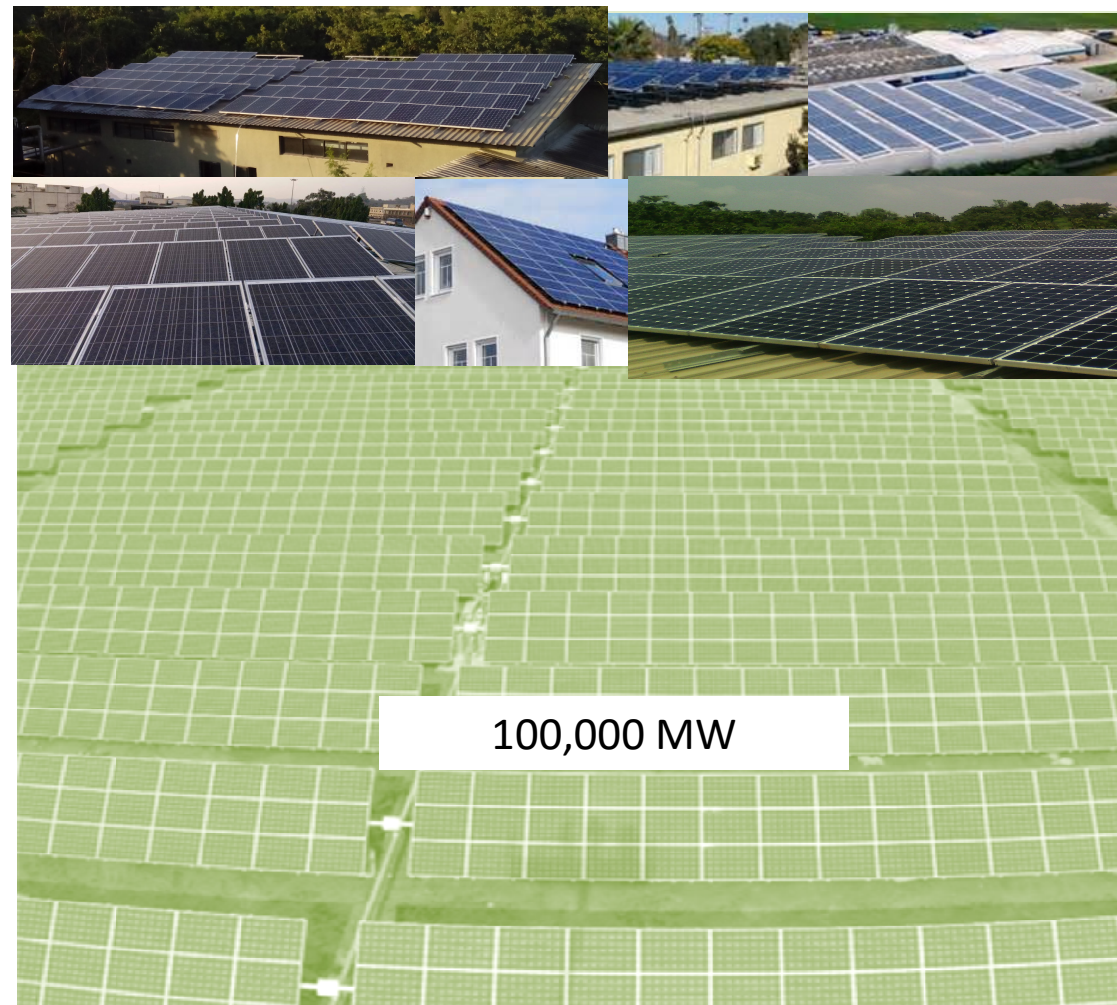
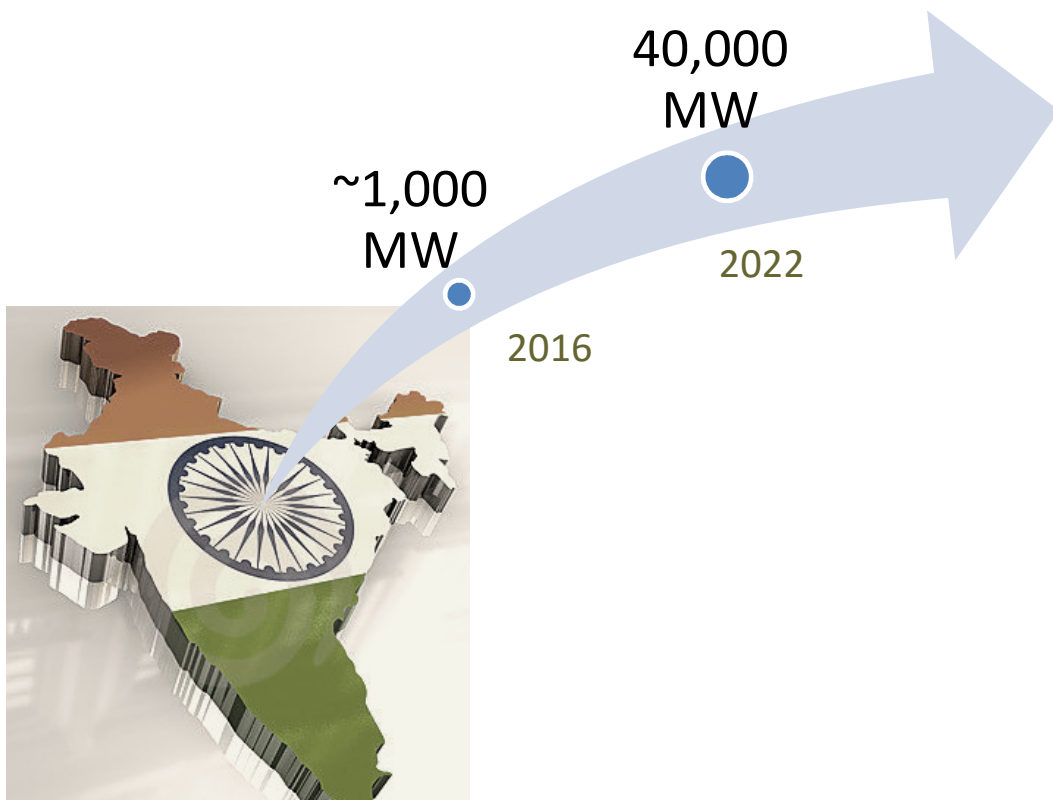
Rooftop Solar: The Opportunity

Target 2022: Overall



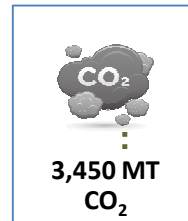
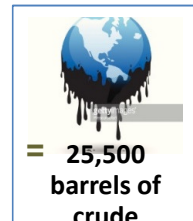
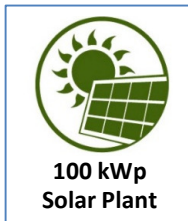
Rooftop Solar: The Opportunity

Target 2022: Overall



Rooftop Solar: Ideal Energy Choice

- 💡 Seamless grid and/or DG integration
- 💡 Captive energy at your doorstep
 - Eliminate transmission costs/losses
- 💡 Speedy implementation



Rooftop Solar: Ideal Energy Choice

- 💡 Uses idle rooftop/grounds productively
- 💡 No roof damage: non penetrating
- 💡 Modular construction

Pitched roof; non-penetrating



Car Port



Flat RCC Roof; Ballasted



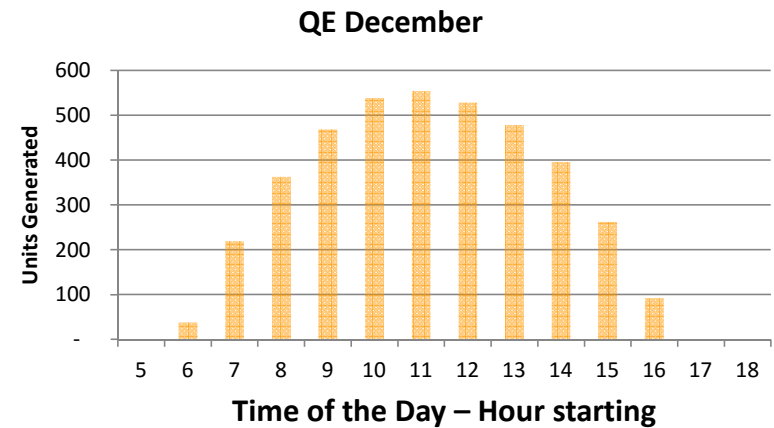
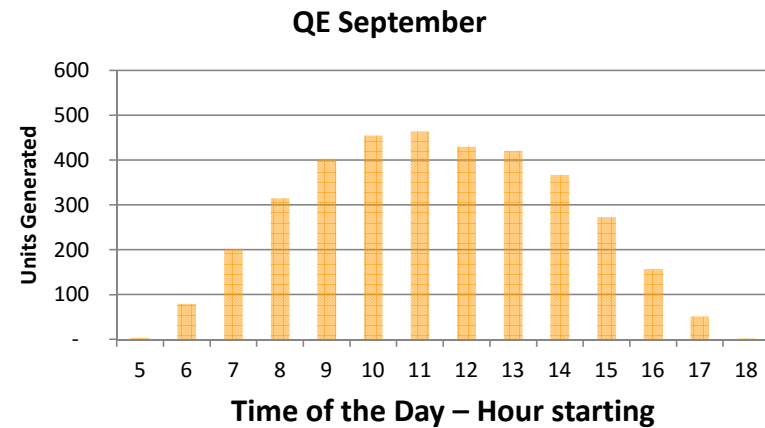
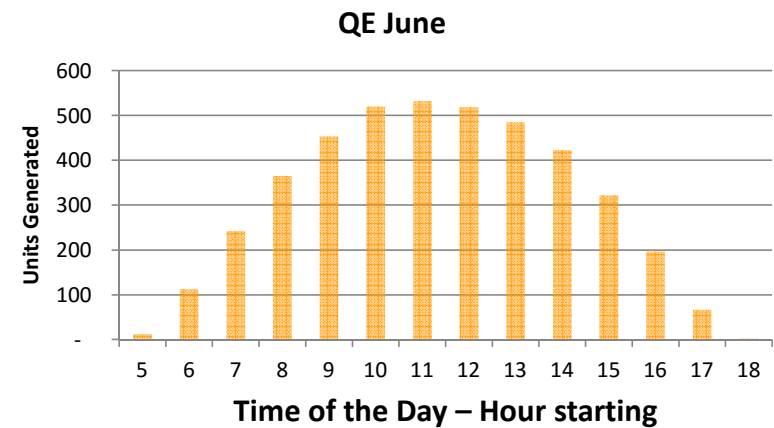
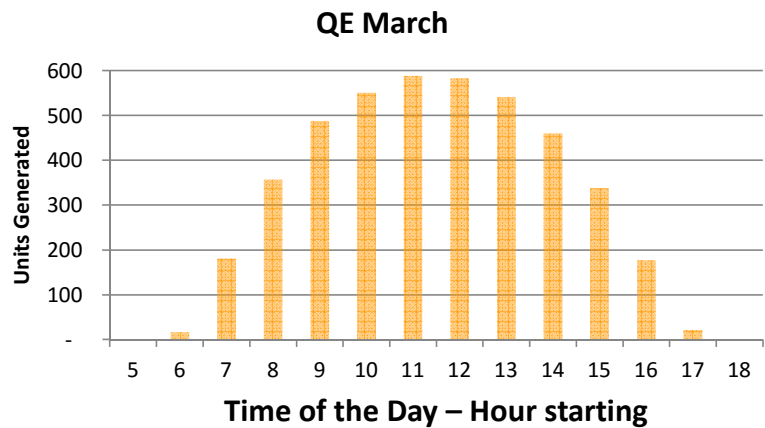
Rooftop Super-structure



Rooftop Solar: The Opportunity

💡 Reliable source of energy: 300+ sunny days in India

Solar Energy Generation
Hourly Averages



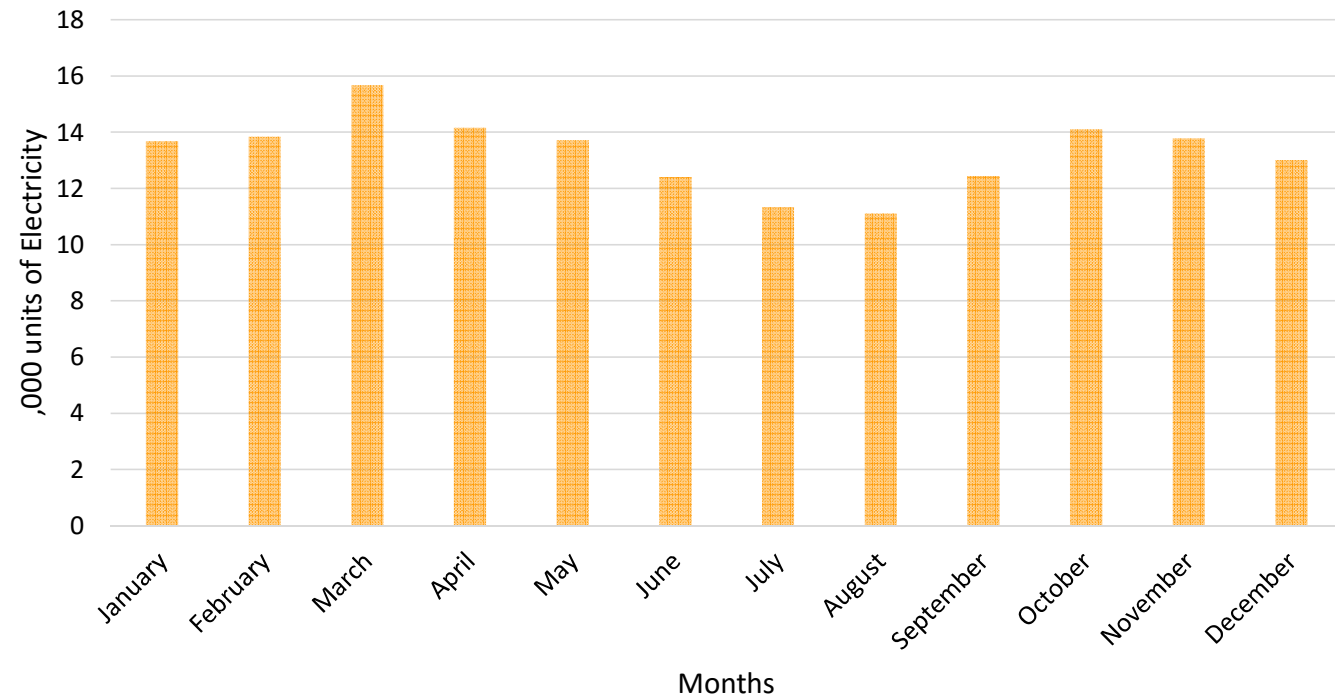
NCR Data: (1000 kWp)

Rooftop Solar: The Opportunity



Reliable source of energy: 300+ sunny days in India

Monthly Generation



Solar Energy Generation
Monthly Pattern

NCR Data: (100 kWp)

Rooftop Solar: BOOT(Opex) Model

- 
- 1 No Capital Investment; No Maintenance Cost
 - 2 No Performance or Technology Risk
 - 3 Long Term Price Certainty
 - 4 Guaranteed Savings from Day 1
 - 5 Transfer at end of PPA term

Rooftop Solar Challenges

Business

- Awareness
 - Information and misinformation
- Long term PPA
- Grid parity in domestic segment
- Quantum of savings
- State solar policy
 - Net metering, open access
- Business model credit risk
- Performance risk
 - Estimated vs actual generation

Implementation

- The rooftop/site
 - Location, design, strength, height, accessibility
- Plant size/layout optimisation
- Limited skilled specialist workforce
- Safety norms, testing labs
- O&M

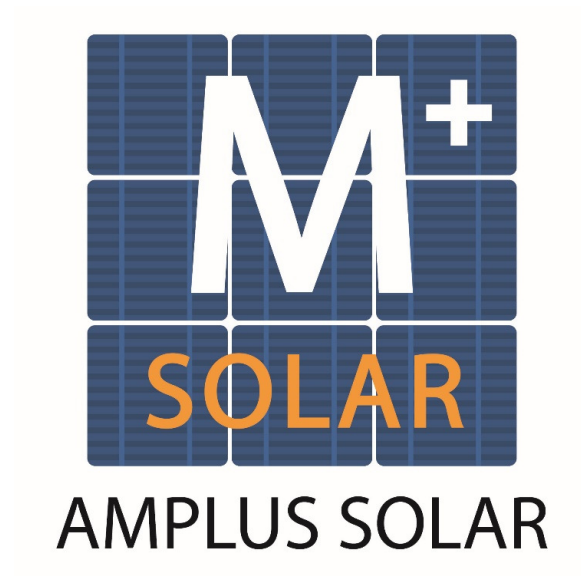
Rooftop Solar: Future Growth Enablers

Industry

- Cost
- Grid robustness
- Storage
 - Cost
 - Technology

Policy/Regulatory

- Performance based incentives
 - Generation vs Capacity
- Long term (vs short) benefits
 - Long term tax rebates vs Accelerated Depreciation
- Net metering
- Focus on storage
- Credit support for RWAs, Domestic, MSMEs



Thank you!

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