



SUNFARMER



2019

Overview of SunFarmer

- SunFarmer is a Social Enterprise established in 2014 and is a subsidiary of SunFarmer USA.
- SunFarmer launched two related social enterprise companies in Nepal
 - **SunFarmer Solar Nepal**, one of the leading solar energy companies in Nepal with over 1800 solar energy installations completed
 - **SunFarmer Krishi Farm**, a new social enterprise with End to End Agriculture value chain management

Our Mission

Our mission is to provide solar energy services, creating meaningful impact in the lives of our customers through excellence in quality, innovation and service.

SF Nepal Board



AVISHEK MALLA
Chief Executive Officer

Avishek has extensive hands-on experience with off-grid solar PV systems in Nepal and other international markets. He's a pioneer in the development of solar in Nepal with his involvement in the largest rooftop solar PV system, first rooftop grid-tied system, multiple rural village electrification projects.



HARI SHRESTHA
Vice President of Operations

Hari has more than 8 years' experience in the solar energy sector, installing more than 5 MW of Solar PV system ranging from small to large scale solar PV. As the VP of Operations, he was the lead for the installation of the 100kWp Solar PV system at Bayalpata Hospital and the 92kWp at ICIMOD, Khumaltar and 40kWp at AEPC.



SUBHASHINI CHANDRAN,
Independent Director since 2017

Subhashini is currently Executive Vice-president and Managing Director - India at Xynteo, an Oslo based sustainability advisory working with some of the world's largest businesses. She spent 3 years in Nepal, helping rural farmers scale up their businesses. She previously spent over 10 years as CEO of a 10,000-person tea and agricultural business in India.



ANDY MOON
Director since 2014

Andy Moon is an entrepreneur and investor with experience in early stage start-ups, finance, and new product development. He is currently a Venture Partner at Vas Ventures, where he invests in transportation and consumer-facing technology startups. Previously, Andy led over \$200M in debt and equity transactions for solar energy projects, and started his career at McKinsey & Company.



ASHUTOSH TIWARI
Independent Director since 2017

Ashutosh Tiwari, is the Managing Director at SAFAL Partners. Previously, he was the CEO at Sherpa Adventure Gear-Nepal, the Country Director at WaterAid in Nepal, and the CEO of HimalMedia. Educated at Harvard, he has served at the Association of International NGOs (AIN), IFC in Dhaka, GiZ in Nepal and co-founded Entrepreneurs for Nepal.



ELI MITCHELL-LARSON
Director since 2016

As SunFarmer COO, Eli led SunFarmer's efforts to expand into new markets, agricultural initiatives at SunFarmer Nepal, and operations of SunFarmer US. Eli has conducted research or performed in over fifty countries. Eli holds a BS in Geology & Geophysics and Environmental Studies from Yale, and is currently a Pershing Square Scholar at the University of Oxford.

SunFarmer's impact

42

Districts Reached

3 million Sqm

Land irrigated

1200

Mtons
CO2 offset

0.85 million

Beneficiaries till date



Our Business Model -

- Power Purchase Agreements
- Turn Key
- Asset Management



Our Focus

Rural Off Grid systems –

- Irrigation for Agriculture
- Health
- Education
- Other institutional

Commercial On Grid Rooftop

Rural Off Grid systems

Power purchase agreement

- Nepal government through Alternative Energy Promotion Center provides Subsidy up to 60%
- Remaining is invested by SunFarmer
- 2-5 years contract
- Manage Operation of the power system
- Monthly / Quarterly payments
- Asset transfer to beneficiary at the end of term

TurnKey

- Nepal government through Alternative Energy Promotion Center provides Subsidy up to 60%
- Upfront investment from the customer , or partly finance by rural cooperative
- 2 years maintenance contract

Our Focus



Our Focus



Short Video on Solar Pump Business model

Our Focus

On Grid Rooftop systems

Net metering and Feed in Tariff with national utility feeding Tariff (6.5 US cents/kwh)
Commercial Utility tariff rates – 7.6 – 16 US cents /kwh

Commercial financing through banks
Interest rate subsidized by 50% by Government of Nepal , AEPC
LCOE (25 years) ~ 3 US cents /kwh

Our Focus



Rural Off Grid systems

2017-19 Solar Mini Grid

- ~600 kWp solar – wind mini grid under implementation
- Project size 25- 100 kWp
- LCOE (10 years) – 10 – 17 NPR /kWh (9-15 US cents/kWh)
- Avg. project cost – \$ 4.5 -7.5 USD / Wp
- 90% subsidized by Nepal government , 10% community contribution
- Procurement model – Competitive bidding

Essential Non-Energy Enablers

- Specially in productive end use application such as - Irrigation
- It is very important to equally focus on the non-energy enablers to maximize project success
- Often the technical or just providing say irrigation doesn't ensure increase of farmer's income
- A stakeholder partnership or network of enabler is must , in our case we tied with cooperatives

Same applies for mini-grid at a more complex level

Rural Off Grid systems

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Case study: Grid-tied solar system with net metering

- CUSTOMER: Kirtipur Hospital
- LOCATION: Kirtipur, Nepal
- HIGHLIGHTS:
 - Kirtipur Hospital generates 30% of its electricity consumption with solar
 - One of the first solar projects in Nepal to connect to the



Case study: Grid-hybrid solar for hospital

- CUSTOMER: Bayalpata Hospital
- LOCATION: Achham, Nepal
- HIGHLIGHTS:
 - Award-winning hospital that serves a region of over 260,000 people
 - At one point, was the largest solar energy project in Nepal
 - Energy system is able to dynamically switch between solar, battery, and electric grid (if available)



Case study: off-grid solar for health clinics

- CUSTOMER: Rural Health Clinics
- LOCATION: Various districts in Nepal
- HIGHLIGHTS:
 - finance combining grant and debt
 - Government health clinics supported by nonprofit Possible Health Nepal
 - Each clinic delivers 80-100 babies per year



Case study: solar-powered water pumps

- CUSTOMER: Farmers across rural Nepal
- LOCATION: Over 300 sites, various districts across Nepal
- HIGHLIGHTS:
 - Innovative Financing (Blended Finance)
 - Farmers increased cultivation area by 30%



Key Focus on Project Sustainability

- Essential non-energy Enablers (social + Economical)
- Financial access (Economical)
- Local leverage (Social)
- Technical viability (Technical)
- Environment friendly (Environment)
- Policy (Political)

Contact
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