

Powering a Sustainable Future: The Smart Ways Businesses Can Buy Renewable Electricity

Canonical: <https://northmoregordon.com/articles/powering-a-sustainable-future-the-smart-ways-businesses-can-buy-renewable-electricity/>

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Published: November 4, 2025.

We outline four main ways: 1) Onsite Renewable Energy (Behind-the-Meter), 2) Power Purchase Agreements (PPAs), 3) Virtual Power Purchase Agreements (VPPAs), and 4) Renewable Energy Certificates (RECs). All four options ultimately rely on RECs or equivalent instruments like I-RECs, GOs, TIGRs, LGCs, ZNECs, or J-Credits to verify the renewable energy. The choice between them depends on an organisation's energy consumption profile, budget and risk appetite, sustainability objectives, and timeline for achieving renewable goals. Many organisations use a hybrid strategy combining onsite generation with PPAs or RECs to manage risk while meeting sustainability targets efficiently.

Publication context: This article reflects its publication date. Market prices, program rules, reporting duties and deadlines may have changed. Confirm current official guidance before making a decision.

Transitioning to renewable electricity is one of the most impactful steps your organisation can take to reduce emissions and demonstrate leadership in sustainability. But with multiple options available, how do you choose the one that fits your operational, financial, and environmental goals?

Below, we break down the four main ways to buy renewable electricity- each with its own advantages, challenges, and strategic implications. We explain how all options use Renewable Energy Certificates (RECs) to verify the environmental benefits.

1. Onsite Renewable Energy (Behind-the-Meter)

What it is: The installation of renewable generation systems, solar panels, wind turbines or bioenergy directly at your facilities. The electricity powers your operations, reducing dependence on the grid.

Why it matters:

Provides direct control over generation and use.

Delivers visible sustainability impact and reduce Scope 2 emissions.

It can help lower long-term energy costs once capital investments are paid off.

RECs, from the generation, can be registered and retired for audit purposes.

Considerations: Higher upfront costs, available space, and maintenance responsibilities can be barriers for some organisations. However, the sense of ownership and visible sustainability benefits make it a compelling option. It is also possible to have onsite renewable energy provided "as-a-service", in this

case another entity owns & maintains the system, and the facility simply pays for the renewable energy that is generated.

2. Power Purchase Agreements (PPAs)

What it is: A PPA is a long-term contract with a renewable energy generator, where you buy electricity and RECs directly from a specific site (often offsite and connected to the grid).

Why it matters:

Ensures price stability with fixed or predictable energy costs.

Provides traceability as you know exactly where your renewable electricity comes from.

Demonstrates a clear commitment to supporting new renewable infrastructure.

Considerations: PPAs typically require long-term commitments and may be more suitable for organisations with consistent energy demand and a robust credit profile.

3. Virtual Power Purchase Agreements (VPPAs)

What it is: A VPPA is a financial contract not a physical one where you agree to purchase the output (or financial value) of renewable energy projects. You don't directly receive electricity but gain the environmental attributes (RECs) and price benefits through a "contract for difference".

Why it matters:

Provides flexibility as there is no need to match physical supply to your operations.

Helps finance renewable projects and claim renewable energy use.

Ideal for companies with multiple or global sites.

Considerations: Because it's a financial hedge, VPPAs can expose buyers to market risks and price volatility, so they're best suited for organisations with internal energy or finance expertise.

4. Renewable Energy Certificates (RECs)

What it is: RECs (or equivalent instruments like LGCs in Australia) represent proof that 1 MWh of electricity was generated from a renewable source. Organisations can purchase RECs to offset their grid electricity use.

Why it matters:

Simple and fast way to achieve renewable electricity claims.

No infrastructure investment is required (opex not capex)

Provides flexibility for meeting interim or small-scale sustainability goals.

Often the lowest cost mechanism to achieve renewable energy.

Considerations: While RECs support renewable generation indirectly, they may not increase additional renewable capacity if there is substantial oversupply in the market. RECs may seem more abstract than other renewable energy options, but all options in fact use RECs to verify the validity of the renewable energy. See Northmore Gordon's moREnewable100 to do more with less.

5. Finding the Right Mix

Each approach offers a unique balance between cost, control, and impact. Many organisations use a hybrid strategy combining onsite generation with PPAs or RECs to meet their sustainability targets efficiently while managing risk.

The best choice depends on:

Your energy consumption profile

Budget and risk appetite

Sustainability objectives

And your timeline for achieving renewable goals

Partnering for a Renewable Future

At Northmore Gordon, we help clients assess their energy use, explore renewable options, and design tailored procurement strategies. Whether you're just beginning your renewable journey or scaling your commitments, we ensure your investment delivers measurable impact for your business, your stakeholders, and the planet.

Scheme and certificate context

Before using a certificate or grant figure, confirm the current scheme method, eligible activity, effective date, evidence requirements, price date and registration or application process.

Related guidance

Certificate services

Government schemes

Contact us

Read the original article for the source publication and its full context.

What are the four main ways businesses can buy renewable electricity, according to Northmore Gordon?

We outline four main ways: 1) Onsite Renewable Energy (Behind-the-Meter), 2) Power Purchase Agreements (PPAs), 3) Virtual Power Purchase Agreements (VPPAs), and 4) Renewable Energy Certificates (RECs). All four options ultimately rely on RECs or equivalent instruments like I-RECs, GOs, TIGRs, LGCs, ZNECs, or J-Credits to verify the renewable energy. The choice between them depends on an organisation's energy consumption profile, budget and risk appetite, sustainability objectives, and timeline for achieving renewable goals. Many organisations use a hybrid strategy combining onsite generation with PPAs or RECs to manage risk while meeting sustainability targets efficiently.

What is onsite renewable energy (behind-the-meter) and what are its key advantages?

Onsite renewable energy involves installing renewable generation systems—such as solar panels, wind turbines, or bioenergy—directly at a facility to power operations and reduce grid dependence. Benefits include direct control over generation and use, visible sustainability impact and reduced Scope 2 emissions, potential long-term cost savings once capital investments are paid off, and the ability to register and retire renewable energy certificates (RECs) from the generation for audit purposes. Renewable energy can also be provided 'as-a-service' where another entity owns and maintains the system while the facility pays for the renewable energy generated. However, higher upfront costs, available space, and maintenance responsibilities can be barriers for some organisations.

What is a Power Purchase Agreement (PPA) and why would a business choose this option?

A PPA is a long-term contract with a renewable energy generator where a business buys electricity and RECs directly from a specific site, often offsite and connected to the grid. PPAs ensure price stability with fixed or predictable energy costs, provide traceability of exactly where renewable electricity

originates, and demonstrate commitment to supporting new renewable infrastructure development. They typically require long-term commitments and suit organisations with consistent energy demand and a robust credit profile. This approach balances cost certainty with the ability to make verifiable renewable electricity claims supported by contractual instruments that meet GHG Protocol Scope 2 quality criteria.

How does a Virtual Power Purchase Agreement (VPPA) differ from a standard PPA?

A VPPA is a financial contract rather than a physical one, where a business agrees to purchase the output or financial value of renewable energy projects. Unlike a standard PPA, the buyer doesn't directly receive electricity but gains the environmental attributes (RECs) and price benefits through a 'contract for difference.' VPPAs offer flexibility since there's no need to match physical supply to operations and are ideal for companies with multiple or global sites. However, they expose buyers to market risks and price volatility, making them best suited for organisations with internal energy or finance expertise to manage the commercial arrangements effectively.

What are Renewable Energy Certificates (RECs) and why do businesses use them as a procurement option?

RECs represent proof that 1 MWh of electricity was generated from a renewable source; equivalent instruments include LGCs in Australia. Organisations can purchase RECs to offset their grid electricity use and make renewable electricity claims. They offer a simple and fast way to achieve renewable electricity goals, require no infrastructure investment (operating expenditure rather than capital expenditure), provide flexibility for meeting interim or small-scale sustainability objectives, and are often the lowest-cost mechanism to achieve renewable energy claims. However, RECs may not increase additional renewable capacity if there is substantial oversupply in the market, so organisations should understand their intended claim and the applicable reporting framework before selecting this option.

What key factors should influence how a business chooses between renewable electricity procurement options?

The best choice depends on the organisation's energy consumption profile, budget and risk appetite, sustainability objectives, and timeline for achieving renewable goals. Organisations should start by documenting their intended claim—whether a renewable-electricity claim, market-based Scope 2 accounting, a voluntary commitment, or another stated objective—and avoid selecting instruments solely on price before acceptance criteria are clear. GHG Protocol's Scope 2 Guidance provides quality criteria for contractual instruments used in market-based accounting. Many organisations use a hybrid strategy combining onsite generation with PPAs or RECs to meet sustainability targets efficiently. We can help clients assess their energy use, explore renewable options, and design tailored procurement strategies aligned with their specific requirements and reporting frameworks.

What is moREnewable100 and how can it support renewable electricity procurement strategies?

moREnewable100 is a Northmore Gordon service for procuring renewable energy certificates without requiring replacement of existing electricity supply contracts. It offers multi-site coverage, procurement flexibility, RE100-aligned sourcing support, and technology and due-diligence support to verify certificate integrity. The service allows organisations to retain current commercial electricity arrangements while adding renewable attributes to their consumption. To use moREnewable100 effectively, organisations should document their site consumption, the market and reporting-period boundaries, intended claim (renewable-electricity claim or market-based Scope 2 accounting), reporting framework, and whether the purpose is a voluntary commitment or other stated objective. We can help establish the exact instrument, market, period and claim needed for each engagement.

What evidence and documentation does Northmore Gordon recommend for renewable electricity certificate procurement?

We suggest a procurement evidence checklist covering: site consumption, market and reporting-period boundaries; instrument type, generation location and vintage; ownership and exclusive claim rights; registry, transfer and retirement/cancellation evidence; beneficiary and allocation across sites or entities; the proposed public statement and our supporting calculation; and contract terms, price assumptions and responsibilities. This checklist is a proposed project brief to ensure that key documentation and evidence requirements are clear before procurement begins. A renewable-electricity attribute is distinct from a carbon offset or physical fuel consumption reduction, so following the applicable accounting and claims framework—including relevant quality and retirement requirements—is essential. We can conduct environmental-attribute due diligence to verify the integrity and validity of purchased renewable attributes before procurement and retirement.

How should a business integrate renewable electricity procurement into a broader carbon advisory and transition strategy?

Renewable electricity procurement is one component of a comprehensive carbon management approach. Our carbon advisory services connect emissions information with engineering, procurement and investment decisions, spanning diagnostic workshops, inventories, reporting support, opportunity assessment, and transition planning. A transition workplan should separate physical reductions (such as efficiency improvements or operational changes) from contractual electricity attributes (renewable certificates) and carbon offsets, assigning each to its owner with implementation dependencies, capital requirements, and evidence of progress. This ensures that renewable electricity purchases are integrated consistently with organisational boundaries, reporting frameworks, and financial implications. We can support organisations in establishing a documented inventory, identifying eligible instruments aligned with their reporting framework, and preparing evidence for applicable requirements such as NGER, ASRS, or voluntary commitments like RE100.