

Contract EIE/04/175/S07.38664

ELEP – European Local Electricity Production

**WORK PACKAGE 5
CERTIFICATION AND AUTHORISATION OF DG AND RES**

Deliverable 5.3

Mechanisms that could be implemented to introduce an independent certification authority for EU

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Supported by the
European Commission under the
Intelligent Energy - Europe
Programme

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1 Summary

This report is referred to task 3 of WP5 and it is a study of the mechanisms that could be implemented to introduce an independent DG and RES authority for EU Member States which has the responsibility to discipline the DG and RES sector.

The mechanisms that could be implemented to introduce an independent Authority to administrate the DG and RES systems in Europe should go through all energy system functions.

In particular it should establish specific and standard rules for a homogeneous distribution of energetic systems on areas and facilitate the action to knock down bureaucratic barriers that often obstruct procedures of installation, distribution and implementing of these services.

A European disunion among tariff systems, controversies resolutions, electricity transmission and dispatching laws, or answers to request of information, inhibits a correct development of a DG market.

These problems demand a lot of efforts with a consequential waste of time and money, materials, men and infrastructure resources.

This authority would have the responsibility to assess new DG and RES schemes against the generic authorisation protocols present at country level, and to provide independent guide-lines and directive that would be recognised by European utilities. This study includes an assessment of the practicalities, and implications of allowing DG and RES schemes to “self-certify” some of the performance characteristics of their systems within the overall remit of an independent certification authority.

The Authority could have the triple role of regulator, harmonizator and guarantor, coordinating and simplifying the management of DG and RES system at European level.

2 Purposes

The purpose of this study is to identify functions and activities that an independent Authority should be responsible for in order to have the power to standardize at EU level the rules for the DG and RES sector.

This standardization should be made to avoid all the obstacles which render long and difficult the processes of installation, distribution and implementing of these systems.

Only through unification mechanisms the insertion of DG and RES systems in the European market can be facilitated.

The standardization will concern both processes and products: the common directives defined by the Authority should be respected at European level, exactly as they are currently respected in the countries where DG systems are diffuse.

The normative should give standards which must be considered “sufficient”: all the countries that acknowledge this regulation system should ensure an internal legislation not in contradiction with the European norms (without more restrictive requirements which will obstruct European precepts and make them ineffective).

These directives should overcome any other national regulation, for this reason they must be commonly accepted and respected.

For this reason directives must be written considering the most restrictive conditions, already available in the EU countries.

In this case the regulator plays an important role: it should create precise guide-lines about authorizations, certifications, standardizations for DG and RES in order to make easier the institution of a country normative which can simplify the authorization process for the diffusion of the DG systems.

The country best practices for the authorization process should be harmonized across EU.

The sectors of competence of the Authority as an harmonizator should be: the DG and RES services administration, the cooperation among companies, energy distribution and access, the diffusion of an advanced technology, the processes transparency, the fairness of tariff systems, the market administration, and prices flexibility.

In this way, the certification procedures should be shorter and more controlled, facilitating the diffusion of DG and RES systems.

The purpose of task 3 of WP5 is to identify the roles that the Authority at EU level should manage in order to improve and facilitate the diffusion of DG and RES systems

For a better administration and responsibilities clarification the Authority activities should be divided in three main roles.

Regulator

The Authority should ensure common and standard directives on subjects not properly provided at countries level

Harmonizator

The Authority should combine and standardize local existing directives, creating new guide-lines at European level. It should have the power to create new harmonized procedures

Guarantor

The Authority should ensure the respect of the directives, make sanctions if companies or users are not observing them and settle the controversies among involved parties

3 Description of the roles

3.1 REGULATOR:

The role of regulator should be to ensure common and standard directives on subjects not properly provided at countries level

The Authority as a regulator should institute some rules about prices and tariff systems to better administrate the DG and RES companies.

3.1.1 PRICE RULES:

Regarding electricity and fuels market, the regulator has to establish clear price policies and market rules specific for DG and RES and to make them available in transparent way; moreover it should deliver standardized rules relating to retail competition to protect users. These practices should avoid any sort of misunderstanding and unfair competitions;

3.1.2 ELECTRICITY WITHDRAWAL:

The Authority has to establish the technical and economic conditions for the withdrawal of the electricity produced by DG and RES systems. These tariffs must be diversified according to types of source and hourly bands.

3.1.3 SELF PRODUCTION:

For what concern self production, the Authority must define special grid connection modalities for DG and RES systems.

Through the institution of precise rules, the regulator should define specific operative guide-lines. These rules are patterns for the guarantor's job.

3.1.4 SPECIFIC COURT:

The Authority as a regulator should identify a specific court for controversies resolution in case they can't be solved through diplomatic ways or local energy directives;

3.1.5 CONCILIATION RULES:

In order to reduce the disputes and to facilitate the respect of laws, the Authority must determine and promulgate clear and standard conciliation rules, avoiding unnecessary recourse to the court;

3.1.6 SANCTIONS:

The regulator must establish precise sanctions for companies or customers who don't respect standards or rules for DG and RES systems; at the same time regulator must give to guarantor adequate power and means in the application of these sanctions.

3.1.7 TECHNICAL LIMITS:

The Authority must define the technical limits that DG and RES systems must complain to (for example through the definition of the maximum levels of emissions). The authority must also be involved in the definition of system safety standards.

3.1.8 LIFETIME PERFORMANCES:

The Authority must regulate the variation of the technical parameters during lifetime of the DG and RES system in terms of method of measurement and acceptable limits.

3.1.9 TECHNICAL ADVICES:

The Authority must define the procedures for the installation and the commissioning of DG and RES systems. This can be done through the edition of technical advices which must be specific, univocal and accepted at country level.

3.1.10 DECLARED PERFORMANCES:

The authority must assure the users about the reliability of the technical parameters of operation declared by manufacturers (efficiency, emissions, etc.). It must be done through the definition of a generic set of protocols to be fulfilled by suppliers of DG and RES systems.

3.1.11 INCENTIVES:

The Authority is in charge of promulgating procedures to provide incentives for Cogeneration and RES, in order to stimulate the cogeneration diffusion, (mainly the cogeneration fuelled by renewable sources) as far as the use of renewable sources.

The Authority must facilitate an adequate control of DG and RES schemes.

3.1.12 DATA-BASE:

The regulator should create a sort of data-base containing information of DG and RES installations; these consolidated schemes could support the creation of new schemes. The data-base could contain, together with the standard technical data of the system, also the location, the interconnection type, the manufacturer of the main parts, the installer, etc. This can ensure transparency and references for new customers.

3.1.13 PROPOSALS:

If the regulator observes any absence in the DG and RES regulation, it must have the opportunity in proposing about authorization schemes and practices to others local energy authorities;

3.1.14 ANALYSIS:

The regulator must institute a periodic evaluation of schemes and new schemes to guide its own decisions or the ones made by local bodies involved in the field of authorization process for DG and RES.

3.2 HARMONIZATOR:

The role of harmonizator should be to unify and standardize several local existing directives on DG and RES systems, in order to create rules and guidelines at European level.

The harmonizator should ensure a better administration of DG and RES services accessibility through new standards and guide-lines.

3.2.1 SERVICES ACCESS:

The harmonizator should ensure rules for the improvement of the accessibility to the services provided by the local authorities or multi-utilities. These rules have to be univocal and accepted at country level.

3.2.2 SERVICES CONDITION:

The Authority, in its role of harmonizator, should conform the terms for services condition ensuring uniformity in the EU. The authority has to take care of the diffusion of the knowledge on services conditions which must be clear and standardized to ensure the transparency and the offer competitiveness.

3.2.3 SERVICES QUALITY:

The Authority should define general and specific quality levels of the services provided to DG and RES systems, and mechanisms of defrayals to end-users if these standards are not respected. Quality levels can concern contracts (rapidity in interventions or in answers), or technology (services continuity, availability and safety);

3.2.4 SERVICES RESPONSIBILITY:

The Authority, creating new harmonized procedures, should give directives for the identification of who has to be the responsible for the supply of services to DG and RES system.

3.2.5 COOPERATION:

The Authority should facilitate the cooperation among agencies to develop common policies for DG and RES systems, in order to focus efforts on research, development, standardization and identification of new DG and RES technology.

3.2.6 GUIDE-LINES:

The harmonizator should define specific guidelines at European level for access and utilization of services, to simplify the identification of violations by the guarantor.

3.2.7 SIMPLIFIED PROCEDURE:

The harmonizator has to make DG and RES systems more affordable also for residential and low-income households. They should have access to the energy related services with simple bureaucratic procedures, certifications and tariff systems. This can stimulate the improvement of DG and RES systems.

The Authority should harmonize different local methods of control, standardization and transparency.

3.2.8 STANDARDIZATION:

The harmonizator should standardize the DG and RES technologies across agencies in order to combine the different legislations and unify them. It will ensure a better European policy overview and improve the synergy between all distributed generation techniques;

3.2.9 TRANSPARENCY:

In order to implement energy efficiency measures, the Authority should ensure practices transparency and information traceability through the traceability of the informations on a web site or through a common office.

3.2.10 COMMON LANGUAGE:

The Authority must define a common language with specific terms, which should be shared and understood by DG and RES system manufacturers, utilities and end-users, at European level. The Authority must ensure the knowledge of a shared terminology which can therefore facilitate the diffusion of DG and RES systems. This can be possible through informative sheets containing the standardized terms which must be distributed directly to the companies or through a web site.

3.2.11 MEASUREMENT METHODS:

The Authority should establish performances measurement methods for DG and RES systems, which must be unified and accepted at country level.

The harmonizator should standardize the rules related to costs and tariff systems.

3.2.12 SYSTEM BENEFITS:

The Authority should determine the global environmental benefits coming from the application of DG and RES system and analyze the related costs; then, ensuring information and transparency, should drive a unique legislation and tariff policy which stimulate the diffusion of the DG and RES system applications;

3.2.13 RATE CHANGES:

The harmonizator should discipline the utility tariff changes rules, in order to facilitate the DG and RES system pay-back calculation.

3.2.14 HARMONIZED OBJECTIVES

In its role of harmonizator, the Authority has to inspire agencies objectives driving the political choices, considering the importance of the environmental conservation.

3.2.15 ADVANCED TECHNOLOGY:

The harmonizator, through incentives, must ensure the development of an advanced technology for DG and RES systems not provided by competitive and regulated markets.

3.3 GUARANTOR:

The role of guarantor should be to settle the controversies among involved parties and to control the services accessibility, to make inspections to evaluate possible violations, to establish sanctions, to define clear conciliation practices and to find a diplomatic resolution

The third role the Authority must cover is to be a judge in case of controversial between subject of the EU Member States and should institute a proceeding after one of the following cases occurs:

3.3.1 REQUEST:

In case a subject believes that the local energy authority is offending his rights should submit a request to the Authority for a controversial resolution;

3.3.2 CONTROL:

The Authority, by means of a direct and constant control on the services provided by the local authorities to the DG and RES users, should determinate the respect of the directives. In case a violation is found, in order to ensure a correct administration of resources and environment, a proceeding should be institute;

3.3.3 INSPECTIONS:

The Authority should make special inspections and acquirement of DG and RES certification to evaluate directive violations and to take measures.

To act in an efficient way the Authority should operate considering the following instructions.

3.3.4 COMPENSATION:

If local directives have no power to apply sanctions for a violation, the Authority must apply compensations. This consent to advantage resolution practices, avoiding inutile waste of time, if the disputation can be solved by local authorities;

3.3.5 DIPLOMATIC PRACTICES:

The Authority, in its role of guarantor, should institute a process for controversies resolution and, only after trying with a diplomatic way, look at a specific court instituted by the regulator. This can facilitate the disputes administration;

3.3.6 EXPERIMENTAL PRACTICES:

The Authority as a guarantor should adopt specific actions to promote the development of experimental procedures of controversies resolution, in order to encourage conciliations, avoiding unnecessary recourses at the court and waste of time;

3.3.7 TRAINING:

The Authority should train specific personnel to be involved in conciliation procedure to solve controversies, avoiding recourses at the court instituted by the regulator;

3.3.8 MONITORING:

As a guarantor, the Authority should actuate a constant monitoring of DG and RES systems operating conditions in order to identify violations from the expectation, taking congruous measures.

In case a violation is found, a proceeding should be institute.

3.3.9 SANCTIONS:

When DG and RES systems requirements are not met, the Authority as a guarantor can issue sanctions according with the rules established by the regulator. Sanctions can also be issued against the services suppliers that are not following the rules.

3.3.10 MARKETS:

The Authority in its role of harmonizator must oversee DG and RES markets to inhibit anti-competitive activities and punish who doesn't respect laws established by the regulator.

4 Conclusions

At the moment the authorization and certification process is not harmonized among countries in Europe.

In this way, authorization procedures for the system installation, the electricity distribution and the operation of DG and RES systems are obstructed.

The proposal is a simplification of these practices, supposing a regulation recognized at European level, to reduce time and controversies among involved subjects, caused by misunderstandings or dissatisfactions.

This should be realized through the creation of a DG and RES Authority which should have the power to act as a **regulator** (ensuring common and standard directives on subjects not properly provided at countries level), **harmonizator** (combining and standardizing several local existing directives, applying them at European level) and **guarantor** (settling the controversies among involved parties).

- As a regulator, the Authority should institute some rules about prices and tariff systems, give precise operative guidelines, facilitate an adequate control of DG and RES systems.
- As a harmonizator the Authority should ensure clear conditions for DG and RES systems application through a combination and standardization of local directives about services accessibility, transparency, terminology, incentives and tariff systems.
- As a guarantor, the Authority should: ensure the control of services access and development, make inspections to evaluate possible violations, establish sanctions, define clear conciliation practices and research a diplomatic resolution.

The guidelines to simplify procedures should contemplate:

- a better accessibility with the promulgation of common directives to facilitate services administration,
- the definition of terms and procedures standardization,
- the improvement of processes and information transparency,
- the market control to govern the anti-competitive activities,
- the development of a clear, transparent and standardized tariff system.