

ANNUAL REPORT 2021



CREATE A NETWORK

SHARE ELECTRICITY

BRIGHTEN THE FUTURE



FREQUENTLY USED TERMS

SOLgrid: A peer-to-peer (P2P) solar micro-grid, that physically interconnects households and microbusinesses with and without solar home systems enabling real-time energy exchange.

SOLbazaar: The marketplace for futureproof energy infrastructures.

SOLbox: A machine-to-machine (M2M) enabled integrated direct current bidirectional power smart meter that is the point of interconnection within the peer-to-peer (P2P) network.

SOLapp: Manages customer portfolios taking user information and payment details into account.

SOLweb: All the information is gathered and analyzed to understand system paradigms and irregularities.

Swarm Electrification: Similar to a swarm of bees, the concept of swarm electrification refers to a swarm of electrons. The more houses that are interconnected, the stronger the swarm becomes, there is more energy, which equals more power.

Peer-to-peer microgrids: The grid which connects users with SHS and without SHS.

Prosumer: The person who owns an SHS (battery and panel), produces and consumes electricity.

Consumer: Person who buys electricity, but does not own an SHS.

Producer: An entrepreneur who owns an SHS and is a net-seller of electricity.

Microutility: A person who sells electricity from an SHS that is owned by the operator.

Beneficiaries: Everyone who is benefited from the electricity produced by the SOLbazaar.

Microenterprise: Small businesses that are financed by small loans (microcredit), available to people who have no collateral, credit history, savings, or employment history.

Rooftop Solar: Photovoltaic system that has its electricity-generating solar panels which are mounted on the rooftop on various infrastructures.

E-Mobility: Transport modes that are battery-powered, eliminating the need for an internal combustion engine (ICE), that releases toxic particulate matter and carbon dioxide.

CAUTIONARY STATEMENT

All statements which refer to future conditions and/or events in this report are forward-looking. Actual future results, including, but not limited to the demand for electricity, changes in production, rates, project plans, costs, capacities, resources available, cash flow generation, the impact of new technology, and its benefits, can differ due to several factors.

These factors include but are not limited to local, national, regional, and global changes in raw material prices, market, and economic conditions; timely completion of our projects; Changes in the demand of our products and services; in the public health, war, security, political, governmental regulation scenarios; Unexpected developments in technology, economy, political sanctions and regulations, and research. Every future statement has been based on management's knowledge and expectations.

ABBREVIATIONS

SHS: Solar Home System; **P2P:** Peer-to-Peer; **PAYC:** Pay As You Go; **B2B:** Business to Business; **PO:** Partner Organization; **SME:** Small and Medium Enterprises; **M2M:** Machine to Machine; **SAM:** SOLshare Area Manager; **R&D:** Research and Development. **EV:** Electric Vehicle. **LA:** Lead-Acid **Li:** Lithium-Ion

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MESSAGE FROM THE MANAGING DIRECTOR



Dr. Sebastian Groh
Chief Executive Officer (CEO)
Chairman of the Board, and Co-Founder

What an (extended) year 2021. Arguably, the two most coveted climate prizes in the world are

- 1) Prince William's The Earthshot Prize with a prize money of GBP 1,000,000 (no strings attached), and
- 2) The Zayed Sustainability Prize with a prize money of USD 600,000 (also no strings attached).

And yes, you might have guessed it by now, SOLshare has managed to be among the top 3 finalists for both of them and even won The Zayed Sustainability Prize.

On behalf of the entire SOLshare team, I was able to receive the prize from the hands of Sheikh Mohammed Ibn Rashid Al Maktoum, the Vice-President, Prime Minister and Ruler of Dubai, earlier this year. None of this would have been possible without the excellent work of the Government of Bangladesh, IDCOL, all its partner organizations who together truly have set an example to the world by setting up the world's largest decentralized renewable energy program, and of course all of our trusted investors, partners, customers, and other supporters.

A picture is worth a thousand words. Therefore, let me share with you some of my favorite photo moments from the past couple of months.

True happiness and relief after being announced as the Winner of the Zayed Sustainability Prize



What a treat: Eshrat explaining the SOLbox to none other than Bill Gates

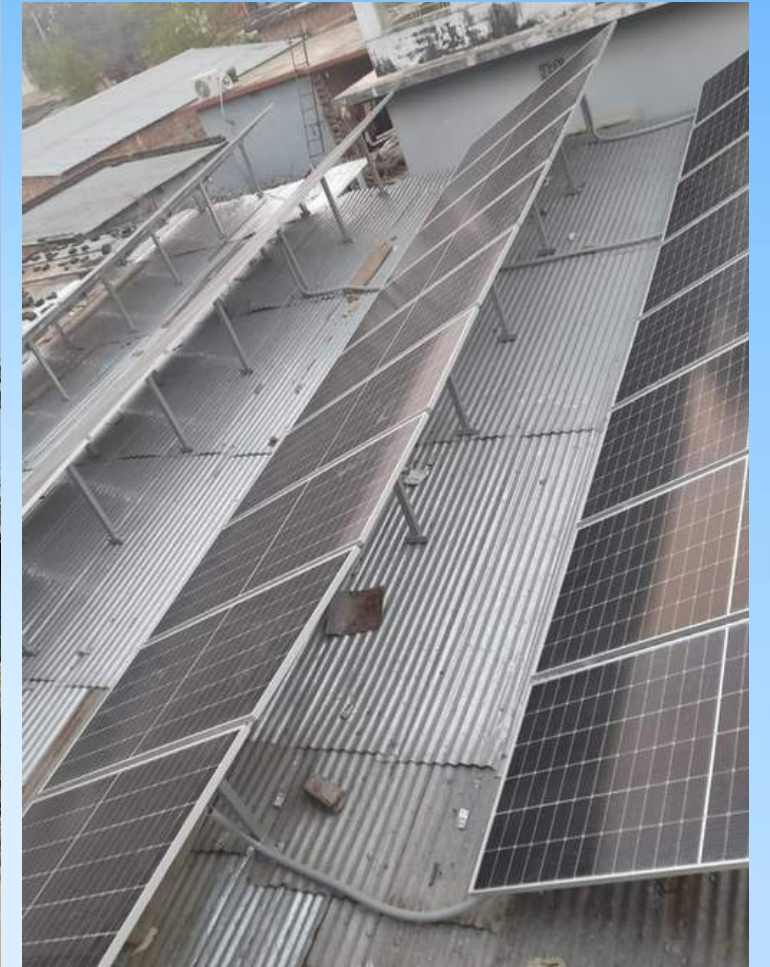


SUCCESS – we have installed our 100th grid – thanks to our partner Grameen Shakti



The next frontier: happy customers with smart batteries in one of almost 2 million electric three-wheelers in Bangladesh, the country's transportation backbone





But enough of the past. For 2022 we have a few big things in the pipeline:

1. Double-down on our e-mobility play – commercial product launch of our SOLmobility product and services – new big partnerships to be announced soon!
2. 10MWp of solar rooftop.
3. Expanding our solar p2p grids in the Rohingya camps, and via national grid interconnection!
4. If things go well this calendar year, we might be able to end the year with a positive cash flow - for the very first time!
5. And yet, given the opportunity in the e-mobility space is so dauntingly huge, we will raise another equity round this summer. Ping me if you are interested!
6. SOLgrid meets SOLmobility: Going full circle – designing a strategy for a virtual power plant consisting of ten thousand distributed solar PV installations on garages in combination with 100,000s of distributed and remotely controlled LI batteries.

I hope you find our annual report of 2021 an interesting, good, and maybe even an inspiring read. If you have comments, suggestions, concerns, please don't hesitate to reach out as some of you have done so in the past!

I love the ease of getting things done via video calls, but I do hope I see many of you soon in person (and we get things done)!

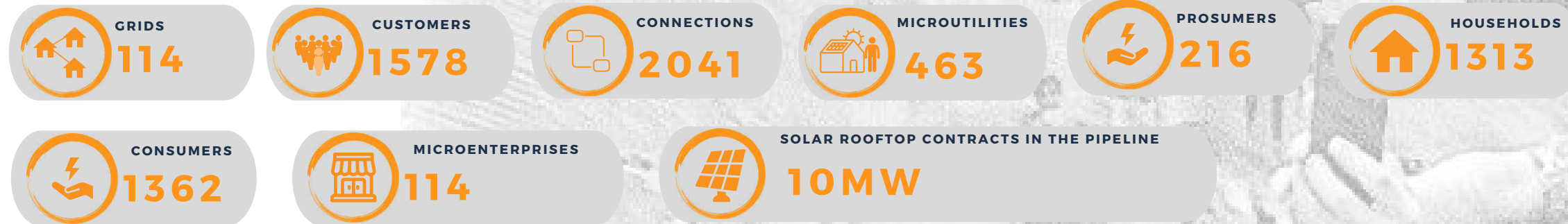
My best from Dhaka,

Dr. Sebastian Groh
Managing Director, SOLshare Ltd.

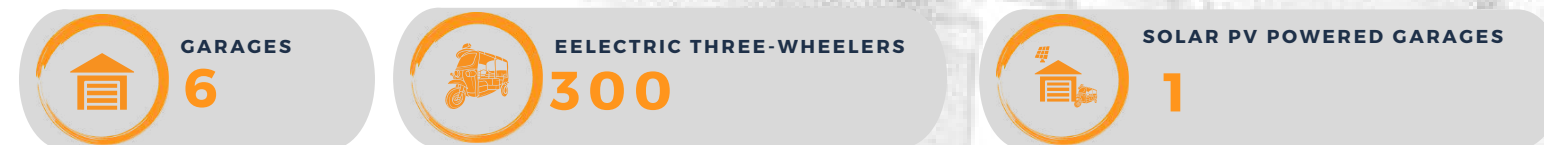
HIGHLIGHTS

SOLbazaar Highlights

solgrid



solmobility



solclock



ENVIRONMENTAL



CO2 Emissions reduced:
142 mtCO2e reduced annually



Energy Generated from Clean Energy Sources:
Over 100 MWh clean energy generated annually

Key Performance Indicators



SOCIAL



Gender Inclusion:
75% of beneficiaries are women and children



Financial Inclusion:
2,000 Base of the Pyramid beneficiaries served with access to appliance



Access to Improved Livelihoods:
6 EV Charging stations charging 400 electric three wheelers (clean air vehicles)
Powering 2,000+ households with clean energy



ECONOMIC



Jobs created:
500 entrepreneurs created (25% women)



Beneficiaries:
15,000+ direct
40,000+ indirect



Productive Energy Use Appliances:
83 distributed



Revenue:
\$ 269,360 & \$ 750,000 in contracted volume for 2022
Funds Raised:
\$ 6.3M incl. \$2.9M in equity



MISSION

Create a Network. Share Electricity.
Brighten The Future

VISION

Providing vulnerable communities access to
awesome energy services

BANGLADESH MARKET OVERVIEW

Bangladesh was labeled one of the frontier 5 economies by JP Morgan. The country boasts a 165M strong population, the 37th largest economy, and one of the fastest-growing economies in the world, with an impressive 6.8% average annual GDP growth rate over the last decade, and as of June 2021, Bangladesh has surpassed all its neighboring countries, incl. India, in GDP per capita. Mobile phone connection stands at 105%, internet penetration at 70%, and mobile money is literally omnipresent with nearly 10 million transactions being performed every day.

On the other hand, Bangladesh is among the 20 countries which are most vulnerable to climate change. Every year, Bangladesh experiences frequent flooding and salinity problems that displace a growing number of people from the country's Ganges river delta and forces them to move to urban areas. While this trend benefits energy distribution planning by focusing the grid extensions on consolidated urban regions, it also hinders the country's economic growth by limiting large-scale economic activity from growing beyond the two major urban cities: a) Dhaka (the capital) and b) Chittagong (the main port city). Further, by concentrating a majority of the economic growth within these two cities, Bangladesh experiences further (negative) knock-on effects to the environment in these two areas (e.g. being among the most polluted cities in the world).

Therefore, the development of a sustainable energy sector, which expands clean and climate-friendly electricity access to all regions across the nation, will be of critical importance to achieving the Government of Bangladesh's (GoB) goal of not only moving into the ranks of the global middle-income countries but also to establish itself and move even further.

Asian Tiger: 6.5% GDP growth (2010- 2019) average

' One of frontier 5 economies ' _ JP Morgan

Population of 165M, one of the world's highest.

Biggest mobile money market in the world

Approx. 1.75M electric three-wheelers

World's largest solar home system installation with 6M installed

IMPACT REPORT BY IIX



Impact Score: 7 / 10 ★★★★★★★★

As represented by the voices of the customers and reflects the extent to which customers agree with the company's impact score.

Impact Performance

Impact Score: 6.2 / 10

★★★★★★★

'Impact Performance' measures the extent to which SOLshare is contributing towards social and/or environmental good. Based on the above scoring, the intention of SOLshare to do good is translated into its activities, which have contributed significantly to impact creation. This has directly improved the physiological needs of customers/ beneficiaries, enabling them to experience improvements in their personal wellbeing. Moreover, the products/ services provided by SOLshare have also indirectly contributed towards family and community well-being through improvements in food, health, education and safety. SOLshare also ensures women are part of the impact goal by providing them with access to resources and empowering them to make decisions in their home/ community.

Risk Mitigation:

Risk Score: 7.8 / 10

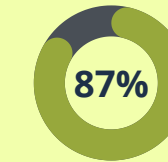
★★★★★★★

'Risk Mitigation' assesses the extent to which SOLshare is reducing the micro and meso risks facing individuals, households, and communities. Specifically, the main types of risks mitigated by SOLshare are environment, social, economic and natural disasters risks. This is done by reducing both the sources of hazards as well as the vulnerability of customers/ beneficiaries to prevalent hazards. Additionally, to enhance the ability of customers/ beneficiaries to adapt or respond when disasters strike, SOLshare contributes towards their financial, social, and human capital. Possession of these assets (or capital) gives households a wider range of options and livelihood opportunities in times of crisis, and it can speed up their recovery from shocks (although the most extreme events may still be highly destructive).

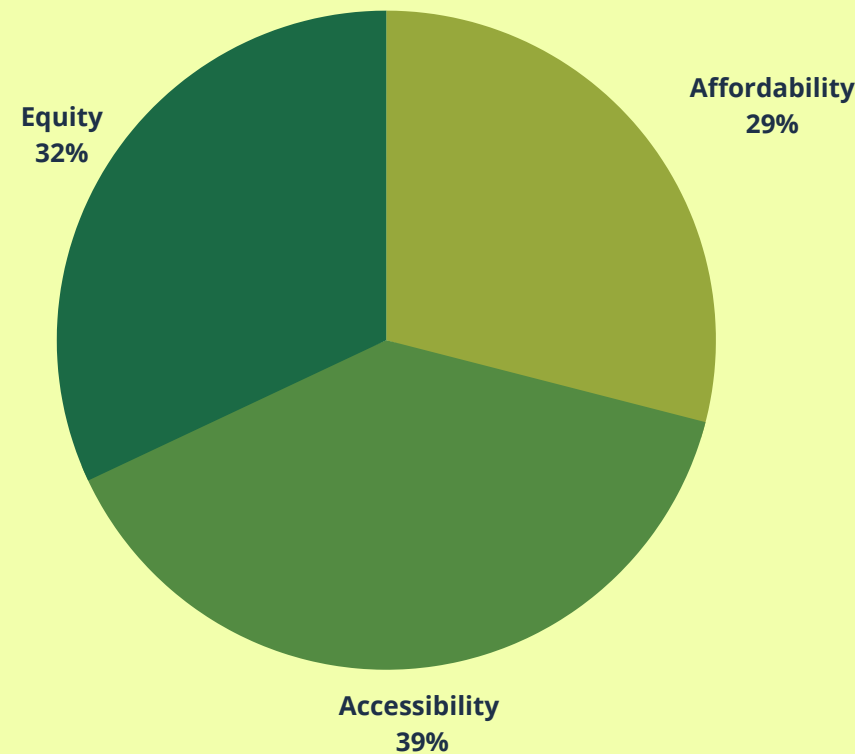
Customer feedback on products and services:



88% of customers were satisfied with product/ service



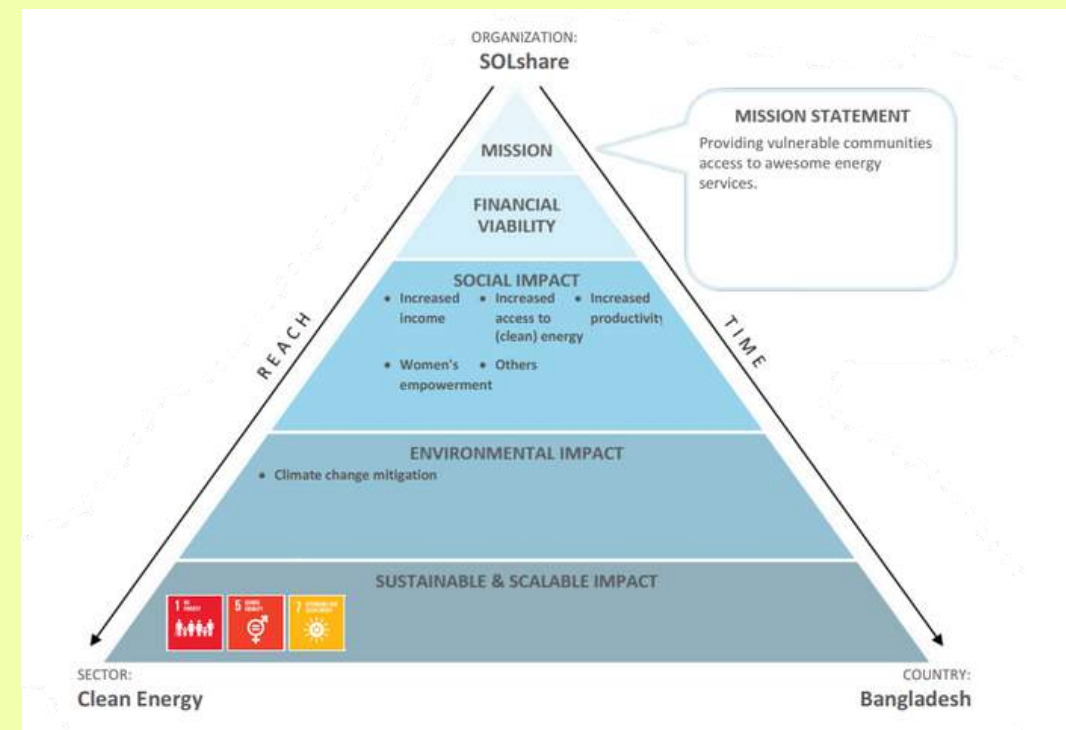
87% of customers found that SOLshare product/service contributed positively to communities and the environment



Affordability: Feedback was obtained from SOLshare's customers that through the product/service offerings provided by SOLshare, it has benefited both the customers as well as their families and communities through increased income/ savings/ asset ownership and productivity, etc.

Accessibility: Feedback was obtained from SOLshare's customers on the accessibility of the product/service offerings for all, including underserved women and communities.

Equity: Feedback was obtained from SOLshare's customers that they were treated with respect and dignity, obtained satisfaction and value from SOLshare's products and services and experienced a sense of empowerment as a result.



ABOUT IIX VALUES™: Impact is the change experienced by people or the environment due to certain products, service or activity. Impact Assessments measure that change. IIX Values™ is a platform solution that values it all. Building on our decade of experience in impact measurement and data analytics, IIX Values™ is about giving value to impact.

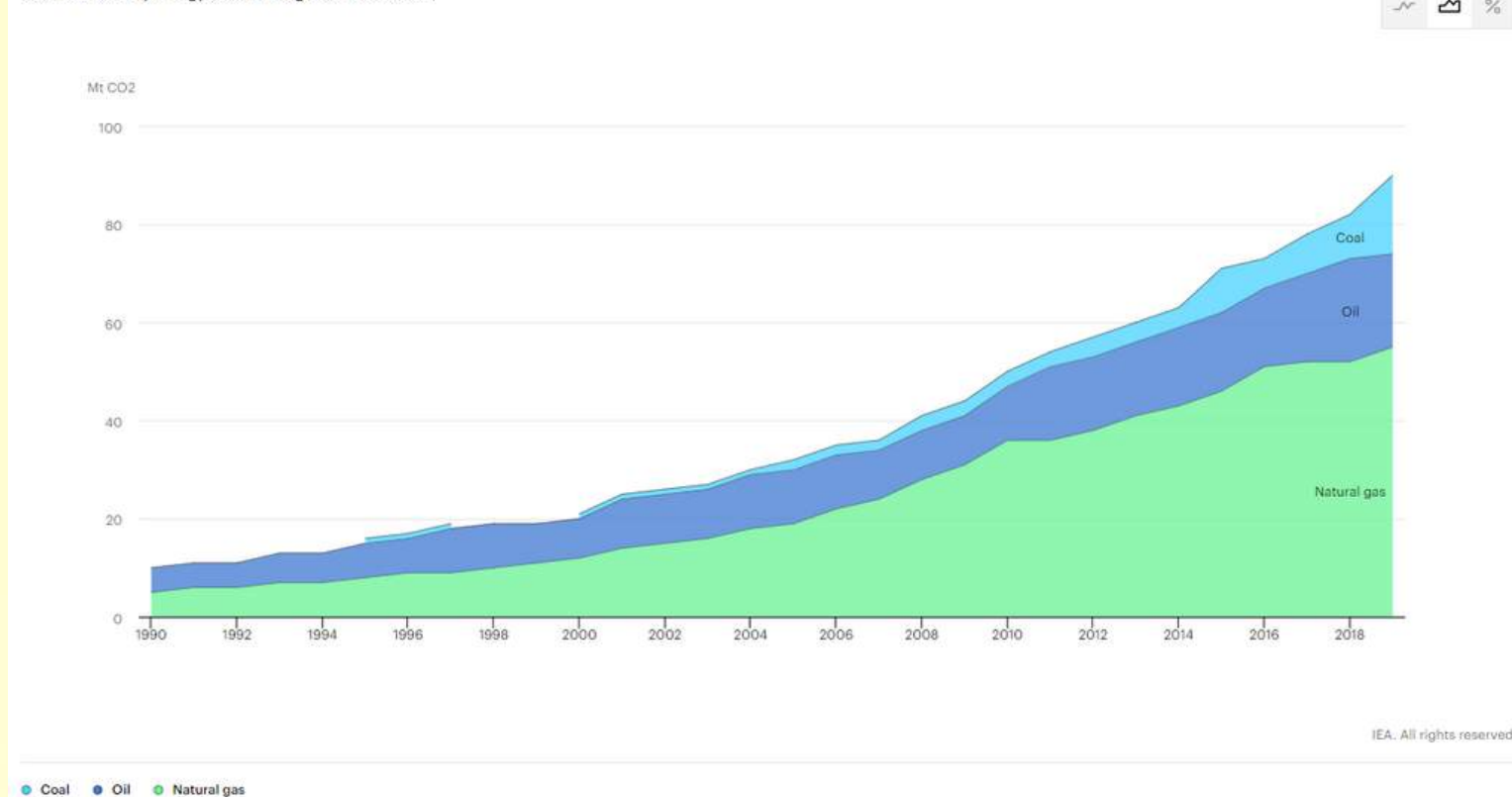
ABOUT IIX: IIX is a global organization dedicated to building a more inclusive world by changing financial systems and innovating solutions for women empowerment, climate action, and community resilience.

CARBON EMISSIONS DATA

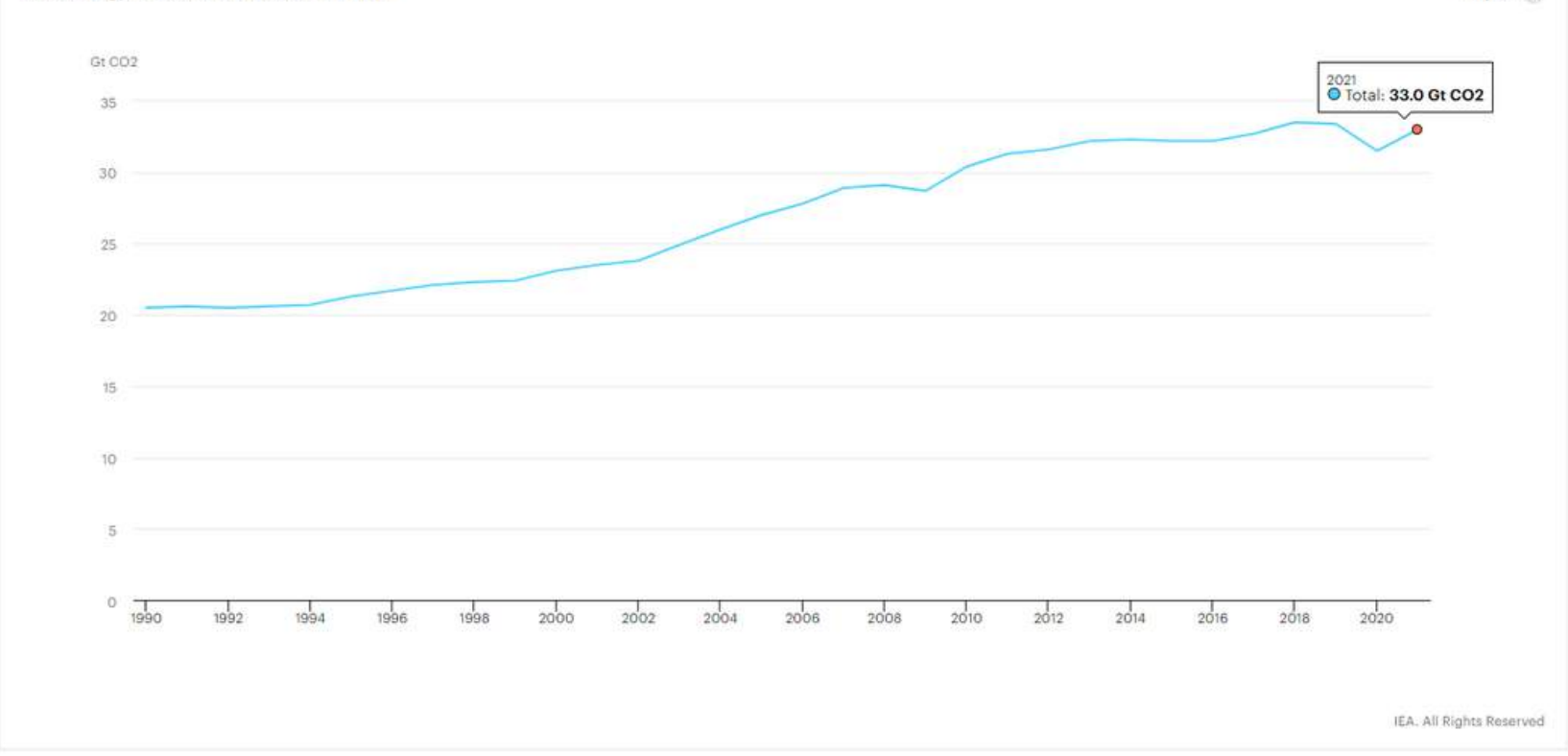
In 2020, global CO2 emissions saw a drop by 5.8% or approximately 2Gt which was the biggest drop the world has seen after the 2009 global financial crisis. We owe this decline to the COVID 19 pandemic which caused a surge in the demand for renewables.

However, global energy-related CO2 emissions remained at 31.5 Gt which pushed the average annual concentration to 412.5 parts per million, which is approximately 50% higher than when the industrial revolution started. In 2021, as the economy rebounded following the pandemic, there was an increase in the demand for coal, oil and gas again. Due to this increase, projections show a growth of 4.8% of CO2 emissions with an increase of over 1500 MT CO2, leaving global 2021 emissions at 400 Mt CO2.

CO2 emissions by energy source, Bangladesh 1990-2019



Global energy-related CO2 emissions, 1990-2021



(Data obtained from IEA)

Collectively through all our products and services SOLshare has been reducing 142 mtCO2e annually. Find out its equivalents here.

142
mtCO2e



13,923 gallons of diesel consumed
15,949 gallons of gasoline consumed



156,819 Pounds of coal burned



328 barrels of oil consumed



17, 241, 202 number of smartphones
charged

ABOUT SOLSHARE

Initiated in 2014, SOLshare is an ICT-based social enterprise that allows low-income rural households access to sustainable, affordable, and reliable electricity. We have created a revolutionary new approach to bring affordable solar electricity to the energy-poor in remote, rural off-grid communities in Bangladesh, India, and beyond.

SOLshare's corporate strategy is driven by our commitment to build a new energy world fueled by, what we refer to as, the 5D's: a) decentralization, b) decarbonization, c) digitization, d) democratization, and e) disruption.

Bangladesh has more than 6 million individual Solar Home Systems (SHS). 6 years ago, these SHS generated an excess of 30% energy which summed up to 600,000kWh of energy being wasted per day. This untapped resource came at a hefty price tag as people suffering under an energy poverty penalty were forced to pay up to 10 USD/ kWh. This led to extreme user behavior from rural villagers who strived to share electricity amongst themselves.

And thus, SOLshare was born with our first innovation - the SOLgrid. Our award-winning solution, the peer-to-peer solar electricity trading platform, allows low-income rural households to access affordable electricity through existing underutilized solar home system assets interlinked into a platform with metering, distribution, and mobile payment system for the efficient allocation of clean electricity in off-grid areas. Currently benefiting over 15,000 beneficiaries

Today, we define our market and business through the problem we solve - providing access to sustainable energy services. Our umbrella of services, coined as the SOLbazaar, has constantly adapted to new circumstances in today's changing market, which has led our SOLbazaar to grow into three main business lines over the years: 1. The SOLgrid, 2. The SOLclock and 3. The SOLmobility

Our Financial Inclusion product, the SOLclock is a High-efficiency, low-cost Pay-as-you-Go (PAYG) technology for any AC or DC appliances that have been designed for on-grid and off-grid markets, offering to make consumer electronics accessible.

In micro-mobility, our solutions are providing mobile money (PAYG) tech integrated smart batteries through improved financing mechanisms and leasing models that empower electric three-wheel drivers to earn a higher income. Currently charging 400 vehicles.

We are continuously sharpening but also expanding our service offering, always bearing in mind to solve a fundamental pain point of our target customers which are represented by the base of the pyramid, as well as a growing middle and affluent class. Our solutions combined are currently reducing nearly 100 mtCO_{2e} while also helping vulnerable communities by improving livelihoods and empowering these communities.



VALUES



COMPETITIVE ADVANTAGE

SOLshare's solutions are unique in that they aggregate existing under-utilized assets and provide an ICT platform with metering, distribution, and payment system for the efficient allocation of clean electricity for rural and semi-urban areas, making SOLshare a pioneer in its line of work.

This creates a unique set of capabilities and chances for investors to benefit from opportunities to invest in the new energy world fueled by the 5 D's - Decentralization, Decarbonization, Digitalization, Democratization, and Disruption.

All our business lines feed on our SOLbazaar, the central data hub for future-proof energy infrastructures, and enjoy a first-mover advantage in each. Through our fast-scaling strategy, increased data insight, and continuous development we have established a strong competitive advantage against new market entrants.

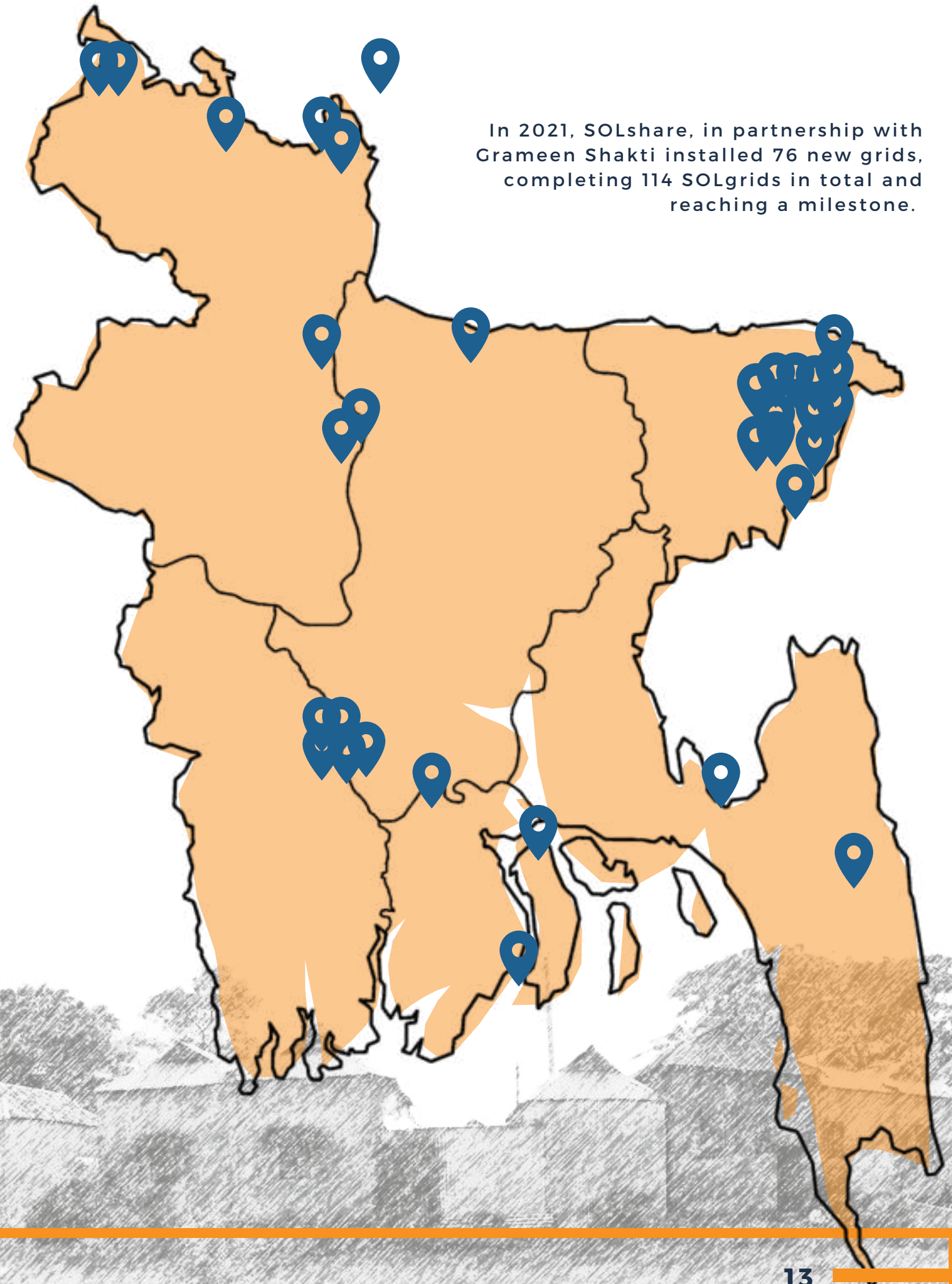
- **First Mover in the New Energy of Things**
 - World's first successful installation, representing a largely untapped market potential.
- **Robust Technology**
 - First grid running since September 2015, contributing to the energy transition and electrification of Asia and beyond.
- **Integrated Bottom Line**
 - Seek financial performance without compromising on safety, environmental, and social impact.
- **Massive Scalable Opportunity**
 - A favorable regulatory framework in South Asia.
- **Comparatively Low Development Cost**
 - Full Research and Development outside of Dhaka.
- **Future Potential Upside**
 - Ability to license its technology and business model to future-proof utilities globally.

OUR WORK



solbazaar®

A smart platform for the management of distributed energy services for the empowerment of vulnerable communities.



In 2021, SOLshare, in partnership with Grameen Shakti installed 76 new grids, completing 114 SOLgrids in total and reaching a milestone.

SOLGRID



Bangladesh is currently the global market leader in SHS installations, which serve nearly six million households and 25 million people. Despite this overwhelming success, energy poverty continues to plague the nation, where up to 10 million people still lack access to electricity, due to inadequate distribution networks, as well as the capacity to sell excess electricity in case the national grid has previously reached such villages.

To address this gap, SOLshare created the world's first peer-to-peer energy exchange network of rural households and small businesses with rooftop solar home systems, which enabled a more efficient distribution of electricity across the rural communities. This innovative model is commonly referred to as the prosumer' model, allowing households to become both a producer and a consumer of electricity generated by their SHS installations.

In summary, one household can sell excess power into the microgrid network, where neighboring households or businesses can buy it in small increments using mobile credits.

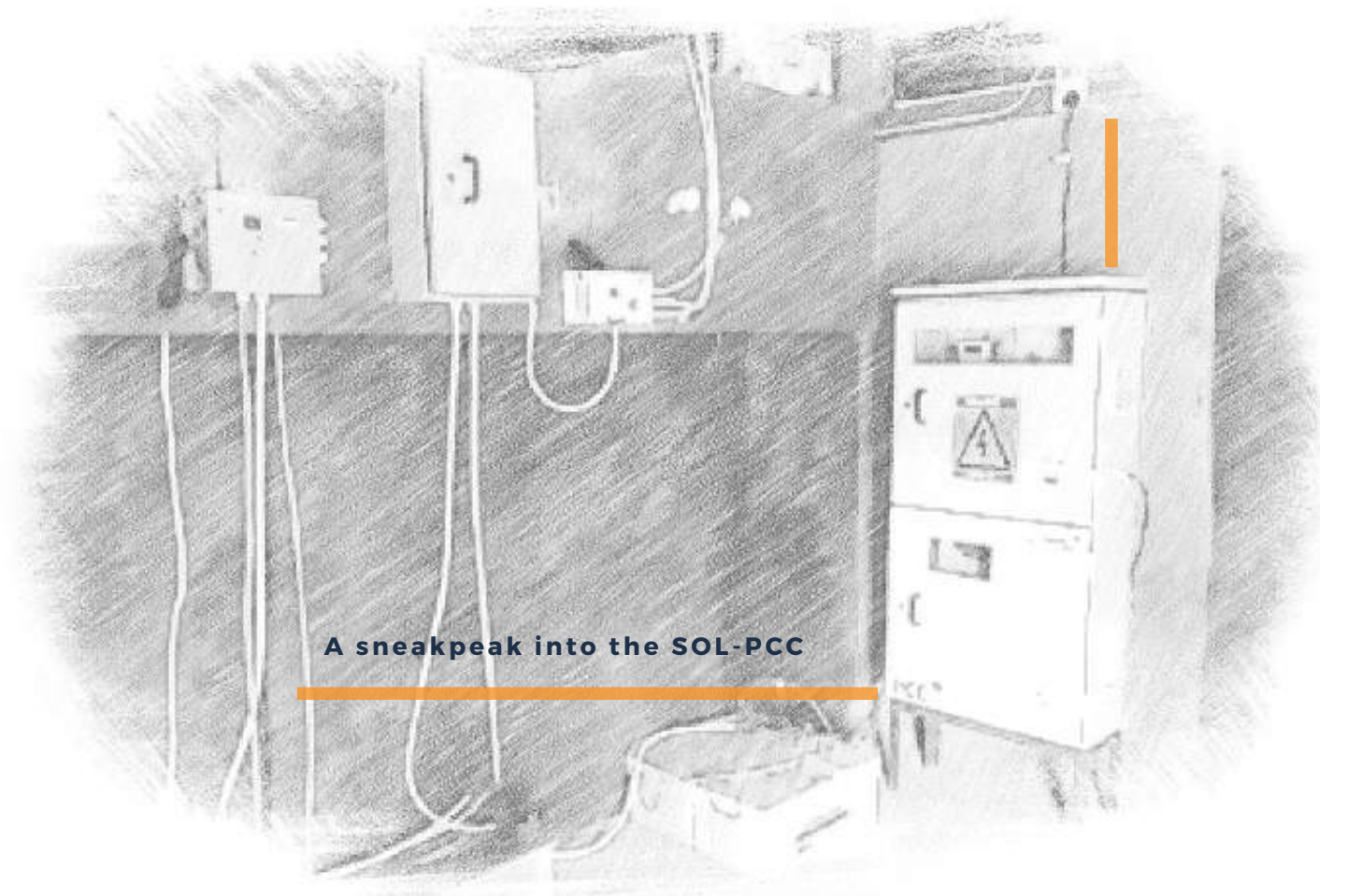
Off-grid solar products, particularly SHS, serve an important role in the frontier markets by empowering the 'next billion', who currently lack electricity or live with unreliable or insufficient electricity service. SHS complements grid-based power distribution in frontier economies, by serving as a platform for a) effective energy transition (from fossil fuels to renewables), b) affordable, reliable, and scalable rural electricity supply, and c) carbon neutrality.

As of 2021, we have installed 114 smart solar peer-to-peer (P2P) microgrids, coined as SOLgrids. However, this is merely scratching the surface, when compared to its \$1 billion market opportunity (amount of excess energy only under an off-grid scenario), as well as the potential to group more SHS and collectively facilitate a feed-in to the national grid via a community power purchasing agreement (CPPA).

As the national grid reaches more areas of the country electrifying households in every corner of Bangladesh, hundreds, if not more, of solar home systems are becoming redundant simultaneously. These solar home systems reflect a large government investment and can be considered a national asset.

However, if the SOLgrid - groups of interconnected, peer-to-peer microgrids, were to connect with Bangladesh's national electricity grid, it would give a new life to these 6 million solar home systems, and pave the way for a new global standard for electricity distribution.

With this idea, SOLshare is now on the verge of breaking another glass ceiling in energy innovation. This time in collaboration with Shakti Foundation and funded through FCDO, we will be interconnecting one of our P2P solar microgrids, a network of interconnected solar home systems, in a rural village of Bangladesh through a single point called the Point of Common Coupling (PCC), to feed the excess solar energy into the national grid. This is the first time such an attempt has been made and could bring about a whole new energy revolution in integrating renewables into the national grid as well as create a sustainable way forward for the existing 6 million+ solar home systems across the country.



A sneakpeak into the SOL-PCC



SOLAR ROOFTOP

The Global South is more vulnerable to the effects of climate change and global warming, where Bangladesh is a highly vulnerable place due to rising sea levels. Solar Rooftop installations provide an alternative way to electricity generation that works to fight climate change, and helps to reduce overall energy costs, while increasing the reliability for the electricity supply. As a clean source of energy, Solar PV creates opportunities for sustainable operation and an alternative solution to increasing LNG prices.

The total sunshine hour in the country lies 10 to 13 hours per day throughout the year, and natural gas still accounts for 73% of the country's commercial energy. The Electricity price has been increasing every 2-years at 15% (2017) and 38% (2019). The Bangladesh Power Development Board (BPDB) has proposed to raise the bulk tariff of electricity by 23.28% from 2021 to tackle the massive financial deficit. 40,000 MW of electricity in Bangladesh could be generated from solar energy by 2041, in which case it would constitute 50% of the country's installed capacity.

At least 8,000 MW of solar power could be generated by 2041 in case of "as usual business case scenario", and 25,000 MW in a "medium case scenario". Currently Bangladesh generates a total of 649.61 MW of electricity from different renewable sources while the country's total generation capacity is 22,000 MW. Of this, 415.68 MW is being generated from solar power.

While the price of electricity increases with time, the cost of solar power remains the same over time. Hence, the use of rooftop solar services reduces production and energy costs, increases reliability of electricity supply, provides an alternative solution to increasing electricity prices by costing 15-20% less than that of utility services.

The installation of Solar Panels also allows more industries to earn LEED points, eventually making them LEED certified buildings. As of 2021, Bangladesh has a drastically low number of LEED certified buildings (100+) compared to our neighboring country India (1000+).

Being a pioneer in its line of work gives SOLshare the upper hand in market expertise and enables SOLshare to provide the right services. This includes performing the initial site and feasibility assessment by analyzing the energy consumption, assessing the roof structure and its solar PV potential, and creating a design simulation, followed by the implementation of the project.

To date, SOLshare's solar rooftop projects include:

1. IRIS Group

In collaboration with Solar IC, SOLshare has embarked on a 145kWp rooftop solar project for IRIS Garments. IRIS Group is one of the top knit-based textile manufacturing powerhouses in Bangladesh

2. Knit Concern

SOLshare has signed a solar rooftop contract with Knit Concern. Knit Concern has been providing very high-quality knit apparels to the international market (e.g. H&M) since 1992. It currently employs 16,000 people on its single 20-acre premise. In the first phase, SOLshare will install 261kWp of solar PV rooftop, which will be followed by up to 2MW of rooftop solar installations across Knit Concerns premises.

SOLMOBILITY

Micro-mobility, consisting of, but not limited to two- and three-wheelers, is the fastest growing form of transport in emerging markets due to its small size and relative affordability (UNEP, 2021). However, the electrification of micro-mobility is still nascent in many urban and rural areas of emerging economies, due to affordability barriers, a lack of infrastructure and unreliable energy systems (KPMG, 2020).

The electric 3-wheeler (E3W) charging market in Bangladesh is the country's transportation backbone. With 1.75M EVs plying predominantly the semi-urban and rural areas, the sector is expected to grow to up to 5M EVs by 2025, a staggering YoY growth of 30%. In the context of Bangladesh, E3Ws hold an answer to solving the power overcapacity conundrum. According to the Bangladesh Power Development Board, only 40% of the power generation capacity is currently being utilized in Bangladesh. The market is yet to be formalized and to date the present charging infrastructure is hazardous, uncoordinated, and informal. It is also largely only available during the night for non-rickshaw owners, making it slow and inefficient.

Furthermore, often the mileage for charge is not known. SOLshare's surveys have shown that there is a fair amount of range anxiety among rickshaw drivers unwilling to take up the more profitable long-term trip (>10km) in the afternoon.

While the advantages of LI batteries by far outweigh the older lead-acid (LA) battery technology, leading to a per-day cost reduction of more than 70%, to date there are hardly any LI batteries on the road, nor any systematic approach to charge those vehicles. LI batteries used for e-mobility can be repurposed for rural stationary storage applications, such as our solar p2p grids.

There is a mix of lack of access to supply chains, financing, and enabling for the LI batteries at play that have to date prevented a systematic larger uptake. In neighboring India, in turn, this rapid transformation has already been initiated. In Bangladesh, we are the first mover with our PAYG lithium-ion battery leasing model through a smart partnering approach,

Our e-mobility solution eliminates tailpipe emissions from the electric three-wheelers we work on, addresses good health by reducing pollution, and contributes to building sustainable cities. Rural communities can safely transport their produce, typically food, increasing their productive efficiency. Improved food systems transportation can nourish populations better and provide fair incomes to producers through access to new markets, allowing them to exit the cycle of poverty and contribute more to economic growth.

We distinguish three different types of E3W: electric rickshaws (ER), electric mishuks (EM), and easy bikes (EB)

Our innovation helps to increase the profits of rickshaw drivers. This is accomplished by introducing both, new battery technology and improved battery financing into the market.

SOLshare de-risks the provision and financing of these battery assets by providing hardware and software solution that allows remote access and monitoring of these batteries. This allows us to provide financing for lithium-ion batteries and makes them available to the market at a significantly lower cost per day. Moreover, this will give way to evaluate default probability and gives financial institutions a basis to show them a path to risk reduction.

These services here encompass:

- Risk evaluation support.
- Support in the collection.
- Visibility on performance.
- What happens during default.

It is key to align the incentives of the involved actors. Drivers to take up loans supported by SOLshare to gain credit history for better access. For garage owners to decrease default risk, and increase their credit eligibility, in turn, from banks, and for banks to tap into a new market with the comfort of data insights.

These batteries, given their longer lifetime and smaller capacity, will reduce their daily battery cost. EV drivers will be able to pay on a per-use basis, rather than be locked into a constant cycle of debt.



SUSTAINABLE DEVELOPMENT GOALS



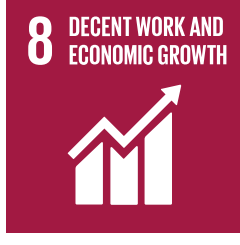
SOLshare's business model promotes universal access to affordable and reliable basic energy services for the bottom of the pyramid (BOP market). Through our energy exchange platform and EV charging opportunities, SOLshare promotes equal rights and economic resources to low-income communities, offering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



In our solar P2P microgrids, women are using access to clean energy to become solar entrepreneurs, some have started their own businesses, while others use the access to electrical lighting to finally be able to do their work in the evening, no longer having the difficulty of a kerosene lamp. Intraday charging and the involvement of less manual labor opens opportunities for women in the e-mobility sector, as well as providing a safer means of transportation for women across the country.



Providing affordable access to electricity has always been one of our core goals. Through our P2P solar microgrids we provide a platform to share solar energy in remote off-grid areas while also providing access for the first time for many users. Within e-mobility, we are working to include solar into EV charging stations to a model for truly sustainable transport. Our venture into the rooftop solar market includes increasing the use of clean energy within the manufacturing sector.



In our P2P microgrids, SOLshare is providing alternative income generating opportunities through productive energy use appliances. Within the e-mobility market, as EV charging is made more efficient and accessible through improved technology and financing mechanisms EV drivers have an opportunity to increase their income and come out of the vicious debt cycle.



SOLshare is creating resilient communities using innovative infrastructure which promotes sustainable development and socio-economic growth through access to clean, affordable solar energy through our grids and in rooftop solar and energy-efficient technology in e-mobility to make electric three-wheelers more viable and efficient



Through access to affordable energy and energy-efficient technology along with the opportunity to earn an increased income for those at the bottom of the pyramid within the urban e-mobility sector and vulnerable off-grid communities, SOLshare is bridging the disparity gap.



SOLshare is paving the way for sustainable cities and communities through its push for access to solar energy within the rural off-grid energy market, e-mobility, and industrial sector.



SOLshare's adoption of clean energy and energy-efficient solutions is reducing carbon emissions through each unit of clean energy used within our P2P microgrids, our EV charging stations, and our solar rooftop installations. Through our services, clean energy is being unlocked by integrating existing infrastructure with innovative clean energy technology which is backed by engineering and scientific studies.



USER STORIES



Mrs. Wahab
Hazarbigharchar-1
Grid

Mrs. Wahab is a prosumer from our Hazarbigharchar grid. Mrs Wahab has always wanted to start her own sewing business as it would provide an extra income for her household. While she as well as her husband are adept in using a sewing machine, the incomes were limited to her husband, as they could not afford two sewing machines.

Through SOLshares productive use appliance distribution, Mrs Wahab was able to source a sewing machine at a cheaper price, allowing her to put her skills to good use. Now, she is an entrepreneur who runs her own sewing business alongside her husband, helping to double the household income.

Not being able to afford a sewing machine had taken a toll on Abu Bakar's income. But today, he is a prosumer who has turned his life around through our sewing machine, allowing him to take on his business with more vigor and hope. He can now take on more work and cater to more customers, helping him increase the size of his business.

Abu Bakar Siddiq
Tiner Char Gram Grid



Md. Nabi Hossain
Ongikar enterprise
Charging Station

After getting lost at an early age, Md. Nabi Hossain was adopted as a child. However, life at his step-parents was not easy and he was forced into multiple laborious and unethical work. This forced him to move away after he grew up, but moving also proved to be troublesome as Hossain was unable to secure work as a newcomer.



Hossain was ultimately able to convince his landlord, who had helped him lease an electric vehicle. Over time this work had helped Hossain, allowing him to be able to purchase his own electric rickshaw today. Today, Hossain is a self-sufficient person with a running income, and has turned his life around.



Md. Liton Mia
Tongi Charging Station

Mr. Liton used to drive a CNG for his daily income, but faced various challenges such as time restrictions and limited usage opportunities. For a hassle-free and independent source of income, he then shifted to driving an electric rickshaw.

Now, he works without boundaries and restrictions on his distance or time, and can move faster through the harsh traffic. Not to mention, maintaining his electric vehicle has also become much easier thanks to the lithium-ion battery, which does not require any water change like traditional lead acid batteries.

Overall, this shift has helped Liton Mia increase his daily income, allowing him to pay for his children's school, in turn improving not only his life, but that of his family's too.

BOARD OF DIRECTORS



Dr. Sebastian Groh
Chief Executive Officer (CEO)
Chairman of the Board, and Co-Founder

Dr. Groh is a 2013 Stanford Ignite Fellow from Stanford Graduate School of Business and holds a Ph.D. 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 at the BRAC Business School at BRAC University in Dhaka (Bangladesh).

On behalf of SOLshare, he received numerous awards, among them are the Zayed Sustainability Prize 2022 in the category of Energy, 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.



Hannes Kirchhoff
Chief Technology Officer (CTO),
Co- Founder



Hannes Kirchhoff 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 Ph.D. on DC microgrids. As the CTO of SOLshare 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 Ph.D. program of the Federal Ministry of Education Germany. Hannes is involved in the 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).



Daniel Ciganovic
Chief Financial Officer (CFO),
Co-Founder



Daniel holds a Master's Degree in Economics from the University of Trier with a specialization in 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 SOLshare's development activities and is overseeing our financials, accounting, and HR department. He moved to Dhaka, Bangladesh in January 2015, and has played a major role in the fast development of SOLshare 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.

NON-EXECUTIVE BOARD OF DIRECTORS



Manuel Luis
Executive Board Member,
Energias de Portugal (EDP)

Manuel Luis is an Executive Board member at Energias de Portugal (EDP). EDP is an energy producer, distributor, and retailer with 12million 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. António Mexia, CEO of the EDP Group, is also the Chair of the Administrative Board of Sustainable Energy for All.



Yi Jean Chow
Investment Principal at
Future Energy Ventures

Yi Jean Chow is an Investment Principal at Future Energy Ventures, the venture investment arm of E.ON, a multinational European utility. Prior to FEV, she worked in strategy consulting, and at energy start-ups focused on industrial efficiency, building energy management, machine learning, and blockchain technologies. She is particularly interested in building energy efficiency and electrification, and opportunities for business model innovation and innovative finance to accelerate the energy transition.

Yi Jean is based in Seattle and has lived in London, Kuala Lumpur, New York, Boston, San Francisco. She holds a BA in Chemistry and Physics from Harvard University, and a MSc in Economics and Policy of Energy & Environment from UCL



Robert Kraybill
Managing Director, IIX Growth Fund

Robert Kraybill is the Managing Director, Portfolio Management for the Impact Investment Exchange (IIX), a global organization dedicated to building a more inclusive world as the foundation for sustainable peace. They do this by changing financial systems and innovating solutions for women's empowerment, climate action, and community resilience. Over the past decade, they have built the world's largest crowdfunding platform for impact investing (Impact Partners), creating 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.

IIX has received numerous awards for its work including the Oslo Business for Peace Award, the 'Nobel Prize for Business.' Rob Kraybill 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 Kraybill and SOLshare never stopped. Today, Kraybill is sitting on our Board representing the IIX Growth Fund.

TOP MANAGEMENT



Aziza Sultana Mukti
Director of Operations



Eshrat Waris
Director of Product & Business



Syed Ishtiaque Ahmed
Director of Engineering & Innovation



Salma S. Islam
Head of Projects, Fundraising and Communications

SEED INVESTORS & ADVISORY BOARD



Sonia Bashir Kabir
Founder of SBK Tech Ventures & SBK Foundation



Shahriar Ahmed Chowdhury
Director, Centre for Energy Research of UIU



Noara Kebir
Managing Director at Microenergy International



Dr. Daniel Kammen
Director of Renewable and Appropriate Energy Laboratory (RAEL) University of California, Berkeley
Senior Advisor for Energy Innovation at the United States Agency for International Development (USAID)



AWARDS & ACHIEVEMENTS



The Earthshot Prize Finalist Fix Our Climate

Since its initiation, SOLshare has won a belt of awards and accolades over the years, which has helped us to put Bangladesh on the world map.

Zayed Sustainability Prize 2022

2022 started with a bang as SOLshare became the first Bangladeshi company to have won the prestigious Zayed Sustainability Prize 2022 in the category of Energy.



In 2021, our biggest achievement was becoming the first Bangladeshi finalist in the inaugural Earthshot Prize. Launched by Prince William and The Royal Foundation, The Earthshot Prize is the most prestigious global environment prize in history.

On this occasion, the British High Commissioner also broke the news that FCDO will invest GBP 300,000 into the partnership of Shakti Foundation and SOLshare to interconnect pools of SHS to the national grid under a first-of-its-kind regulatory sandbox in Bangladesh.



Attending COP26



As a finalist of the Earthshot Prize 2021, SOLshare was invited to attend COP26, where Eshrat Waris, Director of Product and Business at SOLshare attended the event on behalf of SOLshare.



The series of events included a welcome reception from the Earthshot Prize, where Eshrat Waris was greeted by The Duke and Duchess of Cambridge, Prince Charles, Camilla, Duchess of Cornwall, along with all the finalists and winners of the Earthshot Prize.



The Earthshot Prize Global Alliance Assembly was hosted by Mike Bloomberg. The event gathered an unparalleled network of businesses, global charities, philanthropists, and influential individuals who are committed to supporting the Earthshot Prize winners and finalists for their groundbreaking work.



“ An out-of-body experience ”

Eshrat Waris describes her meeting with Bill Gates as 'Out of body experience'. To quote, "Someone taps you on the shoulder and says, 'Oh, Bill Gates wants to see your product.'" _Eshrat Waris

Other Awards Over the Years

- Ashden Awards for Financial and Business Model Innovation in Energy Access (2020)
- MIT Solve Global Challenges 2020-Good Jobs and Inclusive Entrepreneurship Cohort (2020)
- Global Cleantech 100 (2019, 2020)
- Global Final at THE BUSINESS BOOSTER-Winner of the grand prize of €100,000 (2020)
- Siemens Stiftung empowering people Award-First place (2019)
- Unilever Young Entrepreneurship Awards-Dr. Sebastian Groh was chosen as a finalist(2019)
- MIT IDE Inclusive Innovation Challenge Asia-Regional winner under technology access (2018)
- Tech Pioneer World Economic Forum(2018)
- Free Electrons Accelerator Program- world's best energy start-up, a consortium of 10 giant utilities-Winner (2018)
- Microsoft Airband Award-Winner (2018)
- IKU Innovationspreis Award-Winner (2018)
- UNDESA \$1 Million Powering The Future WenWant Grant in partnership with GrameenbShakti.-Winner (2017)
- 2017 Renewable Transformation Challenge by Elsevier Energy & the International Solar Energy Society.-Winner (2017)
- Start-Up Energy Transition Challenge by DENA (German Energy Agency)-Winner (2017)
- UNFCCC Momentum for Change Award at COP22-Winner (2016)
- Intersolar Award "Outstanding Solar Project" For our pilot peer-to-peer electricity sharing network installed in September 2015, in Shariatpur, Bangladesh (2016)

Thank You

To all our partners, investors, customers, supporters, employees, and well-wishers, we thank you for staying with SOLshare.

With your support, SOLshare was able to put Bangladesh on the World Map by serving more than 15,000 end users.

Stay with us as we continue to bring affordable and accessible energy to the energy-poor communities across Bangladesh.

The Future of
Energy starts in
Bangladesh

