

Facilitation for New & Established mini-grid companies

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The Rockefeller Foundation has analyzed various available options for rural electrification; Distributed Renewable Energy Mini Grids emerge as most appropriate

| | Traditional solutions | | 'Renewable' alternatives for grid electrification | | | | |
|----------------------------------|-----------------------|--|---|--------------------|------------|--|--|
| | Kerosene | Diesel | Devices | Solar Home Systems | Pico grids | Mini-grids | Provides 'Near Grid' experience |
| Uses | Lighting | Lighting Enterprises Agriculture | Lighting | Lighting | Lighting | Lighting Enterprises Agriculture | Promotes economic development |
| Households covered ¹ | 1 HH | ~40 HHs | 1 HH | 1-2 HHs | ~40 HHs | ~200 HHs | Serves key regions in a village |
| Potential to integrate with grid | No | No | No | No | No | Yes | Provides last mile resilience to national power system |
| Health and Environment Impact | Negative | Negative | Positive | Positive | Positive | Positive | Positive impact on health and environment |

- **Poor quality** lighting solutions
- **Negative impact** on health & environment

- **Limited capacity** solutions
- **battery life**

- **Limited capacity** solution
- **Lighting only** application

¹ 1 HH ~ 5 people

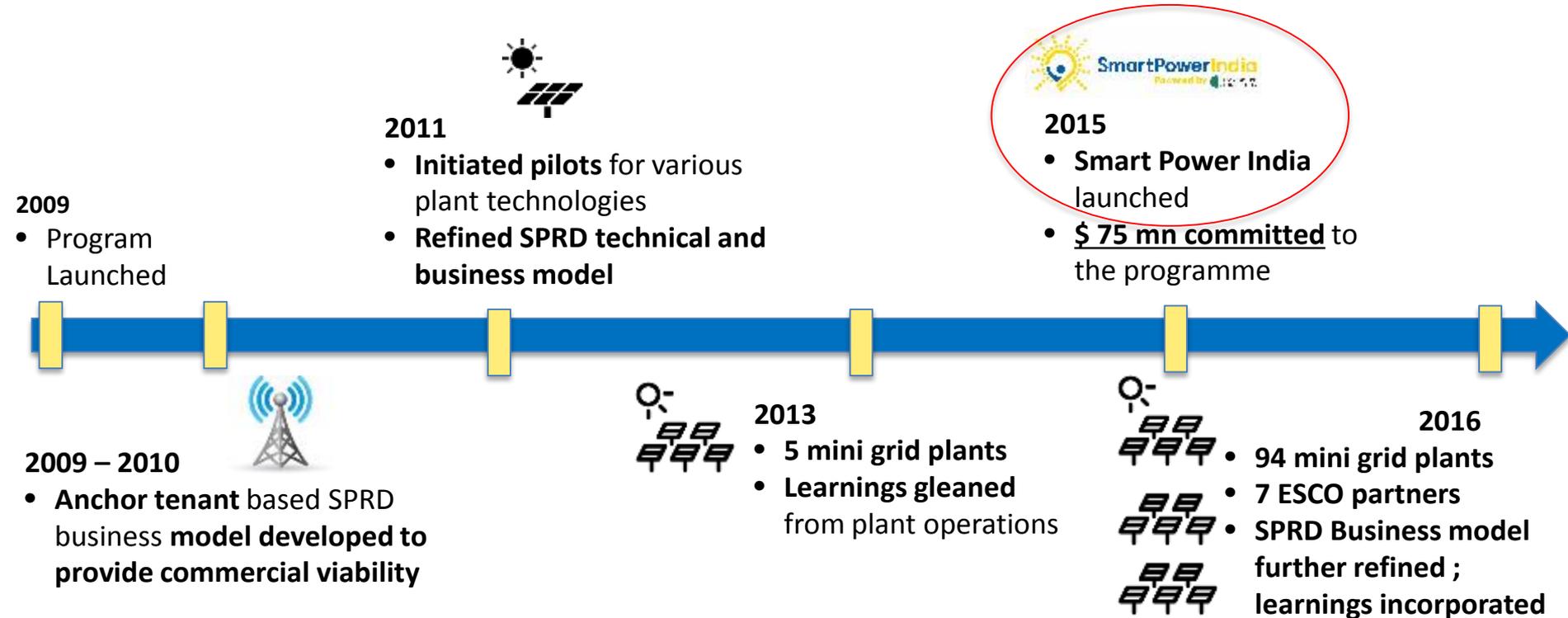
However, there are several challenges in scaling mini-grids

- Lack of scalability, sustainability and financial viability of business models
- Lack of financing for mini grid companies
- Logistical challenges of operating in rural geographies
- Lack of supportive policy for mini-grids

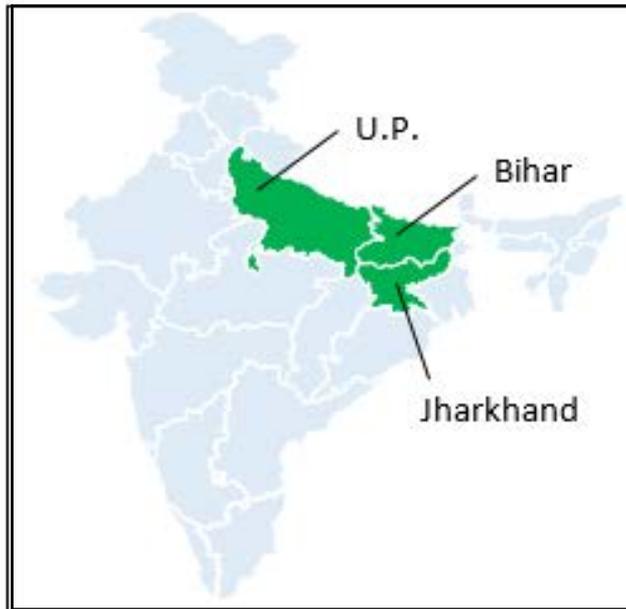
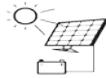


Concept of Solar PV mini grids pioneered in initiated 1990s

In India, The Rockefeller Foundation has researched the rural electrification space, conducted pilots and arrived at a scalable model



The Smart Power Initiative is currently impacting over 34,000 lives* in the states of UP, Bihar and Jharkhand

| | | |
|--|--|-----------------------------------|
|  |  | 94 Mini-Grids |
| |  | 6,067 Households |
| |  | 2,979 Shops |
| |  | 579 Commercial Enterprises |
| |  | 97 Telecom Towers |
| |  | 20 Institutions |

Current SPRD ESCO Partners



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*Impact calculated based on direct users of SPRD electricity: Household Lighting = 5 users, Shop lighting = 1 user; Commercial = 1 user; Institutional = 10 users