



Universal Carbon Registry

Monitoring Report

CARBON OFFSET UNIT (CoU) PROJECT



Title: 36.67 MW Bundled Solar Power Project by Fourth Partner Energy Private Limited, (FPEPL).

Version 1.0

Date of MR: 17/09/2024

UCR ID:462

1st CoU Issuance Period: 01/08/2018 to 30/06/2024 (05 years, 10 months)

1st Monitoring Period: 01/08/2018 to 30/06/2024 (05 years, 10 months)

1st Crediting Period: 01/08/2018 to 30/06/2024 (05 years, 10 months)

8 DECENT WORK AND
ECONOMIC GROWTH



13 CLIMATE
ACTION



7 AFFORDABLE AND
CLEAN ENERGY





Monitoring Report (MR) CARBON OFFSET UNIT (CoU) PROJECT

Monitoring Report	
Title of the project activity	36.67 MW Bundled Solar Power Project by Fourth Partner Energy Private Limited, (FPEPL).
UCR Project Registration Number	462
MR Version	1.0
Scale of the project activity	Large Scale
Completion date of the MR	17/09/2024
Project participants	Project Proponent: Fourth Partner Energy Private Limited, (FPEPL). UCR ID: 130501765
Host Party	India
SDGs	SDG 7: Affordable and Clean Energy SDG 8: Decent Work and Economic Growth SDG 13: Climate Action
Applied methodologies and standardized baselines	Type I (Renewable Energy Projects) UNFCCC Methodology Category “ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0 UCR Protocol Standard Baseline Emission Factor
Sectoral scopes	01 Energy industries (Renewable / Non-renewableSources)
Estimated amount of GHG emission reductions for the crediting period per year.	2018: 2,68 CoUs (268 tCO _{2eq})
	2019: 5,912 CoUs (5,912 tCO _{2eq})
	2020: 17,216 CoUs (17,216 tCO _{2eq})
	2021: 25,484 CoUs (25,484 tCO _{2eq})
	2022: 33,548 CoUs (33,548 tCO _{2eq})
	2023: 40,897 CoUs (40,897 tCO _{2eq})
	2024: 24,077 CoUs (24,077 tCO _{2eq})
Total	1,47,402 CoUs (1,47,402 tCO_{2eq})

SECTION A. Description of project activity

A.1. Purpose and general description of project activity >>

a) Purpose of the project activity and the measures taken for GHG emission reduction:

General description of project Activity:

The 36.67 MW Bundled Solar Power Project led by Fourth Partner Energy Private Limited (FPEPL), aims to produce clean, renewable energy via solar power, reducing reliance on grid electricity generated from fossil fuels. By replacing conventional energy with solar power at various user locations, the project plays a crucial role in decreasing dependence on carbon-heavy sources.

Spanning eight Indian states—Maharashtra, Madhya Pradesh, Tamil Nadu, Punjab, Odisha, Telangana, West Bengal and Gujarat —the project involves the installation and operation of 103 ground-mounted & rooftop solar energy projects. Together, these installations have a combined capacity of 36.67 MW and are key contributors to India's shift toward sustainable energy solutions.

FPEPL, a leading provider of integrated renewable energy solutions to the commercial and industrial sectors in India and regions of South and Southeast Asia, drives this shift through its Renewable Energy-as-a-Service (REaaS) model. This approach allows businesses to source a significant portion of their energy needs from renewable sources, directly helping reduce carbon emissions in India's corporate sector.

The project utilizes polycrystalline solar photovoltaic technology, selected for its durability and efficiency in converting solar radiation into electricity. The PV modules generate direct current (DC) electricity from sunlight, which is then converted into alternating current (AC) through inverters for grid compatibility. The solar energy produced is supplied to various commercial and industrial customers through long-term Power Purchase Agreements (PPAs), significantly lowering their carbon footprints.

In addition to its environmental benefits, the project fosters socio-economic growth by creating jobs during the construction and operational phases. It also promotes innovation in the solar energy sector, helping to accelerate the widespread adoption of renewable energy solutions.

The project aligns with India's national renewable energy expansion goals. It supports the country's ambitious target of reaching 450 GW of renewable energy and 500 GW of non-fossil fuel energy capacity by 2030. FPEPL has structured the project into ten Special Purpose Vehicles (SPVs), each managing the 103 ground-mounted & rooftop solar energy projects. This structure ensures efficient management and optimal performance across the project's portfolio.

By generating carbon credits under UCR, FPEPL reinforces its commitment to advancing a low-carbon economy. This project not only contributes to national and global climate change efforts but also drives technological innovation and economic growth in the renewable energy sector.

SPV Name	PPA Name	Capacity (kWp)	COD
FPEL Evergreen Energy Private Limited	Anheuser Busch Inbev India Ltd (Foster)	770.29	04-02-2022
Daishi Patona Private Limited	D Mart (Dombivali)	767.60	22-04-2022
VSV Renewables Private Limited	Bridgestone India Pvt Ltd, PH- II	727.68	22-01-2020
VSV Renewables Private Limited	Raychem RPG Pvt Ltd (Chakan)	700.26	22-01-2021
VSV Renewables Private Limited	CWPRS	400.40	02-07-2019
VSV Renewables Private Limited	Mahindra & Mahindra Ltd (Igatpuri)	651.09	23-06-2020
Daishi Patona Private Limited	Lumax Industries Ltd (Chakan, Pune)	602.23	08-11-2019
VSV Renewables Private Limited	AIIMS (Bhopal)	600.65	16-08-2021
VSV Renewables Private Limited	Nahars Engineering Pvt Ltd	548.46	28-04-2019
VSV Renewables Private Limited	Bridgestone India Pvt Ltd	4,000.00	14-11-2019
VSV Renewables Private Limited	MSS India Pvt Ltd (Nashik)	439.82	07-10-2021
Fourth Partner Energy Private Limited	CHRI (Gwalior)	422.50	25-08-2019
VSV Renewables Private Limited	Raychem RPG Pvt Ltd (Vasai)	414.40	21-01-2021
VSV Renewables Private Limited	Metro Cash & Carry	414.15	19-10-2019
VSV Renewables Private Limited	RPK India Pvt Ltd	413.00	07-06-2019
FPEL Trinity Energy Private Limited	Mahindra Holidays & Resorts Pvt Ltd (Club Mahindra)	403.50	13-03-2018

Daishi Patona Private Limited	D Mart (Wardha)	399.96	19-01-2022
Daishi Patona Private Limited	D Mart (Adgaon)	378.00	02-03-2022
VSV Renewables Private Limited	Nagpur Metro (All)	312.68	17-10-2018
Daishi Patona Private Limited	Rallis India Ltd	307.20	27-04-2021
Daishi Patona Private Limited	D Mart (Yavatmal)	290.10	15-03-2021
VSV Renewables Private Limited	Nagpur Metro (All)	273.00	17-10-2018
Daishi Patona Private Limited	D Mart (Wai)	272.88	19-01-2021
VSV Renewables Private Limited	Garg Acrylics Limited	2,778.00	24-05-2019
VSV Renewables Private Limited	MANIT	250.25	01-11-2018
VSV Renewables Private Limited	Big Basket Bhiwandi	230.34	12-10-2020
VSV Renewables Private Limited	Metro Cash & Carry (Indore)	221.10	27-09-2021
FPEL Cosmic Private Limited	Roop Polymers	217.10	09-02-2020
Daishi Patona Private Limited	D Mart (Jalgaon)	197.34	28-01-2020
Daishi Patona Private Limited	D Mart (Mandsaur)	194.40	14-10-2021
Daishi Patona Private Limited	D Mart (Zirakpur Phase-II)	99.00	05-02-2022
Daishi Patona Private Limited	D Mart (Zirakpur DC)	44.40	01-04-2022
Daishi Patona Private Limited	D Mart (Satara)	181.35	04-02-2019
Daishi Patona Private Limited	D Mart (Jalna)	177.45	25-02-2019

Daishi Patona Private Limited	D Mart (Osmanabad)	177.25	20-09-2019
Daishi Patona Private Limited	D Mart (Latur)	165.00	13-08-2020
VSV Renewables Private Limited	NISM (Khalapur)	152.10	01-11-2018
Daishi Patona Private Limited	D Mart (Karjat)	148.20	11-02-2019
Daishi Patona Private Limited	D Mart (Barnala)	148.00	08-09-2020
Daishi Patona Private Limited	D Mart (Mhow)	146.88	24-01-2022
Daishi Patona Private Limited	D Mart (Hinjewadi)	135.11	22-03-2019
4PE Distributed Solar Services Private Limited	Birlasoft Limited	125.06	25-12-2016
Daishi Patona Private Limited	D Mart (Nipaniya)	118.80	03-08-2020
Daishi Patona Private Limited	D Mart (Airoli)	114.84	07-09-2020
Daishi Patona Private Limited	D Mart (Kolar Road)	110.50	07-10-2018
Daishi Patona Private Limited	D Mart (Kavesar)	109.56	03-01-2020
Daishi Patona Private Limited	D Mart (Nanded)	108.80	17-03-2019
Daishi Patona Private Limited	D Mart (Nagpur)	103.35	20-02-2019
Daishi Patona Private Limited	D Mart (Miraj)	103.35	06-02-2019
VSV Renewables Private Limited	IHM Bhubaneswar	100.10	04-03-2019
Daishi Patona Private Limited	D Mart (Peermuchalla)	97.50	30-11-2019
VSV Renewables Private Limited	Vishal Mega Mart (Boduppall)	24.32	04-08-2020
VSV Renewables Private Limited	Vishal Mega Mart (Boduppall)	34.20	04-08-2020

VSV Renewables Private Limited	Vishal Mega Mart (Boduppall)	36.10	04-08-2020
Daishi Patona Private Limited	D Mart (Patiala)	94.00	18-03-2021
Daishi Patona Private Limited	D Mart (Dewas)	94.38	04-12-2019
Daishi Patona Private Limited	D Mart (Panvel)	88.44	17-09-2020
Daishi Patona Private Limited	D Mart (MR-5 Indore)	79.20	20-08-2019
Daishi Patona Private Limited	D Mart (Ambegaon)	79.20	09-12-2019
Daishi Patona Private Limited	D Mart (Ratnagiri)	76.05	17-09-2019
Daishi Patona Private Limited	D Mart (Pune-Satara Road)	73.92	19-12-2019
Daishi Patona Private Limited	D Mart (Nigdi)	73.92	16-12-2019
Daishi Patona Private Limited	D Mart (Belapur)	68.64	30-12-2019
Daishi Patona Private Limited	D Mart (Mandigovindgarh I&II)	156.39	19-10-2021
Daishi Patona Private Limited	D Mart (Virar-1 (West))	67.93	25-09-2019
Daishi Patona Private Limited	D Mart (Aurangabad)	67.92	21-10-2019
VSV Renewables Private Limited	PMC (Main Building)	60.13	04-02-2019
Daishi Patona Private Limited	D Mart (Hadapsar)	59.67	06-02-2021
Daishi Patona Private Limited	D Mart (Ichalkaranji)	52.14	28-12-2019
Daishi Patona Private Limited	D Mart (Vasai)	52.00	16-10-2019
VSV Renewables Private Limited	BSNL Baramati	50.70	04-08-2018

VSV Renewables Private Limited	BSNL Bhosari	50.70	04-08-2018
VSV Renewables Private Limited	PMC (Mahatma Phule)	49.40	04-01-2020
VSV Renewables Private Limited	PMC (Savarkar Bhawan)	49.40	21-11-2019
Daishi Patona Private Limited	D Mart (Sangli)	49.40	29-03-2019
Daishi Patona Private Limited	D Mart (Karad)	48.18	31-12-2019
Daishi Patona Private Limited	D Mart (Badlapur-II,West)	45.00	20-02-2020
Daishi Patona Private Limited	D Mart (Seawoods)	43.56	11-03-2020
VSV Renewables Private Limited	Mahindra & Mahindra Ltd (Nashik)	42.24	01-12-2020
Daishi Patona Private Limited	D Mart (Jaysingpur)	40.96	19-09-2019
Daishi Patona Private Limited	D Mart (Ambernath)	40.96	01-10-2019
Daishi Patona Private Limited	D Mart (Virar-2 (East))	40.95	03-10-2019
VSV Renewables Private Limited	PMC (Anna Bhau Sathe)	39.00	23-01-2020
Daishi Patona Private Limited	D Mart (Amravati)	34.32	06-02-2020
Daishi Patona Private Limited	D Mart (Ratlam)	22.10	01-08-2018
Daishi Patona Private Limited	D Mart (Ujjain)	19.50	05-12-2018
FPEL Power Private Limited	Kriti Industries Ltd	2,488.47	30-03-2023
FPEL Evergreen Energy Private Limited	Garret Motions	461.62	05-10-2022
FP Zeus Private Limited	K K Nag (Urse)	185.70	18-11-2022
FP Zeus Private Limited	K K Nag (Ranjangaon)	127.30	18-11-2022

Daishi Patona Private Limited	D Mart (Ramol)	199.80	24-03-2023
Sun Renewables RT Private Limited	TRIL - IT 4 Goregaon	200.34	21-11-2022
FPEL Evergreen Energy Private Limited	Khadim India Ltd-WB	849.96	14-12-2022
VSV Renewables Private Limited	AIIMS (Bhubaneswar)	1,253.53	16-03-2021
FPEL Evergreen Energy Private Limited	Elringklinger Automotive Components (India) Pvt. Ltd.	1,250.22	01-03-2022
VSV Renewables Private Limited	Shyam Metalics & Energy Ltd-Sambalpur, Orissa	1,232.80	04-07-2022
VSV Renewables Private Limited	Luminaz Safety Glass Pvt Ltd	1,199.55	22-04-2019
VSV Renewables Private Limited	Bridgestone	1,001.33	14-03-2019
Daishi Patona Private Limited	D Mart (Moshi)	231.09	16-01-2021
FPEL Evergreen Energy Private Limited	Parker Hannifin India Pvt Ltd-Nagpur	1,365.22	06-10-2023
FPEL Evergreen Energy Private Limited	Parker Hannifin India Pvt Ltd., Mumbai	1,167.39	05-07-2023
Daishi Patona Private Limited	D Mart (Car Port - Zirakpur)	97.20	09-02-2023
Daishi Patona Private Limited	D Mart (Zirakpur DC)	85.09	01-04-2022
	Total	36,666.47 KWp	

Purpose of the project activity:

The 36.67 MW Bundled Solar Power Project, developed by Fourth Partner Energy Private Limited (FPEPL), seeks to generate electricity using clean, renewable solar energy, thereby decreasing reliance on grid power, which is predominantly derived from fossil fuels. This project plays a key role in reducing greenhouse gas (GHG) emissions, contributing directly to the fight against climate change.

The project entails the installation and operation of solar photovoltaic (PV) systems across eight Indian states: Maharashtra, Madhya Pradesh, Tamil Nadu, Punjab, Odisha, Telangana, West Bengal and Gujarat. These 103 ground-mounted & rooftop solar energy projects, with a combined capacity of 36.67 MW, use polycrystalline solar PV technology to convert solar energy into electricity. The expected annual electricity output is around **1,63,783.03 MWh**, based on a Plant Load Factor (PLF) of 16.84%.

Solar PV technology offers a clean and sustainable energy source, producing electricity without emitting GHGs or other harmful pollutants. By replacing fossil fuel-based grid electricity, the project is anticipated to achieve an annual reduction of approximately **1,47,402 tCO_{2eq}** in GHG emissions.

In addition to its environmental benefits, the project also supports local socio-economic growth. It creates job opportunities during both the construction and operational phases, boosting local economies. Furthermore, the project provides a reliable and cost-effective renewable energy source, improving energy security for commercial and industrial users while reducing their electricity costs.

From a technological perspective, the project drives innovation by employing advanced solar technologies and showcasing the scalability and efficiency of large-scale solar installations. This not only promotes the widespread adoption of solar energy but also encourages further technological development in the renewable energy sector.

The project aligns with several Sustainable Development Goals (SDGs), notably contributing to climate action (SDG 13) by reducing GHG emissions and promoting renewable energy. It also supports affordable and clean energy (SDG 7) by increasing the share of renewables in the energy mix, helping India transition toward a sustainable energy future. Additionally, it advances decent work and economic growth (SDG 8) by creating jobs and enhancing local economic resilience.

In conclusion, FPEPL's 36.67 MW Bundled Solar Power Project is a pioneering initiative that addresses critical energy needs while promoting environmental sustainability and socio-economic development. By producing clean, renewable energy, the project plays a crucial role in India's shift toward a greener and more sustainable energy future, highlighting the importance of renewable energy in reducing the nation's carbon footprint.

b) Brief description of the installed technology and equipment>>

The 36.67 MW Bundled Solar Power Project, implemented by Fourth Partner Energy Private Limited (FPEPL), utilizes advanced solar photovoltaic (PV) technology to capture and convert solar energy into electricity. At the heart of this system are polycrystalline solar PV modules, valued for their efficiency and reliability. Each module consists of interconnected photovoltaic cells that convert sunlight directly into direct current (DC) electricity. Inverters then convert this DC electricity into alternating current (AC), making it suitable for grid use and distribution to end-users.

The project features 103 ground-mounted & rooftop solar energy projects spread across eight Indian states. The PV modules are mounted on durable structures designed to maximize sunlight exposure and optimize energy generation. These mounting systems ensure that the solar panels are properly positioned to capture the maximum amount of solar radiation throughout the day.

In addition to PV modules and inverters, the project includes essential components that ensure smooth operation and integration with the electrical grid. Transformers adjust the electricity voltage for transmission and distribution, while circuit breakers safeguard the system. Junction boxes and distribution boxes manage and distribute the generated electricity, and earthing kits provide grounding for protection against electrical faults.

The control room and remote monitoring systems enable real-time supervision of the power generation process, ensuring optimal performance and quick resolution of any operational issues. This advanced monitoring technology boosts the reliability and efficiency of the entire solar power system.

By employing cutting-edge technology and high-quality equipment, the project not only generates clean, renewable energy but also encourages the adoption of innovative solar technologies. This contributes to the broader objective of reducing greenhouse gas emissions and fostering technological advancements in the renewable energy industry.

c) Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.) >>

UCR Project ID: 462

1st CoU Issuance Period: 01/08/2018 to 30/06/2024 (05 years, 10 months)

1st Monitoring Period: 01/08/2018 to 30/06/2024 (05 years, 10 months)

Project Commissioned: 24/07/2018

d) Total GHG emission reductions achieved or net anthropogenic GHG removals by sinks achieved in this monitoring period>>

The total GHG emission reductions achieved in this monitoring period is as follows:

Summary of the Project Activity and ERs Generated for the Monitoring Period	
Start date of this Monitoring Period	01/08/2018
Carbon credits claimed up to	30/06/2024
Total ERs generated (tCO ₂ eq)	1,47,402 tCO₂eq
Leakage	0
Project Emissions	0

e) **Baseline Scenario>>**

The baseline scenario identified at the MR stage of the project activity is:

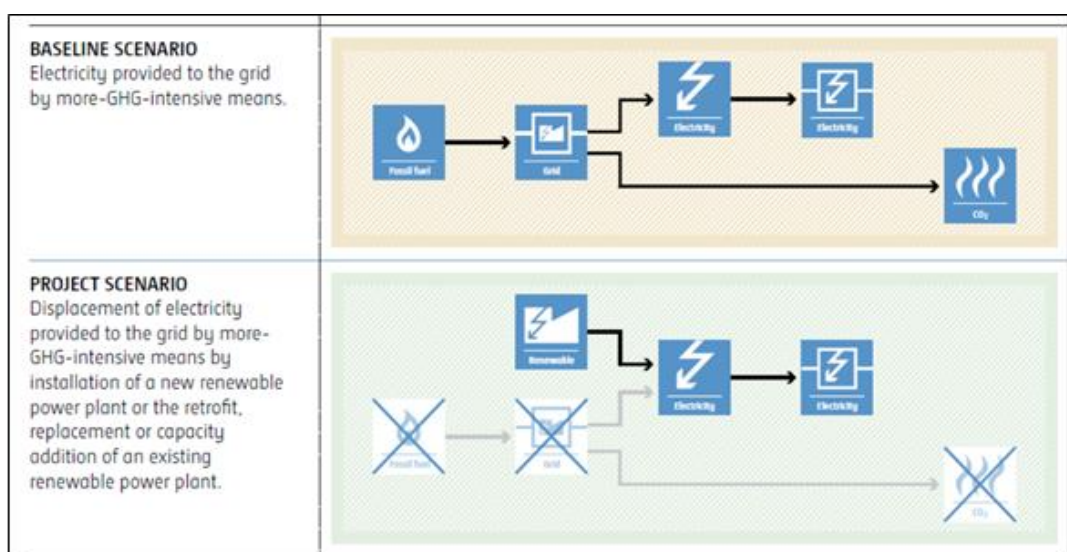
In the absence of the project, the equivalent amount of electricity would have been generated by the existing grid-connected power plants and newly added power plants, which are predominantly fossil fuel-based. This grid predominantly relies on fossil fuel-based power plants, making it highly carbon-intensive. Therefore, the baseline scenario for the project is aligned with the grid-based electricity system, representing the situation before the project was implemented.

Methodology key elements

Typical project(s)	Retrofit, rehabilitation (or refurbishment), replacement or capacity addition to an existing power plant or construction and operation of a new power plant/unit that uses renewable energy sources and supplies electricity to the grid. Battery energy storage system can be integrated under certain conditions
Type of GHG emissions mitigation action	Renewable energy: Displacement of electricity that would be provided to the PPA by more-GHG-intensive means.

Schematic diagram showing the baseline scenario:

Baseline Scenario:



A.2. Location of project activity>>

Country : India.
State : Madhya Pradesh

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
VSV Renewables Private Limited	Bridgestone India Pvt Ltd, PH- II	727.68	22.6240729,75.6251395
VSV Renewables Private Limited	AIIMS (Bhopal)	600.65	23.21,77.46
Fourth Partner Energy Private Limited	CHRI (Gwalior)	422.50	26.1812352,78.1626969
VSV Renewables Private Limited	MANIT	250.25	23.212101,77.406235
VSV Renewables Private Limited	Metro Cash & Carry (Indore)	221.10	22.7717308,75.9053082
Daishi Patona Private Limited	D Mart (Mandsaur)	194.40	24.085458,75.045691
Daishi Patona Private Limited	D Mart (Mhow)	146.88	22.6011964,75.7919375
Daishi Patona Private Limited	D Mart (Nipaniya)	118.80	22.766811,75.926256
Daishi Patona Private Limited	D Mart (Kolar Road)	110.50	23.160929,77.413717
Daishi Patona Private Limited	D Mart (Dewas)	94.38	22.968,76.0757
Daishi Patona Private Limited	D Mart (MR-5 Indore)	79.20	22.7298243,75.8362493
Daishi Patona Private Limited	D Mart (Ratlam)	22.10	23.343775,75.055445
Daishi Patona Private Limited	D Mart (Ujjain)	19.50	23.137203,75.791816
FPEL Power Private	Kriti Industries Ltd	2,488.47	22.630191,75.672389

Limited			
VSV Renewables Private Limited	Bridgestone	1,001.33	22.6243495,75.6226051

Country : India.
State : West Bengal

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
FPEL Evergreen Energy Private Limited	Khadims India Ltd	849.0	22.864883,88.428721

Country : India.
State : Maharashtra

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
FPEL Evergreen Energy Private Limited	Anheuser Busch Inbev India Ltd (Foster)	770.29	19.8326706,75.2044208
Daishi Patona Private Limited	D Mart (Dombivali)	767.60	19.1906,73.0915
VSV Renewables Private Limited	Raychem RPG Pvt Ltd (Chakan)	700.26	18.753977,73.791604
VSV Renewables Private Limited	CWPRS	400.40	18.4460996,73.7837121
VSV Renewables Private Limited	Mahindra & Mahindra Ltd (Igatpuri)	651.09	19.6943398,73.5460288
Daishi Patona Private Limited	Lumax Industries Ltd (Chakan, Pune)	602.23	18.7538647,73.8016531
VSV Renewables Private Limited	Nahars Engineering Pvt Ltd	548.46	19.8535517,75.221375
VSV Renewables Private Limited	Bridgestone India Pvt Ltd	4,000.00	18.7681886,73.7707855
VSV Renewables Private Limited	MSS India Pvt Ltd (Nashik)	439.82	19.95,73.73

VSV Renewables Private Limited	Raychem RPG Pvt Ltd (Vasai)	414.40	19.415254,72.8732683
VSV Renewables Private Limited	Metro Cash & Carry	414.15	19.982698440551758, 73.80924224853516
VSV Renewables Private Limited	RPK India Pvt Ltd	413.00	18.150865,73.947275
Daishi Patona Private Limited	D Mart (Wardha)	399.96	20.717858,78.606928
Daishi Patona Private Limited	D Mart (Adgaon)	378.00	20.028622,73.853988
VSV Renewables Private Limited	Nagpur Metro (All)	312.68	21.0566405,79.054442
Daishi Patona Private Limited	Rallis India Ltd	307.20	20.6921071,77.063817
Daishi Patona Private Limited	D Mart (Yavatmal)	290.10	20.362693,78.103926
VSV Renewables Private Limited	Nagpur Metro (All)	273.00	21.129693,79.068715
Daishi Patona Private Limited	D Mart (Wai)	272.88	17.955792,73.956132
VSV Renewables Private Limited	Big Basket Bhiwandi	230.34	19.2759108,73.0922246
FPEL Cosmic Private Limited	Roop Polymers	217.10	18.77,73.83
Daishi Patona Private Limited	D Mart (Jalgaon)	197.34	20.9907435,75.5649506
Daishi Patona Private Limited	D Mart (Satara)	181.35	17.740273,74.00911
Daishi Patona Private Limited	D Mart (Jalna)	177.45	19.8446,75.9295
Daishi Patona Private Limited	D Mart (Osmanabad)	177.25	18.214981,76.043631
Daishi Patona Private Limited	D Mart (Latur)	165.00	18.4180931,76.5820764
VSV Renewables Private Limited	NISM (Khalapur)	152.10	18.904012,73.187871
Daishi Patona Private Limited	D Mart (Karjat)	148.20	18.931049,73.321542
Daishi Patona Private Limited	D Mart (Hinjewadi)	135.11	18.5914,73.7444

4PE Distributed Solar Services Private Limited	Birlasoft Limited	125.06	18.5933,73.73427
Daishi Patona Private Limited	D Mart (Airoli)	114.84	19.1432163,72.9911726
Daishi Patona Private Limited	D Mart (Kavesar)	109.56	19.2601012,72.9687203
Daishi Patona Private Limited	D Mart (Nanded)	108.80	19.1934635,77.2848506
Daishi Patona Private Limited	D Mart (Nagpur)	103.35	21.0844767,78.9704456
Daishi Patona Private Limited	D Mart (Miraj)	103.35	16.85678,74.661781
Daishi Patona Private Limited	D Mart (Panvel)	88.44	19.0046271,73.1143167
Daishi Patona Private Limited	D Mart (Ambegaon)	79.20	18.452066,73.843898
Daishi Patona Private Limited	D Mart (Ratnagiri)	76.05	16.9967741,73.3460655
Daishi Patona Private Limited	D Mart (Pune-Satara Road)	73.92	18.479334,73.85677
Daishi Patona Private Limited	D Mart (Nigdi)	73.92	18.6467329,73.7567339
Daishi Patona Private Limited	D Mart (Belapur)	68.64	19.011215,73.0322951
Daishi Patona Private Limited	D Mart (Virar-1 (West))	67.93	19.4594092,72.8014807
Daishi Patona Private Limited	D Mart (Aurangabad)	67.92	19.9087208,75.3467642
VSV Renewables Private Limited	PMC (Main Building)	60.13	18.5238531,73.8530262
Daishi Patona Private Limited	D Mart (Hadapsar)	59.67	18.4985617,73.9348882
Daishi Patona Private Limited	D Mart (Ichalkaranji)	52.14	16.6798503,74.4608584
Daishi Patona Private Limited	D Mart (Vasai)	52.00	19.3644528,72.8148159
VSV Renewables Private Limited	BSNL Baramati	50.70	18.1523,74.5819
VSV Renewables Private Limited	BSNL Bhosari	50.70	18.621705,73.830676

VSV Renewables Private Limited	PMC (Mahatma Phule)	49.40	18.495042,73.899306
VSV Renewables Private Limited	PMC (Savarkar Bhawan)	49.40	18.522007,73.8497
Daishi Patona Private Limited	D Mart (Sangli)	49.40	16.8454445,74.5770209
Daishi Patona Private Limited	D Mart (Karad)	48.18	17.253479,74.176107
Daishi Patona Private Limited	D Mart (Badlapur-II, West)	45.00	19.1586429,73.2479395
Daishi Patona Private Limited	D Mart (Seawoods)	43.56	19.0184261,73.0153021
VSV Renewables Private Limited	Mahindra & Mahindra Ltd (Nashik)	42.24	20.001691818237305, 73.72705841064453
Daishi Patona Private Limited	D Mart (Jaysingpur)	40.96	16.7822469,74.5616289
Daishi Patona Private Limited	D Mart (Ambernath)	40.96	19.1831928,73.1653814
Daishi Patona Private Limited	D Mart (Virar-2 (East))	40.95	19.4452575,72.8153048
VSV Renewables Private Limited	PMC (Anna Bhau Sathe)	39.00	18.4769929,73.8581692
Daishi Patona Private Limited	D Mart (Amravati)	34.32	20.9380779,77.7776041
FPEL Evergreen Energy Private Limited	Garret Motions	461.62	18.590534,73.697705
FP Zeus Private Limited	K K NAG (Urse)	185.70	18.712075534763354, 73.64634636930944
FP Zeus Private Limited	K K NAG (Ranjangaon)	127.30	18.792496581,74.294819846
Sun Renewables RT Private Limited	TRIL - IT 4 Goregaon	200.34	19.1765028,72.8832232
FPEL Evergreen Energy Private Limited	ElringKlinger Automotive Components (India) Pvt. Ltd.	1,250.22	18.804,74.294
VSV Renewables Private Limited	Luminaz Safety Glass Pvt Ltd	1,199.55	19.79580958091477, 75.22330284118652

Daishi Patona Private Limited	D Mart (Moshi)	231.09	18.68077,73.83662
FPEL Evergreen Energy Private Limited	Parker Hannifin India Pvt Ltd-Nagpur	1,365.22	21.13648,78.77741
FPEL Evergreen Energy Private Limited	Parker Hannifin India Pvt Ltd., Mumbai	1,167.39	19.102466,73

Country : India.
State : Odisha

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
VSV Renewables Private Limited	IHM Bhubaneswar	100.10	20.305112,85.848464
VSV Renewables Private Limited	AIIMS (Bhubaneshwar)	1,253.53	20.1315,85.463
VSV Renewables Private Limited	Shyam Metalics & Energy Ltd- Sambalpur, Orissa	1,232.80	21.6737233,84.0441033

Country : India.
State : Tamil Nadu

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
FPEL Trinity Energy Private Limited	Club Mahindra	403.5	11.806281,79.798923

Country : India.
State : Punjab

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
VSV Renewables Private Limited	Garg Acrylics Limited	2,778.00	30.051106,75.036229
Daishi Patona Private Limited	D Mart (Zirakpur Phase-II)	99.00	30.620394,76.821823

Daishi Patona Private Limited	D Mart (Zirakpur DC)	44.40	30.620403, 76.821861
Daishi Patona Private Limited	D Mart (Barnala)	148.00	30.341887,75.524216
Daishi Patona Private Limited	D Mart (Peermuchalla)	97.50	30.6601031,76.8581055
Daishi Patona Private Limited	D Mart (Patiala)	94.00	30.383127,76.400803
Daishi Patona Private Limited	D Mart (Mandigovindgarh I&II)	156.39	30.655806,76.303124
Daishi Patona Private Limited	D Mart (Car Port - Zirakpur)	97.20	30.620078, 76.82177
Daishi Patona Private Limited	D Mart (Zirakpur DC)	85.09	30.437293, 76.671844

Country : India.
State : Telangana

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
VSV Renewables Private Limited	Vishal Mega Mart (Boduppall)	24.32	17.358636,78.385286
VSV Renewables Private Limited	Vishal Mega Mart (Boduppall)	34.20	17.4070678,78.5933855
VSV Renewables Private Limited	Vishal Mega Mart (Boduppall)	36.10	18.8714,79.4443

Country : India.
State : Gujarat

SPV	PPA Name	Capacity (kWp)	Location (Co-ordinates)
Daishi Patona Private Limited	D Mart (Ramol)	199.80	22.59053,72.39556

A.3. Parties and project participants >>

Party (Host)	Participants
India	Project Proponent / Owner: Fourth Partner Energy Private Limited, (FPEPL). Contact Person: Akhil Katara Email id: carboncredits@fourthpartner.co UCR ID: 130501765

A.4. References to methodologies and standardized baselines >>

SECTORAL SCOPE – 01 Energy industries (Renewable/Non-renewable sources)

TYPE I - Renewable Energy Projects

CATEGORY - ACM0002, “(Title: Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources, Ver 22.0)

The project activity involves the generation of electricity from renewable solar energy. The project activity has a total installed capacity of 36.67 MW which qualifies for a large-scale project. The project status corresponds to the methodology ACM0002., version 22.0.

A.5. Crediting period of project activity >>

First CoU Issuance Period: 01/08/2018 to 30/06/2024 (05 years, 10 months)

First Crediting Period: 01/08/2018 to 30/06/2024 (05 years, 10 months)

A.6. Contact information of responsible persons/entities >>

UCR Aggregator: Akhil Katara

UCR ID: 130501765

Email Address: carboncredits@fourthpartner.co

Company Name: Fourth Partner Energy Private Limited, (FPEPL).

Company Website: fourthpartner.co.

SECTION B. Implementation of project activity

B.1. Description of implemented registered project activity >>

a) Provide information on the implementation status of the project activity during this monitoring period in accordance with UCR PCN>>

The 36.67 MW Bundled Solar Power Project, implemented by Fourth Partner Energy Private Limited (FPEPL), was successfully operational during the monitoring period from August 1, 2018, to June 30, 2024. This large-scale renewable energy initiative involves the installation and operation of solar photovoltaic (PV) systems across eight Indian states: Maharashtra, Madhya Pradesh, Tamil Nadu, Punjab, Odisha, Telangana, West Bengal and Gujarat.

The project includes 103 ground-mounted & rooftop solar energy projects, utilizing polycrystalline solar PV modules known for their efficiency and reliability. These modules convert sunlight into direct current (DC) electricity, which is then converted into alternating current (AC) via inverters, making it suitable for grid distribution.

The electricity generated is supplied to various companies through Power Purchase Agreements (PPAs), helping these companies reduce their carbon footprints. During the monitoring period, the project has adhered to stringent Quality Assurance and Quality Control (QA&QC) protocols to ensure the accuracy and transparency of data. This includes continuous monitoring and daily data reporting to the project proponent (PP), as well as regular calibration and inspection of metering devices in line with state electricity board specifications to guarantee accurate readings.

No significant changes have been reported regarding the start date of the crediting period, and the project has remained aligned with the original monitoring plan. The project has not involved any retrofitting or technology transfers from Annex I countries, nor does it receive public funding from Official Development Assistance (ODA) or Annex I countries, ensuring its sustainability and independence.

Overall, the 36.67 MW Bundled Solar Power Project by FPEPL has successfully produced substantial amounts of clean energy throughout the monitoring period, making a significant contribution to greenhouse gas emission reductions and supporting India's renewable energy goals.

b) For the description of the installed technology(ies), technical process and equipment, include diagrams, where appropriate>>

The technology used in this project poses no environmental risks when compared to fossil fuel-based power plants. It is a well-established and proven technology, ensuring both safety and reliability. Notably, the project does not involve any technology transfer from Annex I countries and does not receive public funding from Official Development Assistance (ODA) or Annex I countries.

This Monitoring Report (MR) follows the UNFCCC methodology. In cases where the project activity involves the installation of a renewable power plant or unit, the baseline scenario is defined as:

"In the absence of the project, the equivalent amount of electricity would have been generated by the existing grid-connected power plants and newly added power plants, which are primarily

fossil fuel-based."

PPA Name	Make of solar PV panel	Inverter make	Inverter model no	Inverter DC capacity (kWp)
AB Inbev Maharashtra	Renesola	SunGrow	SG110CX SG50CX SG110CX SG110CX SG110CX SG110CX	146.46kWp, 69.44kWp, 140.64kWp, 142.4kWp, 133.5kWp 138kWp
Dmart Dombivli	Jinko Solar	SunGrow	SG100CX SG50CX SG33CX SG100CX SG50CX SG100CX SG100CX	145.8kWp 68.67kWp,46.32kWp, 147.15kWp,68.13kWp, 145.8kWp,145.98kWp
Bridgestone, Pithampur Phase-II	PhonoSolar	Schneider	PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL25E PVSCL60E PVSCL60E PVSCL60E PVSCL60E	132kWp, 37.62kWp 132kWp, 136.62kWp,125.4kWp, 136.62kWp,
Raychem RPG Pvt. Ltd Chakan	Renewsys	SunGrow	SG110CX & SG33KTL-M	147.4 124.66 147.4 147.4 134
CWPRS-1	Renewsys	Delta	Delta RPI 50	74.085 41.59 74.085 74.04 78 39 43.19 78 74.04 26
Mahindra (Igatpuri)	Vikram Solar	SunGrow	SG110CX, SG20KTL, SG110CX, SG110CX, SG110CX, SG110CX	125.4, 125.4, 125.4, 125.4, 125.4, 20.0
Lumax Industries Ltd	Pholo solar	SunGrow	SG33KTL-M & SG60KTL	81.51 81.51 81.51 81.51 81.51 81.51 29.7 29.7
AIIMS, Bhopal	RenewSys	SunGrow	SG50CX SG110CX SG110CX SG110CX SG50CX	99 105.6 99 92.4 99 92.4 92.4 105.6 105.6 99 99 9 105.6 100.32 99 105.6 99 99 99 92.4 99 9 92.4

			SG110CX	99 92.4 99 99 105.6 105.6 105.6 9 105.6 80 105.6 105.6 99
Nahars Engineering Pvt Ltd	Renwesys	Schneider & Fronius	CL-60E, CL-60E, CL60-E, CL60-E, CL60-E, CL60E, Fronius Eco 27, Fronius Eco 27	81.51, 81.51, 81.51, 81.51, 81.51, 29.7, 29.7
Bridgestone Chakan	Renewsys	SunGrow	SG80KTL-M	127.3 118.13 127.3 127.3
MSS India	CANADIAN	Schneider	CL36-E, CL36-E, CL60-E, CL60-E, CL60-E, CL60-E, CL36-E, CL36-E, CL60-E	36.8, 37.23, 55.84, 78.84, 77.76, 46.44, 45.36, 59.13
CHRI (Gwalior)	waaree	SunGrow	SG50CX SG50CX PVSC60E PVSC60E PVSC60E PVSC60E SG50CX SG33CX	66 81.51 79.2 79.2 79.2 33
Raychem RPG Pvt. Ltd Vasai	Vikram Solar	SunGrow	SG110CX SG50KTL-M-20 SG110CX SG110CX	136.5 130 136.5
Metro Cash & Carry	Adani	Schneider	CL25E, CL60E	31.35, 79.2, 79.2, 66, 79.2, 79.2
RPK India	RenewSys	SunGrow	SG50KTL-M-20 SG60KTL SG60KTL SG60KTL SG60KTL SG33KTL-M	149.98 149.98
DMart Wardha	Renewsys		Solis-25K SG50CX SG110CX SG110CX	49.4 27.63 49.4 29.25 49.4 26 49.4 49.4 22.1
Dmart Adgaon Nashik	Jinko	SunGrow	SG110CX SG20KTL-M	131.7 40.89 134

			SG110CX SG50CX	
Nagpur Metro (New Airport)	Waree	Delta	Delta RPI 31.299999 kW	71.5 65 71.5 65
Rallis India Ltd., Akola	RenewSys	SunGrow	SG110GX, SG33- KTLM	134, 131.7, 40.89
DMart Yavatmal (Phase5)	RenewSys	SunGrow	SG110CX SG33KTL-M SG110CX	67.92 65 67.92 25 25
Metro Bhawan Nagpur	Renewsys	Schneider	PVSCL60E	21.09 29.6 29.6 56.61 33.3 39.96 16.28
DMart Wai	RenewSys	SunGrow	SG60KTL SG50KTL-M-20 SG20KTL-M SG110CX	55 55 55
Garg Acrylics	Adani	Sungrow/ Sofar/ Schneider	SG 60 KTL/80 KTL/CL-60	141.3 58.5
MANIT	Renewsys	Schneider	PVSCL60E PVSCL60E PVSCL60E PVSCL25E PVSCL25E	136.79 63
Bigbasket Mumbai	RenewSys	SunGrow	SG110CX SG110CX	22.44 69.96 104.94
Metro Cash & Carry, Indore	Sri savitr solar	Delta	Delta RPI 50.299999 Delta RPI 21.299999 Delta RPI 50.299999 Delta RPI 50.299999 Delta RPI 21.299999 Delta RPI 21.299999 kW	66.5 59.8 64.4
Roop Polymers	Hanwha Q	SolarEdge	SE55K	99
DMart Jalgoan (Optimiser)	Renewsys	SolarEdge	SE17K SE55K SE82.8K	143.55 24.75

DMart Mandsaur	Longi	SunGrow	SG110CX SG20KTL-M SG20KTL-M	19.8 26.4 26.4 25.08 33 38.28
DMart Zirakpur PH 2	longi	Sungrow	SG100CX	20/20
DMart Zirakpur	Vikram	schneider & sofar	PVSCL25E, Sofar 30000TL-G2	100
DMart Satara (Phase3)	RenewSys	Schneider	PVSCL25E PVSCL60E PVSCL25E PVSCL60E	146.88
DMart Jalna (Phase3)	Renewsys	Schneider	PVSCL25E PVSCL60E PVSCL60E	136.6
DMart Osmanabad (Phase4)	RenewSys	Delta	Delta RPI 50.299999 Delta RPI 50.299999 Delta RPI 50.299999 kW	25 74 24 30.88 30.88
DMart Latur	RenewSys	SunGrow	SG60KTL SG20KTL-M SG60KTL	19.8 26.4 26.4 25.08 33 38.28
NISM (Khalapur)	Renewsys	Delta	Delta RPI 50.299999 Delta RPI 50.299999 Delta RPI 50.299999 kW	118.8
DMart Karjat (Phase3)	RenewSys	Schneider	PVSCL60E PVSCL60E	21.12 71.28 21.12
DMart Barnala (Phase3)	Renewsys	Sungrow	SG110CX/ SG20KTL	110kwp/20kwp
Dmart Mhow	Renewsys	SunGrow	SG110CX	58.5 52
DMart Hinjewadi (Phase3)	RenewSys	Solis	Solis-25K PVSCL60E PVSCL25E PVSCL25E PVSCL25E	100
KPIT	Vikram Solar	Delta	delta RPI 50 & Delta RPI 30	50.7 49.4

DMart (Nipanya)	Renewsys	SunGrow	SG110CX	36.1
DMart Airoli (Optimiser)	Renewsys	SolarEdge	SE17K SE55K SE17K	93.8
DMart Kollar Road (Phase2)	RenewSys	Delta	Delta RPI 50.299999 Delta RPI 50.299999 kW	67.5 19.14
DMart Kavesar Thane (Optimiser)	Renewsys	SolarEdge	SE17K SE27.6K SE27.6K SE17K	78
DMart Nanded (Phase3)	Renewsys	Schneider	PVSCL25E PVSCL60E PVSCL20E	76.05
DMart Hinga/Nagpur (Phase3)	RenewSys	Schneider	PVSCL25E PVSCL25E PVSCL60E	73.92
DMart Miraj (Phase3)	RenewSys	Schneider	PVSCL25E PVSCL25E PVSCL60E	73.26
IHM BHUBANESWA	Renewsys	Delta	RPI 50 KW	49.40,50.70
DMart Peermuchalla (Phase4)	Vikram Solar	Sungrow	SG60KTL/ SG20KTL	60kwp/20kwp
Vishal Megamart	Renewsys	Solis	Solis 20k	20Kw- 1 No
Vishal Megamart	Renewsys	Solis	Solis 30K	30Kw- 1 No's
Vishal Megamart	Renewsys	Solis	Solis 30K	30Kw- 1 No's
DMart Patiala (Phase5)	RenewSys	Sungrow	SG110CX	110 kwp
DMart Dewas	Renewsys	SunGrow	SG50KTL-M-20 SG33KTL-M	50
DMart Panvel (Optimiser)	Renewsys	SolarEdge	SE17K SE55K	27.3 27.3

DMart MR-5 Indore (Phase4)	Renesys	SolarEdge	SE55K SE17K	52
DMart Ambegaon (Optimiser)	Renesys	SolarEdge	SE55K SE17K	52.8
DMart Ratnagiri (Phase4)	Renewsys	Schneider	PVSCL60E	50.68
DMart Pune Satara Road (Optimiser)	Renewsys	SolarEdge	SE55K	49.395
DMart Nigdi (Optimiser)	Renewsys	SolarEdge	SE55K	49.4
DMart Belapur (Optimiser)	Renewsys	SolarEdge	SE55K	49.4
DMart MandiGobindgall (Phase-7)	Renewsys	SolarEdge	SE55K	18.48 29.7
DMart Virar-1 West (Phase4)	Waree	Delta	Delta RPI 50.299999 Delta RPI 21.299999 kW	28.35 17.96
DMart Aurangabad (Phase4)	Renewsys	SunGrow	SG60KTL	44.4
PMC (Main Building)	Renewsys	Delta	Sofar 50000TL & Delta RPI 31	40.95
DMart Hadapsar (Optimiser)	RenewSys	SolarEdge	SE17K SE17K SE17K	19.5 19.5
DMart Ichalkaranji (Optimiser)	Renewsys	SolarEdge	SE27.6K SE17K	8.96
DMart Vasai (Phase4)	Renewsys	Delta	Delta RPI 50.299999k	134 140.7 134 127.3 127.3 140.7 147.4 140.7 67 147.4 147.4 67 147.4
BSNL Baramati	Waaree	Delta	delta RPI 50	147.4 40.2 147.4 147.4
BSNL Bhosari	Waaree	Delta	delta RPI 50	58.86 121.5
PMC Mahatma Phule Auditorium (SECI-GOV)	sri savitr solar	Delta	Sungrow SG50CX	38.88 127.3 134
PMC Savarkar Bhavan (SECI-GOV)	sri savitr solar	Delta	Delta RPI 50	54 145.8

DMart Sangli (Phase4)	sri savitr solar	Delta	Delta RPI 50.299999 kW	129.6 61.5 140.4 129.6 129.6 129.6 129.6
DMart Karad (Optimiser)	Renewsys	SolarEdge	SE17K SE27.6K	257.4 257.4 257.4 257.4 257.4
DMart Badlapur-II, West (Phase5)	Renewsys	SunGrow	SG50KTL-M-20	40.2 48.24 26.8 12.73 18.09 101 18.09 59.96 20.1 40.2
DMart Seawoods (Optimiser)	Renewsys	SolarEdge	SE17K SE17K	140.7 140.7 67 140.7 127.3 127.3 127.3 127.3 127.3 147.4
Mahindra (Nashik)	Vikram Solar	SunGrow	SG20KTL-M	19.8, 26.4
DMart Jaysingpur (Phase4)	RenewSys	SunGrow	SG33KTL-M	79.2 79.2 79.2 79.2 79.2 79.2 79.2 81.51 81.51 79.2 79.2 81.51 81.51
DMart Ambernath (Phase4)	RenewSys	SunGrow	SG33KTL-M	80.27 80.27 80.27 84.5 84.5 84.5 84.5 84.5 84.5 84.5 84.5 84.5
DMart Virar-2 East (Phase4)	Renewsys	SunGrow	SG33KTL-M	113.99 120.6 120.6 127.3 127.3 129.38 127.3 134
PMC Lokshahir AnnullBhau Sathe Sanskrutik Bhavan (SECI-GOV)	Emmvee Solar	Solis	Delta RPI 20	126 119.7 113.4 126 113.4 107.1 119.7 113.4
DMart Amravati (Optimiser)	Renewsys	SolarEdge	SE25K	48.08 30.85 30.85 49.395 48.08 49.395 52 48.085 49.395 48.08 49.36 52 32.5 49.395 49.395 49.395 49.395 49.36 49.36 49.395
DMart Ratlam (Phase2)			Delta RPI 21.299999 kW	137.34 137.34 147.15 127.53 147.15 127.53 68.67 137.3 13.34
DMart Ujjain (Phase2)	Sri Savitr	Delta	Delta RPI 21.299999 kW	134.61 141.7 141.7 141.7 140.06
Kriti Industries	JA	SunGrow	SG110CX SG110CX SG110CX SG50CX SG110CX SG110CX SG110CX SG110CX SG110CX SG110CX SG110CX	141.7 120.99, 147.15, 68.67, 142.79, 139.52, 141.7, 141.7, 141.7, 141.7, 147.15, 120.99, 130.8, 141.7, 127.53, 141.7,

			SG110CX SG110CX SG110CX SG110CX SG110CX SG110CX SG50CX	147.15, 127.53, 150.42, 65.
Garett Motions	Vikram Solar	Schneider	SG100CX	63.36, 72.96, 57.6, 57.6, 21.76, 24.32, 25.6, 25.6, 25.6, 27.2, 28.8, 19.2, 23.04, 28.8,
K.K.Nag Urse	RenewSys	Delta	Delta RPI 21.299999 Delta RPI 31.299999 Delta RPI 21.299999 Delta RPI 80.3 Delta RPI 80.3 Delta RPI 80.3 SG110CX & SG50CX	24.7, 35.1, 19.5, 84.5, 78, 84.5,
K.K.Nag Ranjhangaon	RenewSys	SunGrow	SG100CX	127.3
Avenue Supermarts Ltd (Ramol)	LONGI	SunGrow	SG110CX SG50CX	135 64.8,
TRIL (Mumbai)	Longi	SunGrow	SG100CX SG50CX	146.34 54,
Khadims India Ltd	Panasonic	SunGrow	SG100CX SG50CX SG100CX SG100CX SG100CX SG100CX SG100CX	129.6 61.5, 140.4, 129.6, 129.6, 129.6, 129.6,
AIIMS Bhubaneshwar	Sri savitr	Sungrow	SG50KTL-M-20 SG50KTL-M-20 SG50KTL-M-20 SG30CX SG33KTL-M SG50KTL-M-20 SG50KTL-M-20 SG50KTL-M-20	65 65, 61.75, 27.8, 35.1, 52.8, 61.3, 55.5,

			SG50KTL-M-20 SG30CX SG50KTL-M-20 SG50KTL-M-20 SG50KTL-M-20 SG30CX SG50KTL-M-20 SG50KTL-M-20 SG50CX SG50KTL-M-20 SG33CX SG50KTL-M-20 SG50KTL-M-20 SG50KTL-M-20 SG50KTL-M-20	63.7, 24.7, 65, 54.92, 58.5, 31.85, 61.7, 58.5, 66.95, 61.1, 29.9, 64.85, 65, 65, 54.6,
Elringklinger	Renewsys	Sungrow	SG110CX	
Shyam Metalics & Energy Pvt. Ltd, Sambalpur (Floating)	Renewsys	SunGrow	SG110CX	100KW - 9
Luminaz Safety Glass Ltd	Renewsys	Schneider	CL60E, Solis 66 K	79.2, 79.2, 79.2, 81.51, 81.51, 79.2, 81.51, 79.2, 81.51, 79.2, 81.51, 79.2, 79.2, 79.2, 79.2
Bridgestone Indore	adani	Schneider	PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E PVSCL60E	80.27 80.27, 80.27, 84.5, 84.5, 84.5, 84.5, 84.5, 84.5, 84.5, 84.5, 84.5, 84.5,
DMart Moshi	RenewSys	SunGrow	SG33KTL-M SG20KTL-M SG110CX SG50KTL-M-20	28.88, 21.46, 120.02, 60.75,
Parker Hannifin India Pvt Ltd, Nagpur	Renewsys	Sungrow	SG110CX	141.7, 141.7, 141.7, 141.7, 141.7, 126.99, 140.61, 140.61, 68.67, 140.61, 39.24,
Parker Hannifin India Pvt Ltd, Navi Mumbai	Renewsys	Sungrow	SG100CX SG100CX SG100CX SG100CX SG100CX	137.34 137.34, 147.15, 127.53, 147.15,

			SG100CX SG50CX SG100CX SG100CX	127.53, 68.67, 137.34, 137.34,
DMart Zirakpur phase 1 & 2	Vikram Solar, longi solar	schneider sungrow & sofar	PVSCL25E/ Sofar 30000TL- G2/SG100CX	20kwp/100 kwp
DMart MandiGobindghar (Phase-7)- phase 1	Renewsys	Sungrow	SG50X	50 kwp
D mart zirakpur car port	Renewsys	Sungrow	SG110CX	110 kwp
Dmart Zirakpur DC	Renewsys	Sungrow	SG50CX/ SG20KTL	50kwp/20kwp
DMart MandiGobindghar (Phase-7)- phase 2	Renewsys	Sungrow	SG50CX	50kwp/20kwp

B.2 Do no harm or Impact test of the project activity>>

The 36.67 MW Bundled Solar Power Project by Fourth Partner Energy Private Limited (FPEPL) has undergone a thorough impact assessment to ensure it has no negative effects on the environment, society, or the economy. The evaluation confirms that the project adheres to sustainable practices and makes positive contributions in several key areas:

Environmental Impact: The project significantly lowers greenhouse gas (GHG) emissions by replacing fossil fuel-based grid electricity with clean, renewable solar energy. This shift not only conserves natural resources but also enhances air quality and reduces environmental degradation. By cutting carbon emissions and promoting a cleaner energy mix, the project supports global efforts to combat climate change.

Social Impact: The project has created numerous local employment opportunities during both the construction and operational phases, positively affecting local communities by improving economic conditions and raising the quality of life for those involved. Additionally, the project enhances social well-being by promoting access to clean energy and strengthening energy security.



Economic Impact: The project delivers long-term electricity cost savings for commercial and industrial users, contributing to economic sustainability and resilience. By attracting investments in clean technology, it stimulates growth in the renewable energy sector, boosting local economies and fostering sustainable economic development at both the community and national levels.


The project follows strict health, safety, and regulatory standards, ensuring transparency and

full compliance with all applicable laws and guidelines. It also aligns with several United Nations Sustainable Development Goals (SDGs), particularly climate action (SDG 13), affordable and clean energy (SDG 7), and decent work and economic growth (SDG 8). These initiatives highlight FPEPL's commitment to sustainable development, while ensuring environmental protection and societal benefits.

United Nations Sustainable Development Goals:

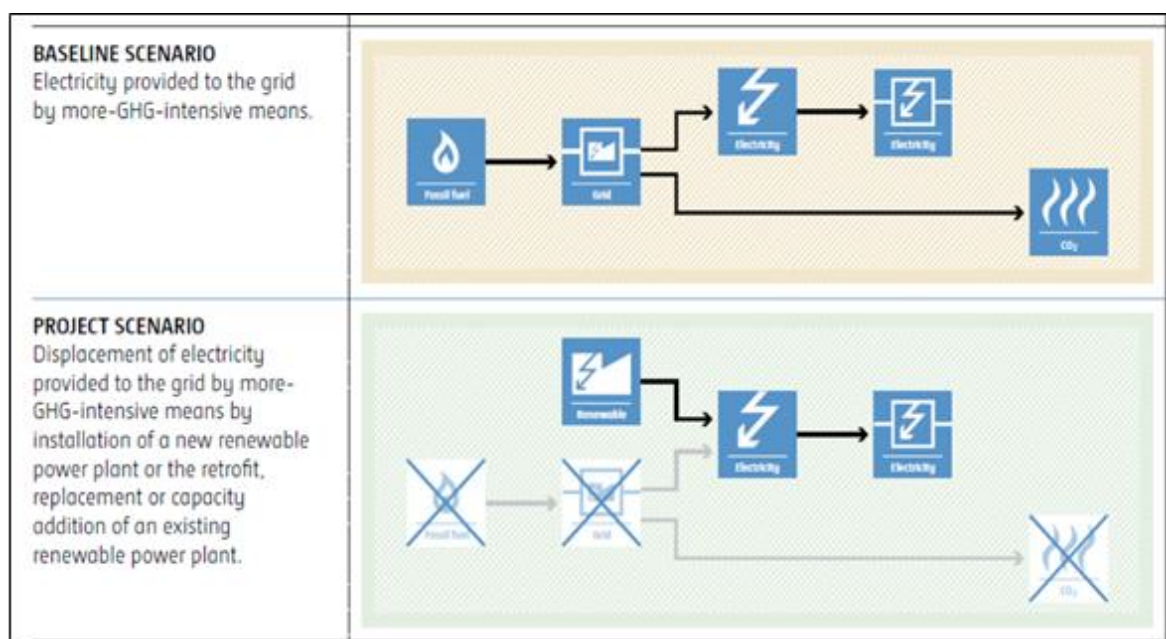
The 36.67 MW Bundled Solar Power Project by Fourth Partner Energy Private Limited (FPEPL) actively supports several United Nations Sustainable Development Goals (SDGs). It contributes to SDG 13: Climate Action by reducing greenhouse gas emissions through the generation of clean energy. The project also aligns with SDG 7: Affordable and Clean Energy by increasing the share of renewable energy in the energy mix and offering cost-effective electricity. Furthermore, it promotes SDG 8: Decent Work and Economic Growth by creating numerous job opportunities during both construction and operation, driving local economic development and improving socio-economic conditions. In summary, the project fosters climate action, energy sustainability, and economic growth.

Development Goals	Targeted SDG	Target Indicator (SDG Indicator)
 <p>SDG 13: Climate Action</p>	<p>13.2: Integrate climate change measures into national policies, strategies and planning</p> <p>Target: <u>1,47,402</u> tCO_{2eq} avoided for the Monitored Period 01</p>	<p>13.2.1: Number of countries that have communicated establishment or operationalization of an integrated policy/ strategy/ plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)</p>
 <p>SDG 7: Affordable and Clean Energy</p>	<p>7.2: By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p>Target: <u>1,63,783.03</u> MWh renewable power supplied for the Monitored Period 01</p>	<p>7.2.1: Renewable energy share in the total final energy consumption</p>

<p>8 DECENT WORK AND ECONOMIC GROWTH</p>  <p>SDG 8: Decent Work and Economic Growth</p>	<p>8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p> <p>Target: Training, O&M staff</p>	<p>8.5.1: Average hourly earnings of female and male employees, by occupation, age and persons with disabilities</p>
---	---	--

B.3. Baseline Emissions>>

If the project activity were absent, the equivalent amount of electricity would have been sourced from the regional grid, which is connected to the unified Indian Grid system. This grid predominantly relies on fossil fuel-based power plants, making it carbon-intensive. Therefore, this project activity represents a voluntary investment, replacing an equivalent amount of electricity sourced from the Indian grid. The project proponent was under no obligation to undertake this investment, as it was not mandated by national or sectoral policies. Consequently, the ongoing operation of the project will continue to displace fossil fuel-based power plants, contributing to the mitigation of climate change impacts. The Project Proponent anticipates that carbon incentives offered by the UCR program under the CoU from 2018-2023 vintage years, accrued through generated carbon credits, will assist in repaying project costs, expanding project capacity, and ensuring ongoing maintenance.



The baseline scenario identified at the MR stage of the project activity is:

“The baseline scenario is that in the absence of the project, the equivalent amount of electricity would have been generated by the existing grid-connected power plants and newly added power plants, which are predominantly fossil fuel-based”.

B.3. Debundling>>

This project activity is a bundled component of a hundred and three project sites with a total capacity of 36.67 MW.

SECTION C. Application of methodologies and standardized baselines

C.1. References to methodologies and standardized baselines >>

SECTORAL SCOPE – 01 Energy industries (Renewable/Non-renewable sources)

TYPE I - Renewable Energy Projects

CATEGORY - ACM0002, “(Title: Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources, Ver 22.0)

The project activity involves the generation of electricity from renewable solar energy. The project activity has an installed capacity of 36.67MW which qualifies for a large-scale project. The project status corresponds to the methodology ACM0002., version 22.0, and the applicability of the methodology is discussed below:

C.2. Applicability of methodologies and standardized baselines >>

This project activity is included within the UCR Standard Positive List of technologies and is within the large-scale CDM thresholds (e.g. installed capacity is 36.67 MW). The positive list comprises of the project being a greenfield plant /unit.
Project activity involves installation of a 36.67 MWh renewable electricity generation plant (solar farm) connected to the regional power grid.
The project activity involves installation of Solar PV (SPV). Hence, the activity is not a hydro power project or combined heat and power (co-generation) systems.
Project is not an activity that involves switching from fossil fuels to renewable energy at the site of the project activity.
The project activity is a new installation, it does not involve any retrofit measures nor any replacement.
Landfill gas, waste gas, wastewater treatment and agro-industries projects are not relevant to the project activity. No biomass is involved, the project is only a solar power project.

<p>The technology/measure allowed under the grid connected Solar PV based generation systems displace equivalent quantity of electricity from the regional grid in India. The testing/certifications; all the equipment of the solar project activity will be complying with applicable national/ international standards. The above details may be verified from one or more of the following documents:</p> <ul style="list-style-type: none"> • Technology Specification provided by the technology supplier. • Purchase order copies. • EPC contracts • Power purchase agreement • Project commissioning certificates, etc
<p>The project activity is a voluntary coordinated action.</p> <p>As per the Ministry of Environment and Forest (MoEF), Govt. of India Office Memorandum dated 13/05/2011, it had received specific clarification regarding the applicability of EIA Notification, 2006 in respect of Solar Photo Voltaic (PV) Power plants. It was further clarified in the above memorandum that both Solar PV power projects are not covered under the ambit of EIA notification, 2006 and no environment clearance is required for such projects under provisions thereof.</p>
<p>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to user(s). Hence this methodology is applicable and fulfilled for the solar project activity.</p>
<p>The project activity involves installation of new power plants at listed sites where there was no renewable energy power plant operating prior to implementation of project.</p>
<p>Project and leakage emissions from biomass are not applicable.</p>

C.3 Applicability of double counting emission reductions >>

Double counting of emission reductions in the project activity is prevented through several key measures: the project is uniquely identified by its exact location coordinates, ensuring correct attribution of emission reductions. It also has a specific commissioning certificate and connection point, offering clear documentation and verification of its existence and operation. Additionally, dedicated energy meters at the site measure electricity consumption, preventing any misattribution to other sources. Together, these measures ensure transparency, accountability, and the integrity of the project's environmental impact assessments, reducing the risk of double counting.

C.4. Project boundary, sources and greenhouse gases (GHGs)>>

The project boundary for the 36.67 MW Bundled Solar Power Project by Fourth Partner Energy

Private Limited (FPEPL) encompasses all solar photovoltaic (PV) installations and related infrastructure required for electricity generation and distribution. This includes PV modules, inverters, transformers, mounting structures, and the electrical grid up to the point of connection with end-users. Key components within the boundary are the PV modules, which convert sunlight into direct current (DC) electricity; inverters, which transform DC into alternating current (AC) for grid compatibility; and transformers and transmission lines, which ensure efficient electricity transmission and distribution.

The primary greenhouse gas (GHG) targeted by the project is carbon dioxide (CO₂). While the solar PV system generates no direct GHG emissions during operation, it helps reduce CO₂ emissions by replacing electricity that would otherwise come from fossil fuel-based power plants. The project's contribution to climate change mitigation is assessed by comparing baseline emissions (from fossil fuel sources) with the minimal emissions from the solar PV installations, showcasing a substantial reduction in CO₂ emissions.

Source		GHG	Included?	Justification/Explanation
Baseline	Grid connected electricity.	CO ₂	Included	Major source of emission
		CH ₄	Excluded	Excluded for simplification. This is conservative.
		N ₂ O	Excluded	Excluded for simplification. This is conservative.
Project Activity	Greenfield Solar Power Project	CO ₂	Excluded	Excluded for simplification. This is conservative.
		CH ₄	Excluded	Excluded for simplification. This is conservative.
		N ₂ O	Excluded	Excluded for simplification. This is conservative.

Total Installed Capacity: 36.67 MW

Commissioning Date of the first installation: 24/07/2018

C.5. Establishment and description of baseline scenario (UCR Protocol) >>

As per the approved consolidated methodology ACM0002. version – 22.0, if the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following:

“The baseline scenario is that in the absence of the project, the equivalent amount of electricity would have been generated by the existing grid-connected power plants and newly added power plants, which are predominantly fossil fuel-based”.

The project activity involves establishing a new solar power plant to harness green energy from solar sources. The electricity generated will serve as a captive source for PP. In the absence of this project, an equivalent amount of power would have been supplied by the Indian grid, which is fed mainly by fossil fuel-fired plants. Hence, the baseline for the project activity is the equivalent amount of power produced at the Indian grid.

Therefore, the baseline for the project activity is the same amount of power produced by the Indian grid.

Grid Emission Factor: The term “grid emission factor” refers to the CO₂ emission factor (measured in tCO₂/MWh) associated with each unit of electricity provided by an electricity system. For Indian projects not previously verified under any GHG program, the UCR recommends using a conservative estimate of 0.9 tCO₂/MWh for the years 2013-2023. Additionally, till June 2024, the combined margin emission factor calculated from the CEA database in India indicates higher emissions than the default value. Consequently, the same emission factor has been applied to calculate emission reductions using a conservative approach.

Net GHG Emission Reductions and Removals

Thus, $ER_y = BE_y - PE_y - LE_y$

Where:

ER_y = Emission reductions in year y (tCO₂/y)

BE_y = Baseline Emissions in year y (t CO₂/y)

PE_y = Project emissions in year y (tCO₂/y)

LE_y = Leakage emissions in year y (tCO₂/y)

Baseline Emission Reductions:

Baseline emissions include only CO₂ emissions from electricity generation in power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants. The baseline emissions are to be calculated as follows:

$$BE_y = EG_{PJ,y} \times EF_{grid,y}$$

BE_y = Baseline emissions in year y (tCO₂)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the PPA's as a result of the implementation of the UCR project activity in year y (MWh)

$EF_{grid,y}$ = UCR recommended emission factor of 0.9 tCO₂/MWh has been considered.

Project Emissions (PE_y)

As per ACM0002. version – 22.0, only emissions associated with fossil fuel combustion, emissions from the operation of geothermal power plants due to the release of non-condensable gases, and emissions from a water reservoir of Hydro should be accounted for the project emission. Since the project activity is a solar electric power project, it's emission from renewable energy plants is nil. Thus, **PE = 0**

Leakage Emission

As per ACM0002. version – 22.0, 'If the energy generating equipment is transferred from another activity, leakage is to be considered.' In the project activity, there is no transfer of energy-generating equipment, and therefore the leakage from the project activity is considered zero.

Hence, **LE = 0**

Total Emission Reduction:

$$ER_y = BE_y - PE_y - LE_y$$

Total Emission Reduction (ER) by the project activity for the current monitoring period is calculated as below:

Year	Total Net Generation in MWh	ER _y (tCO ₂)
2018	297.92	268
2019	6,569.59	5,912
2020	19,129.38	17,216
2021	28,315.76	25,484
2022	37,276.37	33,548
2023	45,441.12	40,897
2024	26,752.89	24,077
Total	1,63,783.03	1,47,402

C.6. Prior History>>

The project activity is a large-scale solar project and this project was never applied under any other GHG mechanism prior to this registration with UCR. Also, the capacity or the total project as a whole has not been applied for any other environmental crediting or certification mechanism. Hence project will not cause double accounting of carbon offset units or credits (i.e., CoUs).

C.7. Monitoring period number and duration>>

Monitoring Period No: 01

1st Monitoring Period: 01/06/2018 to 30/06/2024

C.8. Changes to start date of crediting period >>

There are no changes applicable.

C.9. Permanent changes from PCN monitoring plan, applied methodology or applied standardized baseline >>

There are no changes applicable.

C.10. Monitoring plan>>

The project implementer, PP, is responsible for overseeing and monitoring the electricity generated by the project activity. Since August 1st 2018, the related data has been electronically archived.

To ensure data reliability and transparency, PP has established Quality Assurance and Quality Control (QA&QC) measures. These measures are designed to efficiently manage and oversee data collection, recording, auditing, and archiving, along with associated documents. The data is monitored daily and submitted to PP accordingly.

PP has also implemented QA&QC procedures for calibrating and ensuring the accuracy of metering devices, as well as maintaining the safety of project operations. The metering devices are regularly calibrated and inspected in compliance with the state electricity board's specifications and requirements to ensure accurate readings.

Data/Parameter	EGy	
Data unit	Year	Total Net Generation in MWh (36.67MWh)
	2018	297.92
	2019	6,569.59
	2020	19,129.38
	2021	28,315.76
	2022	37,276.37
	2023	45,441.12
	2024	26,752.89
	Total	1,63,783.03
Description	Quantity of net electricity displaced in year y	
Source of data Value(s) applied	Joint meter reading report/Energy generation report.	

Measurement methods and procedures	Daily: Direct measurement using electricity meters
Monitoring frequency	Continuously, aggregated at least annually. Calibration Frequency: The calibration is done following the relevant applicable National Guidelines updated from time to time during the operation of the project activity. Entity responsible: Aggregator The electricity meter is subject to regular maintenance and testing in accordance with the stipulation of the meter supplier or national requirements. The calibration of meters, including the frequency of calibration, is done in accordance with national standards or requirements set by the meter supplier. The accuracy class of the meters is in accordance with the stipulation of the meter supplier or national requirements. The PP calibrates the meters every 3 years and uses the meters with at least 0.5 accuracy class (e.g. a meter with 0.2 accuracy class is more accurate and thus it is accepted)
QA/QC procedures:	Monitoring frequency: Continuous Measurement frequency: Hourly Recording frequency: Monthly
Purpose of data	Calculation of baseline emissions

Data / Parameter:	EF, CO ₂ , GRID, y
Data unit:	tCO ₂ /MWh
Value of data applied	0.9 UCR Standard Protocol as per Standard
Description:	Fixed
Measurement procedures:	A "grid emission factor" refers to a CO ₂ emission factor (tCO ₂ /MWh) which will be associated with unit of electricity provided by an electricity system. The UCR recommends an emission factor of 0.9 tCO ₂ /MWh for the 2019 - 2024 years as a fairly conservative estimate for Indian projects not previously verified under any GHG program. Hence, the same emission factor has been considered to calculate the emission reduction under conservative approach.
Monitoring frequency:	NA
Purpose of data:	To estimate baseline emissions
Additional comment:	The combined margin emission factor as per CEA database (current Version 16, Year 2021 and 2022) results into higher emission factor. Hence for 2021-22 vintage UCR default emission factor remains conservative.

