

SINDH SOLAR ENERGY PROJECT (SSEP)

US\$100 MILLION IDA FINANCING TO GOVERNMENT OF SINDH

NOVEMBER 2018

Oliver Knight
Senior Energy Specialist

Sindh leading the way on solar

1. **400 MW of utility-scale solar** through competitive bidding
2. **20 MW of distributed solar** on and around public buildings in Karachi and Hyderabad
3. **Solar home systems to 200,000 households** (1.2 million people)
4. **Technical assistance** and capacity building, including a comprehensive household energy survey

Project status and priorities

PROCESS

- Negotiations completed: May 2018
- WB Board approval: 14 June 2018
- Loan signing: forthcoming
- Effectiveness: following signing

FINANCING

- IDA financing of \$100m
- Counterpart funding of \$5m for Project Management Unit (PMU) staff
- 5 year project term

YEAR 1 PRIORITIES

- i) Establish PMU and build capacity
- ii) Commission design studies and build evidence
- iii) Launch procurement of transaction advisor

Component 1: Utility-scale solar

- **Objective:** Scale-up private sector development of solar power in Sindh at least cost by introducing competitive bidding (solar auctions)
- **Financing:** \$40m
- **Scope:**
 - Preparation and launch of first solar auction for one or more sites (>50 MW of capacity)
 - Identification of Solar Park sites across Sindh
 - Public investment in Solar Park development, including: land acquisition, studies and permits, civil works, security, grid connection, grid upgrades, storage
 - Possibility to add solar-wind hybrids and floating solar
- **Status:**
 - REOI for transaction advisor launched and ongoing
 - Locational study for Solar Park sites commissioned and ongoing

Opportunities under SSEP

- **Consultancy (GoS)**
 - Transaction advisory services
 - Feasibility studies, including grid integration analysis
 - Environment & Social Management Plans (Environmental Impact Assessments)
- **Solar Park Development (GoS)**
 - Civil works for land preparation
 - Infrastructure provision (water, road access, security)
 - Transmission line construction and/or grid reinforcements
- **Solar PV Plant Investment (IPPs)**
 - Construction of Solar PV plants in Solar Parks under EPA arrangement
 - EPC for construction and O&M

THANK YOU

Component 2: Distributed solar on public buildings

- **Objective:** Reduce public sector electricity bills/debts, and help accelerate the rooftop solar market by building private sector capacity
- **Financing:** \$25m
- **Scope:**
 - Comprehensive and detailed building surveys
 - Leasing agreement between GoS and public sector institutions taking part in program
 - Public investment in rooftop and distributed solar, including: capital-financed EPC plus performance-based contract, installation of energy management system

Component 3: Solar home systems

- **Objective:** Build a market for provision of off-grid electricity services to increase access to electricity
- **Financing:** \$30m
- **Scope:**
 - Detailed design work, engagement with solar solution providers (SSPs), and data gathering
 - Partial grant scheme to bridge affordability gap (e-voucher?)
 - Consumer awareness campaign and M&E
- **Status**
 - Workshop with suppliers held in September 2018

Component 4: Capacity building and technical assistance

- **Objective:** Establish SED as a leading facilitator of RE and energy access in Pakistan by building internal capacity, improving the evidence base, and developing innovative solutions
- **Financing:** \$5m
- **Scope:**
 - Build up capacity of PMU
 - Commission the household energy survey
 - Regular consultations with key stakeholders, external training, and national lesson-sharing to put SED at the cutting edge