

The European Union – Tajikistan Sustainable Energy Days 2024

Institute of Energy of Tajikistan Kushoniyon, 28 May 2024

Overall policy and legal framework for the promotion of RE in the EU

Paata Janelidze,

Team Leader, Key expert in energy engineering, SECCA







Content



Timeline for renewable energy in the EU

Revised Directive EU/2023/2413

Renewable Energy in the EU

Renewable Energy in Energy Community Contracting Parties



Electricity tariffs in the EU and Energy Community

Contracting Parties





TIMELINE FOR RENEWABLE ENERGY IN THE EU







Timeline for renewable energy in the EU







Timeline for renewable energy in the EU (2)







Timeline for renewable energy in the EU (3)











REVISED DIRECTIVE EU/2023/2413







Revised Directive EU/2023/2413

- Building on the 2009 and 2018 directives, the revised directive introduces stronger measures to ensure that all possibilities for the further development and uptake of renewables are fully utilized
- A strong policy framework will facilitate:
 - Electrification in different sectors, with new increased sector-specific targets for renewables in heating and cooling, transport, industry, buildings and district heating/cooling
 - Promoting electric vehicles and smart recharging
- Easier and faster permitting procedures for renewable energy projects
- Bioenergy will also have a role to play





Revised Directive EU/2023/2413 (2)

- The decarbonization of heating and cooling in buildings through an increased share in production and use of renewable energy
- To replace fossil fuels in buildings and to ensure the availability of a safe and reliable RE supply for nearly zero-energy buildings by 2030
- Heat pump technology is key to producing renewable heating and cooling from ambient energy, including from wastewater treatment plants and geothermal energy
- To reduce the Union's dependence on fossil fuels and fossil fuel imports, a Union strategy for imported and domestic hydrogen should be developed







RENEWABLE ENERGY IN THE EU







Renewable Energy in the EU

Why is the EU increasing the share of renewables in its energy mix?

• Under the European Green Deal, renewable energy is a pillar of the clean energy transition

The European **Green Deal** is the ambitious EU climate policy that aims for Europe to become thefirst climate neutral continent by 2050

- It comes at a low cost and is home-grown
- It reduces Europe's dependency on external suppliers
- It contributes to achievement of EU's objective of climate neutrality by 2050





Renewable Energy in the EU (2)

- Globally EU leads technology development in renewables
- Since the introduction of the Renewable Energy Directive (2009/28/EC), the share of RES in EU energy consumption has increased from 12.5% in 2010 to 21.8% in 2021
- In July 2021, the Commission proposed a revision of the directive, raising the 2030 target to 40% (up from 32%)
- According to the revised Directive EU/2023/2413:
 - The share of energy from RES in the gross final consumption of energy in 2030 should be at least 42.5%
 - Member States shall collectively endeavor to increase the above share to 45%





Renewable energy in the EU (3)

- The energy available in the EU comes from energy produced in the EU and from energy imported from third countries
- In 2021, the EU produced around 44% of its own energy, while 56% was imported
- In 2021, the <u>energy mix in the EU</u>, mainly consisted of five different sources:
 - Crude oil and petroleum products 34%
 - Natural gas 23%
 - $\,\circ\,$ Renewable energy 17%
 - o Nuclear energy 13%
 - $\,\circ\,$ Solid fossil fuels 12%





Renewable energy in the EU (4)

• Shares of different energy sources in <u>total EU energy production</u> in 2021:

$\,\circ\,$ Renewable energy - 41%

- Nuclear energy 31%
- $\,\circ\,$ Solid fossil fuels 18%
- Natural gas 6%
- o Crude oil 3%







Renewable energy in the EU (4)

- Shares of different energy sources in <u>final energy consumption</u> in 2021:
 - Petroleum products 35%
 - o Electricity 23%
 - Natural and manufactured gas 23%
 - Direct use of renewables (not transformed into electricity, for example wood, solar thermal, geothermal or biogas for space heating or hot water production) - 12%
 - Derived heat (such as district heating) 5%
 - Solid fossil fuels (mostly coal) 3%





Renewable energy in the EU (5)

Share of energy products in total final energy consumption, 2021 (in %)





Renewable energy in the EU (5)

- Shares of different energy sources in <u>electricity production in 2021</u>:
 - Renewable energy 38%
 - ✓ Wind turbines 13%
 - ✓ Hydropower plants 13%
 - ✓ Biofuels 6%
 - ✓ Solar power 6%
 - o Fossil fuels 36%
 - Nuclear power plants 25%





Renewable energy in the EU (5)

Production of electricity by source, 2021 (in %)









RENEWABLE ENERGY IN ENERGY COMMUNITY CONTRACTING PARTIES







Renewable energy in Energy community contracting parties

- The Energy Community (founded in 2005) an international organization which brings together the EU and its neighbors to create an integrated pan-European energy market
- Contracting Parties:
 - o Albania
 - Bosnia and Herzegovina
 - o Georgia
 - Kosovo
 - North Macedonia
 - o Moldova
 - o Montenegro
 - o Serbia

the European Union Ukraine

Observers:

Armenia

Norway

Turkey



Renewable energy in Energy community contracting parties (2)



Renewable energy in Energy community contracting parties (3)

- The Contracting Parties committed to implement key EU energy law, develop an adequate regulatory framework and liberalize their energy markets within a fixed timeframe
- Albania has achieved its 2020 renewables target (implementation status 62%) (Source: Annual Implementation Report. Energy Community Secretariat. 1 November 2022)
- Bosnia and Herzegovina is close to reaching its 2020 target
- Georgia amendments to the Renewables Law should enable first auctions for renewable energy projects to start

Renewable energy in Energy community contracting parties (4)

- Kosovo close to reaching its 2020 target
- Moldova has achieved its 2020 renewables target
- Montenegro has achieved its 2020 renewables target
- North Macedonia far from achieving its 2020 renewables target, but it keeps being a frontrunner in implementation of auctions for renewables projects
- Serbia close to reaching its 2020 target
- Ukraine implementation of the renewable energy acquis is a priority

ELECTRICITY TARIFFS IN THE EU AND ENERGY COMMUNITY CONTRACTING PARTIES

Electricity tariffs in the EU and Energy Community Contracting Parties

Leaflet | Administrative boundaries: @EuroGeographics @UN-FAO @Turkstat, Cartography: Eurostat - GISCO, 2019

THANK YOU FOR YOUR ATTENTION!

