



ANNUAL REPORT
2019

MESSAGE FROM THE MANAGING DIRECTOR

Create a network. Share electricity. Brighten the future

In our 7th year we're just as optimistic about the power of innovation to drive progress.

Dear Shareholders,

Seven years ago, we set out with a corporate strategy that is driven by its commitment to build a new energy world fueled by, what it refers to as, the 5D's: **a. decentralization, b. decarbonization, c. digitization, d. democratization, and e. disruption**. This commitment has probably also convinced you to invest in us.

At the time you invested in us, we claimed that we had already achieved the following four things (2014-2017):¹

- *"Create a device that enables the Bangladeshi rural population to access more power, higher power appliances in an efficient, affordable manner & make money from excess power, energy efficiency and solar entrepreneurial ambitions.*
- *Fundraise enough money to make those devices affordable for our beneficiaries and let the company survive.*
- *Create a company culture that lends its ideals from our approach in the field – bottom-up.*
- *Create an international reputation to attract more talent."*

For the A-series round, we also claimed that SOLshare was uniquely positioned globally as it builds a peer-to-peer energy exchange platform while

- *solving a real, pressing issue – energy poverty (a real problem for 860 million people around the world),*
- *is not being affected by regulatory issues – off-grid sector,*
- *can get at massive scale – 6M solar home systems in Bangladesh alone,*
- *can do that cheaper than the Lo3s and Power Ledgers in this world.*

¹This is taken quote on quote from the SOLstrategy document you find in the data room.





We, moreover, promised you for the upcoming years (2018-2021) to:²

1. *"Prove the TRIPLE WIN: perfecting the unit economics."*
2. *Build an awesome platform that can grow exponentially within and without: strengthen the hardware (60V + PLC), leverage the data (analytics + machine learning) & improve the trading mechanisms (dynamic pricing + blockchain).*
3. *Expand the SOLgrid product line to address all electronic needs.*
4. *Walk over the bridge to the on-grid world (PCC & value proposition)."*

I think we all agree that the world would become a more prosperous, healthier, and definitely more equitable place if everyone had reliable and affordable access to electricity. And also that we need to find a way to realize that by not further harming our planet. We are convinced that during our research on solar home systems in Bangladesh we stumbled over a truly innovative solution that could facilitate just that. The fact that progress has been harder to achieve than we hoped is no reason to give up, though. Just the opposite. And if you look at what we claimed to have done and promised we will do, we are still bound by just that and on a good track to make good on it.

The Pareto Principle has hit us and we are fighting back

The Pareto principle basically suggests that for 80% of the result, in our case the SOLbox ("a device that enables the Bangladeshi rural population to access more power, higher power appliances in an efficient, affordable manner & make money from excess power, energy efficiency and solar entrepreneurial ambitions") you need 20% of development effort and time. However, in order to get that last 20% done (product maturity), you need an extra 80% development effort and time. Becoming aware of this, as well as increasingly realizing that making hardware and software at the same time is very hard (who would have guessed), we decided to significantly invest into getting outside help and hired TTP, a product development firm based out of Cambridge founded in 1987 with 240 world-class scientists and engineers, to help us getting these last 20% done perfectly. This collaboration will bear fruit in the launch of the SOLbox NG (next generation) this year. The SOLbox NG is not only more reliable but will also have up to 15x more capacity than the present SOLbox 3.1.

² This is taken quote on quote from the SOLstrategy document you find in the data room.

Continuing on the innovation frontier: from charging local Teslas over P2P grids in Rohingya camps to the Point of Common Coupling

SOLshare continues to innovate and with the support of grant funding expands its R&D which in turn feeds into our platform approach – the SOLbazar. With the support from GIZ's Energizing Development (Endev) Program we have started to develop a grid to vehicle and vehicle to grid charging model where the two million local Teslas (e-rickshaws & e-bikes) can pit-stop charge their vehicles in our existing grid. A win for them, as well as a win for our customers as they can discharge their full batteries at midday. With further data, we might even soon be able to interconnect our grids with each other through those moving storage units – so making good on Nikola Tesla vision of a wireless transfer of electrons over a century ago, just in a different way. We have further finished our first pilot together with UNHCR where we underwent a project to illuminate the washrooms with motion detectors in the Rohingya refugee camps. Next to an opportunity of scaling up this pilot which has the potential to bring in USD 1.5M in revenue to illuminate 20,000+ washrooms, we have also initiated discussions to build our smart P2P platform into those camps based on an energy credit trading scheme administered by UNHCR. Both represent a massive potential. To conclude this brief outlook, we have also engaged with the authorities here for a regulatory sandbox where, in an on-grid context, we are striving for a community power purchasing agreement through which SOLshare will be empowered to bundle individual solar home systems and sell this power to the national grid against a higher tariff than what those users pay for. Our idea is that all people who are classified by the census as poor and have less than 1kW on their roof are eligible to obtain a special tariff, the Bangabandhu Tariff (named after the Father of the Nation). This would give the opportunity for millions of people to become net importers of electricity but also net earners at the same time given that the community power purchasing agreement (CPPA) is a multiple of their consumption tariff.

While reading those lines, we are all concerned about the ripple effects of COVID-19. All our teams are prepared to go into a remote work mode for a couple of weeks, Hannes, our CTO, flew out to Europe to make sure he can continue to support our SOLbox NG prototyping in the UK before the borders are closed, while the remaining team is here in Dhaka. With your support, we are confident that we will soldier through the aftermath of the Coronavirus and come out stronger, some of the top companies have been either founded in times of crisis or taken key pivots. We have our plans in place, and put forward a SAFE note to all of you to make sure we can execute on those successfully.

Let me stop here and thank you for the trust you have put and hopefully will continue to put into us and wishing you much joy in reading the remaining first annual shareholder letter.



With best wishes from Dhaka

Dr. Sebastian Groh



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OUR MISSION

*“Create a network.
Share electricity.
Brighten the future”*





OUR VISION

“Facilitate a climate resilient, equitable, and sustainable future for all where smart technology innovation is the enabler for empowerment.”

OUR GUIDING VALUES



Ambition



Integrity



Mutual Respect



Passion



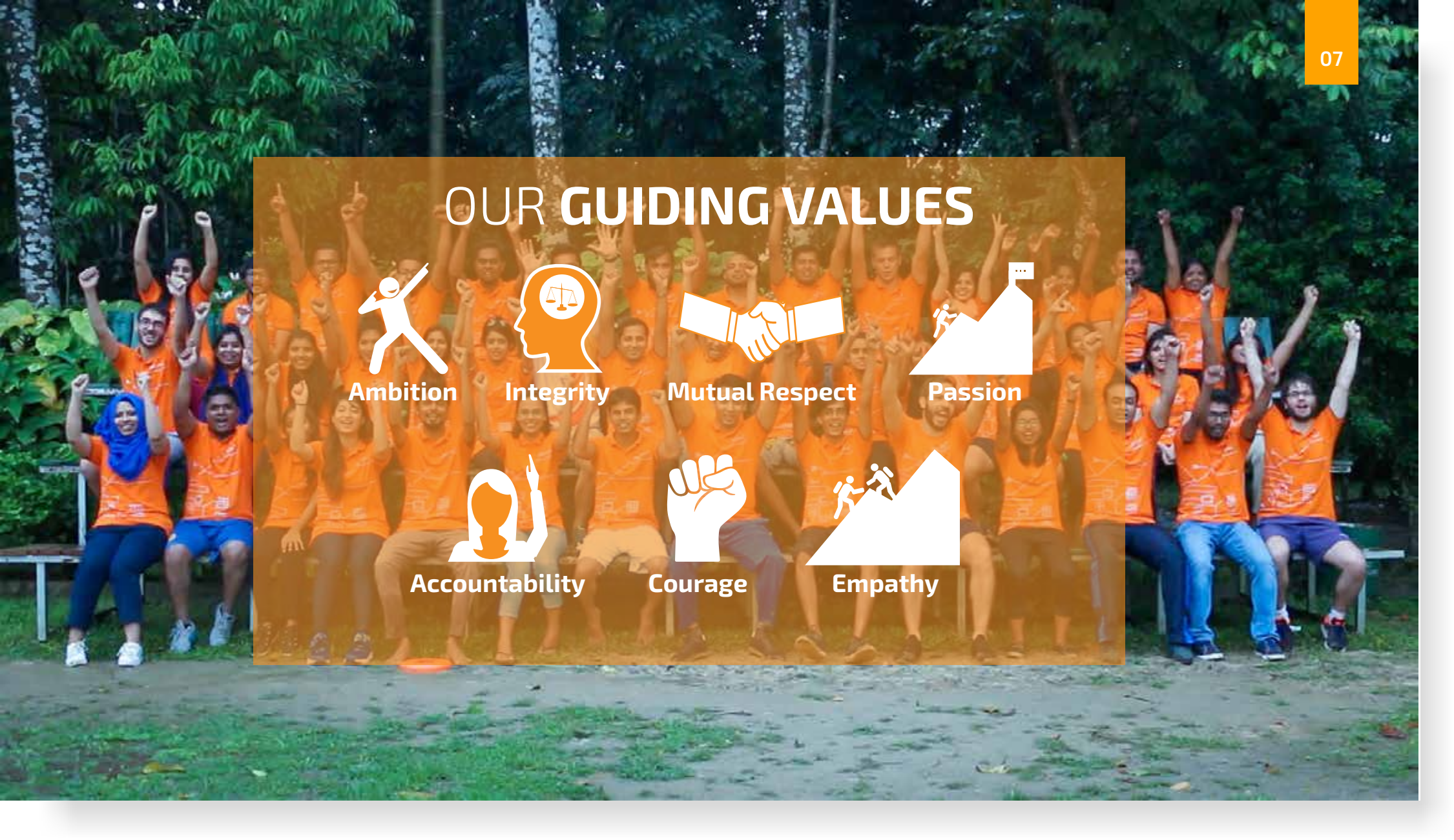
Accountability



Courage



Empathy



PROBLEM

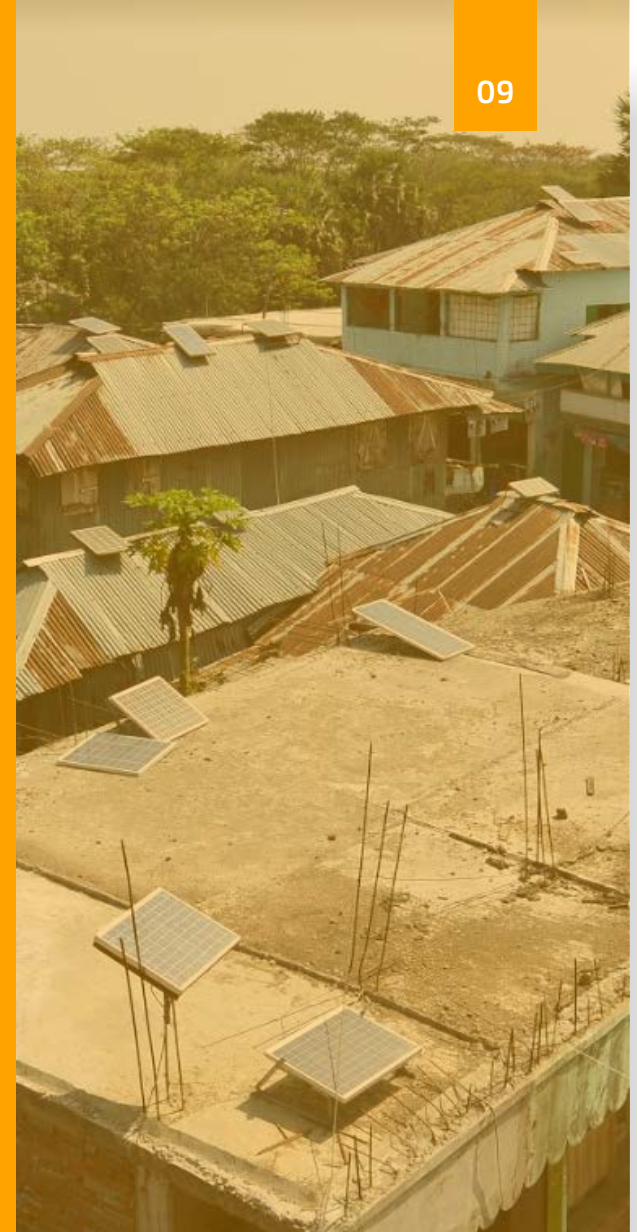
Over 1 billion people in the world, mostly rural off-grid dwellers, have no access to electricity and another 1 billion people have a very unreliable supply. This problem is particularly acute in Bangladesh's Char areas where people continue to remain off the grid due to the challenge and feasibility of grid access to those river-islands and where the national grid will most likely never reach.

It is estimated that there are currently around 50 million people with no electricity or security of supply in Bangladesh. Globally, Bangladesh is considered the market leader of solar home systems.

However, these systems remain prohibitively expensive for a large portion of people from the river islands of Bangladesh, provide limited opportunity for real economic community development, and have huge amounts of excess energy which get completely lost right now. SOLshare's technology provides a solution which responds to the energy trilemma and benefits users through the opportunity to earn more, increases energy efficiency and allows productive energy use through appliances. This could be the critical and necessary step for resolving Bangladesh's energy access problem eventually leading to grid integration and further strengthened by partnerships with local stakeholders.

OPPORTUNITIES IN BANGLADESH

- A World Record of **25 million** people using Solar Home Systems (SHS) in Bangladesh.
- Yet there are **60 million** people without any access to electricity.
- About **600,000 kWh** daily excess energy in Bangladesh cannot be stored by individual SHS, which is worth USD 1 billion per year.



OUR LINE OF WORK

Founded in 2014 and based in Dhaka, Bangladesh, ME SOLshare Ltd. is a social enterprise that offers ICT enabled products and services, contributing to the Global Goal 7: Affordable and Clean Energy for All. The company provides peer-to-peer solar energy exchange platforms and pay-as-you-go solutions to low-income households and micro enterprises seeking rural electrification and empowerment.

SOLshare, the pioneer of the micro-energy transition model, interconnects solar home systems (SHS) into dynamic microgrids and empowers its users to earn a direct income from the sun. With SOLshare's swarm electrification approach villagers become solar entrepreneurs and take action into their own hands.

OUR SOLSHARE MODEL

Empowering communities to control their future through Decentralisation, Decarbonisation, Democratisation, Digitalisation and Disruption

The SOLshare model is fully aligned with the community. As the community grows, so does our revenue. The model constitutes a 3-step approach:

- I. Access to Energy: the last mile of electricity distribution solved with clean, reliable and affordable energy, as well as internet in the making.
- II. Economic Mobility & Livelihoods / Market Development:
 - a. Skills training, including entrepreneurship.
 - b. Access to financial products and services.
 - c. Market linkages: access to new products, buyers and suppliers.
- III. Community Driven Development: with communities/community-centred organizations owning the SOLgrid, the income share earned from trading electricity is reinvested into improving healthcare and education services.

OUR SOLSHARE MODEL

Behavioral Change through the 5 D's

Not only does an end user's income grow but their behavior changes through SOLshare's disruptive, decentralised model:

- People become electricity producers, thereby democratising the concept of energy.
- People shift towards energy efficient appliances to increase productivity and revenue, thereby decarbonising their future.
- People engage with digital financial services as entrepreneurs, thereby digitalising their market experience.

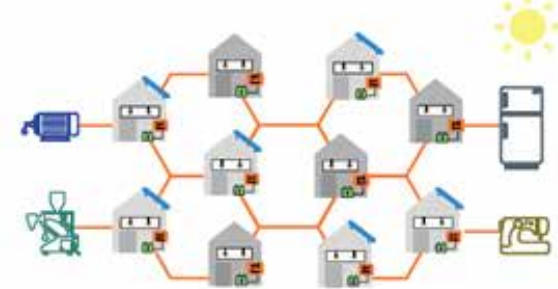
Connect to your neighbors & gain better access to energy



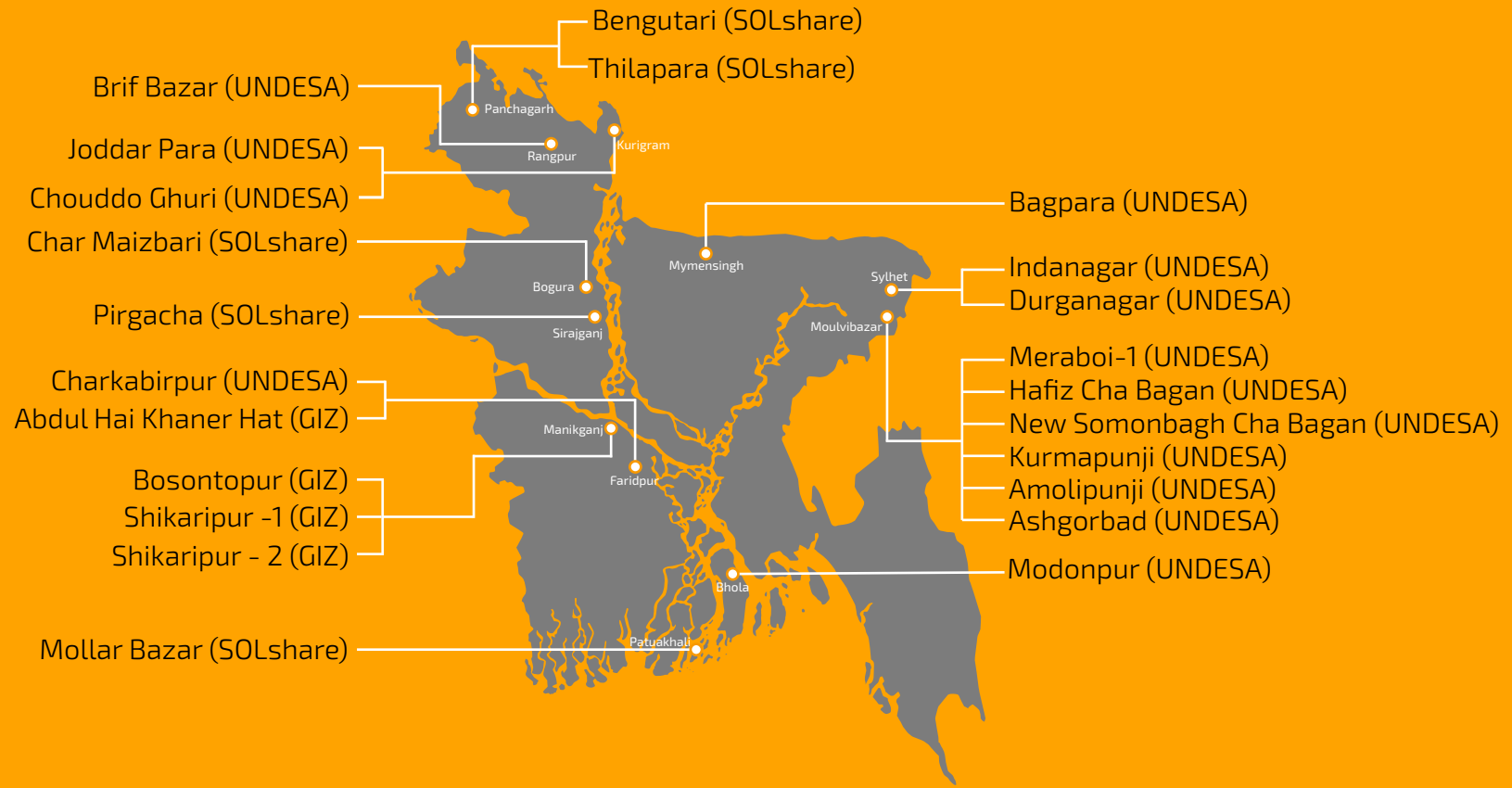
Grow within the network, use more energy & appliances



Develop your community and make use of market linkages

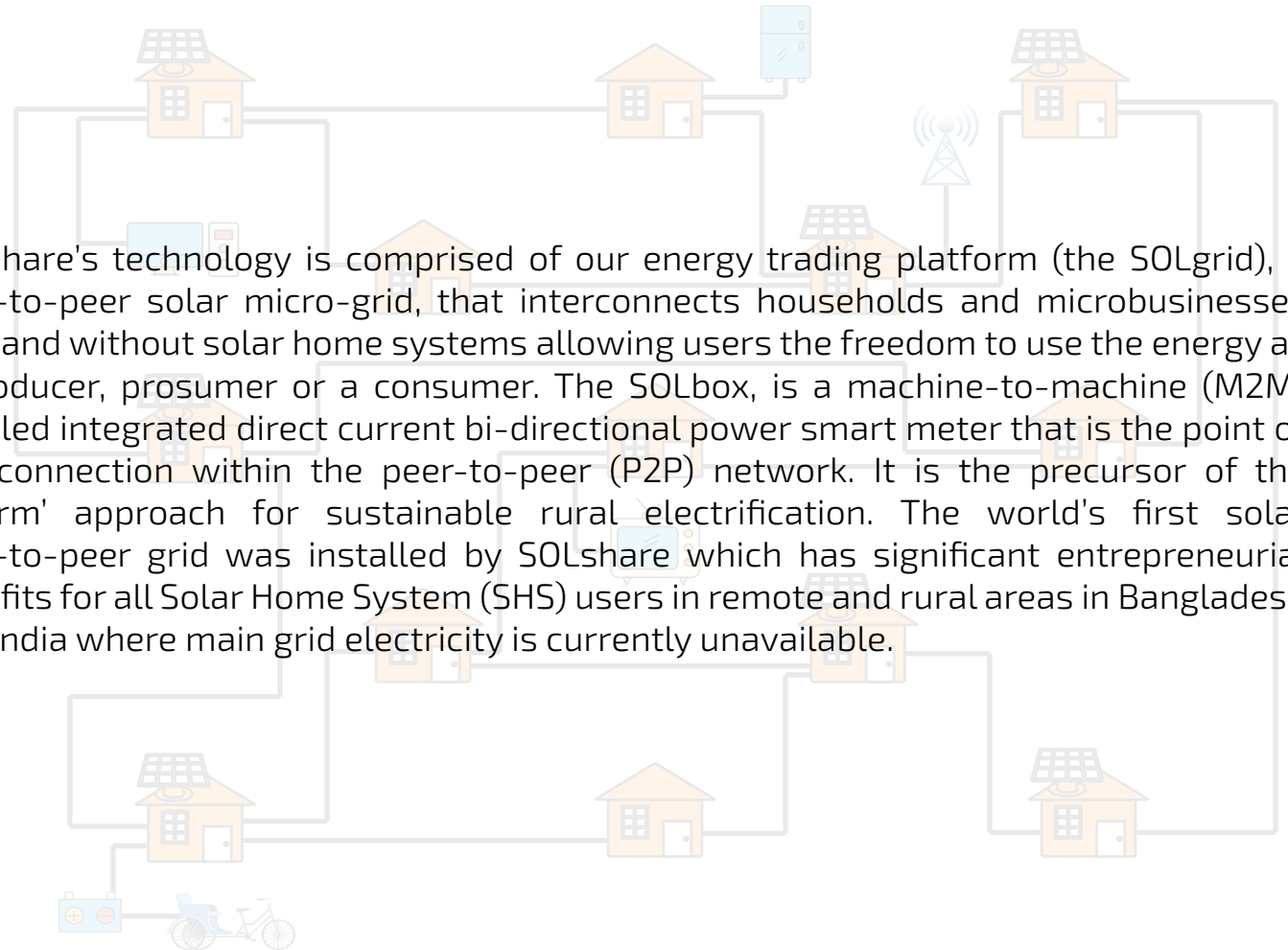


OUR SOLGRIDS AS OF 2019



OUR SOLUTION

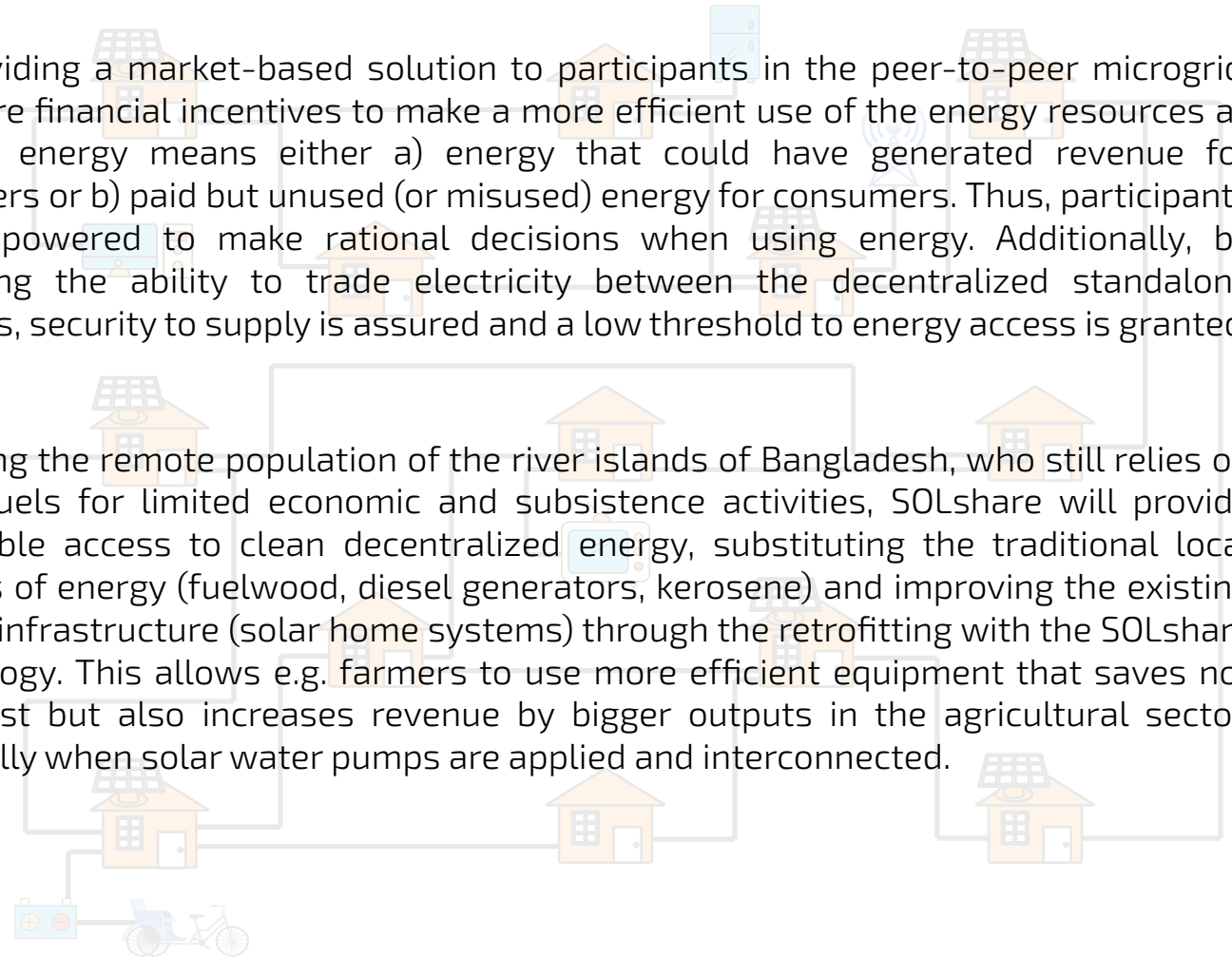
SOLshare's technology is comprised of our energy trading platform (the SOLgrid), a peer-to-peer solar micro-grid, that interconnects households and microbusinesses with and without solar home systems allowing users the freedom to use the energy as a producer, prosumer or a consumer. The SOLbox, is a machine-to-machine (M2M) enabled integrated direct current bi-directional power smart meter that is the point of interconnection within the peer-to-peer (P2P) network. It is the precursor of the 'swarm' approach for sustainable rural electrification. The world's first solar peer-to-peer grid was installed by SOLshare which has significant entrepreneurial benefits for all Solar Home System (SHS) users in remote and rural areas in Bangladesh and India where main grid electricity is currently unavailable.



OUR SOLUTION

By providing a market-based solution to participants in the peer-to-peer microgrid, there are financial incentives to make a more efficient use of the energy resources as wasted energy means either a) energy that could have generated revenue for producers or b) paid but unused (or misused) energy for consumers. Thus, participants are empowered to make rational decisions when using energy. Additionally, by unlocking the ability to trade electricity between the decentralized standalone systems, security to supply is assured and a low threshold to energy access is granted.

Targeting the remote population of the river islands of Bangladesh, who still relies on fossil fuels for limited economic and subsistence activities, SOLshare will provide affordable access to clean decentralized energy, substituting the traditional local sources of energy (fuelwood, diesel generators, kerosene) and improving the existing energy infrastructure (solar home systems) through the retrofitting with the SOLshare technology. This allows e.g. farmers to use more efficient equipment that saves not only cost but also increases revenue by bigger outputs in the agricultural sector, especially when solar water pumps are applied and interconnected.



OUR MARKET ADOPTION

B2B Approach (Key Partnerships)

SOLshare's business partners manage a total of 4M SHS and employ over 6,000 field staff.

Key partners include:



Country: India
Installations to date: 50K SHS
Focus: Assam



GRAMEEN SHAKTI

Country: Bangladesh
Installations to date: 1.9M SHS
Focus: All Over Bangladesh



Country: Bangladesh
Target population: 10M people
Focus: Riverine islands (Chars)

COMPETITIVE ADVANTAGES

SOLshare combines a unique set of capabilities for investors willing to benefit from opportunities to invest in the new energy world fuelled by the 5 D's **Decentralisation, Decarbonization, Digitalization, Democratization and Disruption**:



First mover in the New Energy of Things

World's first successful installation, representing a large untapped market potential



Robust technology

First grid running since Sep 2015, contributing to the energy transition and electrification of Asia and beyond



Triple bottom line

Seek financial performance without compromising on safety, environmental and social impact



Massive Scalable Opportunity

Favourable regulatory framework in South Asia



Comparatively low development cost

Full R&D out of Dhaka



Future Potential Upside

Ability to license its technology and business model to future-proof utilities globally

OUR IMPACT

We have installed

569 SOLboxes

with

25 operational microgrids, including **2** in Assam, India,

impacting

3,000 beneficiaries,

reducing

165,000 kg of carbon emission

therefore, unlocking

74 MWh of clean energy.



SUSTAINABLE DEVELOPMENT **IMPACT**



SOLshare's business model promotes universal access to affordable and reliable basic energy services for the bottom of the pyramid (BOP). Through its energy exchange platform, SOLshare promotes equal rights and economic resources to the low-income communities, offering alternative sources of income



Women are able to access electrical lighting for housework and reading, instead of relying on kerosene, which is known to have adverse effects on human health with prolonged use. Further, as observed in the field, women are given the opportunity to participate directly in economic activities when they trade energy with SOLshare's platform. This is especially evident for women in rural households.



SOLshare ensures universal access to affordable, reliable and modern energy services to the 950M peoples that lack access to electricity globally (IEA, 2019), as well as to another billion people that have a very uninterrupted service supply (7.1), as well as it contributes to increasing renewables in the energy mix (7.2) and energy efficiency (7.3).



SOLshare adopts energy solutions that are resource-efficient and environmentally sound. Additional energy is unlocked by integrating existing infrastructure (e.g. solar home systems, mini-grids) with innovative technology which is backed by engineering and scientific studies and iterations over the years. Our technology reduces carbon emissions by unlocking clean energy.

SUSTAINABLE DEVELOPMENT **IMPACT**

8 GOOD JOBS AND
ECONOMIC GROWTH



SOLshare's energy exchange platforms provides an opportunity for end users to earn an additional income from the sun without hassle. It also promotes alternative income generating opportunities through which communities can achieve economic growth.

9 INNOVATION AND
INFRASTRUCTURE



SOLshare is building resilient communities using innovative infrastructure which promotes sustainable development, and social and economic growth through access to clean, affordable solar energy which fosters women-led home grown businesses, alternative income generating opportunities and allows end users to earn money directly from the sun without any hassle.

10 REDUCED
INEQUALITIES



Through the provision of affordable clean energy to the most vulnerable off-grid communities, SOLshare is bridging the disparity gap by bringing urban services such as billable Wi-Fi, EV charging and productive energy use to remote rural off-grid areas. Our decentralized solution is the perfect approach to reducing rural to urban migration.

11 SUSTAINABLE CITIES
AND COMMUNITIES



SOLshare's P2P microgrids promotes sustainable development within remote rural offgrid communities by keeping the money invested within the community all while improving livelihoods and increasing economic and social development and growth.

OUR SOCIAL RETURN ON INVESTMENT

Outcome	Stakeholder	Financial Value
Increased access to reliable energy	End-users who purchase energy (Consumers & Prosumer, Women)	<ul style="list-style-type: none"> Willingness to pay to access the additional amount of energy, i.e. the unit cost of investment and expenses spent
Increased income	End-users who sell energy (Prosumers & Producers, Women)	<ul style="list-style-type: none"> Income generated from selling excess energy, net of investment and expenses on setting up and maintaining the systems Income generated from additional productivity and hours working*
Avoided carbon emissions	Environment	<ul style="list-style-type: none"> Per unit cost of social cost of carbon for the grid energy avoided Grid emission factor (GEF)

* Percentage of increase in productive income is based on estimated value (20%) over the projected period.

Conducted by Impact Investment Exchange Global



OUR **IMPACT** SUMMARY

ORGANIZATION MISSION

"Create a network. Share electricity. Brighten the future"

IMPACT SUMMARY

Social Return on Investment for **USD 1,000,000** capital raise for domestic market expansion is '**4.85**' (USD 4.85 of impact created for every USD 1 raised).

SOLshare achieves the following overarching outcomes:

1. Increased Access to Reliable Energy

Stakeholder: Consumers, Prosumers

2. Increased Income

Stakeholder: Consumers, Prosumers, Producers

3. Avoided Carbon Emissions

Stakeholder: Environment

Summarised by Impact Investment Exchange Global



SOLSHARE'S SIGNIFICANT MILESTONES

2013

Ideation of 'swarm electrification' concept at Stanford University

SOLshare was founded

SOLshare was selected for the CTI-PFAN Asia Clean Energy Forum

2014

2015

Opened its first office and lab in Dhaka

SOLshare came up with a prototype for SOLbox. SOLshare successfully completed the Shariatpur pilot grid system, the first of its kind in the world.

2017

8 solar P2P grids installed in Q1 with a second prototype for SOLbox. Seed funding round raised through a selection of angel investors: US\$ 385k in convertible notes.

2018

Recipient of UN DESA grant to implement 100 smart grids resulting 15,000 customers. Raised Series A Funding of US\$1.64m (incl. conversion) Won the World's Best Energy Startup in Free Electron's Accelerator Program. Featured as a Tech Pioneer by the World Economic Forum

2019

25 solar P2P grids installed

STORIES OF SOLSHARERS



Name: Taslima Akhter
Position: Technician
Division: Operations
Department: Production

"I think one of the skills we've attained in our line of work at Solshare is dexterity. We make Solboxes faster than we're given newer deadlines. People may think it's the planning, assembling and the building of a SOLbox which is the most crucial part of our job, but instead, it's the need to be on constant high alert to detect defects before they reach our rural-end users"



Name: Rakib Islam
Position: Lead Product Engineer
Division: Hardware & Firmware
Department: SOLgrid Scaling

"I am extensively involved in product development in terms of improving processes, enhancing product functionality and providing support to the various development teams to make our product more user-friendly so that it can eventually improve the lives of our end users."



Name: Shajedul Islam Shuvo
Position: Jr. Software Engineer
Division: Data & Software Development
Department: Software Engineering

"The Data & Software team works relentlessly on providing our end users the facility to avail all of the services of a SOLbox to its maximum potential by ensuring smooth mfs transactions. We also facilitate each of the decentralized grids to run reliably offline or online by continuously running rigorous data analysis on our SOLbox data with help of different cloud services"

STORIES OF SOLSHARERS



Name: Salma Islam
Position: Project Manager
Division: General Management
Department: Project Management

"As the project manager at SOLshare, one aspect of my job is to ensure that SOLshare remains accountable to its partners. This means making sure that our deliverables and reporting are all transparent to those who we are working with for the people we are working for."



Name: Aziza Sultana Mukti
Position: Principal - Operations
Division: Operations
Department: Operations

"I remember 5 years ago we were struggling to even get one non-user to believe in our service. Fastforward to today, it is much easier, not necessarily because our rural-end users have become less skeptical but because we're always on the run. We are constantly working on improving the quality of our products and the speed of our after-sales service."



Name: Md Mahmud Reza
Position: Head of People & Culture
Division: Business & Finance
Department: People & Culture

"Here, at SOLshare, I aim to promote a highly engaged and effective performing work culture where SOLsharers themselves take initiative to acquire and/or develop competencies relevant to them. The byproduct we get out of it is an esteemed 'Employer Brand', which we are more than happy to take!"

OUR SOCIAL COMPLIANCE

Safety procedures are an extremely important part of being a SOLsharer. Our company has taken all the precautionary measures to ensure our staff members have the necessary safety equipment required for working in production and R&D.

This year to further ensure the safety of our staff, SOLshare organized a fire drill with the local fire department. The fire department came with all their fire trucks setting off the fire warnings and staffers filed out of the office through the emergency exits. In front of the office, the fire fighters gave SOLshare a very informative and crucial lesson on the importance of staying calm during a fire and ensuring everyone gets to safety. They explained regular safety protocol and trained staffers on how to use a fire extinguisher properly. It was a very important educational experience for the whole office and one that we hope to repeat annually.



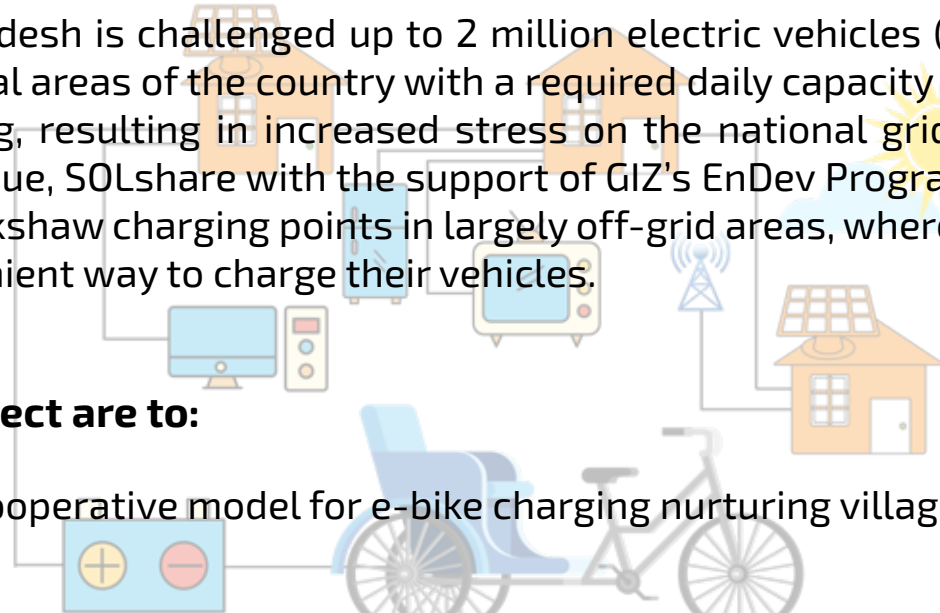
WHAT'S AHEAD

RICKSHAW PROJECT WITH GIZ

The national grid in Bangladesh is challenged up to 2 million electric vehicles (electric bikes & electric rickshaws) operating in rural areas of the country with a required daily capacity of 1,500MW but without any formal way of charging, resulting in increased stress on the national grid through in part illegal charging. To remedy this issue, SOLshare with the support of GIZ's EnDev Program, are working towards developing rural-based Rickshaw charging points in largely off-grid areas, where there is a need of more affordable, safe and convenient way to charge their vehicles.

The objectives for this project are to:

- Building out a modified cooperative model for e-bike charging nurturing village-based economies in 25 solar P2P grids.
- Trialing EV battery renting models to insure 2nd life of EV batteries and/or proper recycling in 8 solar P2P grids for 45 EVs each with 4-5 batteries.



WHAT'S AHEAD

SOLBOX NEXT GENERATION (NG)

SOLbox NG is under process, and it is bigger and better. Set to release in 2020, it will have several improvements in terms of functions, usability and longevity.

SOLbox NG will have a significant improvement in the use of higher power appliances, allowing customers to buy an array of appliances with different specifications to use. The newer box will have a game-changing dynamic pricing system which will provide with flexible schedulings to offer users with various bonuses and discounts to incentivize electricity buying and selling in bulk.

SOLbox NG will be a lot more reliable and robust as it has a greater durability, and lesser power distribution loss which essentially means more power distribution. The newer version will have a jump in voltage which means it can travel at a further distance between households, and run more productive appliances. Consumers and prosumers will be able to buy from the grid and sell excess energy back into the grid into a more seamless way.

The machine will also be artificially intelligent, which means it will not require user interaction required from the owners. It will also be integrated with Amazon Web Services (AWS). This will mean that SOLshare will not be bound by the limitation of network. This cloud integration allow us to solve any bug fixes and update the software over the cloud.



WHAT'S AHEAD

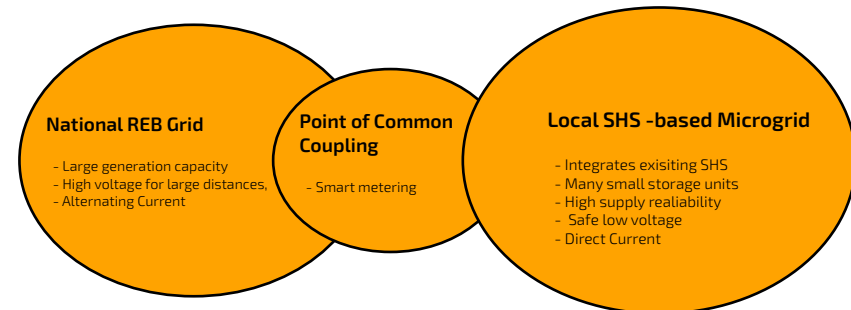
GRID INTEGRATION

Since late 2019, SOLshare has started to seriously looking to leverage its grids to feed into the national grid a 100% renewable energy at the right time (as all grids are with storage) and at the right location, namely at the edge of the grid, its weakest point. This can support the Government of Bangladesh's (GoB) binding commitment to achieve Paris Climate Agreement targets, e.g. the Nationally Determined Contribution (NDC), which is a binding contract, requiring the GoB to make whole on their promise to achieve 1,000MW of Solar PV generation by 2030, which is a 4x increase over current Solar PV capacity and a 12x increase over on-grid Solar PV capacity. The proposal, we put forward to the authorities as well as a few donor agencies, will be yet another first case in the world where neighbors not only start swapping solar electricity house to house and shop to shop turning them from passive consumers to pro-active prosumers, but also where the public electricity grid acts as a third agent in a mutual beneficial smart grid set-up.

The Point of Common Coupling

The PCC is the integration of the country's two major electrification efforts: grid extension and SHS dissemination. The REB grid connects to the one side of the PCC. On the other side is a local microgrid where SHS are connected to each other and new users. This microgrid can sustain itself but also provides last mile grid infrastructure, which can also be used for energy balancing with the national grid, reducing load shedding and increasing service stability.

How does the Point of Common Coupling (PCC) integrate?



With this approach, the existing infrastructure of over 5 million SHS, representing approx. 200MW of PV generation and 200MAh of storage capacity, is leveraged to address one of the major challenges of the country: to provide climate-friendly energy access to the rural areas of Bangladesh, using state-of-the-art renewable energy and smart grid technology designed for cost-sensitive markets.

Rationale for the end-user

Mini-grids are being developed across the world in areas far away from the central energy grid. Mini-grids are either linked to a central “power station”, using solar, water or biomass, or developed bottom-up by connecting solar-home systems. Linking mini-grids to the central grid could improve availability of energy across users while reducing cost and improving grid stability. Over the past decade Bangladesh has blissfully enjoyed a steady economic growth rate of more than 7% on average. Even with rapid industrialization, rising population demands and increasing pressure on national resources; 20% of the population still remains without any access to electricity. Energy is a vital component in increasing quality and standard of life. Access to affordable energy in remote locations could mean a lot of changes in Bangladesh.

SOLshare's energy trading platforms, installed in over 25 remote rural off-grid locations through Bangladesh have helped improve livelihoods through greater economic returns, increased resilience and creating alternative income generating opportunities. If these grids are integrated with the national grid, several problems could be solved in the long run. 100% of the energy demand could be met. The provision of affordable access to energy could result in less people migrating and concentrating in larger cities lowering pressure on city resources; which could be the necessary steps towards decentralization. People would have access to uninterrupted power at a lower cost. At the same time this has the potential to feed energy back to the national grid, thereby making more energy available on a national scale.

Rationale for the public utility

The challenge faced by the majority of utility companies in the developing world today is three-fold: 1) to increase the number of customers while 2) keeping the service quality high and 3) using as much green energy as possible. These goals are already achieved for close to 25 million rural beneficiaries under the solar home system (SHS) program in Bangladesh; providing 100% electricity availability in the evening hours using green solar energy. This is an impressive effort and we now need to capitalize on this momentum in order to create a nation-wide smart grid if we are to provide better electricity services for all 165 million people in Bangladesh and especially reach the remaining over 15 million without electricity to date by 2021. This would be a world first and Bangladesh has all that it takes for this to become reality. The New Energy of Things is fueled by the 5 D's: decarbonization, decentralization, digitization, democratization & disruption. Leveraging a base of over 5 million solar home systems in Bangladesh, SOLshare, a principle can be developed where energy can be traded with the help of IoT devices. Rural villagers are turned into prosumers sharing their (excess) power. This modular infrastructural approach allows grids to grow dynamically while the

The key strategic move required is the differentiation between the regional grids and microgrids. We need a national grid for power generation and power transfer to large urban and industrial loads. But to reach the large number of dispersed rural customers things need to stay simple and low-cost for the utility. A single access point, a single meter for connecting a community microgrid to the REB can make this a reality. This "Point of common Coupling" (PCC) is the key to complete electrification across Bangladesh for 2021.

The 5M+ SHS is the basis for a distributed fully controllable virtual power plant. Bangladesh has enough generation capacity, yet brown and blackouts continue to occur mainly because the generation is not flexible, and with the addition of coal and nuclear, the future will become even less flexible. A SHS consists of generation and storage, which means clean electricity can be sold to the grid and at the edge whenever it needs it the most and with this support from the grid at the end of the feeder where low voltage problems are most prevalent. The entire fleet of SHS consists of approx. 200MW of PV generation and 2,400 MWh storage, positioned at the edge of the public grid. Peak shaving can be enabled through decarbonized and decentralized power sources.

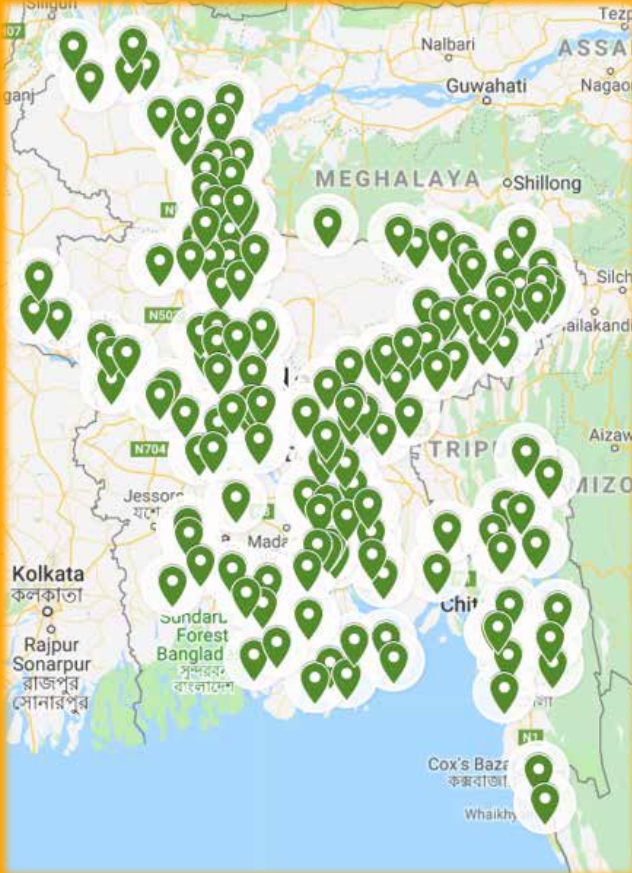


The Bangabandhu Tariff

For those households that have recently received an electricity connection which in both Bangladesh and India is a very significant number, we are suggesting to introduce a special scheme: *The Bangabandhu Tariff*.

While it makes little sense that a small solar home system feeds into the national grid (the cost for an inverter would not be economically justifiable), if there was a way how to bundle those systems (e.g. in the hundreds) both technically -through the point of common coupling- and contractually -through a community power purchasing agreement (CPPA)-, this would provide an excellent opportunity for both a pro-poor scheme as well as a way to increase renewable in the energy mix. Our idea is that all people who are classified by the census as poor and have less than 1kW on their roof are eligible to obtain this special tariff. This would give the opportunity for millions of people to become net importers of electricity but also net earners at the same time given that the CPPA is a multiple of their consumption tariff.

OUR UPCOMING SOLGRIDS 2020-2021



- **160** regions of interest
- All **8** Divisions of Bangladesh
- Generation Capacity **150** kWp
- Storage Capacity **1,900** kWh
- **12,500** beneficiaries in **125** grids.

OUR SOCIAL MEDIA

Keep up-to-date on our latest news on the following platforms:



ME SOLshare Ltd. @MSOLshare · Feb 2
Thanks a lot for the photo! [@MSOLshare](#)

US Global Villagers @USGlobalVillagers · Feb 2
Did you know... in parts of the developing world, people pay 100x more for power than in most of the USA! 1800 Global Villagers, like me, are helping MSOLshare to end the "energy poverty penalty" in Bangladesh. Check out the podcast: [https://www.youtube.com/watch?v=8XGCoGy4QDc](#) #Bangladesh

ME SOLshare Ltd. @MSOLshare · Feb 2
Aligning with the theme for International Women's Day 2020, "It's our Generation Equality: Realizing Women's Rights", we take this opportunity to say at SOLshare, we're constantly working towards creating a more diverse, more gender-inclusive environment. #EveryWoman

ME SOLshare @MSOLshare · Feb 2
The CEO of our sister (PSE) Sharma (the World's Best Bank Award Winner) has said it well.



ME SOLshare @MSOLshare · 2 days ·

Getting bored?

Read our quarterly newsletter: <https://bit.ly/1vkmfFG>

Insightful Comment

ME SOLshare @MSOLshare · Feb 2

Doing one of our visits in Pigeon (Bangladesh), one of the teams had posed us with this question: How do we get a better life? We had a very good answer: We had to get a better life from the Bangladesh.

Like Comment



ME SOLshare Ltd. · February 7 at 10:50 AM ·

Guess what's on the 2020 Ashden Awards list this time? At MSOLshare, we're propelling the systemic change of how people use and move resources around the globe in the spirit of a new energy world fueled by the E.D., Decentralization, Democratization, Disruption & Digitization. And this is a recognition of that. #AshdenAwards2020

Meet the 2020 Ashden Awards Longlist | Ashden Awards, sustainable and renewable energy in the UK and...

ME SOLshare Ltd. with Sebastian Gault · February 27 at 10:44 AM ·

We're so happy to announce that we have been selected as the national winner in Bangladesh for the prestigious Energy Globe Award in recognition of our commitment and contribution towards a more sustainable future. Energy Globe Award is the world's most prominent environmental award given annually to outstanding projects focusing on energy efficiency, renewable energies and conservation of resources. #EnergyGlobeAward2020

ME SOLshare Ltd. · February 27 at 11:12 AM ·

We are extremely happy to share that we just received the Best Startup Award (Entrepreneur) in Bangladesh, of which is one of the leading awards for startups in Bangladesh.

ME SOLshare Ltd. · December 23, 2019 ·

Academy awards is back! Send us in your queries, and we'll try to answer them in every 30 days!

ME SOLshare Ltd. · January 18 ·

SOLshare has been named a 2019 Global CleanTech 100 company for the second time in a row, and we are 100% leading from the "sustainable" front. We have been able to define our focus to a global cleantech 100 company profile all of us at SOLshare revenue goals and ambitions are determined and prioritized to help achieve the transformation to a sustainable future with all working for "Real Sustainable Growth" the Managing Director of SOLshare.

Produced by CleanTech Group

OUR 2019 ACCOMPLISHMENTS

Out of over 13,000 innovators from over 90 countries, SOLshare secures a place in the 2019 Global Cleantech 100!

The Global Cleantech 100 is an annual guide to the leading companies and themes in sustainable innovation. It features the private, independent, for-profit companies best positioned to solve tomorrow's clean technology challenges. This year marks the 10th edition of the list.

"We strongly believe that the new energy world is fuelled by the 5 D's: Decentralization, Decarbonization, Digitization, Democratization and Disruption. We are extremely honoured and grateful that SOLshare, as a Bangladeshi company, has made it into the "Champions League" of Cleantech! Our aim is to create efficient and dynamic local energy markets that empower households and encourage solar entrepreneurship, starting in Bangladesh, followed by India and eventually on a global scale. The future of energy has started in Bangladesh!," said Dr. Sebastian Groh, founder and managing director of SOLshare."

2019 GLOBAL
CLEANTECH **100**
COMPANY

Produced by  **Cleantech**
Group

OUR 2019 ACCOMPLISHMENTS

ME SOLshare won 1st prize for empowering people. Network Award 2019 by **Siemens Foundation** in the category of *technology for basic needs*.

Our Managing Director, Dr. Sebastian Groh says, "We want to show the world that the future of energy has started in Bangladesh. 25 million people using solar as their primary energy source and trading among each other, feeding to the grid and stabilizing the grid. "

Electricity is a basic need, yet 1 billion people are still in dark! We believe in getting people electrified and empowered globally through our solution. SOLshare is proud to be a with those people who needs power and empowerment globally and by winning **empowering people. Award** SOLshare has taken another step forward to take this initiative to another level! More grids equals to more users more users equals to more rural electrification and empowerment! Thanks to all our partners for always being with us!



OUR 2019 ACCOMPLISHMENTS

Our Managing Director, Dr. Sebastian Groh, who was announced as one of the 8 winners (out of 1,850 applicants) of the Unilever Young Entrepreneurs Awards 2019, took a trip to the UK, where he first took part in a tailored three-day Entrepreneur Accelerator Programme in Cambridge designed and delivered by the University of Cambridge Institute for Sustainability Leadership, following a pitch the next day at the final Prize Event.

Sebastian shared the stage along with the 7 other incredible entrepreneurs and the CEO of Unilever, Alan Jope.



UNILEVER YOUNG ENTREPRENEURS AWARDS

SEBASTIAN GROH SHARES THE STAGE AS ONE OF THE EIGHT
WINNERS OUT OF 1850 APPLICANTS

OUR 2019 ACCOMPLISHMENTS

Dr. Groh becomes a Global Visionary of UBS

UBS Global Visionary Sebastian Groh tells Anthony Pastore and Rupak Mehta how he was set to be a banker before he discovered the problem of energy poverty and founded SOLshare – said to be the world's first peer-to-peer solar grid, and how it led to people considering stored energy as an financial asset. In this podcast, he tells us how people were already sharing power in Bangladesh by throwing a cable over to a neighbor – but the price charged was 10 USD per kWh, which, he says, was 100 times more than in most of the USA! As a result of SOLshare, low-income communities have new ways of thinking about solar energy now, where power stored in a battery, is an asset like money saved in a piggy bank.

- Excerpted from UBS



“ Access to electricity is critical for a remote village, but flexibility and profitability of energy usage lead to sustainable development. ”





OUR FUTURE OF ENERGY

Released in 2019, the Award-winning director Damon Gameau (That Sugar Film) embarks on a personal journey to explore what the future could look like by the year 2040 if we embraced the best solutions available today to improve our planet and wellbeing. SOLshare has been broadcasted as one of the top sustainable solution providers. Already among the best documentaries of all times in Australia, it depicts that the future of energy starts in Bangladesh.



OUR FOUNDERS



Dr. Sebastian Groh
Co-Founder & MD

Dr. Groh is a 2013 Stanford Ignite Fellow from Stanford Graduate School of Business and holds a PhD from Aalborg University and the Postgraduate School Microenergy Systems at the TU Berlin where he wrote his doctoral thesis on the role of energy in development processes, energy poverty & technical innovations, with a special focus on Bangladesh. He published a book and multiple journal articles on the topic of decentralized electrification in the Global South. Dr. Groh started his career and received his DNA at MicroEnergy International, a Berlin-based consultancy firm working on microfinance and decentralized energy. In 2014, Dr. Groh co-founded SOLshare, acting as its CEO since then. He is also an Associate Professor in the BRAC Business School at BRAC University in Dhaka (Bangladesh). On behalf of SOLshare, he received numerous awards, among them Tech Pioneer '18 by the World Economic Forum and best energy startup in the world by Free Electrons. SOLshare also received the prestigious UN DESA Powering the Future We Want USD 1M Energy Grant, along with Grameen Shakti. Dr. Groh became an Ashoka Fellow in 2018, & UBS Global Visionary in 2019, as well as received the 2019 Unilever Young Entrepreneur Award.



Daniel Ciganovic
Co-Founder & CFO

Daniel holds a Master in Economics from the University of Trier with a specialization on Monetary Economics and Social Psychology. He has more than ten years of experience in business development and international development projects and has worked in Germany, Serbia, and Bangladesh.

As Co-Founder and CFO of SOLshare, Daniel is leading the business as well as company development activities, and is overseeing the company financials, accounting, and HR department. He moved to Dhaka, Bangladesh in January 2015, and has played a major role in the fast development of the company, with a focus on product market fit, operational and business model development. Before joining SOLshare, Daniel worked as an independent consultant for IT Start-Ups in Germany. He then worked in the development sector as a consultant for MicroEnergy International in Germany as well as the KfW Development Bank and GIZ in Serbia, where he was involved in energy and private sector development projects.



Hannes Kirchhoff
Co-Founder & CTO

Hannes grew up in Germany and the U.S. and has lived in South Africa, Tanzania and Bangladesh. He is an energy and process engineer by background, holds a master's degree in renewable energy systems engineering and pursues a PhD on DC microgrids. As the CTO of MESOLshare he is responsible for the provision of prepaid and energy-exchange platforms for energy access technologies. Hannes has worked as a technical consultant for MicroEnergy International (Germany) on several projects in Asia and Africa undertaking technology, supplier and value chain assessments. Previously, Hannes worked for CAMCO (Tanzania), Schott Solar CSP (Germany) and the Institute for Ecological Economy Research (Germany). Hannes has authored multiple technical and non-technical international publications on the topic of swarm electrification. He was the awardee of the German National Academic Foundation as well as a scholar of the national PhD program of the Federal Ministry of Education Germany. Hannes is involved in standardization work in IEEE and IEC, has co-authored the VDE DKE "Low-voltage direct current standardization roadmap" has served in IEC system evaluation groups and is a member of the IEC System Committee Low Voltage Direct Current (SyC LVDC).

OUR LEADERSHIP TEAM



Aziza Sultana Mukti
Head of Operations

Mrs. Sultana holds a Bachelor and Master in Science in Geology and Mining from Rajshahi University, and later completed a Master in Business Administration with a major in marketing from BRAC University, Bangladesh. Prior to joining SOLshare she was part of the management team of BRAC-Aarong for over a decade, one of the most successful social enterprises in the world. She earned a gold medalist at Rajshahi University and was announced the BRAC values award winner. Fluent in Bengali and English, Mrs. Sultana has mastered a range of extra training programs on leadership, gender awareness and analysis, strategic decision making, as well as M&E. Mrs. Sultana co-developed the smart entrepreneurship approach at SOLshare with an emphasis on its female end-users.



Salma Islam
Project Manager

Salma has spent the last 15 years working in various development sector organizations such as Oxfam GB in both Dhaka and London, NACOM, ICCCAD and Adam Smith International (ASI). Her main focus has been on Project Management, Research and Policy Analysis. She spent her childhood in the United States and has worked and studied in Bangladesh, the Middle East and the UK. Prior to SOLshare she was the Senior Research Advisor for the Economic Dialogue on Green Growth (EDGG) a project implemented by ASI in Bangladesh. Salma is currently managing SOLshare's ongoing projects with GIZ and UNDESA. She is also in charge of SOLshare's fundraising portfolio. In the past she managed projects on WASH, the Bangladesh INDC and Food Security funded by USAID, CDKN, the EU and DFID. Through this she brings with her a wealth of development sector experience and a true passion for improving rural livelihoods. In 2006, Salma was awarded the Chevening Scholarship completing her Master's Degree from SOAS, University of London in the UK. She also holds a Bachelor's Degree in Environmental Studies from North South University in Dhaka, Bangladesh.



Eshrat Waris
Head of Product & Business
Development

Eshrat Waris is a product development and business strategy specialist based in Bangladesh's technology sector. She is currently the Head of Product & Business Development at SOLshare. Previously, she led the Technology for Development team of the Skills Development Programme at BRAC, where she deployed solutions for customers in the informal economy. Prior to joining BRAC, Eshrat was at the World Bank headquarter working on social protection, urban and governance issues. She pursued her higher and graduate education at the United World College in Wales, Warwick University and the School of Advanced International Studies of Johns Hopkins University.



Tanvir M. Shuvo
Lead Data & Software
Engineer

Tanvir Mohammad is a Data Solutions Architect who helps organizations to design and develop software solutions. Currently working as the lead data and software engineer at SOLshare, where he is leading the data and software product development. Before joining SOLshare he successfully built a mobile banking platform for some of the major banks in Bangladesh. He was working as a software professional from 2003. He studied Computer Science at American International University-Bangladesh. After a successful career in building software solutions for organizations like banks, universities, shipping agents he is now focusing more developing solution that has more social impact.

OUR NON-EXECUTIVE BOARD MEMBERS



Stefan Padberg
Board Member
MD, Innogy Innovation Hub

Stefan is a Silicon Valley based thought leader, strategist, manager and change agent in the energy markets. He started his career by successfully applying pragmatic best practice solutions to complex change processes within RWE Group, one of the biggest fully integrated Energy companies in Europe. Being part of a changing industry that is heavily disrupted and requires significant change motivated Stefan, who designed and implemented international organizational change strategies. He succeeded to deliver innovative technology improvement projects as well as large scale staff and cost reductions in his past roles. The move to Silicon Valley and his appointment as Managing Director of innogy New Ventures LLC was a result of his outstanding experience in creating market-ready products and services through scalable, repeatable, and metrics driven agile processes. In this position Stefan is highly fluent at communicating the company's new vision to the Silicon Valley ecosystem and far beyond. Innogy Innovation Hub believes that new technologies, business models and consumption patterns will redefine the energy market of the future. They believe this future will be driven by four core global trends; decarbonisation, decentralisation, digitisation and democratisation.



Robert Kraybill
Board Member
MD, IIX Growth Fund

Robert is the Managing Director, Portfolio Management for the Impact Investment Exchange (IIX) based out of Singapore. IIX is a global organization dedicated to building a more inclusive world as the foundation for sustainable peace. We do this by changing financial systems and innovating solutions for women's empowerment, climate action, and community resilience. Over the past decade, we have built the world's largest crowdfunding platform for impact investing (Impact Partners), created innovative financial products such as the Women's Livelihood Bond, operated award-winning enterprise technical assistance programs such as IIX ACTS, and established an Impact Institute for training and education. To date, our work has spanned 40 countries, unlocked nearly \$75 million of private sector capital to support 130+ enterprises, avoided over 850,000 metric tons of carbon and impacted over 23 million lives. IIX has received numerous awards for its work including the Oslo Business for Peace Award, the 'Nobel Prize for Business.' The IIX Growth Fund (IGF) is a US\$25 million equity fund that invests in enterprises throughout South and Southeast Asia that bring innovative social and environmental solutions to the remotest corners of the world.

Rob started to mentor SOLshare on financial issues in 2013 when SOLshare came 3rd in the CTI PFAN business plan competition. The engagement which came as part of the prize was originally intended to be one year. However, the relationship between Rob and SOL share in fact never stopped. Today, Rob is sitting on our Board representing the IIX Growth Fund.



Luis Manuel
Board Member
Executive Board, Energias De Portugal

Luis Manuel, Executive Director of EDP Inovação since 2008; responsible for EDP Ventures (corporate VC) and EDP Starter (business incubation program). Board member of EDP Inovação, EDP Ventures, EDP Mop, Veritequip, Arquiled, EIDT, Feedzai, Egg Electronics and Principle Power. Previously he worked 2 years at Explorer Investments (Portuguese private equity fund manager) and 6 years at Galp Energia in Strategy and Business Portfolio department. He also worked previously in Espírito Santo Investment in the Project Finance and Corporate Finance Advisory divisions in Portugal and Brazil. Member of the Cabinet of the Secretary of State of Economic Development and Innovation during the XVI Portuguese Constitutional Government. He is also a member of the board of the Portuguese Electric Vehicles Association (APVE). Luis has a degree in Economics from Universidade Nova de Lisboa. EDP is an energy producer, distributor and retailer with 12 million customers in Portugal, Spain and Brazil. Its renewable power business is present in 14 countries including the US and Brazil.

EDP Ventures is the early-stage corporate venture capital fund of the EDP Group, with the aim to support and stimulate the open innovation process in the energy sector

OUR SUPPORT NETWORK

“Thank you to our committed investors and partners for supporting our work”

Our Institutional Investors



Our Partners





Create a network. Share electricity.
Brighten the future

“HERE’S TO A SUCCESSFUL 2020”



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