

Financing of Solar Rooftop in India

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KFW

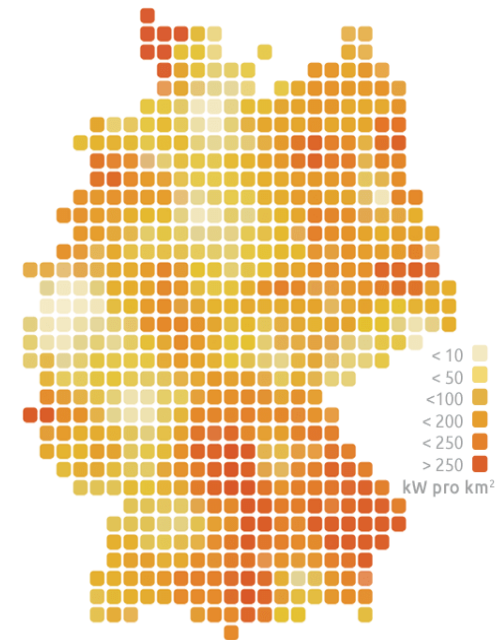
»» Status quo of PV in Germany

Solar energy and wind as drivers of the German Energiewende

Current situation

- Total generation of PV in 2016 – **38,3 TWh**
(\cong 5,9 % of net energy consumption in Germany)
- Installed capacity – ca. **42 GW**, about 74% of that mounted on rooftops
- Number of PV plants – **1.5 million**
- 70% of rooftop systems are < 10 kW and mounted on one-or two-family houses
- Yearly planned expansion corridor of 2.4 – 2.6 GW until 52 GW are reached




Installed capacity per km²



Source: www.strom-report.de

»» Indo-German Solar Energy Partnership

Broad range of partners and activities with special focus on Solar Rooftop

	1	2	3
	<p>Cooperation in the field of solar rooftops</p> 	<p>Development of solar parks/ zones</p> 	<p>Solar off-grid applications</p> 
Focus	<ul style="list-style-type: none">▪ Rooftops in commercial, industrial & residential segment▪ Captive use + feed in (of excess power)	<ul style="list-style-type: none">▪ Solar park infrastructure▪ Solar/PV installations▪ Land neutral solar: irrigation, floating, ...	<ul style="list-style-type: none">▪ Solar powered mini-grids▪ Solar Home Systems▪ Agricultural water pumps

KfW

India to receive **concessional loans** in the range of **EUR 1 billion** over the next 5 years through **KfW**

giz

GIZ to provide technical assistance, policy advisory services, pilot project promotion capacity building and training

PTB

PTB to support skill development curriculum as well as the quality control framework for solar power components

»» Case analysis: Commercial Sector Solar PV Rooftop

Economic calculation for Solar Rooftop in Commercial sector of Delhi

Payback computation

- **Payback period – 5.1 years**
- Internal Rate of Return – 18%
- Net present value – INR 9.3 million
- No incentives assumed

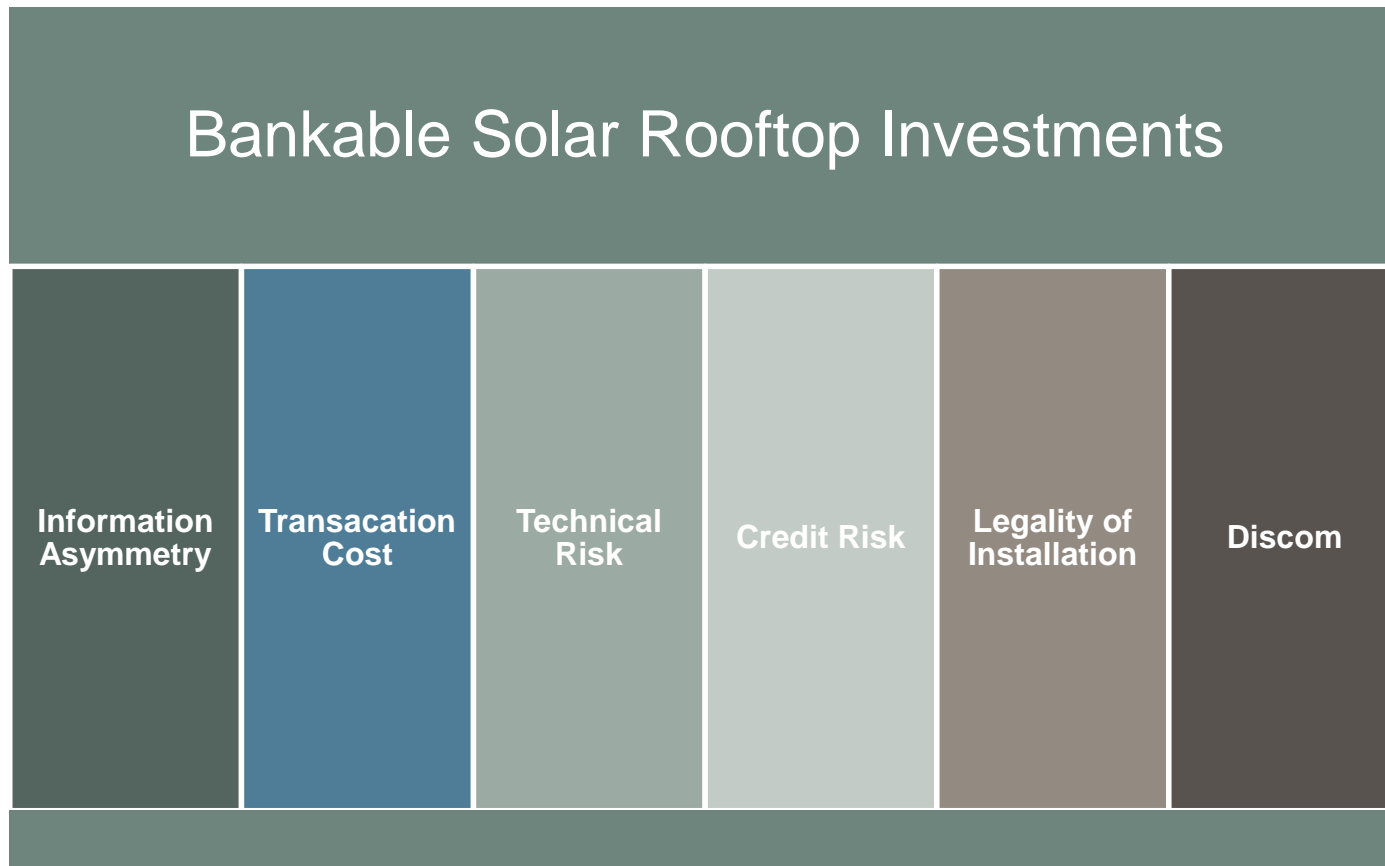


Assumptions

- Size of the system – 150 kW PV
- Upfront investment cost – Rs. 71,000/ kW
- Electricity generation – 197,100 kWh/year
- Energy inflation – 5.44% per annum
- Top slab grid energy cost/ kWh – Rs. 9.95
- Annual inflation – 6.8%
- Cost of capital – 10.8%

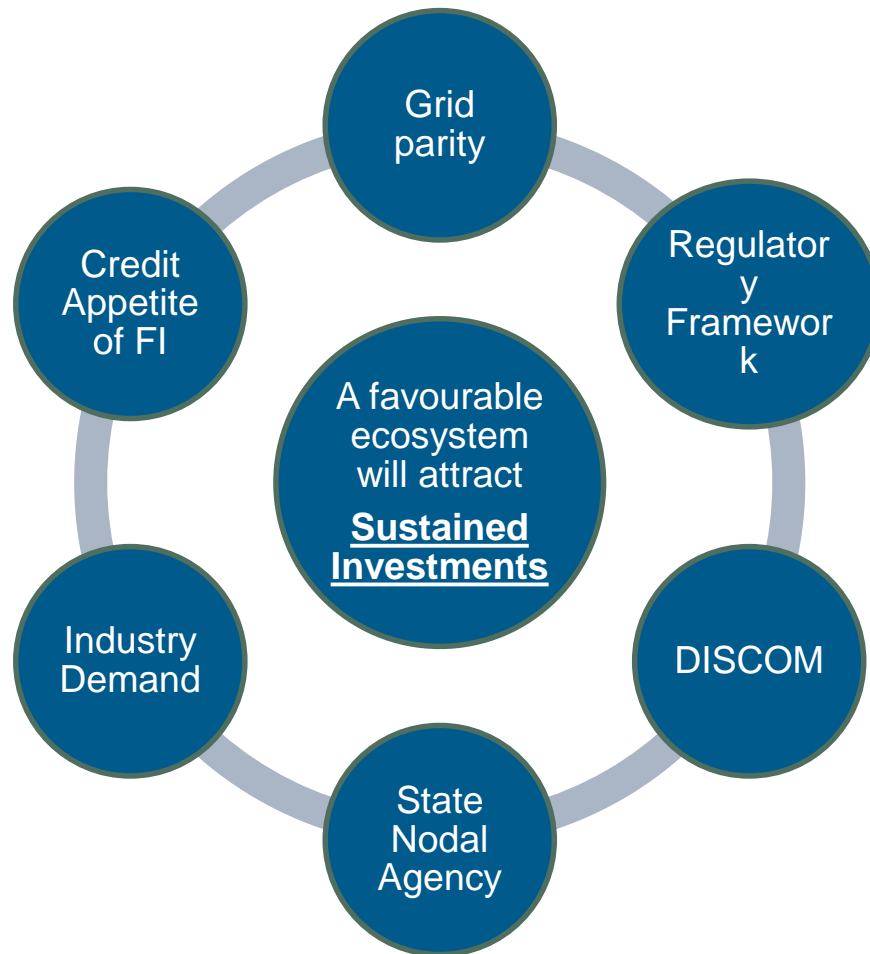
»» Barriers for Financing Solar Rooftop

Enable Financial Institutions to be an active stakeholder



»» Regional Ecosystem

Regional ecosystem must create favourable conditions for the market





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Bank aus Verantwortung

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