



PROGRAMME FUNDED BY THE EU



New ITS Project Sustainable Energy Activity in EaP Countries

BUILDING PARTNERSHIPS FOR ENERGY SECURITY

www.inogate.org



INOGATE New ITS Project

EU Legislation on Renewable Energy Sources (RES)

*By Lejla Uzicanin
Sustainable Energy Expert*

Tbilisi, February 2013

www.inogate.org



RES Directive Part of the EnC Acquis



- EU adopted the new RES Directive in 2009
[Directive 2009/28/EC on the promotion of the use of energy from renewable sources](#)
- **As of October 2012**, The New RES directive part of the EnC acquis, subsequent to the Ministerial Council Decision on adoption.
 - The Decision establishes the national RES target for each Contracting Party.
 - The baseline year for the Energy Community shall be 2009.
- With the Decision and the acceptance of binding targets, the Energy Community Contracting Parties can participate in all cooperation mechanisms.



EU-27 and Energy Community Cooperation on RES



In the new RES Directive it is for the very **first time**, that an EU piece of legislation makes **a reference to the Energy Community Treaty** and envisages mutually benefitting cooperation between EU-27 and the Contracting Parties.

In the Directive's recital 35 it says – *"If, by virtue of a decision taken under the Energy Community Treaty to that effect, the contracting parties to that treaty become bound by the relevant provisions of this Directive, the measures of co-operation between Member States foreseen in this Directive will be applicable to them."*

The New RES Directive Focus and Scope



Establishes **common framework to ensure 20% RES by 2020**

- Sets **mandatory national targets**
 - Overall share of energy from RES and transport
- Sets **rules to overcome administrative barriers** to RES
- Establishes **sustainability criteria** for biofuels and bioliquids
- Lays down **rules** relating to:
 - Coordination mechanisms between MS and with third countries
 - Guarantees of origin
 - Access to the electricity grid



What Counts as Renewable Energy ?



- Energy from non-fossil sources: wind, solar, geothermal, aerothermal, hydrothermal and ocean energy, hydropower, biomass, landfill and sewage treatment plant gas and biogases.
- Nuclear power is not a renewable energy source.
- Unsustainable biofuels are not counted as a renewable for the purpose of the targets (e.g. bio-fuels and liquids produced from primary forest and other wooded land, areas protected by authority for nature protection).

www.inogate.org



RES Directive Requirements



- Setting mandatory national targets for the share of energy from renewable energy sources
- + 10% target of renewables in transport sector – a share of biofuels in transport petrol and diesel consumption.
 - For EU MS, division of the EU target (20%) in the form of separate, legally binding minimum RES targets.
 - For EnC Countries - the 10th Ministerial Council on October 2012 adopted the RES Directive and laid down the **national RES 2020** targets.
- CPs shall bring into the force laws, regulations and necessary administrative provisions necessary to comply with the Directive by 1 January 2014.



Calculating the Share of Renewable energy



Methodology for calculating the share of RES is presented in the Annex I of the Directive. The approach consists of several steps:

1. Calculating the gross final consumption of **electricity** from RES
2. Calculating the gross final consumption of **energy for heating and cooling** from RES
3. Calculating the gross final consumption from RES in **transport**
4. Addition of 1, 2 and 3, while avoiding double counting
5. Adjusting of the sum for any cooperation mechanisms (e.g statistical transfers).
6. Expressing adjusted sum as a share of gross final energy consumption.

National Action Plans



- **National plan for sectoral targets (electricity, transport heating& cooling) and adequate measures** to achieve the overall target.
- Adequate measures to be taken to achieve those targets:
 - a) Overview of policies and measures for promotion of RES
 - b) Support schemes for promotion of RES
 - c) Specific measures on promotion of the use of biomass
 - d) Planned statistical transfers or joint projects
- Measures to remove administrative barriers, accelerate authorization procedures, support renewables integration into the energy system.
 - Cooperation between national, regional, local authorities

Deadline for CPs: 30 June 2013



National Support Schemes



Governments can use a range of market-based instruments to subsidize renewable electricity. These can be:

- Instruments to support investments (capital grants, Tax exemptions).
- Production support schemes - quantity based instruments and price based instruments (e.g. obligations to purchase fixed quantity of renewables, or “feed in” tariffs).



Feed – in Tariffs



- Feed in tariffs - establishing a fixed price higher than market prices or mark-ups in addition to the market price.
- Granted to operators of eligible domestic RES electricity plants for the electricity they feed into the grid.
- The tariff or premium usually guaranteed for a period of 10 – 20 years in order to cover the investments made by renewable energy produces.

www.inogate.org



Guarantees of Origin



- Issued for the purpose of proving a proof that a quantity of energy is in accordance with the requirement of the Directive (RES energy).
- Countries shall ensure that a guarantee can be issued on request from a producer of electricity from RES.
- Countries may arrange issuance on request from producers of heating and cooling (from RES).
- Directive sets standardized the information to be reported and sets minimum specifications of the guarantee of origin (the energy source, whether it relates to electricity or heating, location, type and capacity of installation where the energy was produced, any financial support to the installation, etc.)

Administrative Barriers

Directive requires revision of the legal and regulatory framework with regard to authorization procedures in order to reduce barriers for development of RES projects.

- RES projects generally subject to an application procedures ('permitting' procedures)
 - The Directive requires that permitting procedures are proportionate and necessary.
- Countries shall evaluate their existing legal framework with a view to streamlining and expediting procedures to ensure that the rules are i) objective ii) transparent and iii) non-discriminatory.



RES in Buildings



- Energy Performance of Buildings Directive (EPBD) is addressing energy performance of buildings by improving energy efficiency.
- The RES Directive require from countries to increase the supply of renewable energy in buildings:
 - *“MS shall introduce in their building regulations and codes appropriate measures in order to increase the share of all kinds of energy from renewable sources in the building sector”.*
 - Requirement to promote the use of RES in public buildings  Exemplary role.

Enabling Framework: Adequate Information



Achievement of the RES targets will depend on enabling framework – which included availability of the adequate information.

- The lack of information and training is considered an important obstacle for growth in renewable energy.
- Provisions in the Directive to address the information gap:
‘MS shall ensure that information on support measures is made available to all relevant actors, such as consumers, builders, installers, architects, and suppliers of heating, cooling, and electricity equipment and systems and of vehicles compatible with the use of energy from renewable sources’.



Renewable Energy and Grid Issues



- The adequate network infrastructure is precondition for further renewable electricity deployment.
- This is especially important for RES from variable sources such as wind, solar, run-of-river hydro;
“MS shall take appropriate steps to develop transmission and distribution grid infrastructure, intelligent networks, storage facilities, and the electricity system, in order to allow the secure operation of the electricity system as it accommodates the further development of electricity production from renewable energy sources..”
- In order to eliminate obstacles to the contribution of RES sources to electricity mix, rules for the operation of the grid and of electricity markets have to be adopted.

Available Information on Grid issues



- TSOs and DSOs to be required set up and make public their rules relating to **bearing and sharing costs** of technical adaptations such as grid connections and grid reinforcements, improved operation of the grid and rules on non-discriminatory implementation of the grid codes necessary to integrate new producers of RES electricity.
- New investments may be needed – who bears which costs must be covered by the rules.
- TSOs and DSOs are required to provide any new producer of energy from RES comprehensive necessary information, including:
 - A) Estimate of costs associated with the connection;
 - B) Timetable for receiving and processing the request for grid connection;
 - C) Indicative timetable for any proposed grid connection.

Priorities or Guaranteed Access



- Ensuring priority access to the grid is required for electricity from renewable sources.
- Provisions require to ensure access to the grid for electricity from RES when the source is available.
- This is particularly relevant for generators using variable non-storable resources.

www.inogate.org



Priority Dispatch



- Installations generating electricity from renewable sources should have priority over plants using conventional sources when feeding electricity into the grid.
- This requirement is constrained by the need to avoid endangering the stability of the electricity network.
- Directive requires to ensure that “**appropriate**” grid and market operational measures are taken to enable the integration of the variable resources.

Other Energy Infrastructure



Directive address other energy infrastructure (other than electricity):

- Gas networks (related to biogas requiring nondiscriminatory and transparent access to rules)
- District heating and cooling
- Possible development of new infrastructure for the large-scale use of renewable energy sources to be addressed in the National Action Plans

Renewable Energy in Transport



The Directives main provisions on RES in transport are:

- Establishing 10% target for the share of RES in transport by 2020 (with rules how to calculate it).
- Establishing sustainability scheme for biofuels used in transport.
- Sources that count toward 10% target:
 - Biofuels (transport fuels made from biomass)
 - Electric power – if produced from RES
 - Hydrogen used in fuel cells – only if produced from RES

Sustainability



- It is possible to produce biofuels in ways to do more harm than good.
 - For example, greenhouse gas emissions from the production process could outweigh the benefits from replacing fossil fuels.
- Second generation biofuels (using residual non-food crops, such as stems, leaves once the food crop has been extracted (*not as bioethanol produced from sugar cane, corn, wheat or sugar beet.*)
- Sustainability criteria relating to *greenhouse gas performance, land use* and '*cross-compliance*' with the environmental requirements

Co-operation mechanisms



Explicit means for Member States to buy renewable energy from another Member State and count it toward its target.

- 3 different types:
 - Statistical Transfers
 - Joint projects
 - Joint supporting schemes
- 2 ways of cooperation
 - Cooperation mechanisms between MSs
 - Cooperation mechanisms between member and non-member states



Co-operation Mechanisms Between Member States



1. Statistical transfers:

- MS make agreement on “virtual transfer” on quantity at a price.
- The energy not exchanged, just “credit” for having invested in production of RES

2. Joint projects:

- MS agree a (**new**) “joint project”
- One MS helping in building a new plant and infrastructure in another, sharing the counting of resulting RES

3. Joint support schemes:

- Joint support schemes for Member States (e.g. common feed-in tariff)

Cooperation Mechanisms with Other Countries



- Directive creates **framework for cooperation** with third countries.
- Joint projects between MS and third countries
 - MS may agree a (**new**) “joint project” for production of renewable electricity in 3rd country.
 - Electricity must be consumed in EU (*exception to the rule with regard to construction of interconnectors for electricity transmission - construction started by 2016 and operational by 2023*).

Under certain circumstances, certain countries can be treated effectively as Member States.



Third Countries as Member states



- Directive explicitly recommends to the Energy Community to adopt the Directive and incorporate it into their national legislation.
- In this case, Energy Community countries will be treated as Member States with regard to cooperation mechanisms under this Directive.
- Ministerial Council adopted the Directive as part of the acquis in October 2012!

OPORTUNITY!



Thank you for your Attention



www.inogate.org

