

The value of the [AIB](#) – “Why does Europe need GOs and the AIB?”

The three main European policy goals in the “[Clean Energy for all Europeans](#)” Package are:

- ✓ *putting energy efficiency first;*
- ✓ *achieving global leadership in renewable energies; and*
- ✓ *providing a fair deal for consumers.*

Consumers are active and central players on the energy markets of the future. Consumers across the EU will have a better basis for the choice of supply, access to reliable energy price comparison tools and the possibility to produce and sell their own renewable electricity. Increased transparency and better regulation give more opportunities for civil society to become more involved in the energy system. The package also contains a number of measures aimed at protecting the most vulnerable consumers.

European policy makers are working on a new legal framework for the European energy market, called the ‘[Clean Energy for all Europeans](#)’ package. To find out why this is important for consumers, and how consumers can contribute to the transition to a more sustainable European electricity market read on...

How do you contribute to building a better world? Are you accountable for the environmental effects of your choice of electricity contract?

Take a look at your energy bill. Do you see some figures or a graph indicating how the electricity you receive was produced? Are you getting electricity from nuclear, fossil or renewable sources? Or (as is most likely) are you getting a mix of all of the above? Well, that information and the transparency it provides is one of the added values brought about by the Guarantee of Origin (GO). This is particularly so in countries that use GOs to provide evidence of all types of electricity supply, not just renewables!

Transparency is the first step towards accountability

Do you care what your bill says about the source of your electricity? Those who don’t value transparency, most likely do not feel accountable for the environmental effects of their choice of electricity contract.

However, transparency is important. If you are getting electricity that is produced by burning coal in a 40 year old power plant, your kilowatt-hours are carrying quite a burden in terms of the ‘greenhouse gases’ that are responsible for climate change. If you are getting electricity that is produced by a nuclear power plant, your kilowatt-hours are carrying quite a burden of radioactive waste that is very difficult to dispose of safely for hundreds of years. If your electricity originated in a high-tech natural gas fired plant, things are already looking better. But if you have a green electricity contract that ensures your electricity comes from renewable sources, then you can really say you are doing a good thing for the planet.

However, some environmental organisations and consumer organisations tell consumers they are just the victims of paper-pushers, that most green contracts do not really matter, and that they do not contribute to the energy transition. Are they right? Does your choice of a green contract not make any difference ‘in the real world’? The term that is mostly used when making such an argument is ‘additionality’, and the argument is usually something like ‘a contract that is based on GOs does not ensure that the consumer’s money is going to producers of electricity from renewable sources, and therefore does not necessarily contribute to new investments in renewable capacity’. In other words, some opponents say that a green electricity contract does not automatically mean that the consumer contributes to the energy transition and decarbonisation of the electricity sector. This is misleading.

Additionality is not an issue!

Let us talk about additionality and what GOs can do for the energy transition. And let us be clear: past investment in renewable production capacity in Europe was not always due to GOs or consumer demand. Often it was due to support driving new investments in renewable production capacity.

But, as more and more technologies for electricity production based on renewable sources require less support, the signal from consumers and the potential of the GO grow. That is the way the economic principle of markets works: if something is in demand, then supply will accommodate that growing demand. And that is precisely what GOs do; they allow the consumer to express a preference for electricity from renewable sources over other sources, such as lignite, coal, nuclear and natural gas. In other words, GOs have the potential to empower consumers to make an informed choice for a contract that guarantees electricity production from specific sources.

Is that as futile as some opponents pretend it is? Let's not underestimate the power of the consumer! As has been mentioned in the past, investment in new renewable production capacity was essentially driven by policy and support. The choice of the consumer, by way of the GO and its financial value, did not contribute significantly (by the GO in itself, it is different with contracts that carry a label) to the financial flows needed to close the profitability gap that still hampers a lot of renewable production technologies. Now that we see the cost of renewable production decreasing rapidly, the balance between policy and market will shift. If clean electricity is more in demand, and through this demand GOs become scarcer, then the GO price will go up, therefore providing additional income to producers of electricity from renewable sources. Because that is where the premium paid by the consumer for a green contract should end up: in the pockets of the renewable producers. That way, investment decisions will be oriented towards renewable production capacity, rather than towards fossil fuel based production and support through policy schemes will be gradually replaced by a market based financial bonus for producers of renewable electricity. Over time, that bonus will become the driver for new investments.

There is no reason for the rules of normal market economics to be suspended, just because we are talking about the environment! If consumers care about green electricity enough to buy all of it (in the form of GOs), a signal is sent to the energy sector that there is high demand and this will affect investment positively. Consumers choosing green contracts that guarantee electricity production from renewable energy sources should be commended for showing leadership in the energy transition.

This would be amplified if GOs were issued for all electricity production, and all disclosure information (remember those graphs on your bill?) were based on GOs. At the moment, it is too easy not to choose green electricity, because that automatically means that consumers are getting the 'residual mix'. If all electricity was certified with GOs, then GOs that represent electricity production with a low environmental and climatic impact would be in high demand, and the GOs that represent production with a high carbon footprint would be less in demand - so consumers that are less interested in the electricity mix would be left with these GOs.

Full disclosure (meaning issuing GOs for all electricity, regardless of source) would make the European consumer fully accountable for their choice of electricity contract.

Making consumers accountable will drive the market towards sustainability!

Given these basic economic mechanisms of supply and demand, making consumers accountable by providing them with better disclosure information would have a significant impact, and would empower consumers to have a real impact on the energy transition.

Additionality is important for the energy transition, no question about it. Additionality can and should be achieved by the market, using the GO as the cornerstone for consumer information, which allows market players to provide more detailed information on the source of the electricity supplied to their consumers. This is perfectly feasible on the basis of the information that is already included on the GOs

for renewable electricity production. The Association of Issuing Bodies (AIB), the keeper of the European Energy Certificate System (EECS®) rules for GOs in Europe, has always resisted the idea of building additionality into the GO and disclosure system because we believe this is outside the scope of the AIB's activities, which focus upon disclosure. But make no mistake about it, AIB is fully committed to the energy transition, and feels that Europe's electricity sector needs to be drastically decarbonised!

As information carriers, GOs enable additionality. If electricity suppliers were to use the information provided on GOs to truly cater for the preferences of their consumers, not only create a green electricity contract, then suppliers would be able to create more tailor-made products, such as pure wind, fish-friendly hydro or solar based contracts.

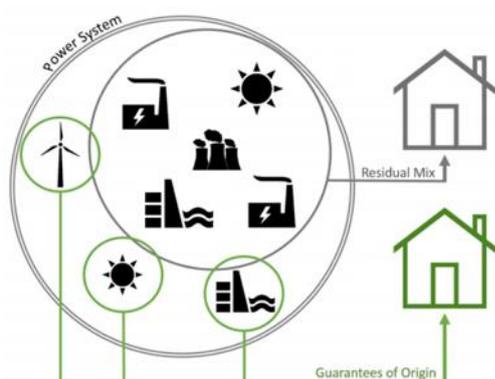
Otherwise suppliers could create offers that include a direct investment effect by undertaking to contribute to funds that invest in new renewable capacity, as is already the case for some 'labels', such as EKOenergy, Naturemade and TUV SUD Generation EE.

Such labels can obtain the status of Independent Criteria Scheme (ICS) within the EECS® framework. This means that a contract based on GOs and backed by an appropriate ICS can guarantee *direct* additionality. It could do so by ensuring that for each MWh supplied under contract, a direct financial contribution goes to new investment projects for producing electricity from renewable sources.

The facts about the Guarantee of Origin

What is the added value of the Guarantee of Origin?

The basic goal of the GO system is to provide proof that a given electricity consumption was produced by a specific technology, and/or energy source. To ensure the reliable and secure operation of an international GO system, the AIB developed a set of common principles and rules of operation, the [European Energy Certificate System \(EECS®\)](#).



Any remaining electricity that is not certified is available on the electricity market as “the residual mix”.

The paradox is that even electricity that is produced from renewable energy sources, but is not certified by the EECS® rules, can be included in the calculation of the residual mix, and suppliers can sell it without communicating its added value to consumers.

This is precisely why every consumer should be aware of the possibilities in the electricity market, whether they really intend to invest in the development of renewable energy projects, or to consciously reduce their personal greenhouse gas footprint.

Suppliers use GOs to guarantee the source of electricity, and consumers can make an active and informed choice when selecting their supplier e.g. to reduce their greenhouse gas footprint, or better still, choose to invest in the development of renewable energy projects.

Suppliers inform customers (current and potential) of all the options they provide either via their website or by other media.

If you would like more detail about Guarantees of Origin, take a look at this [short video](#).

Do you know what information is detailed on a GO?

GOs are uniquely identifiable, tradable and relate to a standard unit of energy – 1 megawatt hour (1MWh). Each GO contains standard information relating to how and when the associated energy was generated and of its environmental impact:

- The “energy medium” – electricity, fuel or heat
- A unique certificate number
- The date on which the installation became operational
- The first and last days on which the associated energy was produced
- The type of installation – its environment (e.g. land, sea ...), energy source (e.g. fossil, renewable ...), type (e.g. solar, wind ...) and fuel (e.g. geothermal, natural gas ...)
- The identity of the installation
- The country of issue
- The location of the installation
- The capacity of the installation
- The face value of the certificate (e.g. 1 megawatt hour)
- The issuer of the certificate
- The date of issue
- The identity of any label schemes under which it is eligible
- The identity of any EU Directives under which it is eligible
- The purpose of the certificate (either disclosure or support)
- An indication of whether other certificates have been (or can be) issued, associated with the same unit of energy, for other purposes
- An indication of whether or not public support has been received, and the form of such support.

In addition, Combined Heat & Power (CHP)-GO certificates contain:

- Use of heat (category)
- Lower Calorific value (MJ/kg)
- CO2 emitted
- Primary Energy savings (%)
- Actual amount of primary energy savings (MJ)
- CO2 savings (%).

Now that you understand the basic goal of the GO and disclosure system, perhaps you would like to contact your [local issuing body](#), or regulatory authority for more information?