

solshare 

Create a network. Share electricity.
Brighten the future

The Future of Energy starts in Bangladesh

An aerial photograph of a village in Bangladesh at dusk. The roofs of the houses are covered with solar panels, some of which are highlighted with glowing yellow outlines. A network of glowing yellow lines connects the solar panels across the village, illustrating the concept of a shared electricity network. A large satellite dish is visible on one of the roofs. The overall scene is dimly lit, with the sky transitioning from blue to dark.

Dr. Sebastian Groh
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An aerial photograph of a densely packed village in Bangladesh. The rooftops are covered with numerous solar panels, some of which are mounted on metal frames. The buildings are mostly constructed with corrugated metal and concrete. In the foreground, a large solar panel is visible on a flat roof. The background shows lush green trees and a clear sky. The overall scene depicts a community that has adopted solar energy for power generation.

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Bangladesh -a world record-

**25 million people w/
Solar Home Systems**

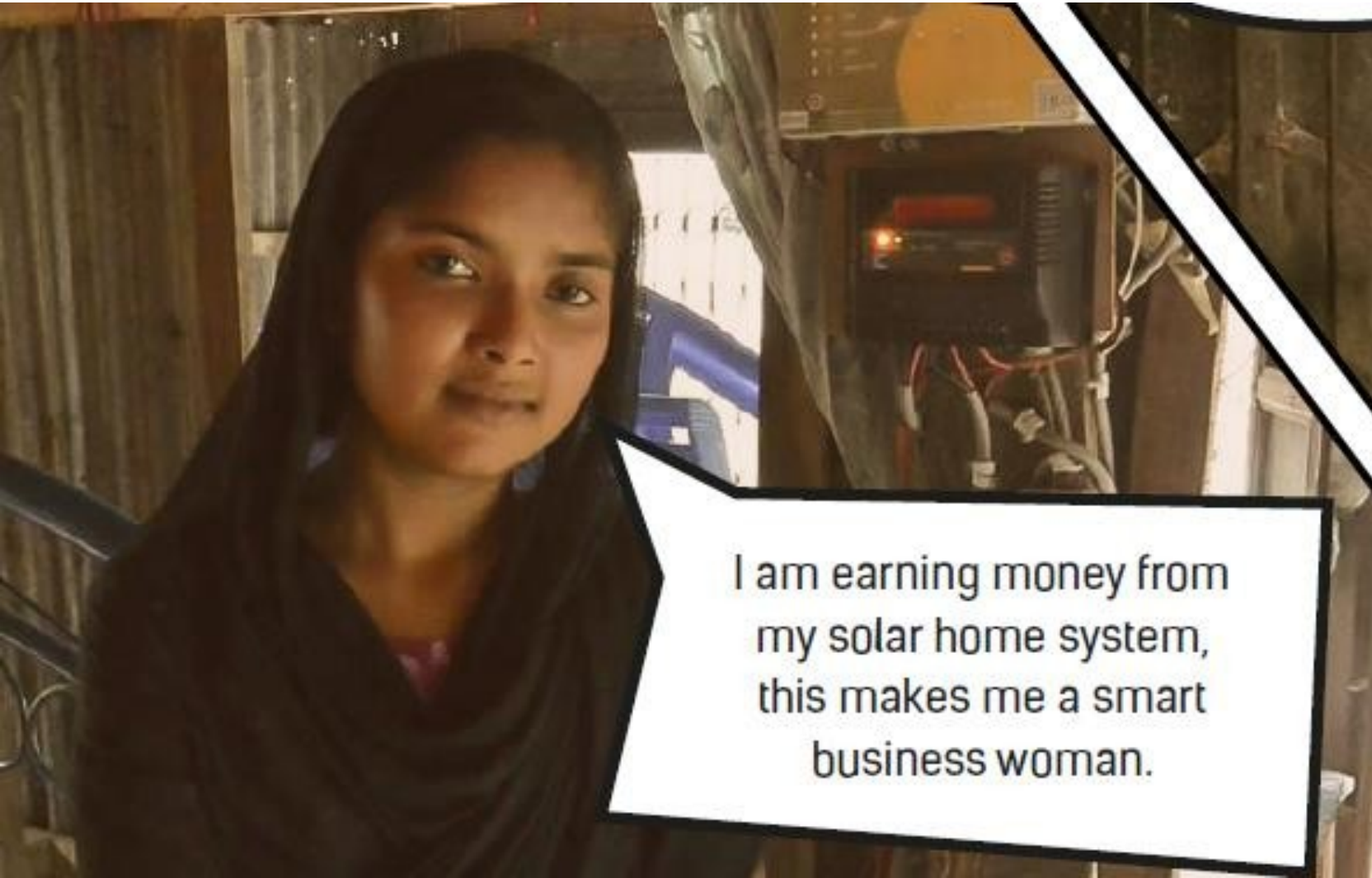
Opportunity

USD 3 million

In excess energy in Bangladesh
that cannot be stored by individual solar systems

daily

“Ami ekjon adhunik bebshai.”



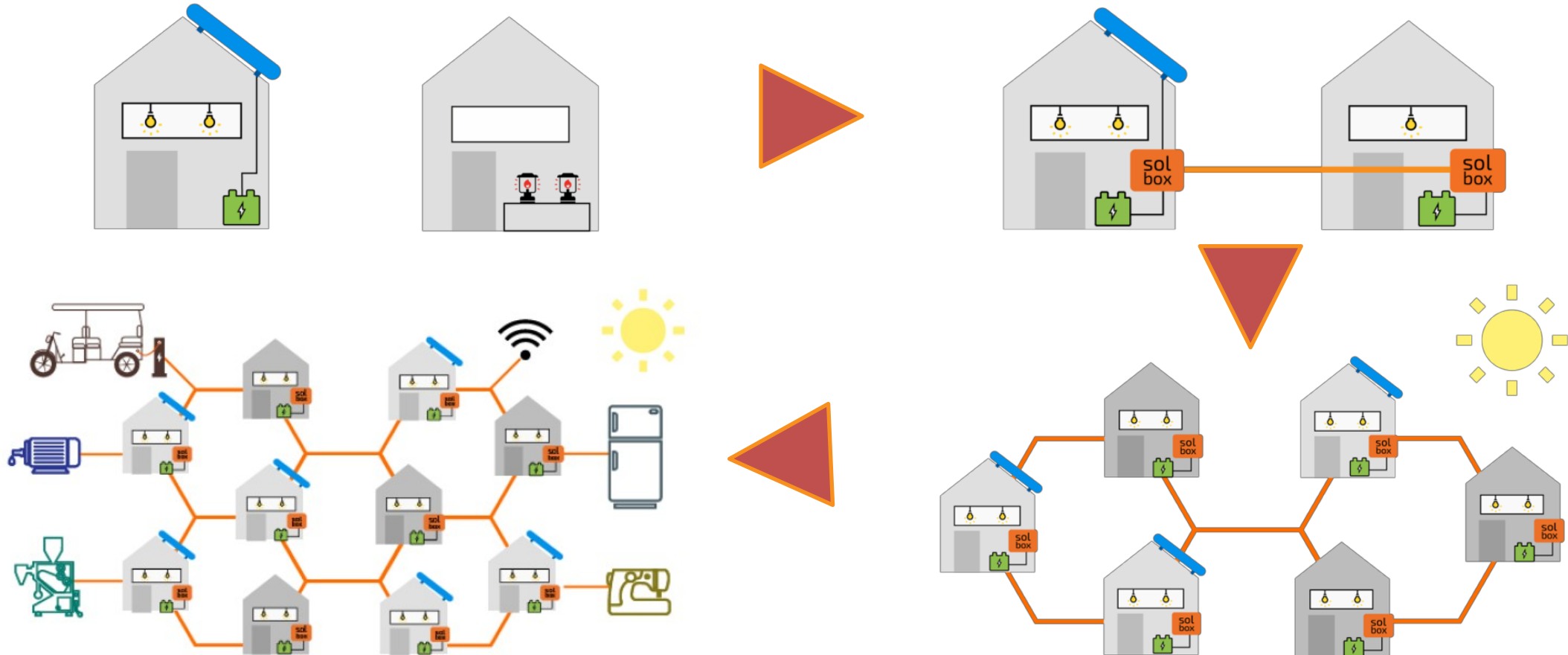
Social Return on Investment
(SROI) as measured by IIX:

*“For every dollar invested into a SOLgrid, **USD 4.85** is generated!”*



P2P solar grids - bottom-up

Interconnecting solar home systems into a microgrid that can grow with the needs of its prosumers.





4/15/2019

Solar P2P grids in Bangladesh

=

The future of utilities globally



We believe the solar smart peer to peer (P2P) grids we are building in Bangladesh will be the future for utilities globally.

SOLshare: Inter-connecting World!

“Innovation doesn't just belong to Silicon Valley — it comes from everywhere.” SOLshare is committed to a new energy world fueled by the 5 D's:

Decentralization, Decarbonization, Digitization, Democratization & Disruption.





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WORLD
ECONOMIC
FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

Technology Pioneers 2018

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THANK YOU

Back-UP Slides

ABOUT US



Sustainable and affordable energy access for low income rural people is possible right now. Our decentralized peer-to-peer microgrids deliver solar power to households and businesses, while enabling them to trade their (excess) electricity for a profit and make money from the sun.

#Vision2021 #ProsperBangladesh #DigitalBangladesh #Entrepreneurship #SDG7

POWER FOR ALL



PROBLEM

- Rural households in need of an affordable and flexible electricity & internet service supply
- Households with decentralised solar home systems (SHS) are often unable to meet rising demand and are also underutilising their SHS, resulting in 30% lost generation capacity, resulting in 600,000kWh excess renewable power production daily on average, with a value of approx. 5 USD/ kWh

SOLUTION

- SOLshare works on interconnecting existing decentralised solar energy generation and storage assets, linking producers, consumers and prosumers in smart-grids enabling energy P2P transactions
- Designed and commercialised the world's first and only low-cost DC bi-directional power meter and solar charge controller that functions as an individual node of a DC electricity trading platform, enabling users to buy and sell electricity at a micro-scale in an off-grid setting.

IMPACT

- Social return on investment: USD 4.85 - external assessment by IIX
- 108,000 people impacted, with 47,000 women
- 2,200metric tons of CO2 avoided
- 3,300 MWh of clean energy unlocked

Funding
(Raised USD 1.66M)

Series - A

Founders

Sebastian Groh, Hannes Kirchhoff, Daniel Ciganovic

Location

Dhaka, Bangladesh

Business
(Scale up)

Scale up

Year established

2015

- World's first solar P2P grid installed (SOLgrid)

2015

2017

- 6 SOLgrids
- 50k in revenues

- 25 SOLgrids
- USD 200kin revenues

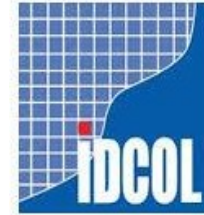
CURRENT

- 175 SOLgrids
- USD 1.5Min revenues

2020

Global Tech Pioneer of '18

Our Support Partners



PRODUCT

Peer-to-Peer Solar Microgrids

SOLbox



net metering device



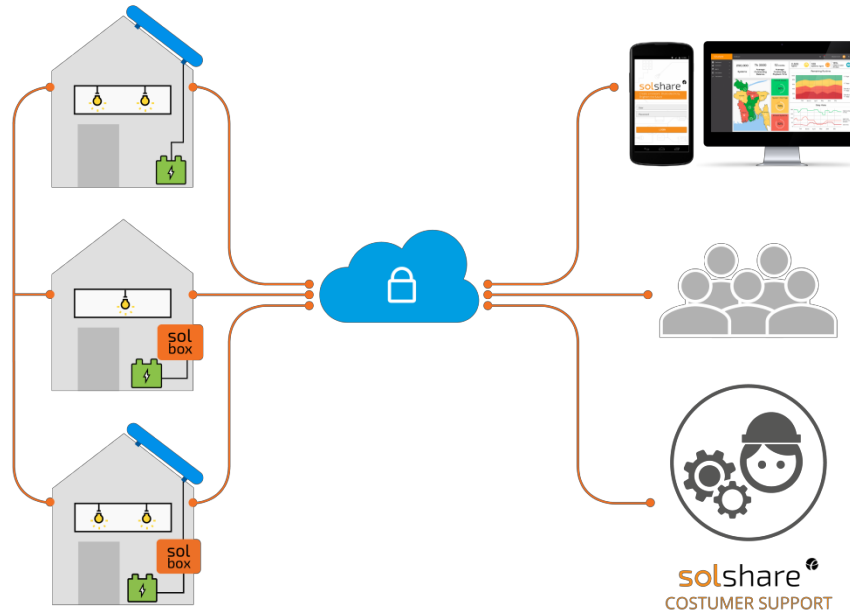
mobile money enabled



plug & play

SERVICES

Data Services



- Data-Management Services
- Mobile-Payment PAYG Back-End
- Grid Management Services
- Machine Learning Data Analytics
- Agent & System Tracking
- Customer Support Infrastructure

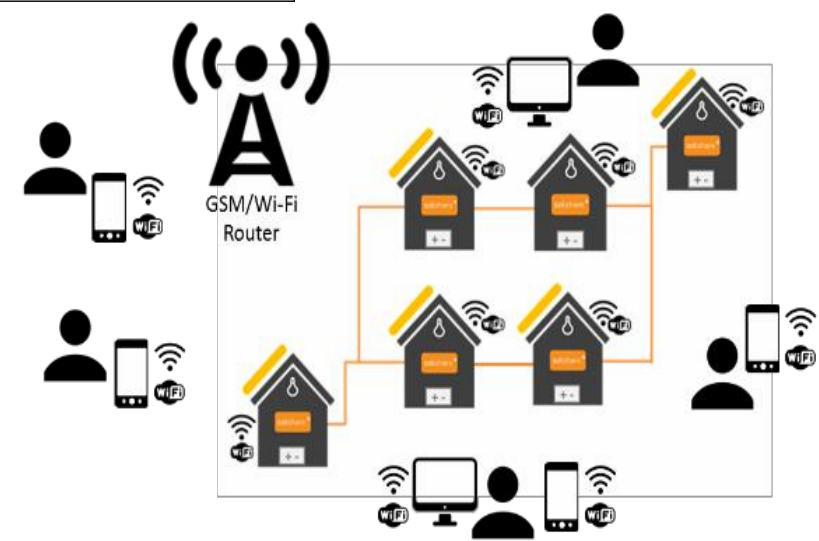
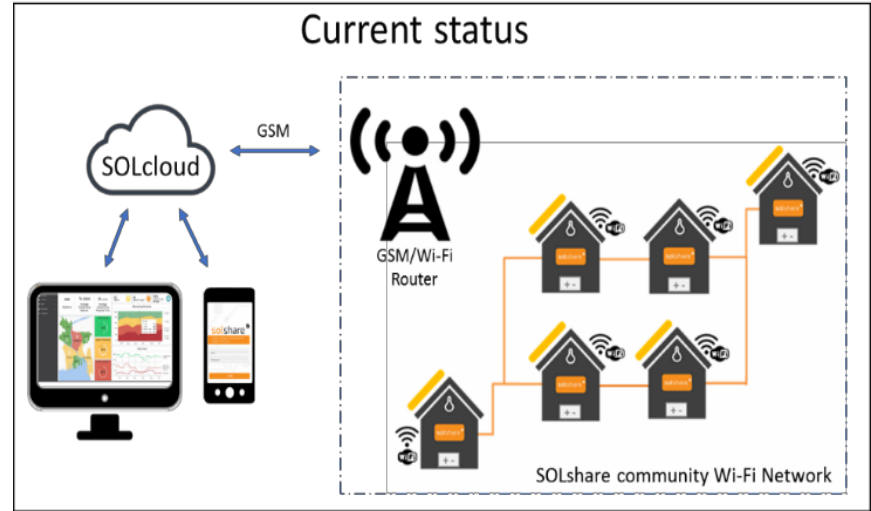


Remote Monitoring. Smart Grid Management and Data Analytics



Data Safety. Secure Transaction Services and Communication Protocols

From Energy Access to Internet Access



CUSTOMERS

Bangladesh ...



hosts 70% of all solar home systems installed globally



SOLshare's customers accumulated control close to 70% of the market, 3M+ solar home systems

India ...



SOLshare' has recently started its operations in Assam, which will be our first export from Bangladesh



Our B2B partner has installed 20,000 solar home systems in Assam to date ready for interconnection

SOLgrid overview

solshare ☰

Grid Customer Solbox Details Overview

Solsharesuperuser - Solshare 8

- 🏠 Detailed Overview
- 📈 Graphs >
- 📊 Grids >
- 😊 SAMs >
- 👤 Users >
- 👥 Customers >
- 📋 Productive Appliances >
- 📄 Grid Survey Tools >
- 📦 SOLboxes >
- 📄 Transactions >
- 📄 BKash Transactions >

Filter by Grid Grid ID: 4

Grid Name: Rangabali-Mollabazar

Upozila:

District:

Division:

Agent Name: Nazmul Hasan

Agent Phone: 008801771801333

PO: Solshare

[Asset](#)

[Router Admin](#)

[Cable Data](#)

[Command](#)

[Field Report](#)

Buy Price: 1.92 Tk Sell Price: 1.2 Tk Margin: 0.72 Tk Export to CSV

Search...

Solbox ID	Customer Name	Customer Contact	Last Online [Hours]	Battery Size [Ah]	Panel Size [wp]	Battery Voltage [V]	PV Current [A]	I To Grid [A]	I Load [A]	Total Bought [BDT]	Total Sold [BDT]	Balance [BDT]	Actions
11000031	Dr Bimal Krishno Das	01734261494	136.65	130	215	9.72	-0.01	0.0	0.21	210.77	246.94	266.53	Details View Metrics
11000049	Motalib	01728350602	308.6	50	50	10.1	0.01	0.02	0.01	481.52	13.91	0.0	Details View Metrics
11000057	Md Mizanur Rahman	01735952422	25.46	130	230	14.14	0.0	-0.03	0.07	197.61	8.14	0.08	Details View Metrics
11000058	Abu Kalam	01726164298	0.81	130	235	13.74	2.95	0.02	0.05	699.47	289.18	29.12	Details View Metrics
11000059	Rangabali Backup Sohag	01708458777	1920.54	130	150	13.05	0.02	-0.01	0.02	107.93	192.57	104.6	Details View Metrics
11000066	Gopal Kumar Das	01713961831	0.81	85	90	12.5	0.01	0.0	0.07	231.54	17.43	25.82	Details View Metrics
11000074	Solshare Rangabali 2	01332255226	0.81	100	150	13.9	3.18	0.04	0.09	43.24	1485.38	1451.39	Details View Metrics
11000077	Bipul Karmoker	01739062830	0.8	80	100	13.9	1.31	0.03	0.07	427.14	27.46	14.8	Details View Metrics
11000078	Uttam Chandrasheel	01729632127	1740.65	30	20	12.34	0.01	-0.01	-0.02	241.27	181.54	0.06	Details View Metrics

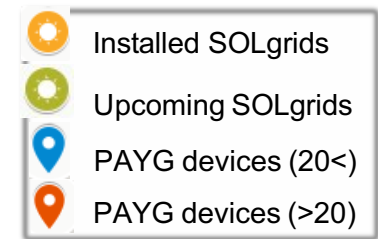
Outreach & Delivery

The B2B approach:

SOLshare has 27 grids operating in rural areas

SOLshare's key business partners manage

- ✓ >4 million solar home systems
- ✓ 6,000 field staff



COMPETITIVE ADVANTAGES



1st to market

- world's first successful installation



comparatively low development cost

- full R&D out of Dhaka



robust technology

- 1st grid running since Sep 2015

SOCIAL IMPACT



➤ More than 20,000 of beneficiaries



➤ More than 20 appliances being used including:



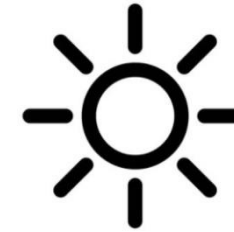
Lights, fans, mobile charging, rikshaw charging, electric trimmer, sewing machine, TV, Laptop charging, Sound box, rice huller, **Nebulizer** , **Hemoglobin meter**, **Portable Ultrasound**, etc.

Producer

**Dr. Bimol,
Pharmacist**



I can sell all my excess energy now and not worry about collecting money by hand. Also from now on I can even run a nebulizer!



**Making money from
the SUN**

- CAPEX of USD 35
- Break even within 24 months
- Simple Return on Investment of 500%+ after 5 years

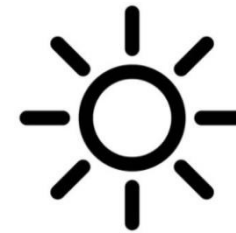
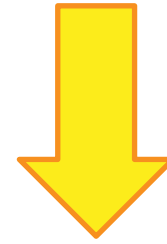
Consumer

Sanjay Shil



I don't have to pay as much as I used to pay my neighbor before.

Also, I only pay for energy when I need it!



- 30% cheaper than buying a 20Wp SHS
- Pay as you go

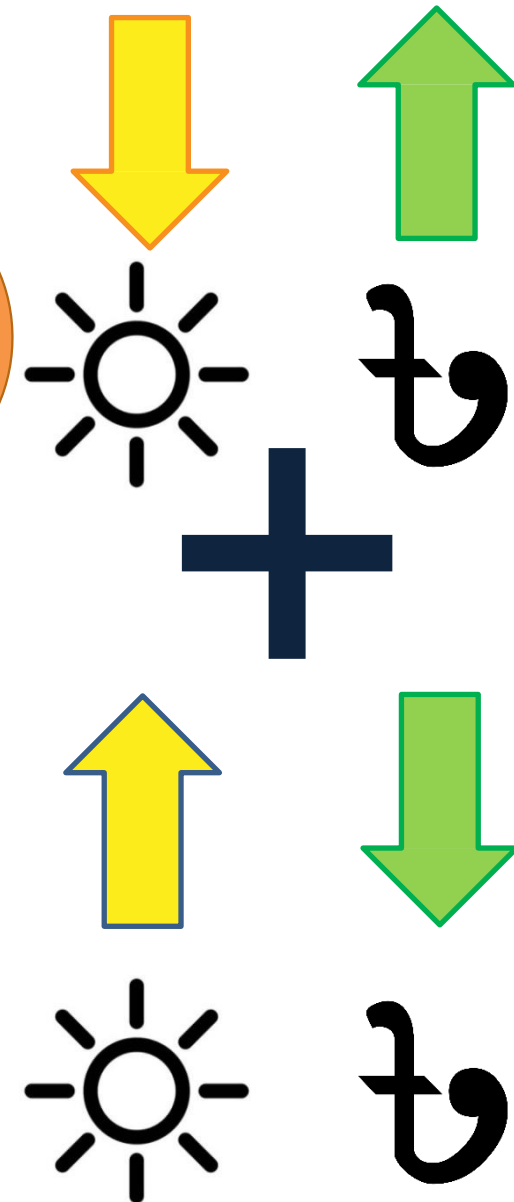
Prosumer

Sumon

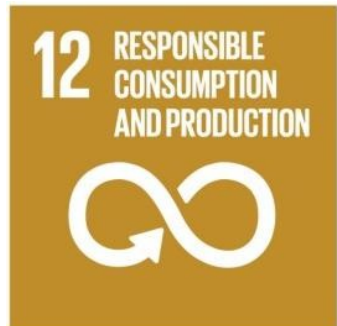
- 45% cheaper than buying an additional 20Wp SHS



More customers are attracted to my shop now as it looks so much brighter. I'm also making some extra income with the energy I sell



E-Mobility: Solar Rickshaw Charging Station



Solar ColdStorage



Community welfare





**SOLshare wins
Free Electrons'
World's Best
Energy Start-up
Award 2018**



**SOLshare wins
UN Momentum
for Change
Award in the
ICT-category**



**SOLshare is
announced as
Tech Pioneer
2018 Cohort**