The Business Case for I-RECs

Market Infrastructure for Credible Renewable Electricity Claims

Contents

Executive Summary: Why I-RECs Matter Now

Renewable electricity sourcing now intersects directly with corporate social responsibility, emission reductions and regulatory risk exposure. Boards are accountable for ensuring that market-based Scope 2 claims are supported by recognized contractual instruments and documented control processes.

International Renewable Energy Certificates (I-RECs) provide the compliance-grade evidence required for:

- Greenhouse Gas Protocol Scope 2 claims
- RE100 reporting
- SBTi targets

I-RECs are not optional sustainability add-ons. They are market infrastructure for credible renewable electricity claims.

In a reporting environment defined by regulatory scrutiny, investor expectations and assurance requirements, organizations must move from ambition statements to auditable evidence.

I-RECs provide that evidence.

The Traceability Challenge of Grid-Based Electricity

Electricity grids pool generation from multiple sources. Once injected into the grid, renewable and fossil-derived electricity cannot be physically differentiated.

Under established accounting frameworks, renewable electricity claims therefore require Energy Attribute Certificates (EACs) to substantiate environmental attribute ownership.

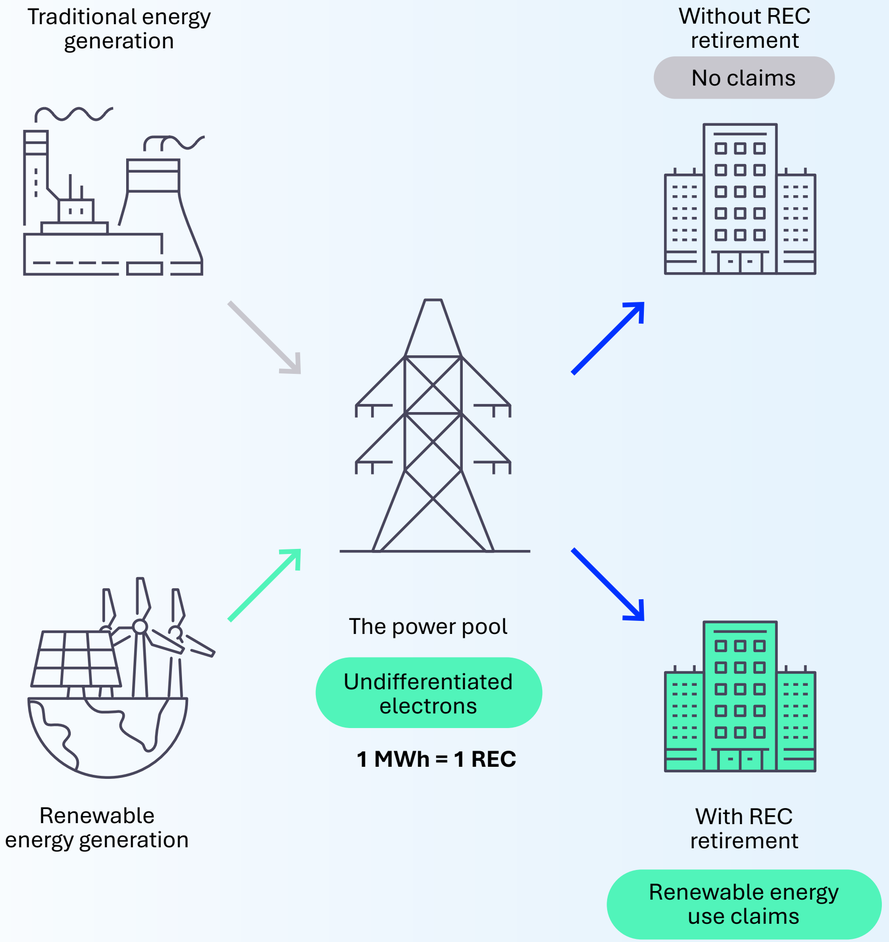
I-RECs are a globally-recognized certificate system that:

- Allocate renewable energy attributes to a specific owner.
- Prevent double counting through registry tracking and retirement.
- Provide standardized documentation for market-based reporting.

Each certificate represents 1 MWh of electricity generated.

Only when certificates are retired can the associated renewable attributes be claimed for reporting purposes.

For corporations operating outside North America and Europe, I-RECs provide the standardized tracking mechanism required to substantiate environmental attribute ownership across diverse markets.



01

The Compliance Imperative: Scope 2 & Regulatory Drivers

SBTi, RE100, the EU's Corporate Sustainability Reporting Directive, and other regulations that follow the Greenhouse Gas Protocol require companies to report both their market-based and location-based Scope 2 emissions (energy-linked emissions).

- **Location-based reporting:** the average emissions intensity of the local grid where consumption happens.
- **Market-based reporting:** emissions associated with electricity which companies have chosen to purchase, accounting for contractual instruments like I-RECs.

Under the market-based method, emissions reductions must be supported by contractual instruments that meet the Scope 2 Quality Criteria – such as I-RECs.

I-RECs are recognized contractual instruments for Scope 2 market-based accounting.

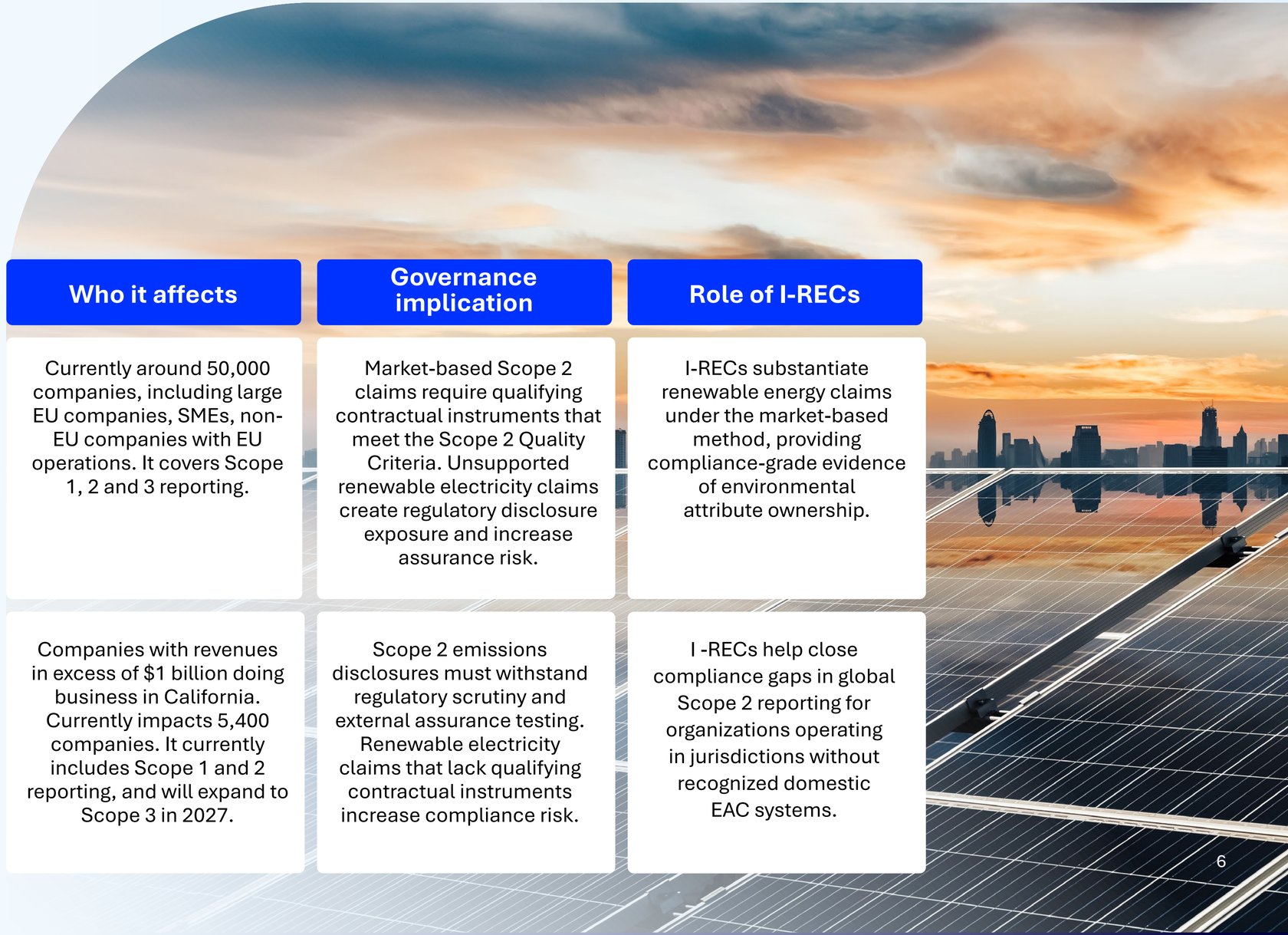
They provide:

- Compliance-grade evidence
- Registry-based traceability and registry tracking
- Independent verification
- Audit defensibility

Without recognised EACs, organizations must base their market-based Scope 2 emissions on the makeup of the local grid, regardless of renewable procurement. This creates regulatory exposure, as reported emissions may not align with disclosure requirements, and reputational risks from unsubstantiated renewable energy claims.

I-RECs address these risks. When retired within the reporting period, they enable organisations to confidently reduce their Scope 2 emissions inventory under the market-based method and provide evidence to support renewable energy claims.

I-RECs in Emerging Regulatory Reporting



	What it is	Who it affects	Governance implication	Role of I-RECs
The European Union's Corporate Sustainability Reporting Directive (CSRD)	An EU directive on corporate sustainability reporting that follows the European Sustainability Reporting Standards (ESRS). It replaces the previously applicable Non-Financial Reporting Directive (NFRD).	Currently around 50,000 companies, including large EU companies, SMEs, non-EU companies with EU operations. It covers Scope 1, 2 and 3 reporting.	Market-based Scope 2 claims require qualifying contractual instruments that meet the Scope 2 Quality Criteria. Unsupported renewable electricity claims create regulatory disclosure exposure and increase assurance risk.	I-RECs substantiate renewable energy claims under the market-based method, providing compliance-grade evidence of environmental attribute ownership.
United States - California Senate Bill 253	Landmark California law that mandates large companies doing business in California to comprehensively report on their emissions, including emissions outside the US.	Companies with revenues in excess of $1 billion doing business in California. Currently impacts 5,400 companies. It currently includes Scope 1 and 2 reporting, and will expand to Scope 3 in 2027.	Scope 2 emissions disclosures must withstand regulatory scrutiny and external assurance testing. Renewable electricity claims that lack qualifying contractual instruments increase compliance risk.	I -RECs help close compliance gaps in global Scope 2 reporting for organizations operating in jurisdictions without recognized domestic EAC systems.

Regulatory Disclosure Expectations

Sustainability disclosure requirements are expanding rapidly.

- The EU CSRD requires detailed Scope 1, 2, and 3 disclosure.
- California SB 253 mandates Scope 1 and 2 emissions reporting for large corporations operating in California.
- Carbon Border Adjustment Mechanism (CBAM) reporting requires transparent documentation of electricity-related emissions embedded in goods.

In this environment, **claims without evidence increase regulatory risk exposure**.

I-RECs provide:

- Assurance readiness
- Disclosure controls
- Reporting basis documentation
- Controls-based risk mitigation embedded within enterprise risk management (ERM) integration

The Competitive Advantage: Supply Chain & Market Signaling

Renewable electricity procurement is increasingly a supply chain requirement.

Large multinational buyers now:

- Evaluate supplier emissions profiles.
- Require evidence of Scope 2 decarbonization.

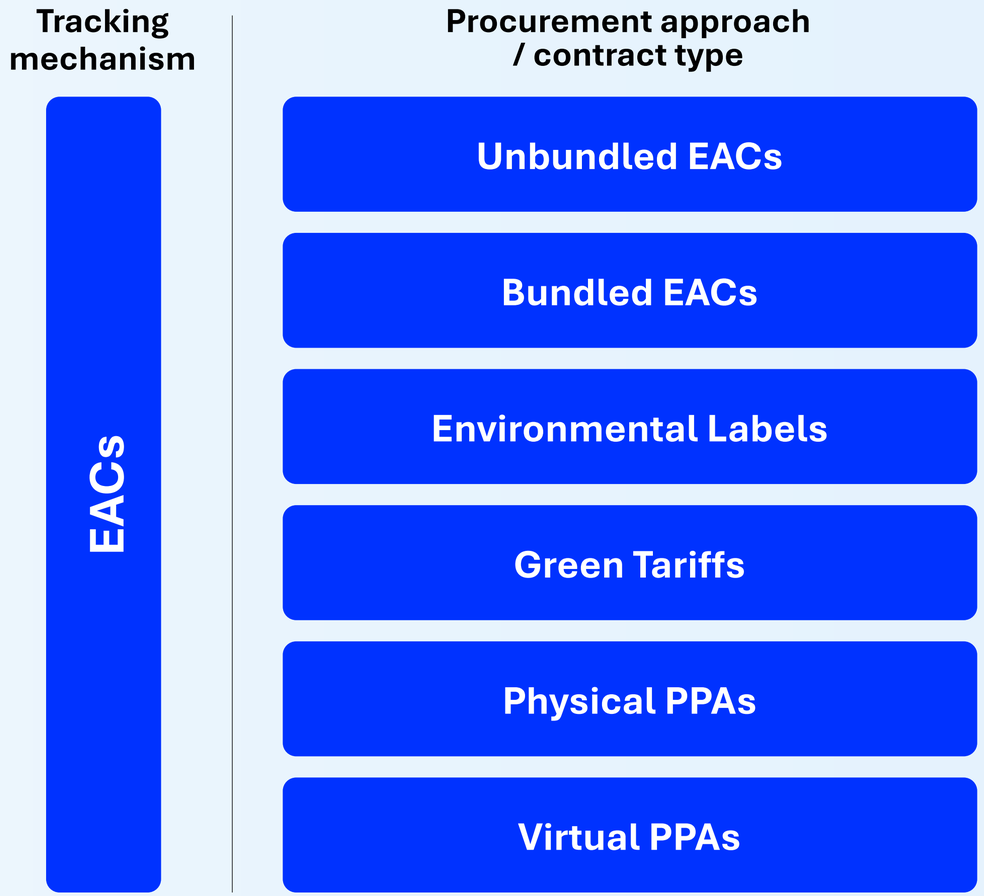
Align procurement decisions with net-zero commitments.

I-RECs enable suppliers to:

- Demonstrate renewable electricity sourcing.
- Strengthen procurement governance alignment.
- Differentiate in competitive tenders.
- Reduce climate-related financial risk exposure.
- Demonstrate alignment with investor-grade disclosure standards.

I-RECs provide a scalable supply chain decarbonization mechanism for corporates' purchasing finished goods.

Whether renewable electricity is procured via PPAs, green tariffs, or other arrangements, the associated I-REC (or equivalent EAC) is required to transfer the renewable energy attributes, confirm exclusive ownership, and prevent double counting. This evidentiary foundation strengthens enterprise risk management (ERM) integration and aligns with investor-grade disclosure expectations.



03

Case Study

United Arab Emirates - Emirates Global Aluminium (EGA) & the BMW Group

Context

In February 2021, Emirates Global Aluminium (EGA) announced the sale of **40,000** tons of their CelestiAL - aluminum produced with renewable solar power - to BMW Group. This transaction required verifiable proof of renewable electricity use to support downstream decarbonization claims within the automotive supply chain.

Certificate deployment

Approximately **560,000 I-RECs** were retired – each representing 1 MWh of solar generation from the Mohammed bin Rashid Al Maktoum Solar Park allocated to aluminum production. These certificates verified and tracked the renewable electricity attributes associated with this generation.

Outcome

For BMW Group, this enabled substantiated supply chain decarbonization claims aligned with market-based Scope 2 accounting principles. For EGA, it strengthened competitive positioning, procurement governance alignment, and investor-grade disclosure.

Financial & Investment Case:
Revenue, Bankability & Risk Mitigation

04

I-REC revenue contributes meaningfully to renewable project economics.

Revenue Contribution

In many markets, RECs can contribute between 5 to 30 percent of a renewable energy project's revenue, depending on the specific instrument and market conditions.

This:

- Improves project viability.
- Provides stabilized, predictable cash flow.
- Supports new capacity deployment.
- Enhances investor confidence.

Bankability

Long-term I-REC purchase agreements improve project bankability. Lenders view predictable certificate revenue as a stabilizing cash flow, improving financing conditions.

Viability Gap Closure

In markets with low wholesale electricity prices, I-REC provides stable revenue stream in volatile energy markets.

For boards evaluating sustainability expenditure, this becomes a cost versus reputational risk trade-off:

- The cost of certificates is measurable.
- The cost of non-compliant disclosure, investor scrutiny or reputational damage is significantly higher.

In certain emerging market contexts, wholesale power prices alone may not fully meet required return thresholds. I-REC revenue can materially narrow this shortfall, improving project viability.

Advanced Impact Instruments: D-RECs & P-RECs

Beyond Scope 2: Many companies are looking beyond their immediate emissions inventories to examine how their RE investments can have the most global emissions impact.

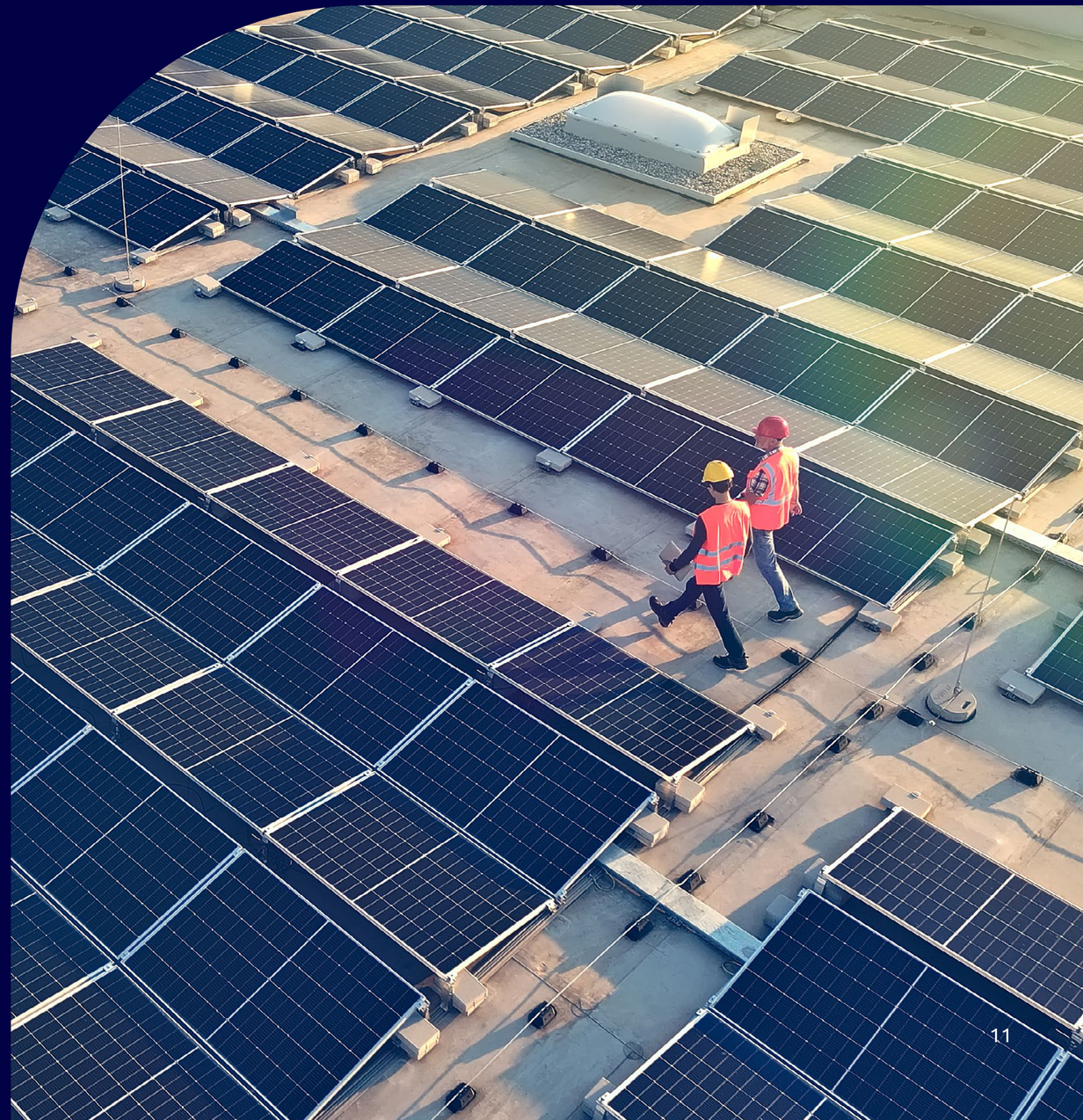
Instruments like Distributed Renewable Energy Certificates (D-RECs) and Peace Renewable Energy Certificates (P-RECs) allow organisations to build in considerations related to capital impact, strategic market positioning, and long-term risk management to their procurement strategies.

They operate under the same principles that underpin audit-defensible renewable claims:

- Independent verification
- Serialized issuance
- Registry-backed traceability
- Controlled retirement
- Avoidance of double counting

This means impact does not come at the expense of governance.

05



Distributed Renewable Energy Certificates (D-RECs)

D-RECs channel finance into distributed renewable energy solutions – such as mini-grids and off-grid solar – in emerging and underserved markets.

For corporates, they provide:

- A structured mechanism to support incremental renewable capacity where traditional PPAs are not feasible.
- A supply chain decarbonization lever in markets with limited grid maturity.
- Climate capital deployment without assuming infrastructure ownership risk.
- Compliance-aligned environmental attribute documentation.

2 TWh contracted

1,400 project sites across **15** countries

14 global buyers

These instruments enable organizations to direct capital toward high-impact renewable deployment while maintaining audit defensibility and assurance readiness.

Peace Renewable Energy Certificates (P-RECs)

P-RECs channel renewable energy finance into fragile and conflict-affected regions.

For decision-makers and organizations overseeing global operations and complex supply chains, P-RECs provide:

- A controlled and transparent mechanism to support renewable deployment in geopolitically sensitive markets.
- Registry-backed evidence of environmental attribute ownership.
- Enhanced ESG positioning supported by compliance-grade documentation.
- Reputational risk mitigation.

Impact to date

250,000

P-REC-supported projects beneficiaries

$1.6m

mobilized for renewable energy projects

These instruments combine environmental integrity with social co-benefits, while maintaining the same compliance-aligned certificate structure. This enables organizations to align their decarbonization strategies with broader sustainability and geopolitical realities without compromising governance standards.

Image source: AP Photo/Moses Sawasawa

Market Validation:
Adoption, Scale & Maturity

The I-REC market demonstrates maturity and global adoption.

1+ billion
I-RECs issued

65,000+ corporate buyers retiring I-RECs

Issuance in **60+** countries

Active use in **120+** countries

06

Industries leading adoption

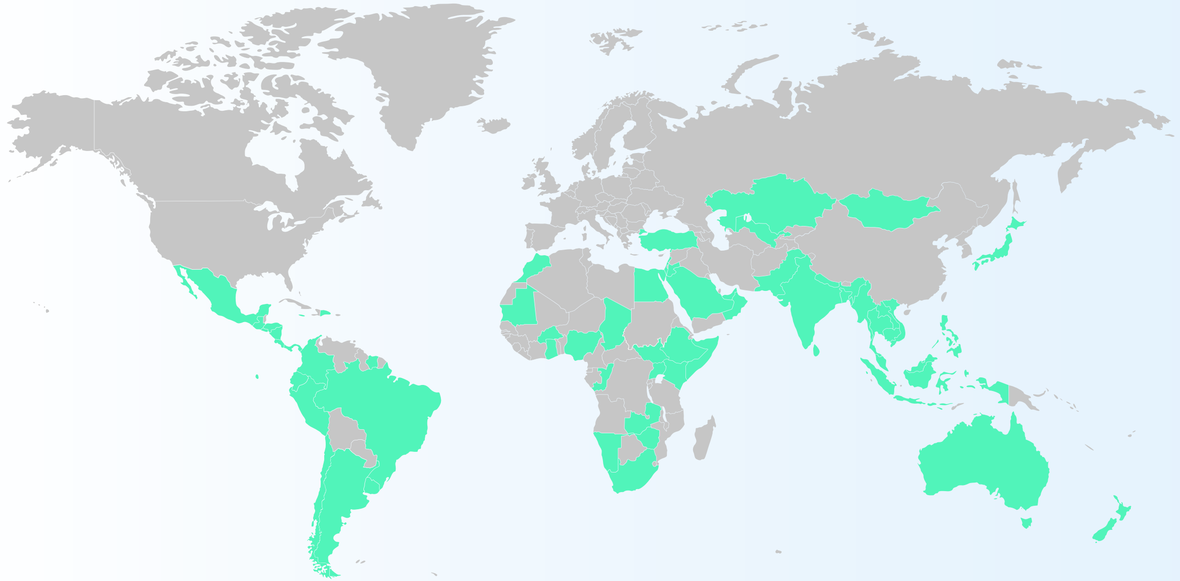
Metals & Mining

Oil, Gas and Consumable Fuels

Automobile Components

Chemicals

Food Products



Structured Implementation Roadmap

Organizations should approach I-REC adoption through a staged governance framework.

Phase 1: Emission Footprint

Objective
Establish organization's regulatory and reporting exposure under market-based Scope 2 accounting.

Priorities
- Define organizational boundary and decarbonization targets.
- Quantify Scope 2 market-based exposure.
- Identify high-risk jurisdictions.
- Evaluate disclosure and compliance requirements.

Output
Board-level risk briefing detailing market-based Scope 2 exposure, disclosure gaps, and compliance vulnerabilities.

Phase 2: Procurement Strategy

Objective
Align renewable sourcing with compliance requirements and capital allocation discipline.

Priorities
- Determine portfolio allocation between PPAs, green tariffs, and I-RECs.
- Identify availability of PPAs and green tariffs by jurisdiction.
- Establish purchasing criteria aligned with the Scope 2 Quality Criteria.
- Define I-REC retirement timing aligned with reporting cycles.
- Secure budget approval within climate-related capital allocation frameworks.
- Procure I-RECs in line with approved sourcing strategy.

Output
Capital allocation decision and compliance-aligned renewable sourcing strategy.

07

Phase 3: Governance & Controls

Objective
Embed renewable certificate management within the organization's control environment.

Priorities
- Define certificate retirement protocols and segregation of duties.
- Retire I-RECs in line with reporting cycle.
- Establish documentation standards and registry tracking controls.
- Align processes with internal audit and external assurance requirements.
- Integrate into sustainability KPIs and disclosure controls.

Output
Audit-ready reporting framework with defined control ownership and documentation standards.

Phase 4: Value Communication

Objective
Translate compliance-aligned renewable procurement into investor-grade disclosure.

Priorities
- Integrate market-based Scope 2 reporting into annual and regulatory filings.
- Align disclosures with SBTi, RE100, and other voluntary commitments.
- Articulate supply chain decarbonization strategy.
- Demonstrate substantiated environmental attribute ownership.

Output
Defensible, investor-grade narrative supported by registry-backed documentation.

Clear Action Plan

Within the current reporting year:

1. Assess Scope 2 emissions.
2. Define a certificate procurement and retirement strategy.
3. Integrate I-RECs into disclosure controls and assurance preparation.
4. Proceed to certificate retirement before reporting cut-off.

Note: I-RECs only support emissions claims once retired. Failure to retire certificates within the reporting period weakens eligibility under the market-based method and undermines disclosure defensibility.

08

Conclusion: From Commitment to Compliance-Grade Evidence

The transition to the clean economy requires credible market infrastructure.

I-RECs enable:

- Substantiated renewable electricity claims.
- Compliance-aligned Scope 2 reporting.
- Regulatory risk mitigation.
- Supply chain decarbonization.
- Renewable project bankability.

They are market infrastructure that bolsters claims integrity and reporting credibility

Organisations that ground their renewable energy procurement in trusted instruments like I-RECs will strengthen investor confidence, reduce regulatory exposure, and accelerate credible decarbonization.

Call to Action

I-RECs provide the infrastructure required to convert renewable ambition into compliance-aligned, audit-defensible reporting. This is critically important as renewable electricity claims that are not supported by qualifying contractual instruments expose organizations to reputational risk.

To initiate a compliance-aligned procurement pathway:

- Follow the Structured Implementation Roadmap above, to ensure the purchasing and retiring of I-RECs within the appropriate reporting year.
- Visit the Evident website to explore the I-REC Registry and Participant List.
- Contact the Evident team to map Scope 2 exposure, define the procurement pathway and proceed to certificate retirement.

Contact us at evident.global/contact-us