



The Rise of Environmental Attributes

FPEL's role in facilitating Clean Energy Transition for Corporates
via I-RECs & Carbon Credits


Corporates and ESG Compliance

Across industries, the call for environmental accountability has never been stronger. Stakeholders now expect companies to go beyond profit-driven goals and demonstrate genuine responsibility toward the planet. It's not just investors but also employees, consumers, and regulators who are demanding measurable, science-based climate action.

As ESG expectations rise, companies worldwide are under increasing pressure to measure, manage, and offset carbon emissions across their value chains. These emissions are categorized into three scopes: Scope 1 (direct emissions), Scope 2 (indirect emissions from purchased electricity, heating, or cooling), and Scope 3 (other indirect emissions from supply chains and product use).


While Scope 1 and 3 reductions often require long-term operational transformation, Scope 2 emissions can be addressed more immediately through renewable energy adoption. Yet not every business has the physical or regulatory feasibility to deploy on-site solar solutions or wind systems. This is where Energy Attribute Certificates (EACs) – particularly the International Renewable Energy Certificate (I-REC) – play a transformative role. By purchasing I-RECs, companies can credibly claim renewable electricity consumption, reduce indirect emissions, and make measurable progress toward their net-zero goals.

Environmental attributes are the non-power benefits linked to renewable energy generation, such as reduced greenhouse gas emissions and cleaner air. These attributes can be quantified, tracked, and traded separately from the electricity itself through market-based instruments that verify their sustainability value. Common examples include:




Renewable Energy Certificates (RECs)

Represent the environmental benefits of one megawatt-hour (MWh) of renewable electricity.



Carbon Credits

Issued for avoiding or removing one tonne of CO₂-equivalent emissions.



Emission Reduction Credits

Earned by projects that achieve verified reductions in greenhouse gas output.

What are I-RECs?

The International Renewable Energy Certificate (I-REC) is a globally recognized instrument that certifies the generation of one megawatt-hour (MWh) of renewable electricity — from solar, wind, hydro, or biomass. It decouples the environmental benefit of renewable generation from the physical electricity, allowing companies to purchase clean energy attributes even if their operations are not directly connected to a renewable grid.

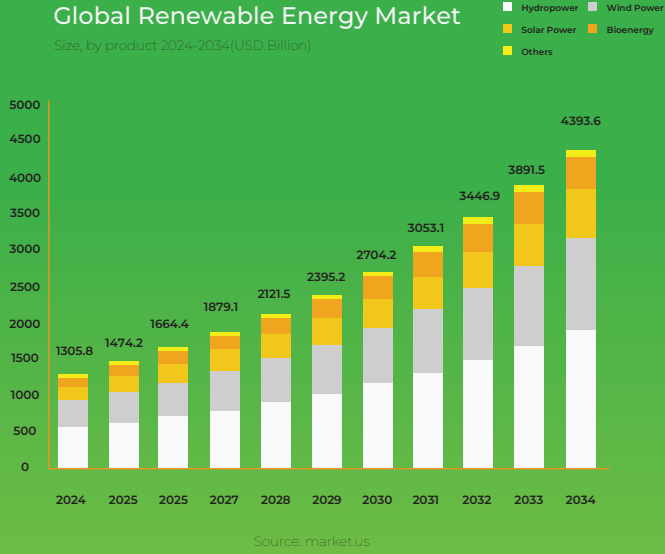
When a solar or wind plant produces 1 MWh of electricity, it earns one I-REC, which can be sold to corporates seeking to offset their Scope 2 emissions — those arising from purchased power. Once redeemed, the certificate ensures that no other party can claim the same renewable benefit, guaranteeing transparency and credibility.

Issued under the I-REC Standard Foundation, these certificates are traceable and prevent double-counting. Unlike domestic Renewable Energy Certificates (RECs), which operate within national frameworks, I-RECs are globally tradable — a feature that makes them invaluable for multinational corporations or businesses located in regions without local REC systems.

Today, I-RECs are endorsed by major sustainability frameworks such as the Greenhouse Gas Protocol, CDP, RE100, and the Science Based Targets initiative (SBTi). They have become one of the most trusted tools for companies aiming to demonstrate renewable electricity consumption and accelerate progress toward net-zero goals.

Global I-RECs Market

The global renewable energy market is expanding at an unprecedented pace. Projected to grow from US\$ 1,305.8 Bn in 2024 to US\$ 4,393.6 Bn by 2034, at a CAGR of nearly 13% (Market US). Within this rapidly evolving landscape, I-RECs are emerging as a key enabler of corporate decarbonization, particularly in regions that lack national REC schemes.

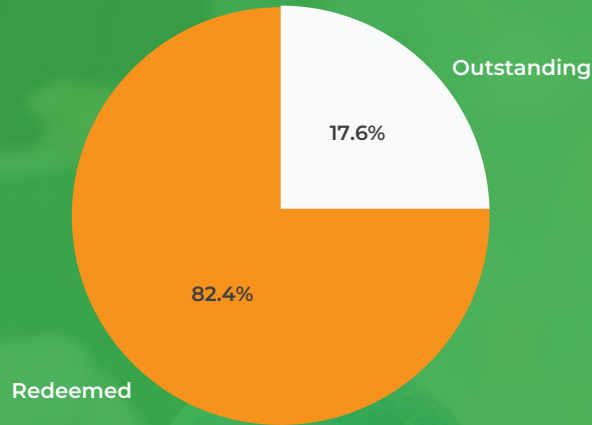


In India, the renewable energy certificate market is also gaining momentum. Valued at US\$ 94.1 Mn in 2024, it is projected to reach US\$ 316.2 Mn by 2032 at a CAGR of 15% (DataM Intelligence). This growth is being propelled by India's target of 500 GW of non-fossil capacity by 2030, alongside policy interventions such as green open access rules, transmission charge waivers, and streamlined REC trading mechanisms. Together, these developments are positioning I-RECs as a mainstream tool for corporate decarbonization and transparent reporting.

Building on this momentum, the I-REC market itself has entered a phase of rapid expansion as corporates worldwide ramp up renewable energy procurement. Emerging economies such as India, Malaysia, and several African and Latin American nations are witnessing record issuances and first-time entries into the system, underscoring the growing global confidence in market-based clean-energy mechanisms.

According to the I-REC Standard Foundation, as of July 2025, approximately 227 Mn-REC(E) certificates have been issued globally a 12% increase over the same period in 2024.

Global I-REC(E) Redemption vs Issuance (Jan-Jul 2025)



Source: The International Tracking Standard Foundation

In India, the REC market was valued at US\$ 94.1 Mni n 2024 and is projected to reach US\$ 316.2 Mn by 2032, growing at a CAGR of 15%. This surge is fueled by India's commitment to achieving 500 GW of non-fossil capacity by 2030, combined with progressive green open access policies, transmission charge waivers, and increasing voluntary demand from corporates in IT, manufacturing, and infrastructure sectors.

Who Buys I-RECs?

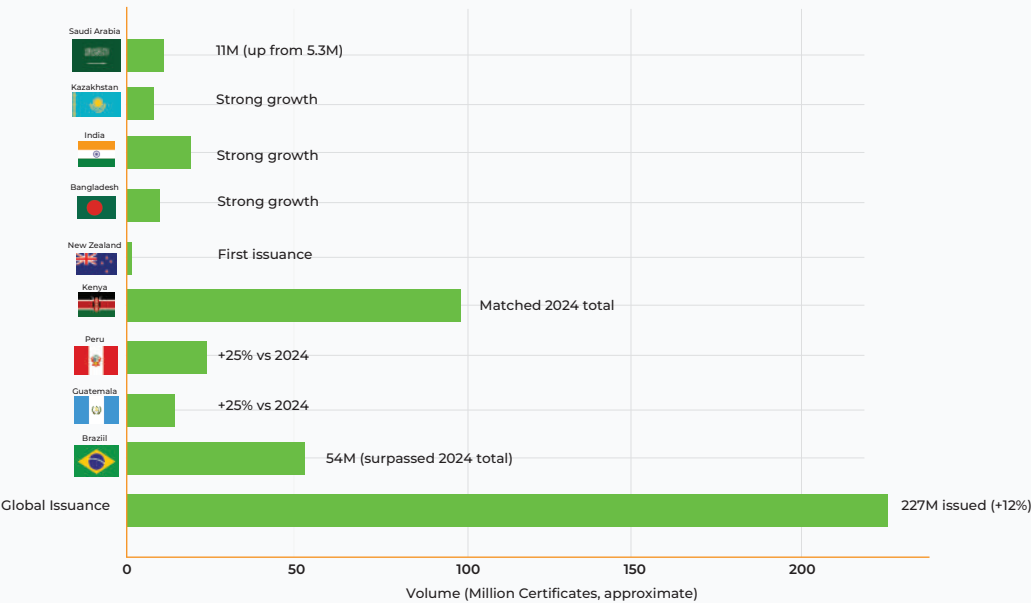
I-RECs are most commonly procured by corporates with robust sustainability frameworks typically those participating in RE100, SBTi, or CDP initiatives. These organizations use I-RECs to validate renewable energy use, reduce Scope 2 emissions, and ensure credible ESG disclosures across multiple regions.

Multinational companies, in particular, value I-RECs for their consistency and global applicability, enabling unified sustainability accounting across diverse markets. For these businesses, I-RECs not only serve as a compliance tool but also as a strategic investment in climate credibility and corporate transparency.

Industries that lead adoption of I-RECs globally

The strongest demand for I-RECs comes from energy-intensive and globally visible industries, particularly technology, manufacturing, and automotive. These sectors are at the forefront of adoption because they face significant Scope 2 emissions from large-scale electricity consumption — whether in data centres, production facilities, or global supply chains.

I-REC(E) Issuance & Growth Trends (Jan-Jul 2025)

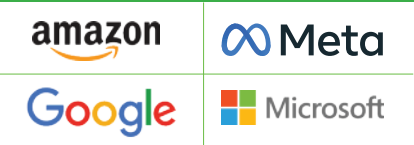


Source: The International Tracking Standard Foundation

Redemptions reached 187 million, reflecting an 8% rise year-on-year, signaling rising corporate demand and deeper integration of I-RECs into sustainability strategies

Technology & IT

Tech giants use I-RECs to power data centres and to manage growing energy needs sustainably and achieve carbon-neutral digital operations.



Automotive

Adopting I-RECs to offset high energy use and strengthen global ESG compliance



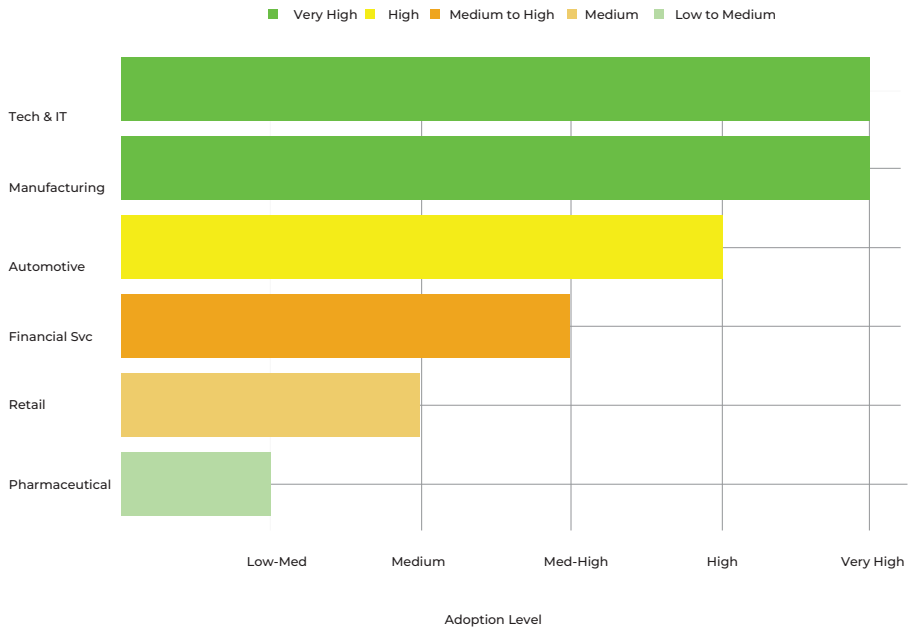
How Can Corporates Procure I-RECs?

- 1 **Assess Needs** – Define renewable energy or net-zero targets, identify regions where physical renewables aren't feasible.
- 2 **Choose Procurement Channel** – Buy directly from developers, through certified retailers/brokers, or bundled with renewable PPAs.
- 3 **Verify Certification** – Ensure I-RECs are issued under the I-REC Standard Foundation's registry, with details of technology, location, and vintage.
- 4 **Retirement (Redemption)** – Once used, I-RECs must be retired in the registry, preventing resale and ensuring transparency.
- 5 **Reporting & Disclosure** – Redeemed I-RECs can be showcased in sustainability reports, Scope 2 accounting, and global frameworks (CDP, RE100).

Manufacturing & Industrial

Manufacturers are major I-REC buyers in markets like India and Mexico, using them to offset energy use in large facilities.

I-REC Adoption Levels by Key Sectors



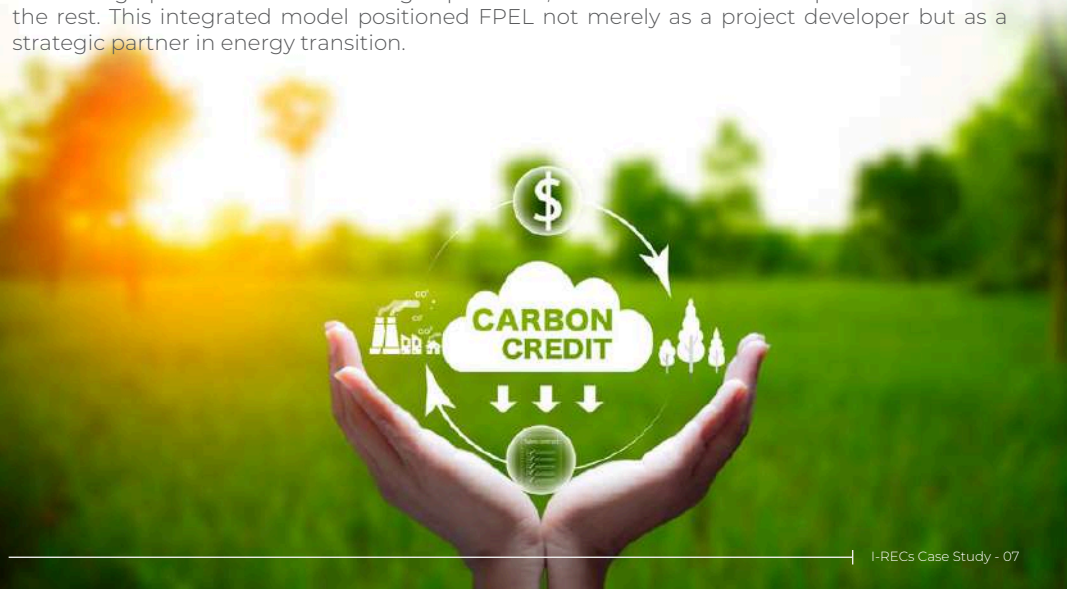
Modeled on research data from Perplexity.ai.

FPEL's Foray Into I-RECs

Fourth Partner Energy (FPEL) entered the I-RECs market in 2020, beginning with the supply of 10,000 I-RECs per year from its Pavagada Solar Park to a global leader in the technology sector. This milestone marked a turning point, as FPEL identified a growing challenge faced by corporates: the gap between ambitious RE100 and Net-Zero commitments and the limited feasibility of open-access renewable procurement.

Corporates with dispersed offices, leased facilities, or insufficient contract demand were unable to claim renewable electricity usage despite their sustainability intent. Recognizing this challenge early, FPEL registered its renewable assets under the I-REC Standard, ensuring traceability, transparency, and credibility.

Through this initiative, FPEL began offering corporates a complete decarbonization pathway, combining open-access PPAs for large operations, and I-RECs to offset Scope 2 emissions for the rest. This integrated model positioned FPEL not merely as a project developer but as a strategic partner in energy transition.



FPEL’s I-RECs Footprint

Today, Fourth Partner Energy plays a pivotal role in helping businesses across sectors reduce their carbon footprint through certified I-RECs. Leveraging its diverse renewable portfolio, the company enables clients to credibly demonstrate renewable electricity usage while supporting the growth of new clean energy projects.

In India, SKF procures 37,500 I-RECs annually from FPEL’s 104.3 MWp Babina Solar Park, supporting the decarbonization of its manufacturing operations. Likewise, a leading FMCG company procured 300,000 Indian I-RECs, 11,000 Sri Lankan I-RECs, and 4,000 Bangladeshi I-RECs in 2024, equivalent to 315,000 MWh of renewable electricity, enabling it to offset Scope 2 emissions across its South Asian operations.

Additionally, a leading global social media platform sources 200,000 I-RECs annually from FPEL’s solar and wind portfolio across India, while one of India’s top IT and consulting firms has signed a long-term agreement to procure 20,000 I-RECs annually, further strengthening its carbon-neutral roadmap.

Through these partnerships, FPEL continues to empower global brands across sectors to achieve measurable, transparent, and verifiable decarbonization outcomes.

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SKF

Why Choose Fourth Partner Energy for Your I-RECs Purchase?

FPEL stands apart from traditional traders or aggregators by offering end-to-end renewable energy solutions built on ownership, impact, and integrity.

| Key Parameters | Fourth Partner Energy | Traders / Aggregators |
|-----------------------------|---|---|
| Project Ownership | Owns and operates renewable assets that generate I-RECs | Acts as intermediaries with limited or no ownership |
| Traceability & Transparency | Certificates issued directly from FPEL-owned, verifiable projects | Limited visibility into certificate source |
| Additionality | Purchased attributes directly fund operational or new RE projects | Often limited to existing certificates |
| Integrated Solutions | Combines on-site solar, open-access PPAs, and I-RECs | Sells certificates only |
| Corporate Partnership | Long-term alignment with RE100 and Net-Zero goals | Transactional, short-term engagement |

Through this model, FPEL delivers more than certificates. It offers corporates a verifiable, impactful, and future-ready solution aligned with their sustainability commitments.

Management Speak

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At Fourth Partner Energy, we see ourselves as more than just a renewable energy company, we’re an end-to-end carbon solutions partner. We aim to assist businesses in avoiding, offsetting, and reducing their carbon footprint using verifiable, science-based routes. I-RECs sourced from our own renewable projects are one such avenue, they allow companies to make verifiable claims while directly supporting the development of new clean energy assets. When businesses opt to purchase I-RECs directly from a project’s development stage, they’re doing something more than set a goal, they’re supporting the development of new clean energy projects. That’s partnership in its best sense, making sustainability aspirations tangible, long-term reality and fueling a cleaner tomorrow as a collective.”



Rahulselvan T
Carbon Credit Business, FPEL

Client Speak

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The I-RECs provided by Fourth Partner Energy is a great tool towards carbon offset. FPEL makes the process seamless giving a detailed product description and providing comprehensive QR Code verification for the user to locate the RE asset over the map, including details on energy generated. This gives more confidence to the beneficiary using the I-RECs.

Further, these I-RECs qualify for CDP submissions as well, making it ideal for companies like ours.”



Nikhil Parate
Head - Energy & Sustainability, Colt Data Centre

The Benefits & Future of I-RECs

I-RECs have become a cornerstone of corporate decarbonization, enabling businesses to offset Scope 2 emissions and directly contribute to renewable energy development. They not only help reduce carbon footprints but also channel funding into clean power projects, thereby accelerating the global energy transition.

I-RECs offer companies a transparent, flexible, and internationally recognized means to meet RE100 or SBTi goals, strengthen brand credibility, and appeal to sustainability-driven investors. Their standardized structure ensures accountability and prevents double counting, reinforcing confidence among both corporates and stakeholders.

The future of I-RECs is bright marked by rapid market expansion, greater international standardization, and growing policy alignment. As more businesses adopt net-zero targets, the demand for I-RECs will continue to surge. For renewable developers, this mechanism also improves financial viability by providing an additional revenue stream that supports new project development.

As one of India's leading renewable energy companies, Fourth Partner Energy has integrated I-RECs into its broader energy transition portfolio complementing on-site and open-access renewable projects. By doing so, FPEL continues to help global corporations achieve comprehensive and measurable progress toward their sustainability goals.

In the years ahead, I-RECs will remain a cornerstone of transparent climate action a credible, scalable, and impactful tool that empowers businesses and governments to power a truly carbon-neutral future.



Go Green with FPEL's Environmental Attributes



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