# ADB partnership for renewable energy initiatives in Bangladesh









#### Solar Home System (SHS) Program

- Status: 3.5 million households (Jan/2015)
   or 140 MW since it started in 2003
- Target: 6 million households by 2018
- Beneficiaries: 15.7 million/10% of population
- Savings: Half a million ton in avoided CO<sup>2</sup> emissions
- Job creation: 75,000



### **Development partner contribution to IDCOL**

#### in million USD

TOTAL DEVELOPMENT PARTNER SUPPORT	Total Loan Amount	Total Grant Amount
Credit Support	758	-
Grant Support	-	100
TOTAL	758	100



# **Mode of Financing: an Example**

(a) Market Price of 20 Wp SHS	USD 150
(b) Buy-down Grant (Grant A) (USD 20/SHS)	USD 20
(c) System Price for Household [(b)-(a)]	USD 130
(d) Down Payment from Household to PO [15% of (c)]	USD 19.5
(e) Loan Payable from Household to PO [(c)-(d)]	USD 110.5
Loan Tenor	3 years
Interest Rate	16% p.a.
Monthly Installment Amount	USD 3.8
(f) IDCOL Refinance [80% of (e)]	USD 77~88
Loan Tenor	5~7 years
Interest Rate	6~9% p.a.







#### Solar PV Based Irrigation Pump Program

- Target: 1,550 solar irrigation pumps by 2017 (17 MW)
- Beneficiaries : 30,000 farmers
- Average capacity : Pump 7 kW, Panel 11 kWp
- Average water flow: 750,000 liters/day
- Status: 223 approved, 102 installed and 250 in the pipeline



# **Financing Structure**

Project cost	USD 31,343
Grant amount (40% of project cost)	USD 12,537
Remaining Cost	USD 18,806
IDCOL Loan (40 % of project cost)	USD 12,537
Equity participation by the sponsor (20% of project cost)	USD 6,269

Financing terms		
Loan amount	USD 12,537	
Loan Tenor	8 years (9 months grace)	
Interest rate	6%	
Principal repayment	29 equal quarterly installments	
Security	Bank guarantee or land mortgage	



# Conclusion

- Affordability barrier: Overcoming the affordability barrier by providing long-term access to finance to households and capital buy-down by development partners plays an important role
- Financing model: Determine the appropriate finance structure is key in successfully adopting (renewable) technology and ensure wide diffusion
- Sustainability: ownership and partnership, nation-wide sales distribution, warranty and maintenance branch networks ensures long-term success