

Renewable Energy Strategy

Overview

COP21, the 2015 United Nations Climate Change Conference in Paris, was a game changer. It raised the expectations for effective action on carbon reduction and agreed to set a goal of limiting global warming to less than 2 degrees Celsius (°C) compared to pre-industrial levels.

But whilst governments have a role to play in setting the strategy and agenda for international cooperation, it's clear that businesses have a key part to play in delivering effective carbon reductions in practice.

Adopting an energy policy that goes beyond energy efficiency to incorporate the use of renewable energy sources can help organisations deliver their fair share of the corporate decarbonisation requirement as well as building a sustainable, lower-risk energy strategy and achieving alignment with Science Based Targets.



Our approach

Opportunity identification and prioritisation

- In the light of your carbon strategy and BAU model, a financial and carbon assessment is conducted that identifies the level of certainty of future energy demand to ascertain the renewable strategy that most suits your business
- Optimise the following
 - Purchasing renewable energy certificates
 - Purchasing low carbon electricity
 - Purchasing offsite renewables using a Power Purchasing Agreement
 - Installing on-site renewables

'Business as Usual' (BAU) modelling

- Consider future business growth by geography and business area

Business case development

- Calculating the overall payback, net present value and internal rates of return
- Demonstrate how it contributes to the overall carbon target, financial health and reputation of your company as well as your future energy security

Create an overall approach for carbon strategy

- Where are you going as a business and how will this affect your carbon budget
- Do you have sensible and appropriate targets in place
- How are your targets and incentives driving behaviour

Implementation plan

- Determining and phasing the capex investments required, obtaining buy-in from directors & FD sign off, then operationalising the renewable strategy

Key drivers for a renewable energy strategy

Energy efficiency

Improving energy efficiency should be a core element in any organisational carbon strategy, but often covers a myriad of complex and interdependent issues. Typically, realising incremental efficiency gains becomes increasingly difficult and often depends on additional investment. Once the threshold of marginal gains is reached, it's an appropriate time to consider further decarbonisation by sourcing your electricity from renewable sources.

Reputation

A number of bodies exist that either promote renewable energy, such as RE100, or strongly reward companies that source renewable energy such as the CDP and We Mean Business.

Finance

Energy price volatility is set to rise over the next decade with electricity set to rise by approximately 43% from 10-15p/kWh and commercial gas to rise by 31%. With onshore wind having achieved cost parity with fossil fuels and solar set to do so in 2020, renewables are now in a position to provide a cost effective mechanism to hedge future energy price spikes.

Energy security

In a world that's moving away from fossil fuels, organisations that make an early transition to renewable sources will make earlier gains in terms of financial and reputational benefits.

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What are the options?

	Purchase Renewable Energy Certificates	Purchase Low-Carbon Electricity	Off-Site Renewables Using PPA	On-Site Renewables (Owned)
Advantage	Flexible and immediate Minimises impact on energy procurement	Flexible and immediate	Reduce future energy price risks Clear transparency of supply	Delivers energy cost savings Reputational benefit
Disadvantage	Variable level of quality assurance Harder to communicate to stakeholders	Vulnerable to energy price changes	Long-term commitment required Contractually complex	Long-term commitment Requires capital & taking on development & asset risk

Case studies

SmartestEnergy



SmartestEnergy is the UK's largest purchaser of renewable electricity from the independent generation sector.

We assisted them with the development of the UK's first certified renewable electricity supply together with the Carbon Trust certification label which offers businesses certainty and confidence in the credentials of the renewable electricity purchased.

Customers looking to reduce their carbon footprint and report it in their Scope 2 emissions can now do so in a certified manner in accordance with the GHG Protocol Product Standard and communicate this to their stakeholders and customers.

Why work with us?

The renewable electricity market is difficult to navigate given the prevalence of double counting and complexities involved in verifying the exact source of electricity purchased.

The business case for renewable electricity purchasing and self-generation is clear in respect of supporting a strategy for carbon reduction and for reaping the associated financial and reputational benefits

The Carbon Trust thus has developed a deep understanding of the renewable energy certificate markets both in the UK and internationally and has certified the UK's first renewable electricity supply product.

Our business expertise as well as our pioneering work in renewable electricity strategies underpin our advice and guidance to businesses on their renewable electricity journey.

BT plc



A leading member of RE100, BT has committed to source 100% of its electricity from renewables where markets permit and has already achieved this for its existing UK operations and most of its European operations.

We were engaged to review and advise on the purchase of renewable electricity for other international operations, specifically the USA, Hong Kong and Brazil; the Carbon Trust providing advice and criteria for the assessment of international renewable electricity opportunities in relation to BT's carbon reporting and for meeting the GHG Protocol Scope 2 Guidance criteria.

The final deliverable was the development of a framework to assess renewable electricity suppliers and short-list of verifiable suppliers in key markets. BT now demonstrates leadership in this area and is increasingly enjoying the carbon reduction, financial and reputational benefits associated with a secure renewable electricity supply.

