

Global I-REC Demand Drivers

How Corporate Reporting, RE100 and Supply Chains Are Shaping Market Growth

Xpansiv®

Executive Summary

I-REC demand has moved from early adoption to mainstream market infrastructure for credible renewable energy claims. Corporate reporting remains the foundation of demand, with over 95% of declared use cases linked to corporate reporting and renewable energy targets. However, deeper analysis shows that the next phase of growth is being shaped by two emerging demand layers: RE100 commitments and supply-chain-driven procurement. This signals a market transition from annual sustainability reporting toward more strategic use cases, where I-RECs support supply-chain decarbonization, evidence progress against external commitments, and strengthen organizations' position in increasingly accountable global value chains.

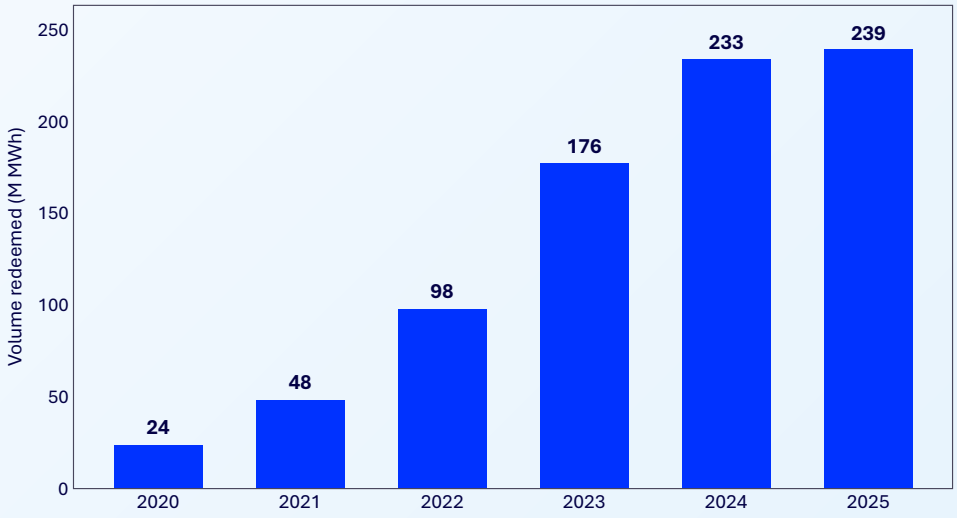


Why Organizations Use I-RECs Globally
From corporate reporting to RE100 and supply-chain demand

I-REC demand has reached mainstream scale

The global I-REC market has evolved from a nascent mechanism into an established instrument for credible renewable energy claims. Annual I-REC demand grew almost tenfold between 2020 and 2025, driving cumulative redemptions to a record 1.02 billion MWh across 142 countries.

FIGURE 1: I-REC DEMAND GROWTH (2020-2025)



This scale signals a structural shift. I-RECs are increasingly embedded in corporate sustainability strategies worldwide, with more than 96,000 organizations using them to substantiate renewable energy consumption and support Scope 2 reporting, renewable energy targets, RE100 commitments and broader sustainability claims.

As corporate reporting boundaries become more complex, I-RECs provide a credible and globally recognized mechanism for organizations to evidence renewable energy use across multi-country operations and increasingly interconnected supply chains.

Momentum shifts indicate transition to structural demand

Global I-REC demand is fundamentally anchored in corporate sustainability commitments and Scope 2 market-based reporting under the GHG Protocol. This is strongly evidenced by analysis of more than 925 million redeemed I-RECs with stated purposes recorded in the Xpansiv I-REC Registry, where over 95% of declared use cases relate to corporate reporting and renewable energy targets.

The Registry purpose field should therefore be interpreted as a declared use case, not a complete explanation of buyer motivation. A single redemption can support multiple objectives at once, including Scope 2 reporting, RE100 commitments, SBTi targets, customer requirements, self-consumption, Scope 3 considerations and supply-chain expectations.

Three overlapping demand layers stand out from the analysis: corporate reporting as the market foundation; RE100-linked procurement, alongside frameworks such as SBTi and CDP, as a maturity signal; and supply-chain demand as an emerging growth engine.

By cross-referencing Registry data against published RE100 company data and supplier lists from 58 multinational brands, the analysis shows that external commitments, customer pressure and value-chain accountability are already shaping I-REC demand beyond annual sustainability reporting.

Global I-REC demand: RE100 and supply-chain demand are emerging as new market drivers

Corporate reporting remains the foundation, while RE100 and supply-chain demand are becoming more visible drivers



Insight The purpose field captures declared use cases, but deeper analysis reveals a larger demand layer driven by RE100-linked procurement and supply-chain programmes.

Regional Demand Nuance

Regional demand patterns show that I-REC growth is scaling globally, but the underlying drivers differ materially by market.

Latin America remains the largest I-REC market, accounting for around 42% of all-time demand, with procurement primarily anchored in corporate reporting and renewable energy target fulfillment. The region also represents around 23% of RE100-linked demand.

East, Southeast Asia and the Pacific account for 34% of total demand and show the strongest signs of market maturity. The region leads both RE100-linked activity, representing around 54% of RE100 demand, and supply-chain-linked redemptions, accounting for 61%.

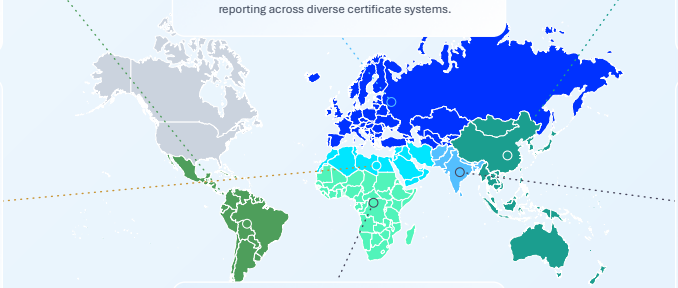
South Asia, at 4.9% of total demand, is emerging as the next supplier-led growth market, accounting for around 8% of supply-chain-driven demand and 9% of RE100-linked demand. Together, these Asian markets show how corporate targets, export-oriented industries and customer requirements are converting I-REC demand beyond annual sustainability reporting toward strategic use in supply chain decarbonization and meeting RE100 commitments.

Europe & Central Asia, representing 9.1% of all-time demand, is more closely linked to export-oriented industries and multinational operations seeking consistent renewable energy reporting across diverse certificate systems.

The Middle East and Africa, represents 10% of total demand, and remains largely corporate reporting-led, particularly among multinationals and energy-intensive sectors. Rising disclosure pressure and early customer-driven activity point to future growth in framework-aligned (10% of RE100 demand) and supply-chain procurement.

Regional I-REC demand patterns: where and why demand is growing

All-time demand remains anchored in corporate reporting, but regional demand drivers differ materially across RE100 exposure, supply-chain dynamics and export-led industry structure.



1 Latin America

42% of all-time demand

Corporate reporting at scale

- Latin America represents the largest regional share of I-REC demand.
- Procurement is primarily driven by corporate reporting requirements, Scope 2 market-based claims and internal renewable energy targets. The region also accounts for 23% of RE100-linked demand.

3 Europe & Central Asia

9.1% of all-time demand

Export-oriented industries lead

- Demand is closely linked to export-oriented industries, which account for almost two-thirds of regional demand.
- Alongside multinational operations and companies seeking consistent renewable energy reporting across diverse certificate systems.

2 East, Southeast Asia and the Pacific

34% of all-time demand

RE100 and supply-chain leadership

- The region shows the clearest evidence of supply-chain-led I-REC demand, accounting for 61% of revealed supply-chain-linked redemptions.
- Demand is further reinforced by strong RE100 activity, representing around 54% of RE100 redemption volume.

4 Middle East & North Africa

9% of all-time demand

Reporting-led with emerging supply-chain activity

- Demand remains strongly tied to corporate reporting, particularly among multinationals and energy-intensive industries, with about 97% of regional demand linked to corporate reporting.
- Rising disclosure pressure and early supply-chain activity point to future growth in framework-aligned and customer-driven procurement.

5 South Asia

4.9% of all-time demand

Emerging supply-chain growth market

- South Asia is increasingly emerging as a supply-chain growth market, with about 8% of revealed supply-chain demand and around 9% of demand linked to RE100.
- A growing framework-linked share suggests the region is moving toward more structured renewable energy procurement.

6 Sub-Saharan Africa

1% of all-time demand

Corporate reporting remains the anchor

- Demand remains strongly tied to corporate reporting and renewable energy target fulfilment.
- The market is still relatively early-stage, but growing awareness and multinational buyer activity could support deeper adoption over time.

Shares refer to all-time total I-REC demand.
Highlights summarise dominant demand drivers.

RE100 Demand: From Voluntary Ambition to Verified Renewable Energy Claims

RE100 is emerging as a strategic demand accelerator for I-RECs, shifting corporate procurement from internal reporting toward externally accountable delivery. With more than 420 organizations committed to RE100 targets, representing around 544 TWh of renewable energy demand by 2030, the initiative is creating a sizeable pool of companies that need credible instruments to evidence progress. The fact that over 68% of RE100 members currently use I-RECs to substantiate these claims signals growing confidence in the instrument.among multinationals and energy-intensive sectors. Rising disclosure pressure and early customer-driven activity point to future growth in framework-aligned (10% of RE100 demand) and supply-chain procurement.

FIGURE 2: RE100 COMPANIES' I-REC ADOPTION

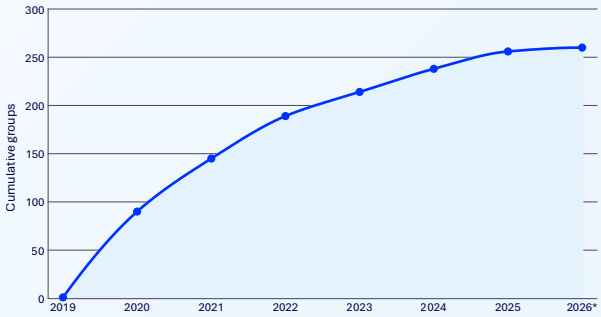
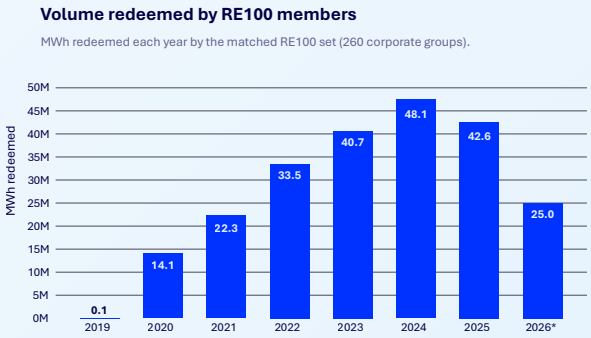


FIGURE 3: RE100 DEMAND TREND

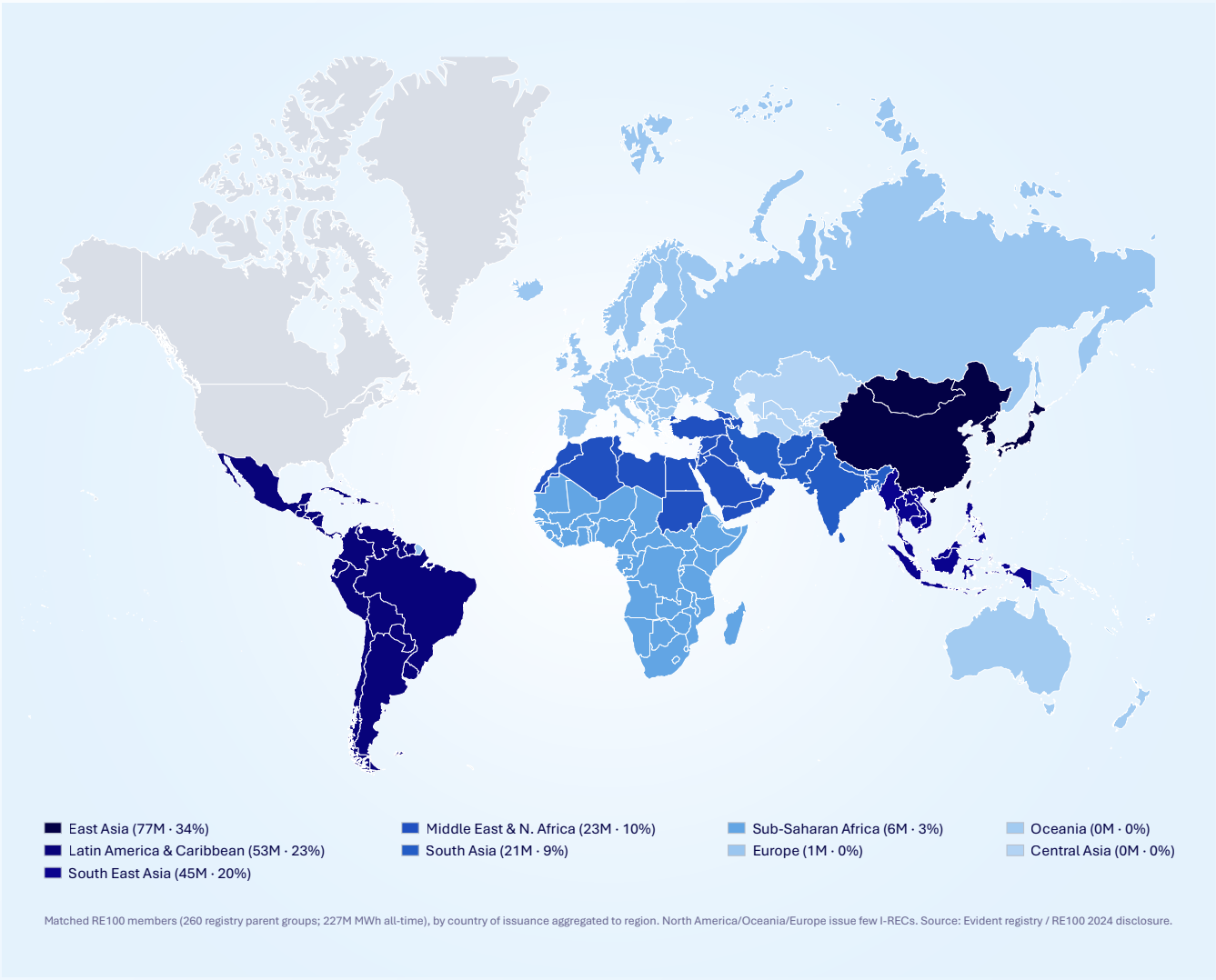


While the Registry's purpose field shows a relatively modest share of redemptions explicitly linked to voluntary frameworks such as RE100, SBTi and CDP, cross-referencing RE100 company data against Xpansiv I-REC Registry redemptions reveals a materially larger demand layer.

In 2025, around 18% of total I-REC demand was linked to RE100 corporate groups, making RE100 a strong forward-looking signal for market maturity. As more companies move from voluntary ambition to committed delivery, verifiable and robust instruments such as I-RECs will become increasingly important for audit-ready claims and future demand growth.

This trend is particularly visible across East and Southeast Asia, where more than 60% of RE100-linked I-REC redemptions are concentrated. The regional pattern reflects the intersection of corporate renewable energy targets, export-oriented industries and supply-chain expectations, reinforcing the role of I-RECs as a practical mechanism for delivering credible renewable energy claims in markets central to global manufacturing.

FIGURE 4: REGIONAL DISTRIBUTION OF RE100 DEMAND



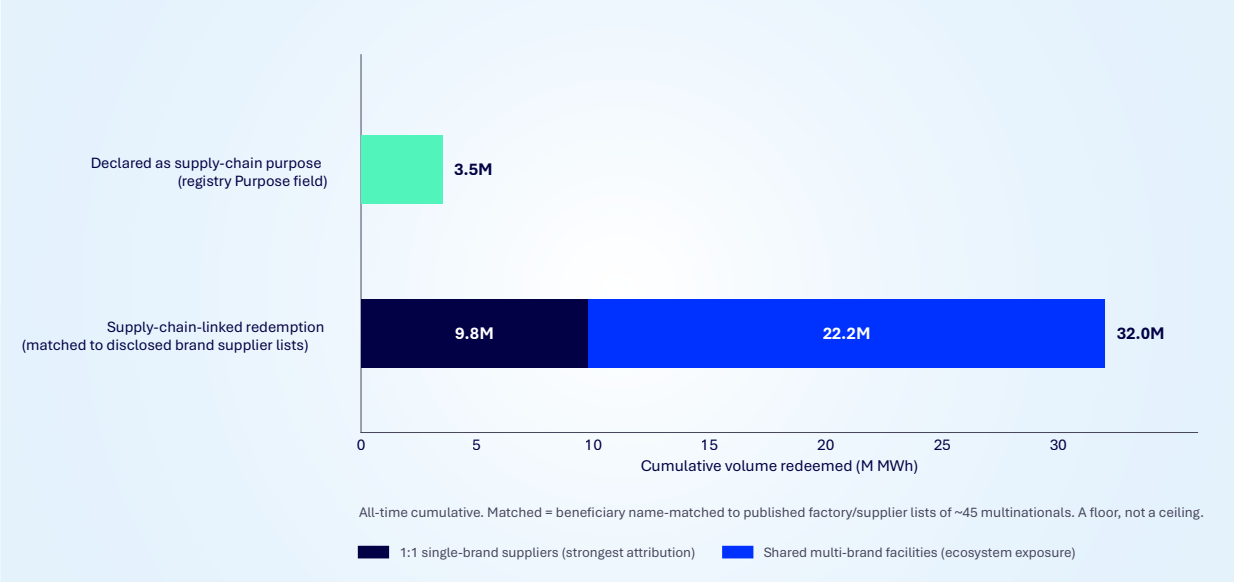
Matched RE100 members (260 registry parent groups; 227M MWh all-time), by country of issuance aggregated to region. North America/Oceania/Europe issue few I-RECs. Source: Evident registry / RE100 2024 disclosure.

Supply Chains Are Becoming the New Frontier for I-REC Demand

Supply-chain demand is moving from a hidden signal to one of the most important growth engines for I-RECs. While the Registry's purpose field captures only a small share of redemptions explicitly declared as supply-chain-related, cross-referencing I-REC end-users against supplier lists from 58 multinational brands reveals a materially larger demand layer: more than 2,980 suppliers tracked on the Xpansiv I-REC Registry have already redeemed I-RECs, representing around 3.5% of total redemptions.

This is likely to be a conservative estimate, as the current matching is based mainly on available supplier lists in electronics and apparel and does not yet fully capture other supply-chain-intensive sectors. The strategic signal is clear: global brands are beginning to extend renewable energy expectations beyond their own operations and into supplier networks. In response, I-RECs are becoming a practical mechanism for suppliers to evidence renewable energy consumption and strengthen their position within global value chains.

FIGURE 5: SUPPLY CHAIN DEMAND



Supply-chain-driven I-REC demand is likely to accelerate as disclosure expectations rise and procurement solutions such as Lock Two Three reduce execution complexity. For brands, this creates a scalable route to support supplier-level renewable energy claims; for suppliers, it turns I-REC procurement from a reporting exercise into a commercial readiness tool.

Market Takeaway

Corporate reporting built the I-REC market; RE100 and supply chains are now deepening it. As disclosure expectations rise and renewable energy claims move across global operations and supplier networks, I-REC is becoming a scalable mechanism for organizations to evidence renewable energy claims, meet external commitments and strengthen their position in increasingly accountable value chains.

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