

**AIB Press Release**  
**Finnish cleantech pioneer Grexel**  
**to calculate electricity Residual Mixes for Europe**  
**on behalf of the Association of Issuing Bodies**  
**08 Oct 2015**



**Grexel Systems Ltd. has won the call for tenders by the Association of Issuing Bodies (AIB) for the calculation of European Attribute Mix and Residual Mixes. Either guarantees of origin or Residual Mixes must be used by energy companies to inform their customers about the origin of electricity they receive. The European Attribute Mix is used by authorities to calculate the residual mix for a country. Coordinated calculation of these mixes is crucial for the reliability of the electricity disclosure system, and thus for the credibility of green energy in the eyes of the consumers.**

AIB is the leading enabler of international energy certificate schemes throughout Europe and has taken on responsibility for coordinating the calculations of the European Attribute Mix (EAM) and Residual Mixes (RM) for Europe, as a legacy of the RE-DISS (Reliable Disclosure Systems for Europe) project. Having calculated the EAM and RMs for the past 5 years, Grexel Systems is pleased to provide its expertise to AIB in this critical task.

**Why is a reliable Residual Mix calculation crucial?**

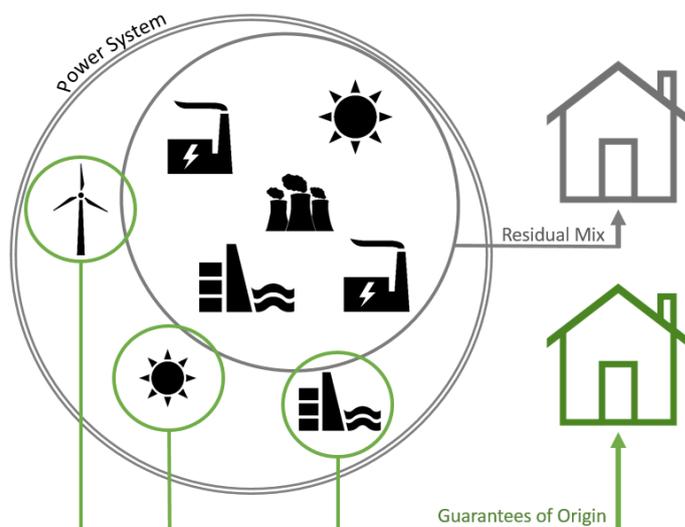
Under EU's Internal Energy Market Directive (2009/72/EC, Art. 3(9)), electricity suppliers must inform their customers of the origin and environmental attributes of sold electricity. This is called **electricity disclosure**. The aim is to enable informed consumer choice, and for that choice to be based on other matters than electricity prices alone, such as environmental values. In a liberalised market, electricity disclosure requires reliable tracking of the required attributes from generator to supplier.

For renewable energy, tracking is often done by associating electricity sales with cancelled Guarantees of Origin (GOs). However, **without the residual mix calculation**, renewable electricity sold with GOs could be double counted where disclosure information is presented to consumers buying "regular" electricity (i.e. from a blend of sources). The presence of a reliably calculated Residual Mix makes the entire disclosure system reliable, by determining and correctly disclosing to consumers that are purchasing a non-specific type of electricity, what is left in the power system after explicit tracking by means of GOs.

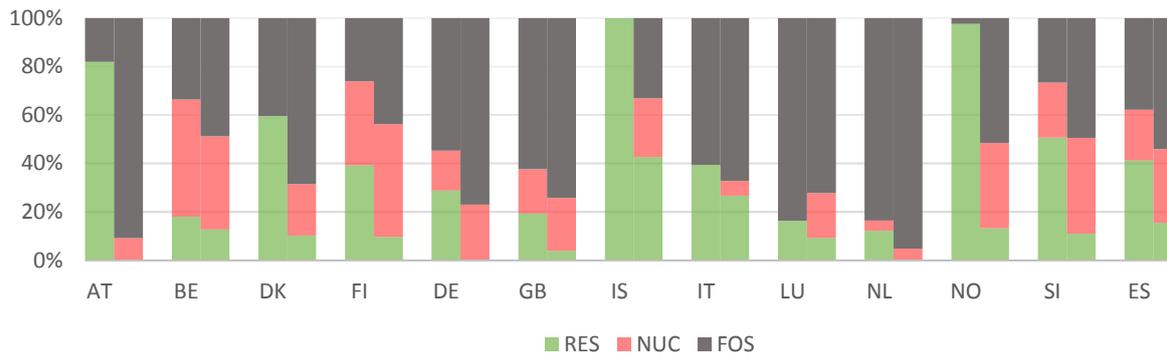
At the same time, it is important to remember that Residual Mixes can be seen as an intermediary step towards a full disclosure system where all electricity disclosure is done through GOs. This is supported by [AIB's reflection paper](#). Indeed, if all electricity was explicitly tracked through GOs, no residual mix would be needed – which would improve the reliability, accuracy, efficiency and credibility of the disclosure system.

*European Attribute Mix (EAM) is needed to coordinate national residual mixes.* Since the Guarantee of Origin system is Europe-wide, it is not sufficient for each country to determine its respective residual mix by simply adjusting the production mix to reflect imports and exports of GOs: the origin of energy represented by the exported GOs must also be replaced by the blend of energy available from the importing country. For example, if a country has 100% renewables in the production mix and exports 99% of it, then what is left (the residual mix) would still be 100% renewable unless the exports are echoed by "imports" of the EAM.

To avoid so-called "expanding" of energy origin in all cases where GOs are exported, a coordinated European Attribute Mix needs to be calculated and applied, to replace the deficit of energy origin caused by exported GOs. This is why taking the task of coordinating the **EAM calculation complements the HUB service of AIB extremely well**: it informs countries of the origin of the energy they receive in return, when GOs are exported via the AIB HUB. This is a prerequisite for a complete and reliable electricity disclosure scheme, and closes the loop for the HUB service.



**2014 Production and Residual Mixes of Selected European countries (© RE-DISS)**



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AIB represents European certificate system administrators, and is the leading enabler of international energy certificate schemes throughout Europe, and in particular those relating to guarantees of origin under Directives 2009/28/EC and 2012/28/EC. The AIB has developed, uses and promotes a standardised system: the European Energy Certificate System - EECS - which ensures the reliable operation of international certificate schemes. These schemes satisfy the criteria of objectivity, non-discrimination, transparency and cost effectiveness in order to facilitate the international exchange of certificates. In order to further facilitate the international exchange between of energy certificates, the AIB operates an inter-registry telecommunications Hub. The AIB also provides a knowledge centre for energy certificate authorities across Europe, providing and sharing advice and guidance.

Grexel is the leading provider of energy certification services in Europe. Since 2001 Grexel has been assisting various countries in the implementation of reliable electricity tracking and disclosure schemes through providing energy certificate registry systems and related services. Since 2010, it has been responsible for centralising calculations of the European Attribute Mix and Residual Mixes for Europe, through the RE-DISS project.