Replacement of Diesel Generators in Residential Societies

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NN4Energy is an associate company of Mytrah Energy PLC (AIM: MYT) working towards the common goal of promoting clean energy solutions

A clean energy company focused on innovative solutions and having an asset base of over 1000 MW of operational renewable energy assets in India

Wind

1000 MW+ operational projects, 400 MW under construction across 7 wind-rich states with proprietary wind data

Solar

550 MW solar projects in execution and another 200 MW in advanced development

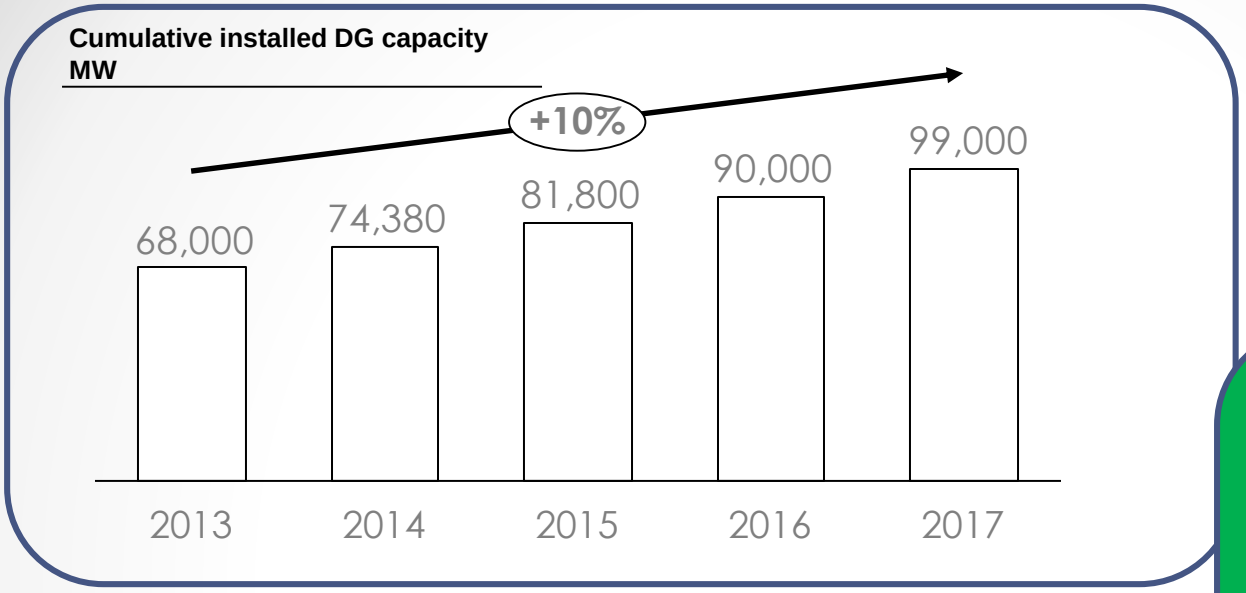
Innovative solutions

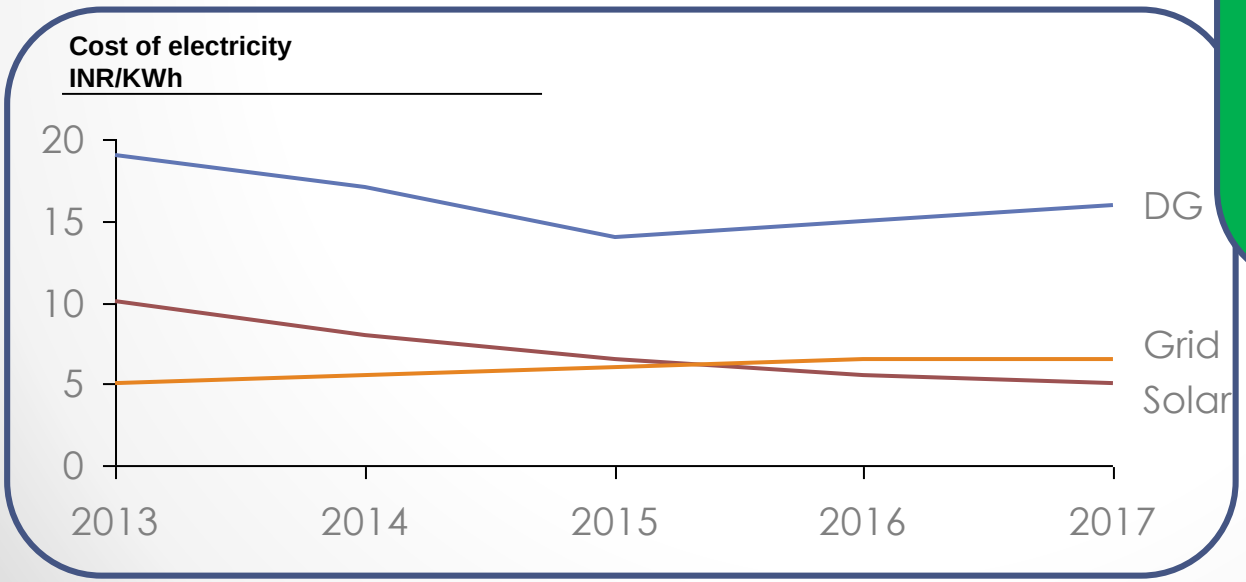
India's first 125 MW integrated power desalination project

Turnaround of base load CCPP into a grid balancing asset

Solar roof top: Replacement of Diesel Generators in Residential Societies

Why is rooftop solar not taking off?



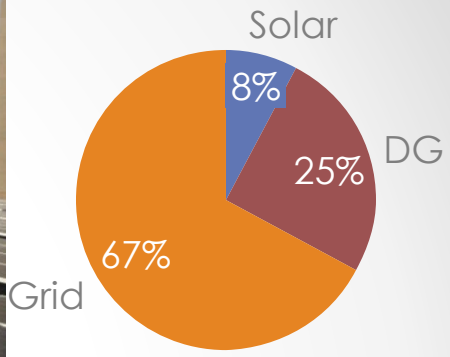


- Reliability of supply
- Cost of storage
- Rooftop productivity
- Counter party risks in BOOT model

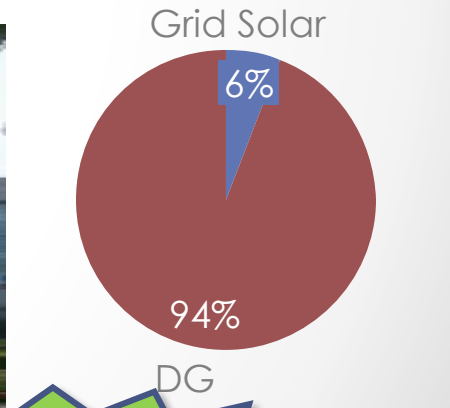
Source: CERC

Case Studies: Solar rooftop on commercial buildings with DG back up

- Location : Manesar , Nestle R&D Center
- Connected Load : 1 MW ;DG 1500 kVA
- Rooftop Size : 3500 Sq meter
- Actual Capacity installed : 226 KW



- Location : SAS Towers Medanta
- Current Status: No grid connectivity
- DG Set : 2 x 1500 KVA
- Area available for rooftop: 2000 sq. mt.
- Feasible capacity: 100 kWp



Solar rooftop cannot eliminate DGs

Root cause: Why do we need to have Diesel generators in the first place?

Discom

- Focus on minimizing losses on additional sale of power
- Lack of investment in feeder augmentation and separation
- No penalties for sub standard supply

Society

- Willingness to pay for assured supply
- Governed by society regulations and hence challenge on long term investments
- Multiple stakeholders

We can accelerate adoption of solar power by targeted and comprehensive approach of rooftop and ground mounted solar

- Segmenting the Consumer/Societies on basis of connected Load
- Providing Dedicated feeders to the Societies with load greater than 1 MW
- Incentivizing the Discom with Premium tariff for dedicated feeder
- Penalizing Discom with low grid availability
- Assessing Open access options for dedicated supply

Conclusions

- Identify societies which can deliver high impact based on load requirement and diesel consumption
- Engage with Discoms and state regulators to arrive at a mutually rewarding solution for Discoms and societies
- Segregate feeders supplying to societies
- Target solar both rooftop and ground mounted (open access) to make a significant contribution

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