

The E-TRACK project is supported by

Intelligent Energy  **Europe**

Summary Slides

A European Tracking System for Electricity (E-TRACK)

<http://www.e-track-project.org>

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Project sponsored by the European Commission
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Project Objectives

Overall goal of the project

- To investigate the feasibility of a harmonised standard for tracking electricity generation attributes in Europe

Additional project objectives

- To cover all tracking requirements which are imposed by European and national policies (disclosure, guarantees of origin, support schemes, Green Power etc.)
- To facilitate cross-border trade of electricity generation attributes
- To avoid multiple counting of electricity attributes (e.g. from renewable energy sources) and loss of information
- To simplify verification of tracking procedures

Schemes which use tracking

Generally, three generic “uses” of tracking can be distinguished:

- **Disclosure** of information towards final consumers
Includes Green Power and other specific products
- Management of **public support** for RES-E and CHP
(mostly introduced by governments)
e.g. feed-in or quota obligations
- Verification of compliance with quantitative **targets**
e.g. indicative targets for electricity from renewable energy sources (RES-E) for 2010 (or 2020)

These tracking requirements must be coordinated!
(Adequate policy design)

Which tracking systems are there?

- European Energy Certificate System (EECS), including RECS
- National implementations of Guarantees of Origin (GO) for RES-E (cogeneration also coming)
- National support schemes with relation to tracking, e.g.
 - Certificate-based support systems (quotas)
 - Feed-in systems with pro-rata allocation of attributes
- National accounting systems for disclosure
- Company-based accounting systems for disclosure
- Private green power quality labels, ...

These tracking systems must be coordinated!
(Adequate management of information)

Challenges

Tracking systems must strive to

- provide **meaningful information** to the users, e.g. enable consumer choice based on disclosure or to facilitate support
- provide **accurate results**, e.g. avoiding multiple counting
- be **robust** against errors and fraud by the actors involved
- be **compatible** with the existing economic, socioeconomic, regulatory and legislative framework
- be **cost-efficient**, by providing the services required at reasonable cost
- be **flexible** enough to adapt to changing framework conditions

A selection of multiple counting problems

- Multiple counting within disclosure
 - Nordic countries exported large volumes of RES-E GO, but not all of them reflected this export in domestic disclosure
- Regional imbalances of attributes and physical energy
 - DE, AT and NL have imported large volumes of RES-E certificates; how to deal with their surplus of attributes?
- Inconsistent regional definition of default value (implicit)
 - Some Nordic countries use the Nordel production statistics for disclosure, but Denmark uses national production
- Incorrect use of certificates for disclosure
 - There are suppliers who base their disclosure information on certificates which they have acquired, but not redeemed

The E-TRACK standard – Key elements

Four elements represent the core of the E-TRACK standard

- **Domains** as regional entities for tracking
- **Certificate system** based on registries
- **Residual Mix** as default data for disclosure
- **Operational structures** (European and national)

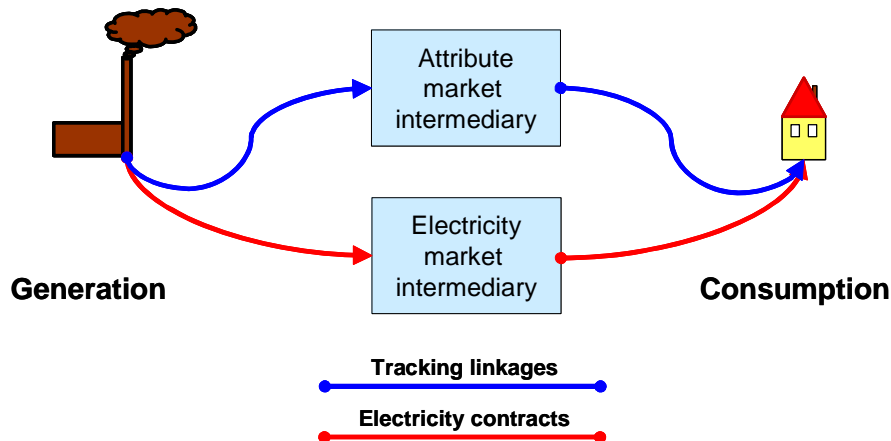
A clear definition of GO is required

- EU Directives should link Guarantees of Origin to disclosure
- Overlap between RES-E and cogeneration GO should be clarified: Only a single GO per unit of electricity!
- Redemption should be introduced for the use of GO
- GO should technically be implemented as transferable certificates, and EECS should be used for implementation
- Countries should be able to use GO for cross-border accounting for targets if they wish
- Countries should clarify the relation of support schemes to the GO

Certificates can facilitate De-linked and Contract-based tracking!

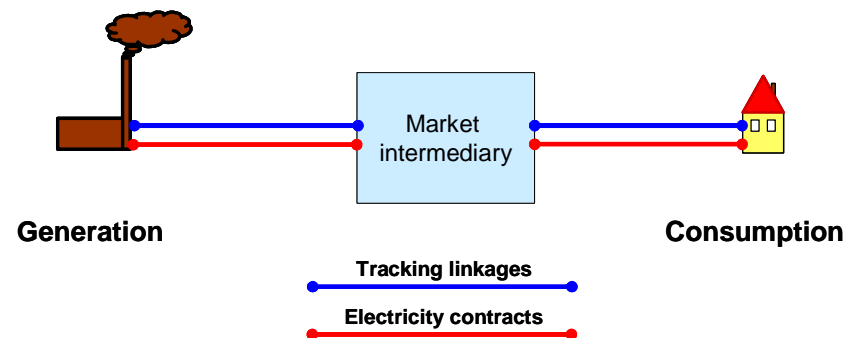
De-linked tracking

- Most flexible means of tracking
- No adverse interaction with energy market
- Issuing – Transfer – Redemption of certificate



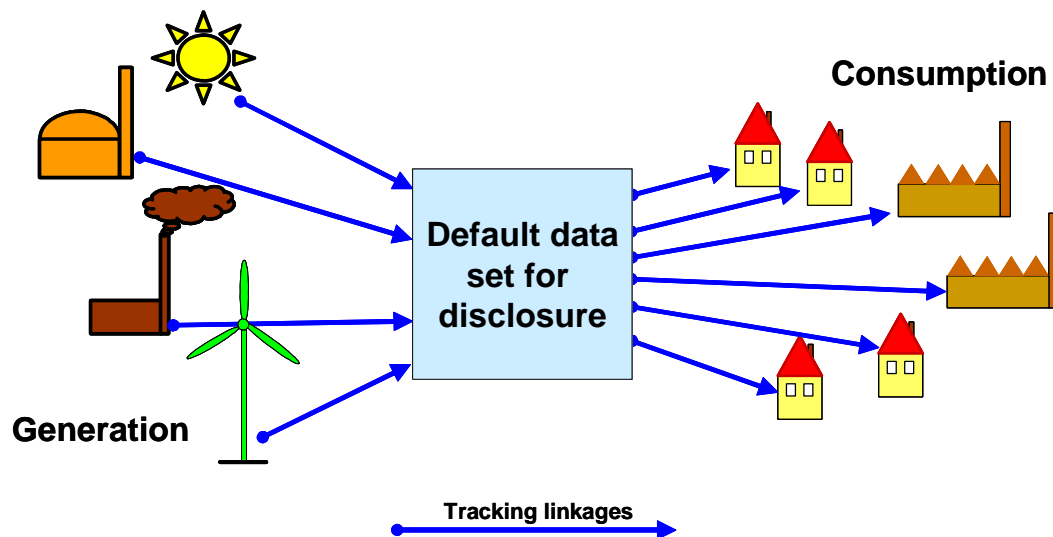
Contract-based tracking

- Difficult to use in relation to energy trading
- Favoured and used by many
- Can be implemented by re-bundling certificates with contracts



Residual mix – Default data for disclosure

- The use of GO should be voluntary
- If no GO are used, disclosure should be based on a set of default data
- This data should be derived from generation statistics
- BUT: statistics must be corrected in order to take into account
 - GO used or exported
 - Imported GO which have not been used
 - Volumes of disclosure attributes must match energy consumed



Further recommendations

- The European Tracking Standard should be implemented based on EECS plus a set of additional regulations
- The standard could be managed by an international governance organisation such as the Association of Issuing Bodies (<http://www.e-track-project.org>)
- European countries should use the standard and coordinate their tracking systems and policies with it
- Product differentiation and green claims should always be based on the use and redemption of GO
- National or regional residual mixes should be used
- The ultimate objective:
GO are used for all kinds of energy production!

E-TRACK: Most relevant achievements

- An analysis of existing schemes for the allocation of electricity generation attributes
- Detailed insight into the policy and market requirements for the design and operation of tracking systems
- A proposal for a harmonised standard for tracking electricity in Europe, including technical requirements
- A detailed assessment of the cost and benefits of a European tracking scheme under the standard
- Results from intensive consultations with stakeholders on the European and national level
- A variety of dissemination activities

Project partners and schedule

Project partners

Oeko-Institut – DE (coordinator)

Energy Research Centre of the Netherlands – NL; Pure Energi – GB; Austrian Energy Agency – AT; IT Power – GB; Observatoire des énergies renouvelables – FR; Lithuanian Energy Institute – LT; Büro für Energiewirtschaft und technische Planung – DE; Energie-Control GmbH – AT; Gestore dei Servizi Elettrici – IT; Agence de l'Environnement et de la Maîtrise de l'Energie – FR

Project milestones

Jan 2005	Project inception
Dec 2006	Termination of three rounds of consultations
March 2007	Project conference (Brussels)
August 2007	Final Report