



GREENHOUSE  
GAS PROTOCOL

# Scope 2 Guidance case studies

Organizations creating, and applying the results of, GHG inventories based on the GHG Protocol Scope 2 Guidance

January 2014

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**These case studies were composed throughout the development of the GHG Protocol *Scope 2 Guidance* (December 2010-December 2014). Reflecting a range of organization types, sectors and geographies, these studies all address the challenges, opportunities and best practices for accounting and reporting emissions from purchased electricity, steam, heat and cooling (called scope 2 emissions). They highlight how organizations can align electricity purchasing strategies to meet the new Scope 2 Guidance requirements for market-based method accounting.**

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## Sonoma County Water Agency: Carbon-Free Water by 2015 goal

Sonoma County Water Agency (SCWA) is a special district that manages water resources for residents and businesses in Sonoma and Marin Counties in California, USA. SCWA has been reporting its GHG emissions inventory to The Climate Registry, a North American public GHG emissions registry, since 2006. Their inventory includes scope 1 emissions associated with water management activities such as stationary and mobile combustion, wastewater treatment process emissions and fugitive emissions, and scope 2 emissions associated with the consumption of purchased electricity.

SCWA recognized that they were the largest consumer of electricity in Sonoma County. In response, SCWA launched a *Carbon-Free Water by 2015* program which aims to achieve a carbon-free electricity supply in water delivery, water treatment and administration facilities. To achieve this goal, SCWA is reducing its electricity needs through water conservation programs, system efficiency improvements, developing renewable energy production as well as diversifying its electricity portfolio to incorporate more purchased renewable electricity sources.

By calculating scope 2 emissions using the market-based approach, SCWA is able to accurately and transparently document its specified renewable power products. It purchases these through a joint powers authority (JPA) that manages power assets and loads for water agencies in California. This JPA develops and certifies a GHG emission rate associated with the power delivered to SCWA based on the guidance in The Climate Registry's Electric Power Sector Protocol. Additional power purchases not managed by the JPA are calculated using a utility-specific emission factor that is developed by the local electric utility and third-party verified through The Climate Registry. Since 2006, SCWA has reduced its market-based scope 2 emissions by 97 percent, based on the 2012 inventory.

SCWA has a duty to provide a secure supply of water for future generations, but the potential impacts of climate change will make this challenging. Using a suite of scope 1 and 2 reduction strategies will help SCWA achieve *Carbon-Free Water* and mitigate GHG emissions in the region.

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## European railway sector: dual reporting for railway sector goals

Railways represent the largest collective energy consumer in Europe. The Community of European Railway and Infrastructure Companies (known as CER, representing the European railway sector) and the International Union of Railways (known as UIC, representing the world railway sector) agreed in 2008 on a CO<sub>2</sub> reduction target for the whole European railway sector: 30% specific emissions reductions by 2020 compared to 1990 base year. This was enhanced in 2010 by a target to achieve 50% emission reduction in 2030. These targets are complemented by goals for energy efficiency, PM/NO<sub>x</sub> emissions reduction and noise reduction.

To measure emissions from electric railways, the International Railway Union (UIC) had developed in 2005 a reporting system that collected annual data on passenger and freight service. This data was shared with online environmental calculators such as Ecopassenger and EcoTransIT World. But member perspectives on how calculate emissions from this electricity use were split between a location-based method that used a national electricity production mix, or a market-based method that reflected the actions of individual railways to purchase renewable energy through contractual instruments.

UIC pursued consultations in May 2013 with 21 member railways, and found that most used emission factors based on the mix of their electricity providers, which reflected certificate purchases. Some railways were also starting to use national residual mixes as well (a necessary feature of market-based tracking systems), which were shown to be getting more GHG-intensive since more and more electricity from renewables is sold through Guarantees of Origins. At the same time, some external stakeholders (institutions, NGOs) were concerned about how to reliably compare emissions between different modes of transport (in competing sectors like electric cars) using the market-based method. The railway sector wanted to demonstrate how their overall performance depends on specific policies implemented by the railway sector players (for example the increasing electrification of lines at the expense of diesel), but also on external country-level factors such as the increase of renewable sources in the production of electricity in Europe. CER also wanted to maintain consistency with methods currently recognized by EUROSTAT and the EU Commission for official member state sector targets, so that discrepancies between the sector statistics and other official data sources are minimized.

As of fall 2014, UIC decided to adopt a dual accounting and reporting requirement, showing both values each year in the Final European Report. This ensured transparency and completeness of information, highlighting the actions taken by individual railways to contribute to emission reductions as well as tracking the performance of the entire sector. In turn, calculators such as EcoTransIT World decided that in the public version available on line ([www.ecotransit.org](http://www.ecotransit.org)) only the location-based emission factors from the European electricity mix will be used for calculations, while in the “company business solution” of the tool, each company can include certificates in the carbon footprint company report.

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## TVA: calculating and disclosing supplier-specific emission rates

Tennessee Valley Authority (TVA) is a corporate agency of the United States that provides reliable and competitively-priced electricity for business customers and local power distributors serving 9 million people in parts of seven southeastern states. TVA provides flood control, navigation and land management for the Tennessee River system and assists local power companies and state and local governments with economic development and job creation.

Responding to customer requests, TVA calculates delivered CO<sub>2</sub> emissions rates for its directly served customers. The as-delivered annual rate is based on actual annual CO<sub>2</sub> emissions aligned with the customer's actual hourly electric consumption profile. The remainder of TVA's CO<sub>2</sub> emissions are allocated to the local power company (LPC) average is used for customers served by LPCs.

TVA allocates actual annual as-delivered CO<sub>2</sub> emissions to customers in the same manner as allocating costs, using generally accepted industry cost-allocation methodologies. This approach offers TVA customers supplier-specific CO<sub>2</sub> figures appropriate for the market-based method, and encourages these customers to plan their energy usage around lower carbon emitting hours. Actual annual as-delivered CO<sub>2</sub> emissions are accounted for using generally accepted carbon accounting and regulatory compliance practices and allocated to customers in the same manner as costs using generally accepted industry cost-allocation methodologies. In short, individual customer and customer class hourly demands are compared to the annual hourly TVA system CO<sub>2</sub> emission rate, and each customer is accorded a share of TVA's annual CO<sub>2</sub> emissions (e.g. dividing annual CO<sub>2</sub> share by annual energy usage by class).

TVA recognizes that carbon footprint performance can be a critical factor in customer decisions. By working together on their Scope 2 performance goals, TVA customers have been rewarded with more energy supply choices, individual cost savings opportunities that also optimize overall grid performance, improved carbon accounting accuracy, and enhanced sustainability programs.



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## Arlington County: changing energy procurement options

Arlington County is an urban county just outside of Washington, DC in the United States. It operates in a regulated utility environment where consumers must purchase grid electricity from the incumbent utility or produce their own electricity. The state allows localities to negotiate their own rates for electricity from the utility. For customers of Dominion Virginia Power, Arlington's utility, this is done through a joint powers group called the Virginia Energy Purchasing Governmental Association, or VEPGA.

Arlington began buying Renewable Energy Certificates (RECs) in 2005, through an RFP process run by VEPGA (but separate from Arlington's energy purchases). The policy decision was driven by interest in air quality, climate change mitigation and a local commitment to achieve compliance with Federal air quality standards through the Clean Air Act's State Implementation Plan process for 2007-2010.

In the meantime, the state passed legislation that required the utility to provide an option for a customer to purchase 100% renewable energy, or a customer would be allowed to purchase renewable energy from a third supplier. Dominion Virginia Power implemented this option through its Green Power Program. In the next round of rate negotiations, VEPGA and Dominion included an optional purchase of RECs paired with part or all of the electricity purchased by a given account. This purchase of RECs is included as a part of the monthly electricity bill. The RECs in this program are sourced nationally, and must be Green-e certified. The Green Power Program's RECs were substantially more affordable and provided direct on-bill invoicing for specific accounts. Arlington began buying RECs through Dominion in 2010.

The scope 2 accounting in the market-based method did not change with this switch, since RECs that met the Quality Criteria were used in both procurement methods. However, Arlington County chose to purchase RECs through this contract with Dominion in order to demonstrate to the utility its interest in renewable power and to encourage more low-carbon future generation projects. Customer participation in Dominion's Green Power Program has spurred additional programs, as Dominion is beginning a pilot program to sell RECs generated by utility-owned solar systems on leased commercial properties in the state, rather than sourcing the RECs from other suppliers. Arlington County also found that working with their utility directly was easier than executing an additional contract to purchase RECs.

These changes in procurement method and instrument features can be seen in the optional product feature disclosure part of the GHG inventory.

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## REI: a 100% renewable energy strategy

REI (Recreational Equipment, Inc.) is a leading retailer of outdoor gear and apparel with operations across the United States, including nearly 140 stores and two distribution centers.

REI is committed to 100 percent renewable energy for all of its facilities and it uses a combination of channels to achieve this goal. Its energy strategy focuses on reducing consumption, increasing efficiency, generating its own solar electricity, seeking long-term power contracts from renewable sources, and finally, purchasing certified renewable energy certificates (RECs) to match non-renewable grid electricity.

When calculating its scope 2 emissions and setting goals, REI prioritizes the market-based methodology because it best reflects the implementation of its 100% renewable energy strategy. 26 facilities have installed on-site solar. This solar energy is assigned the emissions rate of the technology (i.e. 0 lbs. of CO<sub>2</sub> per MWh for solar) except where the REC has been sold. In the absence of owning the REC, the remaining “null power” receives the same emissions profile as unspecified grid electricity.<sup>1</sup>

REI’s operations span jurisdictions where there is a choice of electricity supplier and jurisdictions where there is no choice. In jurisdictions with supplier choice, REI works with energy providers to select products that have low, stable cost with the highest possible renewable content and, if practicable, a strong tie to driving new projects. With all renewable products, REI uses the emissions profile of the renewable product generation mix and applies this emissions rate to each MWh purchased.



To match the megawatt-hours of null power and non-renewable electricity received from suppliers, REI purchases an equivalent amount of Green-e Energy certified RECs from specified wind facilities. This approach ensures the RECs meet REI’s energy emissions goals and achieve the appropriate quality criteria for the market-based method.

Over the long-term, REI’s energy strategy is increasingly focused on the rate-reduction and price stability benefits of on-site renewables and off-site long-term renewable power purchase agreements.

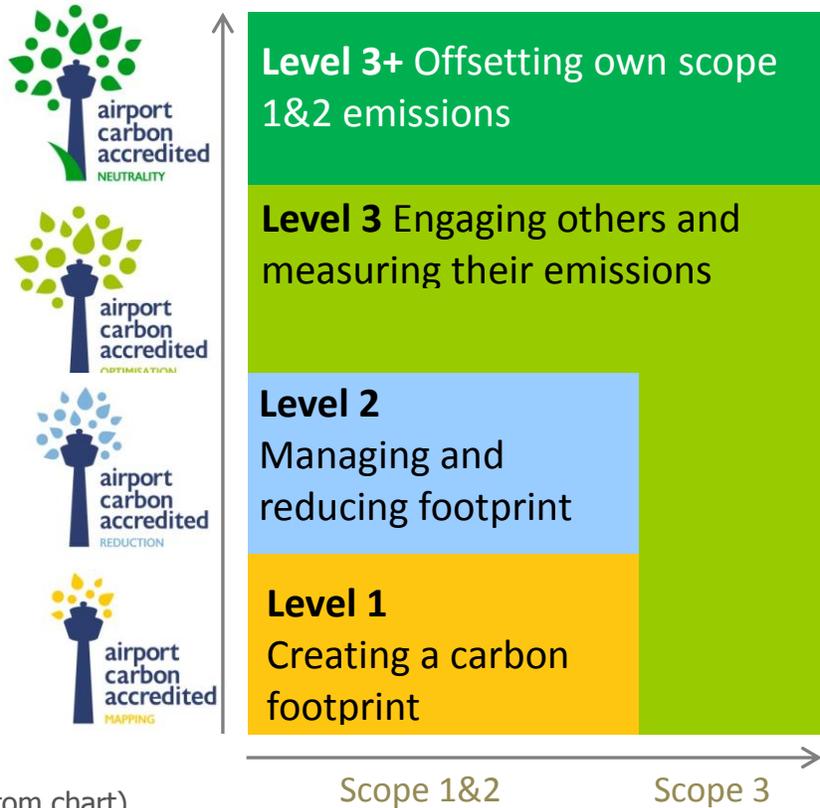
*Pictured: REI San Francisco, one of 10 REI stores in California equipped with solar technology.*

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<sup>1</sup>At the time of publishing (early 2014), the U.S. does not have a residual mix, although efforts are underway to create one.

# Airport Carbon Accreditation: reducing emissions at airports

Airport Carbon Accreditation is an international program offering a framework for airport operators to take action on measuring and improving their carbon footprint and energy management. It consists of four levels of accreditation, each with progressively higher reporting and action requirements (see chart below). Reducing scope 2 emissions was a Level 2 priority for most airports. Over time, the number of participants achieving each level of reporting has grown (see bottom chart).



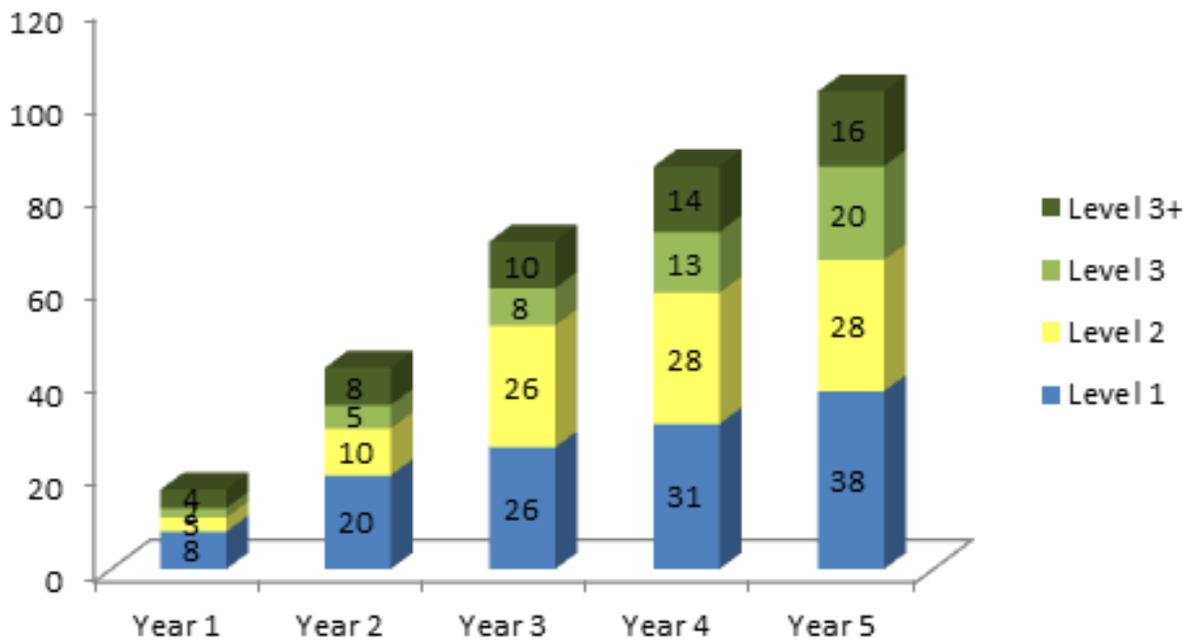
Depending on their contractual arrangements, airport operators may own, operate and maintain terminal buildings and other infrastructure necessary to sustain airport operations and service airlines and passengers. Previously, the Guidance Document of Airport Carbon Accreditation required airport operators to apply the national grid electricity emission factor for all consumed energy, even grid-connected low-carbon energy produced on-site (for concern around double counting). This location-based method did not reflect the range of actions that airport operators were pursuing such as onsite renewable energy production or supplier green tariffs. It did not recognize those operators who were investing in low-carbon energy. At the same time, airport operators in markets without access to supplier programs wanted to ensure comparability between airports on other indicators such as overall energy use (in MWh's) and an indication of national grid GHG intensity.

The *Scope 2 Guidance* dual reporting requirement provided clarity and comparability across different performance metrics. Individual airports document their renewable energy purchases and other actions in the market-based method total, while all airports can be compared on the basis of the location-based method as well as overall energy use metrics.

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The Airport Carbon Accreditation program outlines the following steps for all participants to follow:

1. Collecting activity data
2. Identifying the decision-making value of location-based and market-based method
3. Supporting energy management strategies by individual airports
4. Setting individual carbon and energy reduction targets
5. Publicizing airport efforts to reduce their carbon emissions and energy consumption
6. Encouraging other stakeholders in the airport community to engage in carbon and energy management



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## Facebook: implementing dual reporting

Founded in 2004, Facebook's mission is to give people the power to share and make the world more open and connected. People use Facebook to stay connected with friends and family, to discover what's going on in the world, and to share and express what matters to them.

As part of their reporting on their 2012 carbon footprint, Facebook started publishing two sets of scope 2 numbers side by side. Facebook had identified that market-based and location-based totals provided an important lens on the carbon impact from electricity use, and that neither figure alone told the whole story. Facebook sought to provide several data points that would allow stakeholders and internal decision-makers to draw the comparisons that were most relevant to their specific needs.

For the market-based method, Facebook used utility- and contract-specific emissions factors. Facebook worked with their local utilities to understand the methodology behind the emissions factors provided. Because utilities calculate emission rates in a variety of ways, it took time to be sure the correct information was received and understood. Navigating the specific assumptions and approaches for each utility proved complex. However, being willing to take the time and ask good questions yielded a clearer understanding of the contractual claims and market-based emissions footprint associated with Facebook's electricity purchases. This process provided a more nuanced understanding of the emissions associated with Facebook's electricity purchases than would otherwise have been possible.

The process of identifying relevant location-based GHG emission rates proved more straightforward. These figures were calculated using eGRID emission rates for Environmental Protection Agency defined sub-regions where the data centers were located in the US and using International Energy Agency data for Facebook's European data center.

Together, the two figures provided a more complete picture by detailing the emissions associated with the actual contractual arrangements in place as well as the emissions associated with the regional or country level mix of generation resources. Facebook's approach since 2012 aligns with the requirements of the Scope 2 Guidance.

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## EDF Energy: aligning low-carbon fuel labels with Scope 2 Quality Criteria

EDF Energy is one of the UK's largest energy companies and the largest producer of low-carbon electricity. EDF Energy is a wholly-owned subsidiary of the EDF Group, one of Europe's largest energy groups, who generate around one fifth of the UK's electricity and supply electricity and gas to around 5.5 million residential and business customers, making them the UK's biggest supplier of electricity by volume.

When EDF Energy sought to engage the UK public in the low-carbon attributes of nuclear power and increase consumer trust, they created residential and business energy products which created transparent, contractual links between customers and the supply of low-carbon nuclear power. These products, branded Blue, were launched in 2012 and now sit alongside renewable power contracts as a suite of low carbon electricity options. Creating the Blue tariff required processes that aligned with both the UK fuel label regulatory regime and the GHG Protocol *Scope 2 Guidance*.

Like all EU-based suppliers, EDF Energy is required to annually publish a Fuel Label that details the overall fuel sources and carbon emissions associated with the power they supplied. To prevent double counting between customers, an additional and more granular fuel mix disclosure table was produced (see below), demonstrating the emissions factor both for renewable product tariffs, Blue product tariffs and the remaining 'residual' power for other customers. Blue consumers were encouraged to use the Blue emissions factors in their carbon inventory, while non-Blue customers were encouraged to use the residual (see Figure 1).

The Blue product now has over 2TWh of contracts sold in the business market and over one million residential customers. EDF Energy attributes this growth in consumer confidence and uptake to transparent and simple disclosure about the product's emissions and other features, following the GHG Protocol Quality Criteria. EDF Energy used a strict set of communication guidelines for sales and promotional material to ensure that Blue customers knew that they were buying low-carbon, nuclear power-backed products and that no "new" nuclear stations were built to meet this consumer demand. An external assurance provider (PwC) was engaged to provide independent assurance that the low-carbon promise made by EDF Energy to their Blue product customers had been met at the end of the disclosure year

	 Coal	 Gas	 Nuclear	 Renewable	 Other	 CO <sub>2</sub> g/kWh	 Radioactive waste g/kWh
EDF Energy's fuel mix	26.8%	3.5%	56.1%	13.5%	0.1%	259.0	0.0045
Contribution to our carbon emissions	94.2%	5.4%	0.0%	0.0%	0.4%		
UK average fuel mix	34.0%	25.6%	21.6%	16.7%	2.1%	428.0	0.0017

The figures for UK average fuel mix are provided by the Department of Energy and Climate Change (DECC).

The fuel source and carbon emissions associated with generating your electricity will vary, as seen in the table below, depending on the tariff or product you are on. The table covers our supplies to both residential and business customers.

<b>EDF Energy's fuel mix per tariff or product</b>	Coal	Gas	Nuclear	Renewable	Other	CO <sub>2</sub> g/kWh	Radioactive waste g/kWh
Blue	0.0%	0.0%	100.0%	0.0%	0.0%	0	0.0080
Renewable	0.0%	0.0%	0.0%	100.0%	0.0%	0	0.0000
All other	29.3%	3.8%	55.1%	11.6%	0.2%	283.6	0.0044

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## Google: developing solutions for purchasing renewable energy

Google is a global technology leader focused on improving the ways people connect with information. Google's innovations in web search and advertising have made its website a top internet property and its brand one of the most recognized in the world.

Google has been a carbon-neutral company since 2007, meeting this commitment through efficiency measures, on-site solar projects and long-term purchases of renewable power, and investments in high-quality carbon offset projects. Google also has a long-term goal of powering its operations with 100% renewable energy. The current energy landscape has driven Google to explore novel approaches to achieving this goal and in 2013, Google powered its operations with 35% renewable energy.

By signing long-term contracts for renewable energy, Google provides the utilities and developers with financial certainty, allowing them to build new renewable facilities and expand the amount of renewable energy on the grid. Currently, Google has signed seven wind contracts for 1,040 MW, enough to power over 300,000 U.S. households.

Google ensures that it can retain and retire the environmental attributes from its renewable energy contracts (consistent with the Quality Criteria in the market-based method). In addition, Google prioritizes contracts that support new energy built on the grids where their data centers operate. They frame these criteria as:

- Bringing new sources of green power on the grid, rather than sourcing renewables from built or operating projects
- Buying power from within the same grid regions as its data center facilities
- Creating a positive impact on the industry by providing capital for renewable energy project developers who use the cash flow from one project to finance the next, thereby growing the industry

In addition to contracts, Google has worked with utilities to develop a new type of service offering that would give Google and other electricity consumers the option to purchase renewable energy directly from local utilities. For example, in 2013, Google worked with Duke Energy in North Carolina to develop a new, voluntary program called the [Green Source Rider](#) for large customers in the state that want to buy renewable energy directly from Duke.

Additionally, Google has worked directly with utility suppliers in Oklahoma and Iowa to source wind energy to power their data centers in those states. By pioneering these services Google also enables other companies to pursue renewable energy for their operations.

The Scope 2 Guidance allows Google to consistently document its renewable energy purchases across a variety of procurement strategies. At the same time, the Guidance transparently shows the average emissions profile of the grids where Google's data centers operate and contribute to load. The details of Google's renewable [Power Purchase Agreement strategy](#) are publicly available to provide a blueprint for other companies to green their operations and the grid.

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## Mars: Sustainable in a Generation commitment

Mars Incorporated is a food and beverage company with net sales of more than \$33 billion. It includes six business segments including Petcare, Chocolate, Wrigley, Food, Drinks, Symbioscience, and more than 75,000 Associates worldwide who are putting its Principles into Action to make a difference for people and the planet through its performance.

Part of Mars' Sustainable in a Generation (SiG) commitment is to achieve carbon neutrality for their direct operations. To achieve this, Mars has established a 25% GHG reduction target by 2015 compared to 2007 levels, and a 100% reduction by 2040. It has pursued efficiency upgrades and small-scale onsite renewables. But meeting a 100% renewable goal in an economically viable way across nearly 400 sites, including more than 130 manufacturing facilities, necessitated the addition of more centralized energy projects. Mars wanted to ensure that any renewable energy project it supported contributed to reducing both its market-based scope 2 emissions and contributing to significant GHG reductions in the grid where the project was located.

With a large share of Mars' business in the U.S. (70 sites including 37 factories), it did this through establishing criteria for their use of RECs, specifying that they come from:

1. A new energy project rather than existing energy stock
2. A project where Mars' financial participation was material to the project happening
3. A project in a region with higher CO<sub>2</sub>e/MWh than Mars' US weighted average CO<sub>2</sub>e/MWh (based on annual eGRID data), ensuring that the project could have a significant emissions reduction impact.

In 2014, Mars entered into a 20 year contract to support development of 200 MW wind project in Texas, producing electricity equivalent to 100% of Mars' total US annual electricity consumption. Mars retains the RECs from the project's output and sells the power to the wholesale market. Each individual Mars site still manages its own energy procurement with local suppliers, while the RECs are applied to each site.

This project represents about 24% of Mars global scope 1&2 emissions. Its location-based scope 2 total will still represent the GHG intensity of the grids where its sites operate. It will disclose the project's characteristics in the Product Features category, and separately report the project's impact on the rest of the grid as an avoided emissions notation.

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## AIB: Creating and managing a market-based certificate system

The Association of Issuing Bodies (AIB) is the leading enabler of international transfer of energy certificates<sup>2</sup> and acts as the guarantor of EECS - the European Energy Certificate System. Its members are primarily national electricity regulators and transmission system operators, but also such bodies as power exchanges and energy agencies. Each has been appointed by government to take responsibility for administering the guarantee of origin schemes required of all EU member states under EU law. AIB does this by promoting a guarantee of origin (GO) system for disclosing energy source attributes to European consumers.

The Scope 2 Guidance requires a means of providing evidence of the source of an individual unit of energy, in order to enable the associated GHG emissions to be calculated. While the GOs required under the RES Directive 2009/28/EC provide such a form of evidence, they are implemented in a different manner in each country of the EU and in countries bound to the EU by treaty (such as the EEA countries and those in the Energy Community). EECS GOs provide a standard format for this information.

Delivering a European market of tradable GOs posed several challenges, including: a shortage of robust institutional and legal arrangements between stakeholders, a lack of common regulations and practices between participating countries, and no interconnected system for tracking and retiring certificates.

AIB has helped overcome these challenges in the following ways:

- **Establishing institutional and legal arrangements**

In 2001, the AIB became an independent Brussels-based not-for-profit scientific association. Its purpose is to develop, use and promote “a standardised system to ensure the reliable operation of international certificate schemes which satisfy the criteria of objectivity, non-discrimination, transparency and cost effectiveness in order to facilitate the international exchange of certificates.”

The relationship between members with regard to the exchange of certificates is governed by a legal framework in addition to the provisions of the Articles of Association and European Energy Certificate Scheme (EECS) rules.

- **Operational regulations and practices**

Members of AIB are predominantly transmission system operators, energy regulators, and other types of government agency such energy agencies, market operators and power exchanges.

These members adhere to a system definition (“The EECS Rules”) which summarises at a high-level the principles of EECS. Fact sheets containing transient information relating to national implementations of EECS are consistently revised to remain current and to reflect the differences between national energy infrastructures, legislation and markets.

- **System interconnection**

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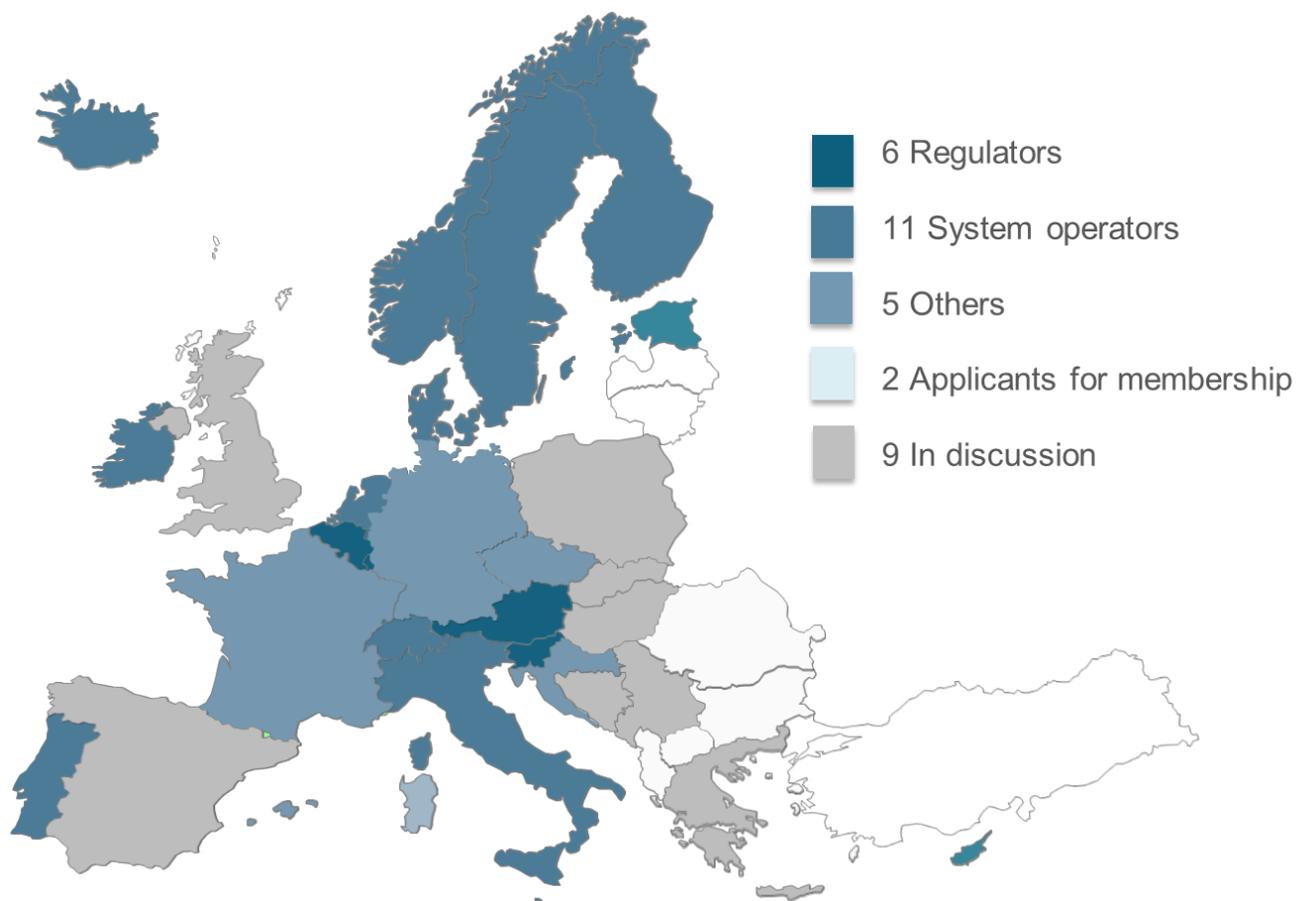
<sup>2</sup> Note that AIB uses the generic term “certificate” to refer to all forms of energy certificate, including guarantees of origin, support certificates and voluntary non-governmental certificates such as TUV SUD TRU certificates

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The initial system of registry interconnection was peer-to-peer, which worked well in the early days of the AIB. However, as the number of members grew, this became inoperable and resource intensive. Consequently, a central Hub was developed, limiting the connections between members to a single connection to the Hub.

A pilot Hub was built and operated during the middle of the decade. This proved that the concept worked, and identified areas for improvement. Consequently, the Hub was re-developed, following a tender process.

The map below indicates the type of entity serving countries which are members of the AIB, as well as their status as members of the AIB network.



**Figure 1 - AIB membership and applicants**

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## EY: Optimizing corporate energy mixes and ensuring accurate accounting

EY (formerly known as Ernst & Young) provides a large variety of financial, commercial, and strategic services in four service lines: Assurance, Tax, Transactions and Advisory.

Their global network works with large corporations to develop renewable energy procurement and investment strategies that reduce overall corporate GHG emissions. EY helps clients focus on “energy mix optimization” through procurement and investment options both on-site and offsite. Some of these solutions include long-term Power Purchase Agreements (PPAs), offsite equity investments bundled with Renewable Energy Certificates (RECs) or onsite biomass combined heat and power. Optimizing a company’s energy mix requires careful strategic and financial analysis, stakeholder engagement and clear GHG accounting rules.

*Financial analysis:* Many renewable energy projects require significant upfront capital investment in projects with a longer lifespan than most companies typically consider in their strategic plans. The length of PPA contracts – often at 10-15 years — also exceeds most ‘normal’ planning horizons. While companies may recognize that renewable energy can deliver long-term value to their business, they are often constrained by strict financial criteria such as short payback periods or high rates of return thresholds. To address this challenge, EY works with companies to make sure that financial KPIs recognise the longer-term value of renewable investments. For long-term fixed price PPAs, there may be a small initial premium to market price, but over life Net Present Value benefits should be factored in to the execution decision. In addition, EY helps identify 3<sup>rd</sup> party financing for projects, particularly for large credit-worthy power offtakers. A company signing up to long-term PPAs (onsite or offsite) can enable the developer to obtain third party financing to build out the project.

*GHG accounting:* The dual reporting requirement allows companies to assess how these investment and procurement options will impact total reported emissions over time, as well as assessing the different GHG impacts from energy use that are reflected by each method. In determining appropriate purchase structures and instruments for companies, EY identifies their specific requirements and their desired benefits. Are they driven primarily by cost savings, price stability, energy security, GHG reduction targets or renewable energy goals – or by a combination of several drivers?

Where GHG reduction is a key driver for corporate renewable energy projects, the GHG Protocol Scope 2 Guidance can help organizations clearly demonstrate and communicate the steps they have taken to purchase renewable energy, including how to highlight the ambitious and substantive steps they have taken to support new projects.