

# FOURTH PARTNER ENERGY

IMPACT & SUSTAINABILITY REPORT – FY20





## Our Mission at 4PEL

The shift towards decentralisation and decarbonisation is creating new opportunities for India to balance its **Energy Trilemma**: Energy Security, Energy Affordability and sourcing Clean Energy. Fourth Partner Energy is at the forefront of this movement. We are India's leading renewable energy solutions platform, dedicated to Commercial and Industrial clients. Three friends joined hands to set up this firm a decade ago with the belief that every customer, supplier, employer, financier and other stakeholder was to be considered as important and relevant as a Founding Partner. Till date, this remains the ethos of Fourth Partner Energy.

At Fourth Partner Energy, we understand the customer's energy requirements and offer solutions that are better for business and better for the environment. Through our customised solar solutions, we help clients lower their Carbon footprint – while ensuring cost benefits of between 30% and 60%. Fourth Partner is committed to reshaping India's story from being home to 7 of the 10 most polluted cities in the world, to emerging as a global leader in the transition to a low-Carbon economy. We are also expanding to geographies across South and South East Asia, to deepen our commitment towards decarbonisation.



# FOURTH PARTNER ENERGY – OUR CORE OPERATIONS

**ASSETS UNDER MANAGEMENT:** 4PEL is India's largest player in the distributed solar segment, with an overall market share of 7.52% (as of June 2020). We aim to own a 3 GW operation portfolio by CY 2025.

## 250 MW

Distributed Solar Capacity



## 150 MW

Open Access Capacity



## 120 MW

Order Pipeline



**PROJECT PORTFOLIO & PRESENCE:** A full-services RESCO – 4PEL today designs, builds, owns, operates and maintains its projects across India and Sri Lanka.

## 1800

Installations



## 23

States in India  
6 Countries



## 77%

CAGR Growth since  
Inception



**OUR HUMAN NETWORK:** Customer-centricity is at the core of our business, with 35% orders bagged in FY20 from 'repeat' clients. 4PEL is led by an experienced management team backed by marquee investors.

## 150

Clients



## 35%

Repeat orders from the  
existing clients in FY20



## 285

Employees across  
10 Offices





**Saif Dhorajiwala & Vivek Subramanian**  
Co-Founders, Fourth Partner Energy

## “ENERGY FOR GOOD” – ENSURING A BETTER TODAY TO SECURE A BETTER TOMORROW.

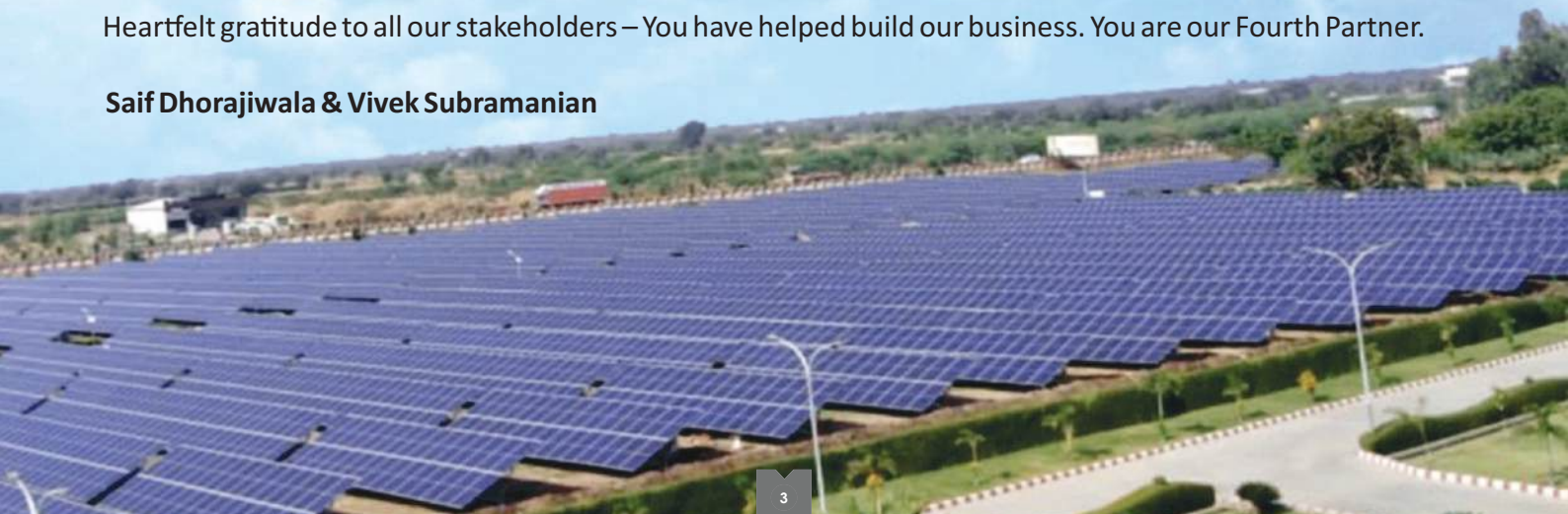
Electricity is the cornerstone of growth; it drives innovation and transformation. At Fourth Partner Energy, we have set out to deliver clean energy solutions directed at bettering the planet, while improving the bottom-line of businesses we service. We truly believe that technology and development can go hand-in-hand with low-carbon, sustainable practices – just like profitability and impact. We understand the client's priority is revenue maximisation and ensure that our solar solutions are more affordable than conventional power sources.

In this Sustainability report, we share how we measure the outcome of our business action **Energy for Good**, in terms of Impact on the environment, community and country. This year, we have strengthened our efforts and used technology extensively to improve our data compilation. We have also aligned our reporting of impact to the UN-prescribed Sustainable Development Goals (SDGs).

FY20 will always be a landmark year for Fourth Partner Energy as it was a celebration of many firsts – Open Access and EV Charging as lines of business, building our International portfolio and tying up green finance commitments from Bank of America, SBI-World Bank amongst others. However, we continue to believe our sustainability story has just begun. This next chapter, amidst an ongoing global pandemic, promises to be the most exciting, challenging and impactful one yet.

Heartfelt gratitude to all our stakeholders – You have helped build our business. You are our Fourth Partner.

**Saif Dhorajiwala & Vivek Subramanian**



## IMPACT INVESTMENT & 4PEL – INVESTOR SPEAK WITH THE RISE FUND

The Rise Fund is focused on partnering with companies and entrepreneurs across the globe who are creating significant positive social or environmental impact and who recognize that one of the best ways to deliver impact at scale is through growing successful businesses that provide real value to customers – something we call collinearity. In the energy space, The Rise Fund works with companies that are reducing or mitigating the effects of greenhouse gas emissions on the climate in measurable and economically sustainable ways. Using the UN Sustainable Development Goals as a blueprint for achieving a better, more sustainable future, our strategy for investing in energy aligns with Goal #7 to ensure access to affordable, reliable, sustainable and modern energy for all.

**Fourth Partner Energy is a great example of the kind of company rise likes to work with – a mission-driven company committed to having measurable impact by partnering with customers to help them save money on their energy costs while reducing their environmental impact and helping India shift to a more sustainable energy system.**

**The Fourth Partner team is also quite unique – led by visionary leadership and made up of incredibly passionate and hard-working individuals who always put customers first.**

The global pandemic has made it clear that solving global issues will take decisive, collective, and unified action across industries, geographies, political ideologies, and socio-economic statuses. While addressing the COVID-19 pandemic is critically important, we cannot lose sight of the persistent global challenges that existed long before this crisis appeared and will linger long after a treatment or vaccine is found.

The lessons we are learning from humanity's response to COVID-19 are vivid illustrations of the types of bold actions we will need to embrace to champion climate change. Our experience today is also validation of what the climate community has long believed; lasting change requires decisive action from – and coordination between – governments, citizens, public and private businesses, and investors.

A critical part of this effort will be undertaken by innovative and visionary teams at “good businesses,” or impact companies that are focused on solving global challenges. Energy is the lifeblood of economies and is a key enabler of business, communications, transportation, and many aspects of modern life. At the same time, the traditional generation and delivery of this energy has been a key contributor to the climate problem. It's clear to us that a future energy system, ushered in by “good businesses,” based on more sustainable sources and managed in a smarter, more efficient way is a critical part of the solution.

**Fourth Partner Energy is one of those “good businesses,” innovating and participating on the front lines to deliver cleaner, greener energy at scale, while demonstrating that the fight for our climate rages on, even amidst the current crisis. As this once-in-a-generation global pandemic continues to impact every aspect of our daily lives, Fourth Partner Energy is showing the world how companies that are constituted to generate positive social and environmental impact alongside profit can survive, and even thrive, in unprecedented times.**



**RICK NEEDHAM**

Partner & Energy Sector Lead, The RISE Fund

## GREEN-FINANCING AND THE GLOBAL SCENARIO

According to the IMF, the financial sector plays a pivotal role in the fight against Climate Change. Green bonds, Carbon market instruments and fintech-based green funds are now at the forefront of climate financing globally. Long-term institutional investors can help with redistributing of climate-related risks and maintaining financial stability.

Green financing, at scale has become a top priority for Central banks and other regulators across the globe, ably guided by organisations like the United Nations, IMF, World Bank and ADB. Policy framework and practices like improving climate risk disclosure and classification standards will help financial institutions, investors and regulators better understand the market potential, sectoral exposure and gauge system-wide risks.

In India, the Reserve Bank of India has emphasised the need for non-financial reporting and urged financial institutions to adhere to sustainable development practices. Banks in India have been sensitized to various international initiatives including the Equator principles.

### INDIA'S GREEN FINANCE SNAPSHOT



Investment required for India to meet its Climate commitments between 2016-2030



Climate Investment mobilised by India in 2019



Green Bond Issuances between 2012-2018



World Bank-SBI line of credit to facilitate 400+ MW rooftop solar capacity pan-India

### FOURTH PARTNER ENERGY'S TAKE

*India has made a formidable start, but our green finance story has just begun. To meet our ambitious target of 450 GW renewables by 2030, government-supported financial institutions need to step forward and take the lead in scaling up long-term investment. There is a dire need to create a Green Ecosystem. Innovative financing tools like green bonds, infrastructure-debt funds and mezzanine capital will go a long way in propelling the renewable energy sector. India's renewable energy sector has drawn a certain level of interest from strategic International investors and DFIs in recent months, but there is a need for this capital deployment to be scaled up further.*

*At Fourth Partner Energy, we understand the immense potential of distributed solar being a gamechanger in the way India's C&I sector consumes energy. We are taking the lead in closing the loop in converting green finance to renewable energy assets. An example of which is securing Bank of America's first line of credit towards commercial solar in India. Our project execution expertise pan -India gave comfort to BofA, with our investors TPG Capital and The Rise Fund as catalysts to this deal.*



## 4PEL's ROLE IN CATALYZING GREEN FINANCE INTO RENEWABLE ENERGY ASSETS

### World Bank–SBI :

Fourth Partner Energy was among the initial recipients of funds under the WB-SBI's dedicated line of credit for rooftop solar in India. 4PEL has been sanctioned ₹110 Cr under this line, which will be utilised towards capacity addition of 39 MW distributed solar assets. This year, we are also targeting a second tranche of ₹108 Cr under this line, which is being reviewed by SBI.

### Bank of America :

4PEL was the recipient of BofA's first local-currency loan towards commercial solar in India. This US\$50 mn line of credit will be utilised to grow our operational capacity by 130-150 MW.

### responsAbility :

Zurich headquartered development investment asset manager, responsAbility has been a long-term debt financier of FPEL since 2016 providing medium-term working capital.

### Oiko Credit :

Social investment co-operative Oiko, through its Indian arm Maanaveeya Finance, has provided FPEL with mezz and project finance, over the last 4 years. Since our initial collaboration, Oiko has extended around ₹60 Cr to 4PEL.

### Grameen Impact :

Grameen Impact has provided financing of ₹50 Lakhs to 4PEL for implementing its Power@₹1 program at the Madras Diabetes Research Centre. Both players are responsible for approaching Outcome Funders to fund the impact being created and further scale the program.

\* As this report goes to print, (September 2020) 4PEL has closed two additional rounds of funding. In July, we secured US\$15 mn in our third tranche from responsAbility Investments A.G.

In September, we raised US\$16 mn from a European consortium led by market-access platform, Symbiotics. Triodos bank and ASN bank were co-investors.

## LENDERS' SPEAK

*"The need to mobilise and deploy capital to address climate change has never been more urgent and accelerating the global transition to low-carbon, sustainable energy is a responsibility we take very seriously. India will play a vital role in curbing global emissions and Fourth Partner Energy is at the leading edge of that change. Through innovative financing products like this one we can provide scale to an industry that is reducing greenhouse gas emissions, as well as support India's role as a leader in solar energy development."*

**Bank of America**

*"We believe strong partnerships can lower the barriers to green financing. We are bullish on the potential of India's solar sector, especially adoption by Commercial & Industrial (C&I) off-takers in who will be looking to minimise operational costs, now more than ever before. Fourth Partner has carved a leadership position and a commendable client base, we are excited to enable their current phase of expansion."*

**responsAbility**

*"We are acutely aware of the climate imperative and committed to enable financing for solutions for managing climate and environmental risk. Delighted to work with Fourth Partner on this Climate Bond Initiative."*

**Grameen Impact**



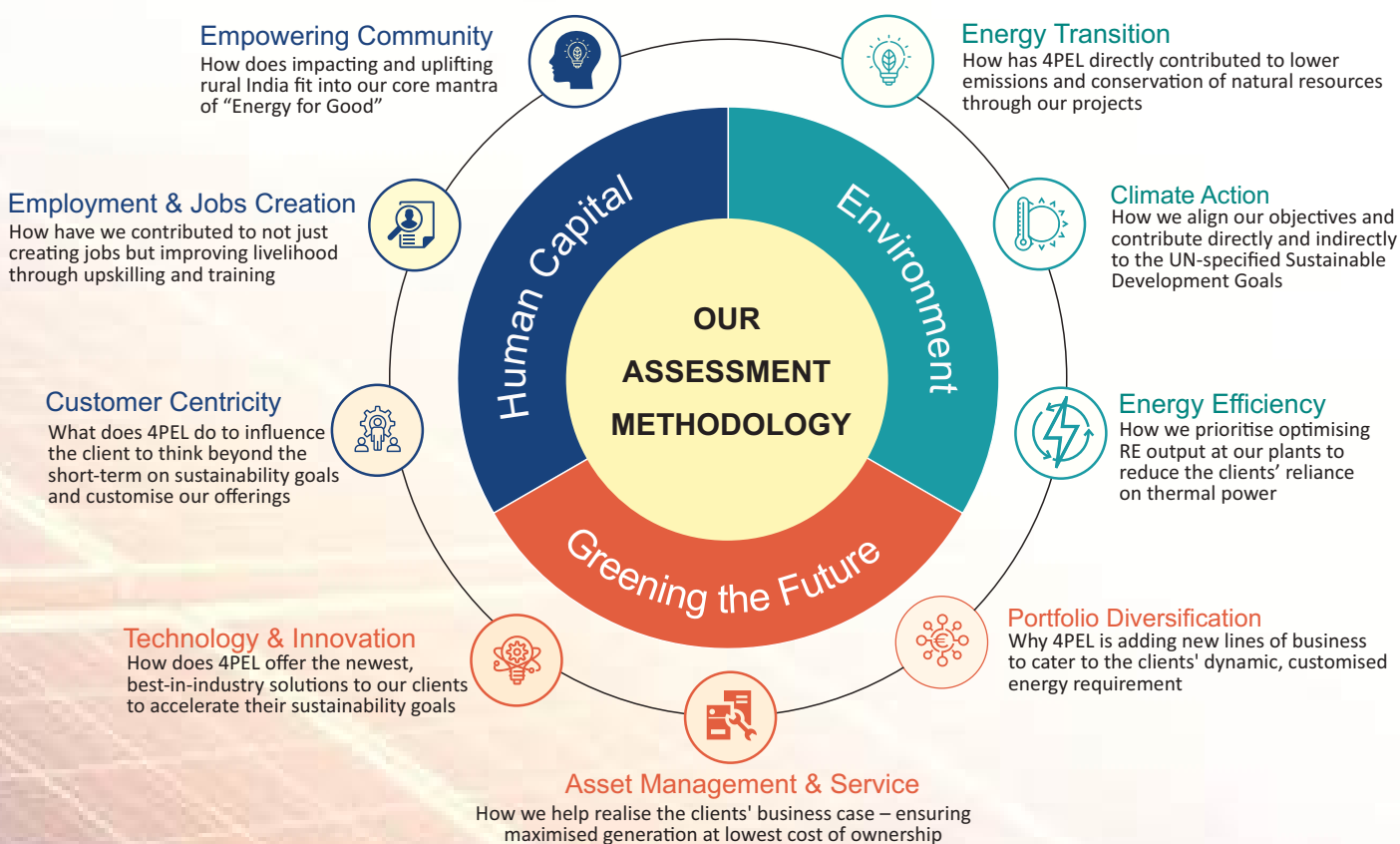


# 4PEL's SUSTAINABILITY STRATEGY

At 4PEL, we seek to be a single platform for corporate India's clean energy and low-carbon requirements. Our aim is to enable the client to think long-term energy transition and sustainability goals.

## Our Solar Solutions Ecosystem:

Every customer is urged to convert idle space on their roofs or within premises into revenue-generating electricity assets. If space is a constraint or demand is high, they can procure power from our off-site solar parks, via the Open Access network. In the interim, our Energy Trading desk ensures the customer's immediate and dynamic requirement for RE is met through power exchanges. 4PEL's capabilities now extend to International geographies to cater to customers with a global presence. Our JV with Lithium Urban to set up solar-powered EV Charging hubs brings to the fore a green alternative for employee transportation.



# ENVIRONMENTAL IMPACT

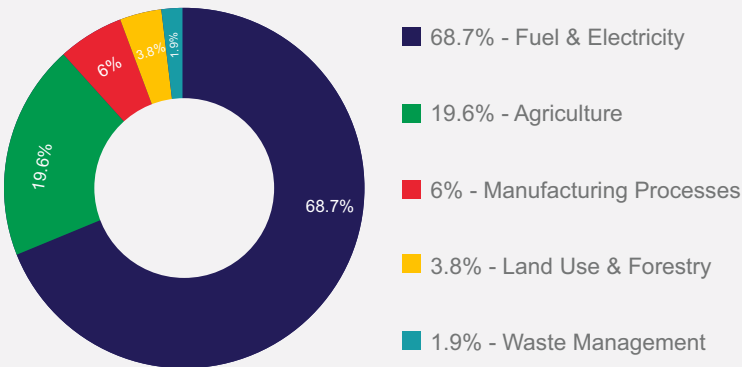


# ANALYZING INDIA'S GREENHOUSE EMISSIONS AND COP21 CLIMATE CHANGE GOALS

## EMISSIONS ON BASIS OF INDUSTRY

Total (2014): 3,202 MtCO<sub>2</sub>e

6.55% global GHG emissions



## • PARIS PLEDGE (TARGET 2030)

**33-35%**  
reduction in emissions intensity of GDP

**40%**  
of installed electricity capacity to be RE or Nuclear

**2,000-3,000**  
MtCO<sub>2</sub>e  
of additional cumulative Carbon sink

## FOURTH PARTNER ENERGY'S PORTFOLIO IMPACT

**400 MW**

Installed Capacity



### Benefits of Clean, Solar Energy

(in comparison to equivalent coal-fired electricity generated annually)



**550,000**

fewer tons of CARBON oxides emitted

**265,000**

reduced dependency on tons of COAL



**25.3 Mn**

Carbon offset in terms of equivalent TREES planted

**1.3 Bn**

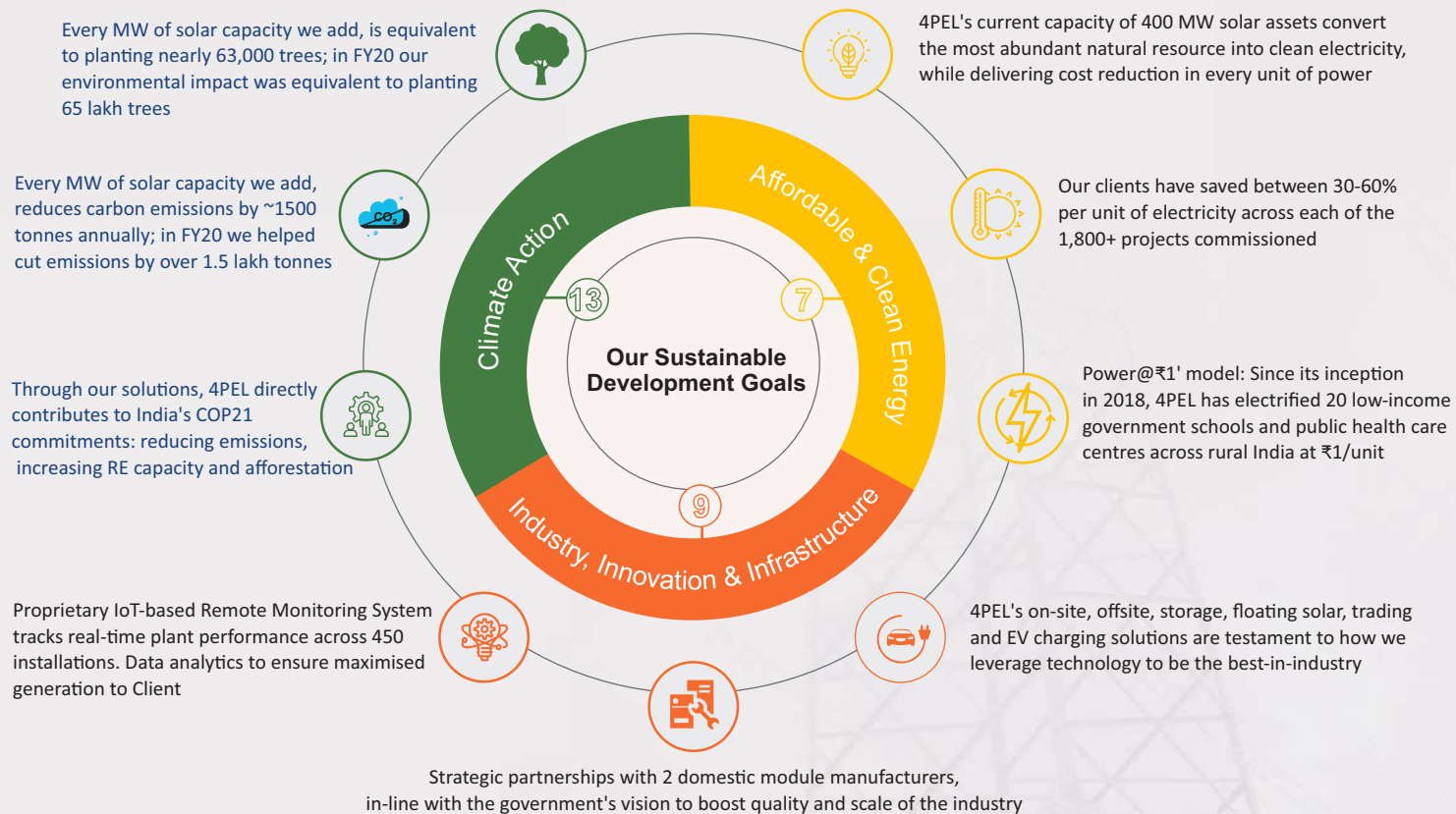
litres of WATER conserved by switching to Solar



\*Based on 4PEL's Internal Report on Environmental Impact Calculations. Reference documents for formula and methodology mentioned in annexure.

# SUSTAINABLE DEVELOPMENT GOALS

At Fourth Partner Energy, we seek to align ourselves to the UN's Sustainable Development Goals and assess our impact against them. While we aim to integrate these principles throughout the value chain and contribute indirectly to most of them, we create maximum impact around three broad realms.



## Indirect Impact :



Stringent safety standards, annual health checks (critical when assigning project roles), medical insurance, paid leave, financial planning and sponsored events



Large portfolio of educational clients - 34 Institutes solarised in the last 2 years



25% of corporate staff are women; women hold leadership positions across credit, renewable capital, strategy, human resources and marketing



Savings for clients through cheaper power frees up capital for growth capex; 285 direct jobs created



Rural bank branches running in 4PEL systems promote financial inclusion while solar pumps helps farmers improve yield



Directly involved with GOI's smart cities program - Vizag Smart City, Tirupati Airport, Indian Railways



Upholding highest corporate governance standards, CSR & working with several government agencies

## 4PEL's COMMITMENT TO WATER CONSERVATION

In India, loss in generation output can range between 0.25% to 1% in a single day, depending on the location and conditions of the solar plant. Periodic cleaning of panels can minimise this loss but runs the risk of extensive water consumption. To conserve water during the cleaning process of solar panels – 4PEL started testing manual and robotic dry cleaning at our larger installations.

This process of cleaning of modules results in:

- Increased water conservation – 75% less water utilised
- Increase in frequency of cleaning as there is no wastage of water
- Improved plant performance (better generation owing to cleaner surfaces)
- Reduced O&M costs long-term, as labour costs are reduced



### WATER USAGE IN REGULAR CLEANING OF MODULES

- 2–3 Litres/Module/Wash
- 10,000 Litres/MW/Wash



### WATER USAGE IN ROBOTIC/ DRY CLEANING OF MODULES

- 0.5–0.75 Litres/Module/Wash
- 2,500 Litres/MW/Wash

## Bharathi Cements, Andhra Pradesh 10 MW Ground-Mounted Solar Plant

### On-site Cleaning Challenges:

- Excessive accumulation of fine, cement dust on the surface of panels every few days
- Cement dust combined with morning dew to form sticky, concrete-like film of coating on solar modules between 2 cleaning cycles (7–10 days). Generation loss periodically as a result of dust accumulation

### Robotic Dry Cleaning at Project Site:

- Step 1: Total dry-cleaning by robot ensured all the fine, cement dust was scrubbed off the module surface
- Step 2: Partial wet cleaning by robot ensured all the sticky residual material was wiped off

### Result:

Less soiling loss at Bharathi site: generation increase by up to 0.5% when compared to manual wet-cleaning

- 75% reduction in water consumption by service personnel
- Reduction in man-hours of service personnel
- Reduced O&M costs to client – increase in customer satisfaction



# 10MW GROUND MOUNTED SOLAR

BHARATHI CEMENTS, KADAPA, ANDHRA PRADESH



## 'BENEFITS OF SWITCHING TO SOLAR'

### CLIENT SPEAK WITH NILKAMAL GROUP

#### **What does 'Sustainability' mean for Nilkamal group globally: how important is it in terms of core values at the firm?**

The Nilkamal group is committed to our focus on Sustainability. To us, it means a commitment to safeguard the Environment through all our endeavours and to leave this Earth a better place for future generations. Our intent is to:

- Reduce our carbon footprint, electricity consumption and conserve energy resources by using efficient, cost-effective technology – all while ensuring adherence to regulatory requirements.
- Incorporate energy efficiency into the decision-making process during the design and acquisition of facilities, equipment and transportation systems, while emphasizing the use of renewable energy sources.
- Maximize the proportion of usage from renewable energy sources, whilst also supporting investment in new renewable energy schemes.
- Develop, manufacture and market products dedicated to the conservation of natural resources.



#### **When did the company decide it was time to become more environmentally conscious. What was your first step towards the same?**

The year 2000 was the turning point for Nilkamal in terms of reiterating our commitment to conserving the Environment. The first step taken was the formulation of our Environment Policy in September 2000, followed by the certification of our Puducherry unit for ISO14001 in the year 2002.

This was extended to cover Energy conservation & reduction in 2012 through the formulation of Energy Policy in 2012 and subsequent certification of our Sinnar Unit for ISO50001 in 2013. All our Plants were certified for ISO50001 by 2015.

#### **What are Nilkamal's long-term Sustainability goals?**

The company is committed to reducing our carbon footprint and the most effective way in achieving the same, we believe is to increase our renewables consumption – we aim to switch over at least 80% of our current conventional energy mix to green energy. We are happy to have achieved this target at one of our units already.

#### **Describe Nilkamal's experience in collaborating with 4PEL for adoption of Renewable Energy.**

To meet our energy transition goals, Nilkamal was keen on partnering with the best – 4PEL ensured the entire experience was very encouraging; so far we have managed to install and successfully operate more than 4,000 kW of solar energy capacity across our various facilities pan-India. Their team has led from the front in executing projects well within the deadline and ensuring quality across project construction and post-installation maintenance, as promised.

#### **India is making a lot of noise on the need to switch to Renewable Energy – why is it important for corporate brands like you to lead this change and how easy is Energy Transition**

Businesses and Industry have responsibility towards conservation of natural resources, and must be committed towards leaving behind a better planet Earth for citizens of tomorrow. Adoption of renewable energy goes a great deal in preserving the environment by reducing Carbon emissions. Not only is it beneficial, it is also an easy switch to make and cost-effective.

Nilkamal is proud to play our part in going green through purchase of power from wind energy farms, as well as rooftop solar plants.

– VS Iyer, Senior VP (Operations), Nilkamal Limited



**1MW** GROUND MOUNTED SOLAR  
ULTRATECH, HYDERABAD



# HUMAN CAPITAL



## EMPLOYMENT & JOBS CREATION AT 4PEL

Our pan-India presence of over 1,800 installations across 23 states has helped us create indirect employment opportunities for hundreds of contract labour at our project sites, apart from around 285 employees on our direct payroll.

Our aggressive capacity addition target of 3 GW of operational solar capacity by CY 2025 will ensure thousands of employment opportunities are created for migrant labourers and sections of society that have been most adversely affected by the on-going global pandemic.

### 4PEL's WORKFORCE AT A GLANCE

Current Strength



across 10 offices



hired in FY20

Target 2022



on our direct payroll

### INDIRECT JOBS CREATION AT 4PEL

Methodology	Engineering & Construction	Cleaning & Maintenance
<b>Calculated Reference</b>	30-40 workers can build 4 MW capacity in 1 year, working full-time	4 workers are needed to clean a 1 MW Plant for 8 days a month
<b>Indirect jobs created in FY20</b>	~ 600 contract jobs created	~ 650 part-time jobs created (including O&M of assets built prior to FY20)
<b>Jobs creation targeted in FY21 (300 MW)</b>	~ 2250–3000 contract workers to benefit from jobs	~ 1,200 part-time service opportunities to be created

## OUR WEALTHIEST ASSET – THE FOURTH PARTNER FAMILY

### Training & Upskilling



At 4PEL we believe Human Capital is our strongest asset – our focus is to empower our employees through regular upskilling and training programs. Every alternate Saturday is set aside for 3-4 hours of scheduled training programs led by internal and external domain experts.

#### FY20 TRAINING PROGRAM SNAPSHOT

Training Sessions - 51	Training Hours Achieved - 90	Total Employee Registrations - 1430
------------------------	------------------------------	-------------------------------------

### Women Empowerment & Gender Parity

Ensuring the growth of women at the workplace is a core priority for 4PEL – we focus not only on gender diversity but also gender parity. 25% of our employees are women, despite being a projects and infrastructure-centric company. We encourage women to adopt leadership roles – presently, our Renewable Capital, Strategy, Human Resources, Marketing and Communication departments are led by women.



We also have a stringent POSH (Prevention of Sexual Harassment) policy in place to ensure an inclusive, diverse and safe work environment for all employees.

### ESOP & Insurance Policy @ 4PEL



Our ESOP policy is amongst the few in corporate India that covers every single employee on our payroll, irrespective of function. The security team, administrative department and warehouse personnel are all proud shareholders of the firm and work towards wealth creation for all. At 4PEL, we believe in truly sharing 'ownership' - as we ask employees to demonstrate accountability and leadership in every aspect of work.

All employees, their partners and children are covered by the company's medical insurance policy.



## OUR PROJECTS & PERSONNEL, OUR PRIORITY. 4PEL's COMMITMENT TO HEALTH, SAFETY & QUALITY

Fourth Partner Energy follows the most stringent checks across the entire value chain from procurement of equipment to design, project execution through to service and maintenance – to ensure Health, Safety and Quality standards are adhered to.

Our policy ensures responsible and ethical business conduct – focused on protecting the health and safety of the workforce, asset & environment in conformance with all statutory requirements.

Our engineers begin their workday with a **Safety Pledge** across project sites. Regular, unannounced quality checks have helped our company maintain a **Zero-Fatality** record since inception, an achievement we are extremely proud of.

**0** 4PEL is extremely proud of its **Zero-Fatality** record at project sites, since inception

**71** HIRA reviews in FY20 (Hazard Identification and Risk Assessment)

**38** Surprise Safety audits at sites

**6** Incidents reported and investigated under HSE norms

QUARTER OF VISIT	QUALITY INSPECTIONS
Q1, FY20	45
Q2, FY20	52
Q3, FY20	35
Q4, FY20	14



## 4PEL's "POWER@₹1" MODEL FOR LOW-INCOME BENEFICIARIES

Large electricity bills often drain the limited resources of low-income organisations like Government Schools, Public Health Centres and non-profits. Our unique "POWER@₹1" program helps electrify such institutes by providing them solar electricity for just ₹1/unit.

This model comprises of 3 key stakeholders: Corporate Sponsors looking to effectively deploy their CSR funds, low-income Beneficiaries whose resources are bleeding and who will benefit hugely from cheaper Electricity and team Fourth Partner.

- ▶ **The Corporate Sponsor** pays a one-time Capital cost for a solar plant at the beneficiary's site
- ▶ **Fourth Partner Energy** takes care of project installation; We are also responsible for lifetime O&M (operations and maintenance) of the Solar plant to ensure maximum utilisation
- ▶ **The Beneficiary** pays just ₹1/unit for electricity consumed during the entire lifetime of the plant (20-25 years)

PROJECT BENEFICIARY	LOCATION
Government Primary School – New Bhoiguda	Telangana
Government Primary School – Mekalamandi	Telangana
Government Primary School – Shaikhpeta	Telangana
Government Girls Primary School – Nallagutta	Telangana
Madras Diabetes Research Foundation	Tamil Nadu
Akhand Jyothi Eye Hospital	Bihar
Parivaar Ashram for Destitute Children	West Bengal
MLNC – Akshaya Patra Foundation Kitchen	Andhra Pradesh





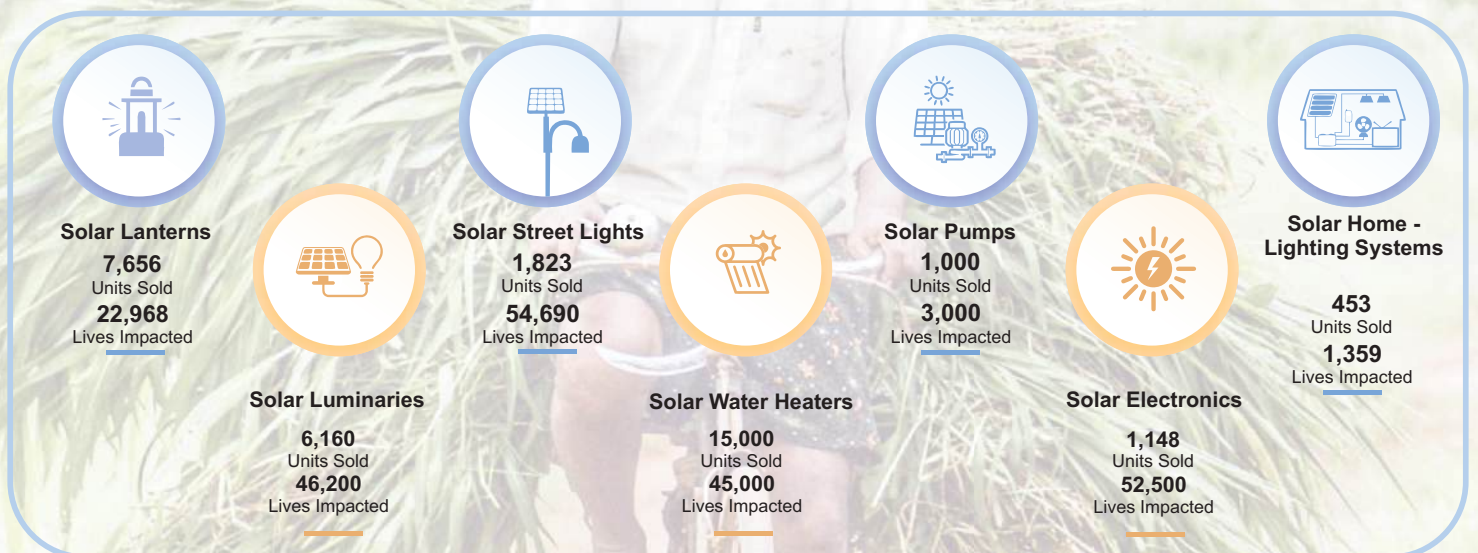
**50 kW** ROOFTOP SOLAR  
AKHAND JYOTHI EYE HOSPITAL, BIHAR

## EMPOWERING INDIA'S RURAL COMMUNITY

In our endeavour to 'Partner for Sustainable Change' – we have positively affected the lives of over 300,000 rural Indians in 23 states through our solar pumps, lanterns, streetlights, heaters, solar ATMs and rooftop installations.

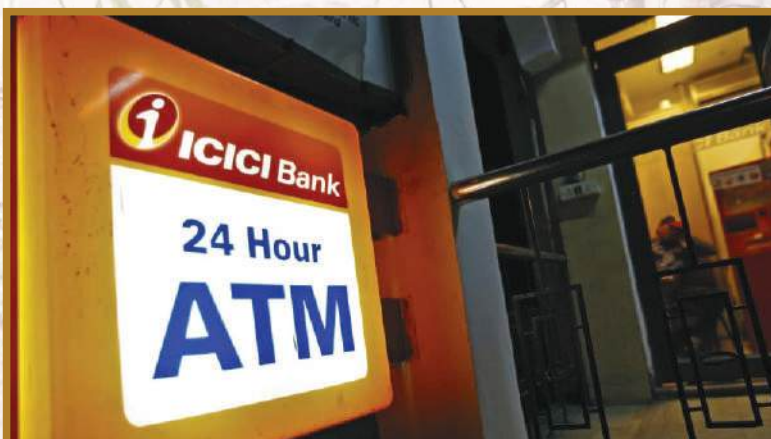
Over 1,000 solar pumps and irrigation systems have helped farmers across Rajasthan and Chhattisgarh improve their yield of food and cash crops – thereby enhancing their livelihood in arid regions of interior India. More than 30,000 units of solar lanterns, streetlights and water-heaters have helped improve safety and sanitation for thousands of families in remote villages.

### IMPACT ON RURAL LIVELIHOOD



### ENABLING FINANCIAL INCLUSION

4PEL has commissioned Solar Installations at 350 ATMs for Axis Bank and ICICI Bank across remote regions in rural India - thereby partnering with the country's leading banks to enable **FINANCIAL INCLUSION**. These branches run exclusively on our solar systems. 4PEL has been servicing these installations for over 6 years now.



Integration of solar to existing UPS system using our proprietary charge controller

3-5 kW Solar System

Each branch uses 2 or 3 units of 12 V 66 Ah lead acid batteries



# GREENING THE FUTURE



## EYE ON INNOVATION – 4PEL's ENERGY TRADING VERTICAL

In FY20, 4PEL added to its platform a dedicated, in-house 'Electricity Trading' vertical to cater to the clients' dynamic energy requirement. Short-term and long-term open access, bilateral trading of renewables and transactions through GTAM and RTM windows on power-exchanges are solutions offered by our team of sectoral experts.

Helps in  
Transition to  
Renewable  
Energy

Reduces the time-frame for large  
consumers of electricity looking  
to increase renewables  
consumption

Low-cost Green Energy  
from the Spot market is  
offered to the client  
in the interim

### RENEWABLE ENERGY CERTIFICATES:

Renewable Energy Certificates (RECs) are a market-based instrument that certifies the bearer owns one megawatt-hour (MWh) of electricity generated from a renewable energy resource.

Our Energy trading vertical facilitates trading of RECs via the Electricity Exchange, thereby enabling clients increase their consumption of clean energy. 4PEL is registered with the Indian Energy Exchange and Power Exchange of India. Limited.

## BRINGING THE “GREEN” TO INDIA'S GREEN-MOBILITY STORY

In March 2020, 4PEL joined hands with Lithium Urban Technologies – India's largest commercial fleet operator to form a 50:50 JV to set up solar-powered EV charging hubs pan-India. At 4PEL, we quickly realised this transition to electric mobility could only be considered truly green, when increased demand for energy is met through clean, renewable sources.

The synergies between Solar PV and EVs was hard to miss – 4PEL and Lithium are industry leaders offering the same value proposition: clean energy alternatives that reduce the clients' operational costs, while lowering carbon emissions.

Through this JV with Lithium – SHUCHI ANANT VIRYA, 4PEL set up two Solar-powered EV charging hubs in FY20 under the branding of PowerBunk.

25-30

Electric Vehicles can be charged simultaneously in the charging hub at **Gurugram, Haryana**

40

Electric Vehicles can be charged simultaneously in the bigger facility at **Pune, Maharashtra**

FY21

4PEL aims to set up a couple of PowerBunks across **Delhi NCR**, and at least one each in **Hyderabad, Bengaluru, Kolkata and Mumbai**

## MAKING A CASE FOR INDIA'S TRANSITION TO ELECTRIC VEHICLES

- ▶ **35% – 40%** fewer lifecycle emissions compared to conventional vehicles
- ▶ **₹0.75 – ₹1** per/km is the average cost of running an Electric Vehicle in India today
- ▶ **₹50** can cover a distance of **50 kms in an EV**; a **Petrol/Diesel car** will cost **₹210** to cover the same distance (fuel at ₹75/litre, mileage 18 kmph)
- ▶ **70%** lower operational or “running” costs



## TECHNOLOGY & INNOVATION AS KEY DRIVERS

A simple way in which we reiterate customer centricity as a core competence at 4PEL is by ensuring 'maximised electricity generation' to the client. We leverage technology to the maximum – our Solar.Cloud is an end-to-end solar power plant monitoring system. It comprises of the Remote Monitoring System, DG Protection and ZFI.(Zero Feed In device)

**450**  
Installations

Monitored remotely  
on 4PEL's Solar.Cloud

**180**  
Installations

Use optimizers  
fitted with ZFI



### Remote Monitoring System

Proprietary **IOT-based solution** that enables remote access to monitor generation and real-time performance of the solar plant. It also facilitates early detection and addressal of glitches.

### Hybrid Energy Optimiser

Solar electricity is often coupled with power sourced from a grid, Diesel Generator (DG) or even battery and storage devices. Using a proprietary algorithm, the Optimiser controls the solar output and optimises power sharing between the DG and the solar plant to ensure no power is fed into the DG and optimum loading of the system.

## BENEFIT TO THE CLIENT

- Minimises the need to travel to the project site
- Data Analytics is used to ensure maximised electricity generation
- The longevity and fuel-efficiency of the client's expensive DG is guaranteed
- DG components are protected from any damage owing to reverse flow of electricity

## 'Remote Monitoring' and how 4PEL ensured maximised generation to the client, even during the pandemic

*In India, the impact of COVID-19 was most severe in March & April 2020, when the government imposed a total lockdown. With the help of RMS, our team of engineers were able to review the functioning of solar plants across client sites, without visiting their premises. As social distancing norms become more stringent, a good and stable RMS minimises the need for a physical visit to a client's facility while not compromising on maximised generation.*



**585 kW** ROOFTOP SOLAR  
SPAR RETAIL, HYDERABAD

# FY20 MEDIA COVERAGE OF OUR BUSINESS & IMPACT



Hyderabad: City-based distributed solar player **Fourth Partner Energy** (FPE) on Monday said it has tied up a \$50 million (Rs 365.5 crore) local currency revolving credit facility from the Bank of America (BoA).

Fourth Partner will deploy these funds to further grow its operational solar portfolio by close to 150 MW over the next 18 months, its co-founder Vivek Subramanian said. FPE has executed a cumulative capacity of 200MW across 23 states

## RenewableWatch

### Fourth Partner Energy

Actively diversifying to expand its project portfolio

© February 2020



**YOURSTORY**

FUNDING

[Funding alert] Bank of America extends line of credit to solar power-focused Fourth Partner Energy

Hyderabad-based Fourth Partner Energy will be deploying the funds to grow its operational solar portfolio over the next 18 months.

By Debolina Biswas 16th Dec 2019

## SAUR ENERGY

### Fourth Partner Energy Gets Funding for Power@1 Prog via Grameen Impact's 1st Clean Energy Bond

The Economic Times Industry

TPG-owned solar company Fourth Partner plans to raise \$150 million to fund expansions

## THE NEW INDIAN EXPRESS

### Tirupati airport starts tapping solar power

Adding yet another feather in its cap, the Tirupati International Airport at Renigunta in the temple town has joined the league of solar powered airports.

## Telangana Today

### Fourth Partner commissions solar projects in Telangana

The largest of these SECI projects is at NIT, Warangal with an operational capacity of 1,000 kWp

**ET Energyworld.com**

Bank of America extends Rs 356.5 cr line of credit to Fourth Partner Energy

This line of credit is BoFA's first locally denominated loan for commercial solar financing in India

## FINANCIAL EXPRESS

### Bank of America extends Rs 356 crore LoC to solar solutions firm in Hyderabad

## SAUR ENERGY

### Fourth Partner Energy Forays into EV Charging Infra via JV with Lithium Urban

**BL**

Tirupati's Renigunta International Airport goes solar

## pv magazine

### Fourth Partner Energy secures US\$ 50 million loan from Bank of America

The revolving credit facility will help the Hyderabad-based distributed solar developer finance new projects as it looks to add about 150 MW of capacity this year.

## ET Energyworld.com

### Fourth Partner, Lithium Urban to set-up solar-powered EV charging infra across India

**MERCOM**

Fourth Partner Receives ₹5 Million Loan to Provide Solar for Non-Profit Entities

Loan extended by Grameen Impact India

## BL

### Companies

## Lithium Urban Technologies, Fourth Partner Energy tie up to set up solar-powered EV charging hubs

V Rishi Kumar | Hyderabad | Updated on March 17, 2020 | Published on March 17, 2020

## MERCOM

### Tirupati Joins the Club of Solar-Powered Airports

Fourth Partner Energy has installed a 1 MW solar project at the airport facility



## MERCOM

### Fourth Partner and Lithium Urban Technologies to Set up Solar EV Charging Stations



## ET Energyworld.com

### Fourth Partner Energy executes 10-MW solar plant project for Bharathi Cement

The plant for captive electricity consumption is spread across 41 acres in Bharathi Cement's 5MTPA manufacturing unit in Kadapa



## COMMUNITY SERVICE AND CORPORATE SOCIAL RESPONSIBILITY AT 4PEL

### COVID-19: AN UPDATE AND IMPACT ON INDUSTRY

As we compile this Impact report in the first half of 2020, the novel coronavirus has become a global pandemic. 'Lockdowns' have been initiated and relaxed by many countries – with partial restrictions on movement within the State and restrictions on International travel. This probably will be the most significant Black Swan event in our lifetime and has left an indelible mark on the way we live and the way we conduct business.

### INDUSTRY IMPACT

- All commercial and industrial activity in India came to a halt in April and May
- Supply chain disruptions in China and execution challenges due to the lockdown in India impacted capacity addition in H1, 2020.

### 4PEL's COMMUNITY SERVICE TOWARDS COVID-19:

In times of difficulty, we must act together – this drove our commitment at 4PEL to give back to the community in time of need, especially to those without the affordability or access to support systems that many of us are blessed with.

A Covid-19 fund was created where every 4PEL employee pooled in 1 day's remuneration; the organisation added to this and a corpus of ₹20 lakh was created.

4PEL's Covid-19 fund was directed to treatment and care for Covid+ patients with no access to primary health care. Maharashtra, the epicentre of the pandemic in India was reeling under a shortage of equipment for the first line of respiratory treatment.

We procured 50 Oxygenators for deployment at make-shift treatment centres for the underprivileged, set up by the Mumbai municipality. Since May, these medical devices have been deployed at the NSCI, Worli and Mahalaxmi Racecourse. They are currently being used in the treatment of Covid+ patients with no access to this line of expensive, effective treatment



### CSR COLLABORATION WITH NAYI DISHA RESOURCE CENTRE

*“Fourth Partner Energy is proud to have worked with the Nayi Disha Resource Centre for the past several years. This NGO is an online information resource platform that supports families of persons with Intellectual and Developmental Disabilities (IDD). They are a group of individuals who deeply care for the cause of IDD – empowering the community and increasing inclusivity of families and persons with IDD. The founding team includes parents and siblings of individuals personally affected and impacted, who understand the challenges and needs faced by other similar families. As part of our CSR initiative at Fourth Partner Energy, we contribute to Nayi Disha financially every year. Our employees are also encouraged to engage with, volunteer and share resources with the team at Nayi Disha. They are truly an integral part of our Fourth Partner family.”*

# STUDIES AND SOURCES USED IN COMPILATION OF THE IMPACT REPORT

## GREEN FINANCE STATISTICS

- UN Green Finance Progress Report 2017-18: <https://bit.ly/3hD6xwt>
- IFC's Green Finance: A Bottom-Up approach to Track Existing Flows: <https://bit.ly/27NzQq6>
- IMF's A Greener Future for Finance, December 2019: <https://bit.ly/3kok50p>
- Reserve Bank of India: Trends & Progress of Banking in India (2019): <https://bit.ly/3mulslW>
- World Bank's Press Release on SBI's Rooftop Solar Program: <https://bit.ly/3hD7chr>
- Financial Express Media Report on RBI: <https://bit.ly/27Ky0X3>

## 4PEL FY20 ANNUAL PERFORMANCE & RANKING

- Bridge To India: India Solar Compass 2020: <https://bit.ly/27lrle5>

## INDIA SOLAR, GHG EMISSIONS, COP21 COMMITMENT STATISTICS

- Ministry of New & Renewable Energy Circular: <https://bit.ly/27LLaD4>
- WRI India: UNFCCC COP21 Document: <https://bit.ly/35lfi5X>
- Climate Action Tracker on India: <https://bit.ly/2RwzCiz>
- GBCI: India after COP21: <https://bit.ly/33CiVl8>
- National Renewable Energy Laboratory: PV Lifetime Analysis <https://www.nrel.gov/pv/lifetime.html>
- Central Electricity Authority: National Energy Plan (Generation):  
[http://www.cea.nic.in/reports/committee/nep/nep\\_jan\\_2018.pdf](http://www.cea.nic.in/reports/committee/nep/nep_jan_2018.pdf)

## SUSTAINABLE DEVELOPMENT GOALS

- United Nations: The 17 Goals for Sustainable Development: <https://sdgs.un.org/goals>

## INTERVIEWS & INTERACTIONS:

- Rick Needham, Partner, Energy Sector Lead, The Rise Fund on Investor Speak
- VS Iyer, Sr VP (Operations) on Nilkamal's Sustainability Goals
- UltraTech Corporate Communication team on Sustainability Goals
- DMart Corporate Communication team on Sustainability Goals

## 4PEL INTERNAL RECORDS:

- 4PEL's FY20 Annual Report for fund-raising updates, impact on rural India and financial inclusion initiatives
- 4PEL's Internal records and Impact measurement calculator for Environmental Impact of Solar Energy
- 4PEL's New Initiatives Research on water conservation and impact of dry cleaning of solar modules
- 4PEL's HR Annual Report FY20: Data on jobs created, direct and indirect employment, ESOP and insurance policies
- 4PEL HSE and Quality policy documents
- 4PEL Accounts and MarCom reports for Covid-19 Community Service and CSR to Nayi Disha
- 4PEL MarCom FY20 Press Releases for data on Bharathi Cements projects and RECs, JV with Lithium for
- EV Charging, Bank of America Credit Line, Maanaveeya (Oiko Credit) and Grameen funding for Power@1
- 4PEL Asset Management FY20 Report for Generation statistics, RMS Update

## 4PEL PORTFOLIO IMPACT ON THE ENVIRONMENT:

- US Energy Information Administration: <https://www.eia.gov>
- EPA report on Emissions from coal-fired plants in India: <https://bit.ly/3kEj5pl>
- CEA's CO2 baseline for the Indian Power Sector: <https://bit.ly/33Qd81w>
- Breaking Energy Analytics: <https://bit.ly/2HkE0il>
- Arbor Environmental Alliance: <https://bit.ly/2HkE5D>



**FOURTH  
PARTNER  
ENERGY**

Partnering for Sustainable Change

[www.fourthpartner.co](http://www.fourthpartner.co)  
[marketing@fourthpartner.co](mailto:marketing@fourthpartner.co)