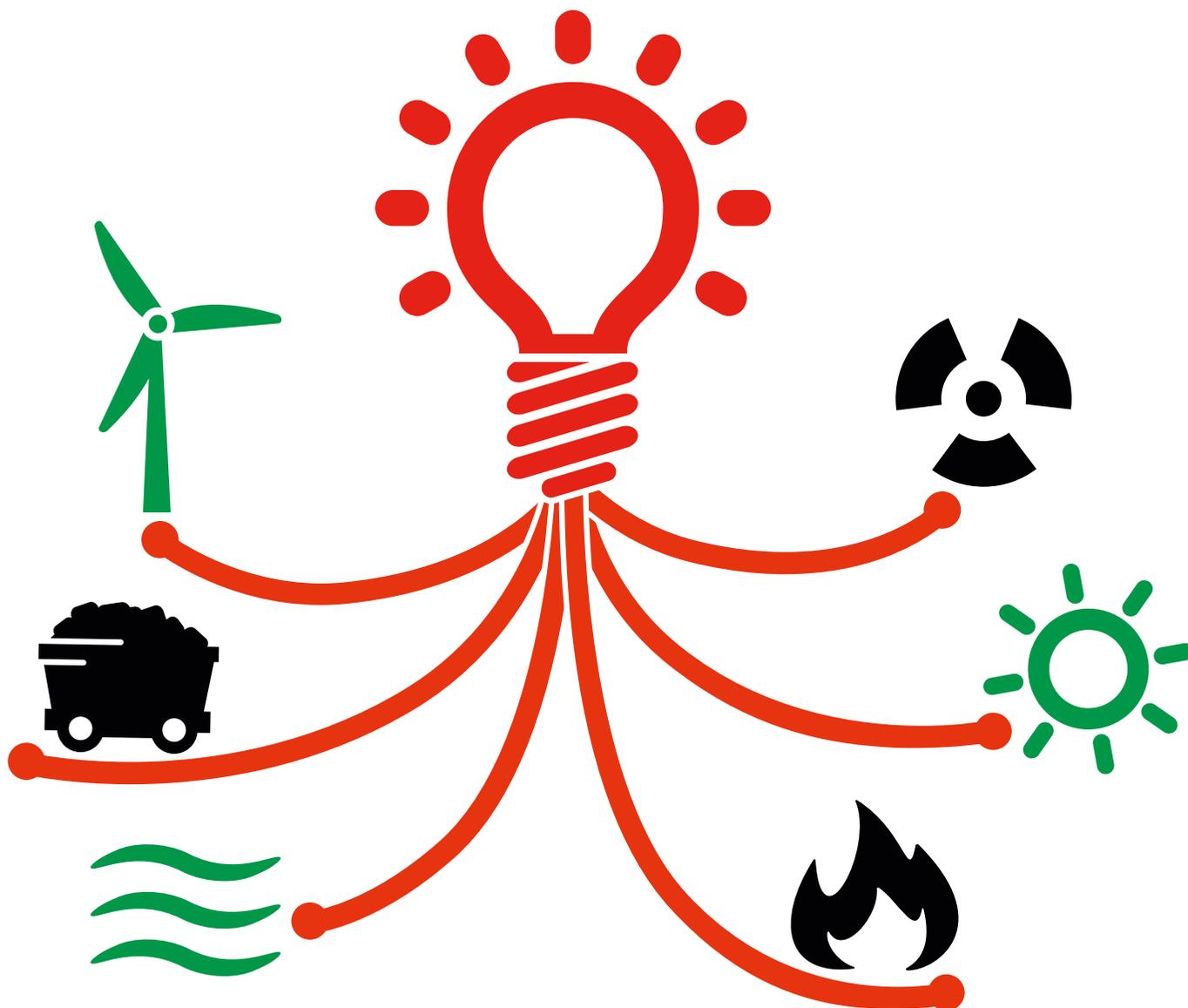


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There's no such thing as 'green electricity'

From the editor

The voluntary market for Guarantees of Origin is a consumer-driven system, but that's often difficult to see, given the regulations surrounding it.

The market for European GOs consists almost entirely of standardized EECS-GOs. This standard, which was established by the Association of Issuing Bodies, provides national governments with an easy way to comply with the European regulations for GO systems that are laid out in the Renewables Directive. Unfortunately, the link to the consumer – which is what makes a market a market – is often forgotten, as national governments attempt to meet their statutory requirements. Large businesses in Europe encounter these problems frequently. As there is no central system, there is no way to manage GOs from multiple national registries in a single account. The market for GOs is usually seen as an afterthought by the competent authorities and consumers are never considered in the decision making.

This lack of attention to the market – and to consumers – is no longer acceptable. With more than 230 TWh of GO cancellation in 2012 there is clearly a need for improved statistics, improved information and improved communication with market parties and consumers. Market players need to speak with one voice and to speak loudly, which is what we do at RECS International. We ask you to add your voice.

Many thanks,

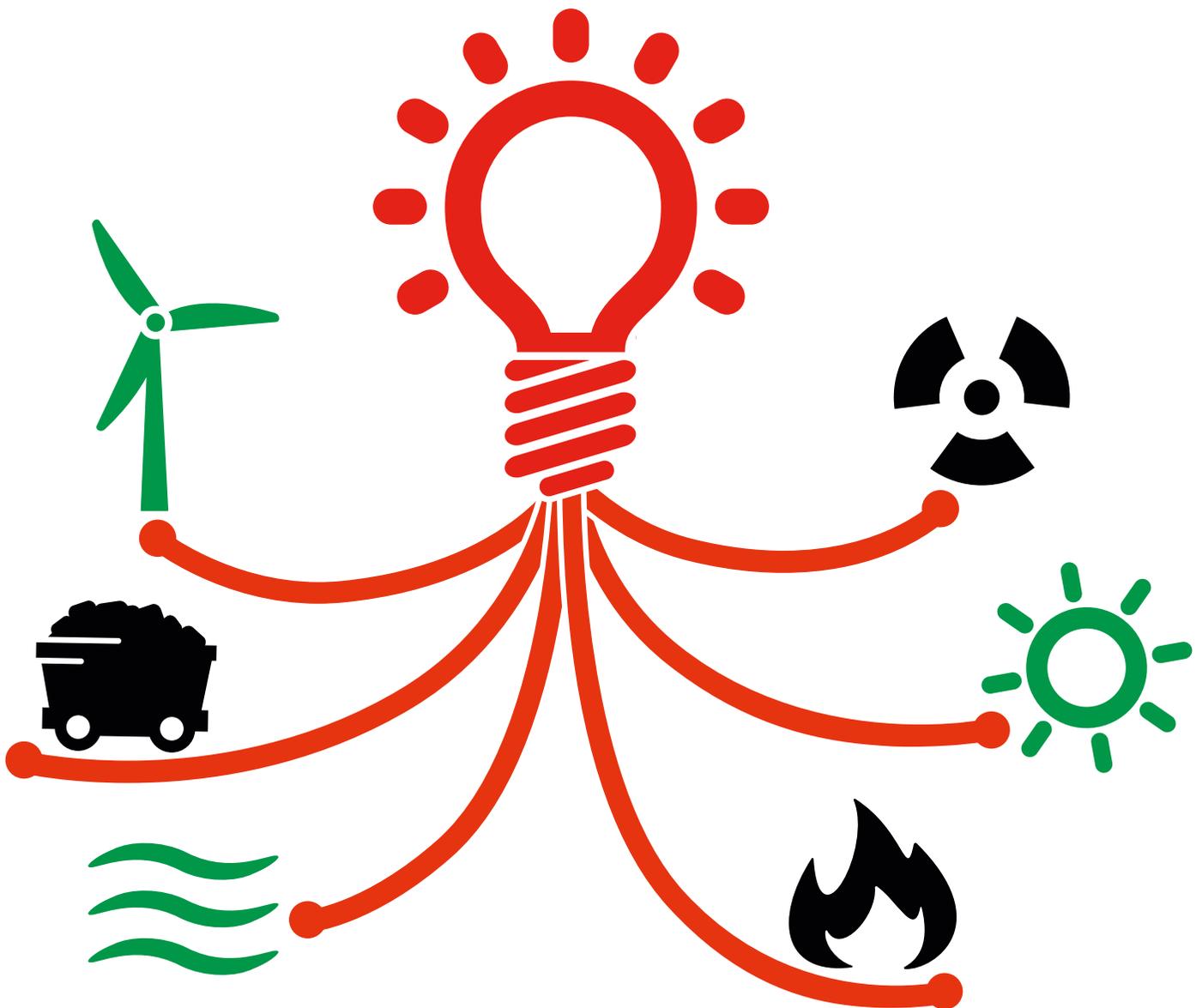
Jared Braslawsky
Deputy Secretary General



Article

There's no such thing as 'green electricity'

Electricity is not green, grey or black. And yet we often hear people referring to 'green' electricity. It stands to reason that electricity has no colour on the grid. So green electricity simply doesn't exist. That would imply that renewably sourced electricity is different from 'black' or non-renewably sourced electricity. In fact, it's not the electricity that is different, but the energy source that was used to generate it.



There's no such thing as 'green electricity'

A turbine spins a generator, which puts electrons onto the grid (this is what we call electricity) and, whether it comes from a nuclear plant, a coal plant or a wind turbine, it's always exactly the same kind of electricity. So we should not use the term 'green' electricity, because this gives consumers the impression that what they are buying is physically different. We must make it clear that buying 'green' electricity means supporting a particular type of natural resource (whether it's wind, water or solar), which spins the turbine, moves the generator and produces electrons. At RECS International we speak about 'fossil-fuel-based electricity' or 'renewably produced electricity'. While this may seem like a minor semantic difference, it has in fact a huge influence on the way we understand this issue.

There are many misunderstandings in the electricity market, because many different types of electricity products are sold and some consumers are confused, as they know that the electricity they use is exactly the same as what their neighbours consume. They ask themselves how a 'green electricity' product can be physically different from other electricity products. So far, the media and the various market players have not done a good job of explaining the real value of renewable electricity products in a way that is both truthful and easy to understand.

The comparison with water

At RECS International we often hear electricity being compared with a tank of water. The argument goes something like this: there are many different ways to procure water but it all gets mixed up in a big tank. All water consumers get water from that tank and they therefore all receive the same kind of water. This metaphor is then extended to suggest that renewable electricity sources produce green water, while fossil-fuel-based electricity sources make grey water. But this comparison misleads consumers into believing

that the water they receive is a mixture of colours. That's not true. With drinking water – and even more so with electricity – the quality is the same as it enters the 'tank'. At RECS International we believe that all of the water in this metaphor is crystal clear and all consumers get exactly the same kind of water. But this doesn't contradict the fact that the water may have been 'produced' from different sources and that these different production methods may have different impacts on the environment.

A choice of product

So the choice does not lie in the type of electricity, but rather in the way the electricity was produced: where it came from. All production sources make the same kind of electricity; the difference depends on the energy source that was used to make it and this is what consumers wish to support. They know that emissions from burning fossil fuels to make electricity are harmful and that lower emissions, greater security of supply and more local employment can all result from consuming electricity that is produced renewably.

So 'green' electricity products represent a promise that the electricity you consume has been produced by a wind turbine, or some other renewable source of power, and then put on the grid. This promise works in combination with a mandate that a specific volume of electricity can only be sold to a single consumer. Consumers can thus claim to have consumed electricity originating from renewable sources and have the right to claim all the other (positive) attributes relating to that production site.

The certification system used is called a 'book and claim' system: the electricity is booked in the moment it is put on the grid and it's claimed when it's taken off the grid. In Europe this system is referred to as a Guarantee of Origin (GO). The GO system, which

There's no such thing as 'green electricity'

is based on EU and national regulation, is a solid, reliable system that is virtually universally accepted as the only way to prove that renewable electricity has been produced and consumed.

How choice brings freedom

In the early 1990s, before the European electricity market was liberalised, consumers had only one type of choice when using electricity: volume. They could choose to buy electricity by turning on a light or not to consume electricity by staying in the dark.

With the liberalisation of the European electricity market, EU policymakers gave consumers a choice, both in terms of volume and supplier, but the choice of a particular product was still not fully defined. It was in 2003 that the first tests of the European electricity tracking system finally took place and this has been a huge success. In the past decade, the GO system has become the undisputed backbone of the renewable electricity market in Europe. This market allows consumers to purchase specific types of electricity and – depending upon the supply and demand of that specific product – its price will change. This gives the consumer a voice, an ability to purchase and thus financially support the type of electricity production source they prefer. The more consumers choose a specific type of electricity production, the higher the price of the GO certificates and in turn the greater the incentive to invest in that type of electricity generation. Since 2003, demand for choosing a particular kind of electricity has grown and currently 7% of all European electricity is specifically demanded – via the GO – by consumers on the renewable electricity market. This volume continues to grow year on year.

The decision to buy renewable electricity does not influence electricity production in the short term. Consumers do not suddenly receive a different

product than their neighbours. It does however, allow them to claim that they have consumed electricity from a specific production source. In reality they are voting, in a kind of consumer democracy, for the type of electricity production they believe should be generated in the future. Their reward for making such a dedicated choice is the satisfaction of knowing that they have supported – and now 'own' – a small proportion of Europe's renewable electricity production.

This system is verified by an independent organisation, which certifies the promises and claims and checks that specific producers did indeed produce renewable electricity and that specific consumers are the only ones who can claim to have used it.



Ursula Stocker of Naturemade

1. Could you give us a short description of naturemade?

This label was designed for all energy produced and supplied from renewable sources in Switzerland. It stands for credible quality and ecological improvement and includes the naturemade support model.



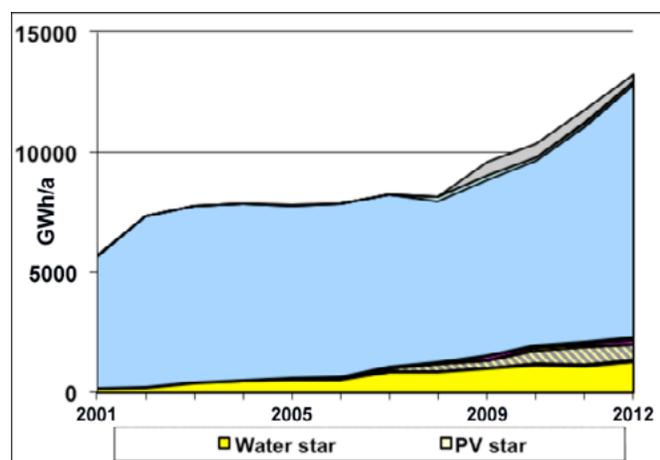
The naturemade label has two quality grades: 'naturemade star' indicates that energy has been produced with particular respect for the environment. This energy, which comes from 100% renewable sources, also guarantees compliance with more comprehensive ecological requirements. These requirements are based on eco-balances of every energy system and strict scientific criteria applied to each energy plant.



'naturemade basic' indicates that electricity, heating/cooling and fuels have been produced from 100% renewable sources.

The mark is awarded after thorough inspection by the Association for Environmentally Sound Energy (in Swiss VUE, which was established in 1999). The naturemade label enjoys wide support: environmental and consumer organisations, renewable energy associations, major energy consumers, as well as large, medium and small

energy suppliers and producers are all represented in VUE and sit on its Board. This is the main Swiss label for renewable energy. Power plants in other European countries, including Germany, France and Norway, are also certified according to naturemade rules.



'naturemade' certified production in 2012 in cooperation with energieschweiz

2. Is the naturemade GO certification available for purchase in all European countries?

'naturemade' GOs can in principle be purchased in all European countries:

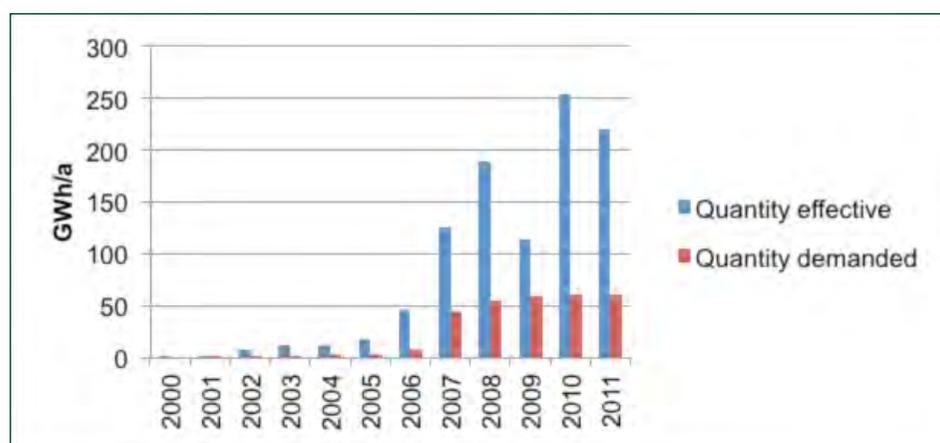
1. The ecological added value of naturemade can be sold and purchased independently from national GOs
2. naturemade is recognized by the Independent Certification Scheme (ICS), which means that it can be traded in an international GO exchange, provided that the recipient country has created the corresponding framework.

In practice, no 'naturemade' certified energy products are traded outside of Switzerland, with the exception of some corporate customers. But 'naturemade'

Interview

certified electricity produced in other European countries is purchased in Switzerland.

To make 'naturemade' quality available to customers in other European countries, suppliers in these countries need to deliver a corresponding product.



Additional production of new renewable energy sources resulting from the naturemade label

3. Many stakeholders consider the definition of additionality to be purely an opinion. How does 'naturemade' view this issue? Which criteria does 'naturemade' use to define additionality?

Due to the Swiss intention to phase out nuclear energy, the concept of additionality plays a very important role in Switzerland, as it does in other European countries. Additionality is usually defined as purchases of GOs promoting additional production capacity from renewable sources.

At 'naturemade' we do not have an official definition of additionality. But in discussions about it the VUE refers to two distinct forms:

- 1. Additional production from new renewable energy sources** (PV, biomass and wind power certified as 'naturemade star'): we include a promotion model for production from new sources of renewable electricity. The adoption of this model has led to additional production of 200 GWh per annum from new renewable energy sources – all due to the naturemade label.
- 2. Additional ecological quality of production from hydropower plants:** the naturemade basic promotion model includes a proportion of ecological hydropower certified as 'naturemade star'.



Interview

4. Some say that carbon emissions do not adequately reflect the environmental harm caused by a specific electricity production site. For example, hydroelectric power stations, whether 'naturemade' certified or not, are both considered to have zero end-of-pipe CO₂ emissions. In your opinion should an "unsustainable" hydroelectricity station be able to represent a zero end-of-pipe emission factor or should the "sustainability" of the power station also play a role?

For us transparency is crucial and **customers should be authorized by our labels to make the distinction** between "renewable" and "renewable and ecological". Our labels play an important role in promoting and protecting the sustainability of energy production from renewable sources.

So we need both qualities: zero CO₂-emission production and production which also includes ecological sustainability. This is why we have established our two quality levels: 'naturemade basic' and 'naturemade star'.

There are commercial customers in Switzerland, such as Swiss Reinsurance, who focus strongly on sustainability and for whom renewable quality alone is not sufficient, because their business principles also demand ecological quality. Biodiversity is another topic which more and more people are focusing on. The impact of hydropower on biodiversity can be dramatic. In Switzerland, where about 95% of all rivers are used in some way to generate electricity, acceptance of the new national energy strategy (excluding nuclear power) depends on combining the exploitation of renewable energy

sources with protecting biodiversity. 'naturemade star' delivers a solution to this problem.

5. What are naturemade's plans for the future?

1. We have recorded growth in our market share (now 3.5% of total electricity consumption in Switzerland for 'naturemade basic' and 1.1% for 'naturemade star'). We have not quantified future targets.
2. The different ecological qualities of naturemade-awarded energy need to be better known. Customers should become more aware of the possibility – and the importance – of choosing a quality that matches their ambitions. Products should be better harmonized, with the same label for the same quality and simplification of product names. Customers should also be better informed about improvements we have made, such as the natural regeneration of flowing waters financed from the 'naturemade star' fund.
3. The voluntary market will get stronger and will have an increasingly important role to play in Swiss energy politics. Cooperation with public authorities and energy suppliers will be intensified. The willingness of private customers to pay for higher quality energy will influence suppliers and will be combined with corresponding incentives, e.g. tax exemptions for public promotion campaigns.



VUE Verein für umweltgerechte Energie:
www.naturemade.ch

RECS Market Meeting 2014 Düsseldorf, Germany



The growing market for Guarantees of Origin

Consumers around the world are becoming increasingly aware of the fact that renewable electricity makes a viable, long-term contribution to meeting the world's energy demands. Such consumers, whether large or small, are demanding ways to demonstrate support for renewable technologies. We know, however, that traditional electricity grids cannot differentiate between one type of electricity source and another. This is why we – as market players, industry leaders, government bodies and consumers – have helped to build and support the Guarantee of Origin electricity tracking system, which is the only way to prove that electricity

is renewable. At RECS International we promote the renewable electricity market, which is backed up by a widely accepted and harmonized European information system. Our work over the past decade has made the Guarantee of Origin system the backbone of the voluntary renewable electricity market in Europe.

The RECS Market Meeting is the largest conference on renewable energy in Europe and the only forum where we can share the successes gained so far and push towards a brighter, more renewable future. If you are a renewable energy market player, a regulator or an end-user, you are warmly invited to join us at the Intercontinental Hotel in Düsseldorf, Germany on 18 and 19 March 2014.

RECS Market Meeting 2014

Topics include

This conference will give you a broad perspective on the renewable electricity market, including:

- Policy and the future of voluntary markets
- Standardising markets
- Germany moving forward
- International carbon accounting
- Demand for renewable electricity: CSR in the transportation sector
- Markets and trade.

More information

The 4th RECS Market Meeting will take place at the Intercontinental Hotel, Königsallee 59, 40215 Düsseldorf, Germany from 18 -19 March 2014.

For more information please call the RECS Secretariat on +31 (0)26 356 94 24

Please check your mailbox at the beginning of October for more details.

For the latest RECS Market Meeting programme please go to www.recsmarket.eu (live beginning of October)

Remarks from attendees in 2013

“Congratulations on a fantastic Market meeting, which was well organized, professionally performed and produced good results,” [Vattenfall](#)

“The Market Meeting was a big success,” [NValue](#)

“The event was very interesting for me as I could test the ‘temperature’ of the GO market and meet many relevant players in the power markets,” [SunEdison](#)



News

New AIB member

At its summer General Meeting in Reykjavik, the AIB welcomed a new member: PowerNext – the organization responsible for issuing guarantees of origin in France – and concluded an agreement enabling UBA (the competent body for Germany) to use the AIB Hub as a non-member.

The AIB is also in discussion with a number of other competent bodies about membership:

- OTE (Czech Republic) is testing its registry software against the AIB Hub in preparation for going live and is well on the way to gaining approval for its domain protocol
- TSO-CY (Cyprus) is awaiting changes to legislation
- LAGIE (Greece) and HROTE (Croatia) are preparing to tender for registry software and both intend to join the AIB
- Elering (Estonia), which is developing its registry software, intends to join the AIB
- SEM-O (Ireland) is considering its options in relation to membership.

The AIB is actively pursuing discussions on membership with all European countries that are currently not members.

GHG-P Scope II Guidance soon in public review

The Greenhouse Gas Protocol (GHG-P) has been working with stakeholders on a Scope 2 Guidance Report for the last 2 years. This much anticipated report is expected to be in final-draft as early as late-October and be submitted for public commentary in mid-November. The report may have influence on the use of national-GOs and EECS-GOs when used for corporate carbon and renewables disclosure.

RECS International recommends all European stakeholders to review the report and provide their commentary. For updated information sign-up for the RECS International newsletter or contact the secretariat.

RE-DISS II hold advisory group meeting

The Reliable Disclosure Systems for Europe project, co-funded by the Intelligent Energy Europe Programme of the European Union, is in its second phase and is known as RE-DISS II. On September 27th RE-DISS II will hold its first advisory group meeting titled, “Making Guarantees of Origin and Electricity Disclosure in Europe more reliable”. On the agenda are topics such as mutual GO recognition, the residual mix calculation, further developments of the RE-DISS ‘Best Practice Recommendation’, and

environmental indicators.

RECS International has long supported the RE-DISS project because of their strive for proper information disclosure to the consumer.

A broker's column

Opening up new borders



Since Demirören-Axpo was established in 2011, this company has focused on bringing new solutions to the Turkish energy market. Thanks to the international experience of Axpo Trading (formerly known as EGL), as well as the strong local footprint of the Demirören Group, the first Guarantee of Origin (GO) deal in Turkey was made possible. In this capacity, the company is continuing to provide an expanding variety of services in the Turkish power market.

The French insurance subsidiary, Groupama, which expects to consume 2 GWh from 1 July 2013 to 30 June 2014, will be supplied with energy as a result of such a GO deal.

As a supplier, Demirören Axpo has declared its commitment to providing its customers with key solutions that will strengthen their corporate social responsibility (CSR) policies.

Due to the size of the deal, the company has started to attract further customers, generating a mixture of curiosity and interest. Such interest shows the growing importance of renewable energy as a theme influencing Turkish consumers.

We think that the implementation of a renewable electricity scheme in Turkey (i.e. one based on the GO) will highlight the importance of its renewable production sector. The production, trade and sale of GO certificates will allow renewable producers to receive additional value for their product above the price of the physical electricity.

Demirören-Axpo intends to contribute to the development of a renewable support scheme in Turkey which will benefit all stakeholders.

Salvatore Lima

Head Origination Demirören Axpo



RECS Magazine

RECS International is a non-profit organization that promotes an open pan-European renewable energy market, facilitated by commonly accepted and harmonized tracking systems. In order to realise this vision we encourage the dissemination of accurate information to consumers regarding their electricity and energy purchases. RECS International is a members-based association with over 200 corporate members from 22 countries. If you are interested in the benefits of membership with RECS International please contact the Secretariat via

The articles in this magazine have been edited by members of the secretariat of RECS International, but the opinions held by the authors are theirs alone and do not necessarily express the views of RECS International. Please send letters to the editor to



This logo is available for RECS-members only

Graphic design:
VA communication by design

(advertisement)

An advertisement for DEMİRÖRENAXPO. It features a central logo of a blue globe with a white 'DA' inside, surrounded by a white swoosh. Below the logo, the text 'DEMİRÖRENAXPO' is written in a bold, black, sans-serif font. Underneath that, the words 'ENERJİ' and 'GAZ' are written in a blue, spaced-out, sans-serif font. At the bottom of the advertisement, the following services are listed: 'Electricity Supply', 'Renewable Certified Electricity Supply', and 'Gas Supply'.