

The European Union – Turkmenistan Sustainable Energy Days

International Conference

Sustainable Energy in Turkmenistan: prospects and challenges

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

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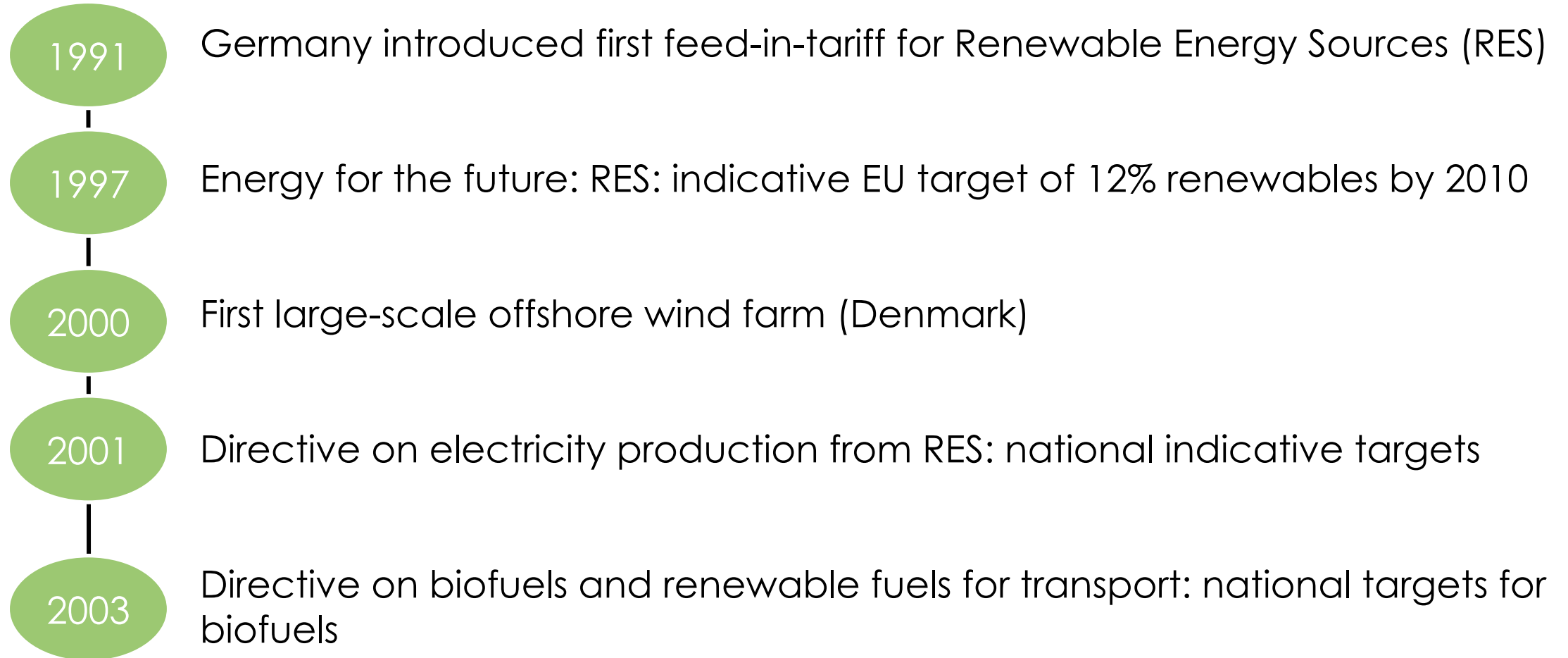


TIMELINE FOR RENEWABLE ENERGY IN THE EU

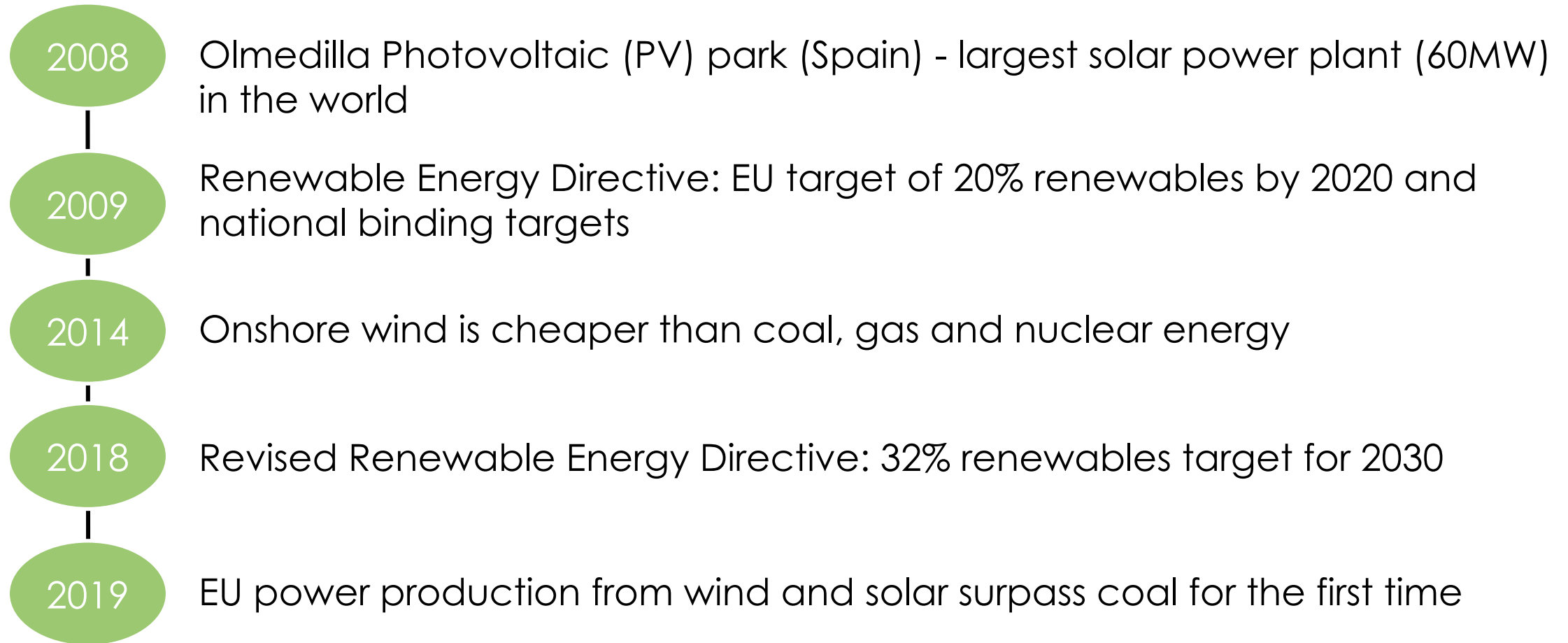


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Timeline for renewable energy in the EU



Timeline for renewable energy in the EU (2)



Timeline for renewable energy in the EU (3)

2021

Fit for 55: European Commission proposed to revise the directive and raise the target for 2030 to 40%

Fit for 55 is a package by the European Union designed to reduce the European Union's greenhouse gas emissions by 55% by 2030

2022

REPowerEU Plan: new EC proposal to further raise the renewable energy target

*REPowerEU Plan - a **plan** to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition*

20.11.
2023

Revised Directive EU/2023/2413 entered into force



REVISED DIRECTIVE EU/2023/2413



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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



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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 the first 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%

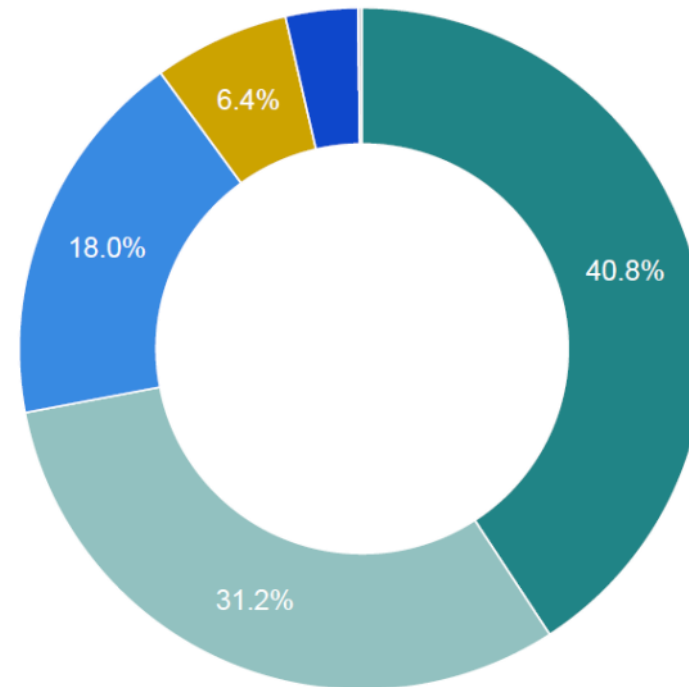
Renewable energy in the EU (3)

- 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 energy mix in the EU, mainly consisted of five different sources:
 - Crude oil and petroleum products - 34%
 - Natural gas - 23%
 - **Renewable energy - 17%**
 - Nuclear energy - 13%
 - Solid fossil fuels - 12%

Renewable energy in the EU (4)

- Shares of different energy sources in total EU energy production in 2021:

- **Renewable energy - 41%**
- Nuclear energy - 31%
- Solid fossil fuels - 18%
- Natural gas - 6%
- Crude oil - 3%

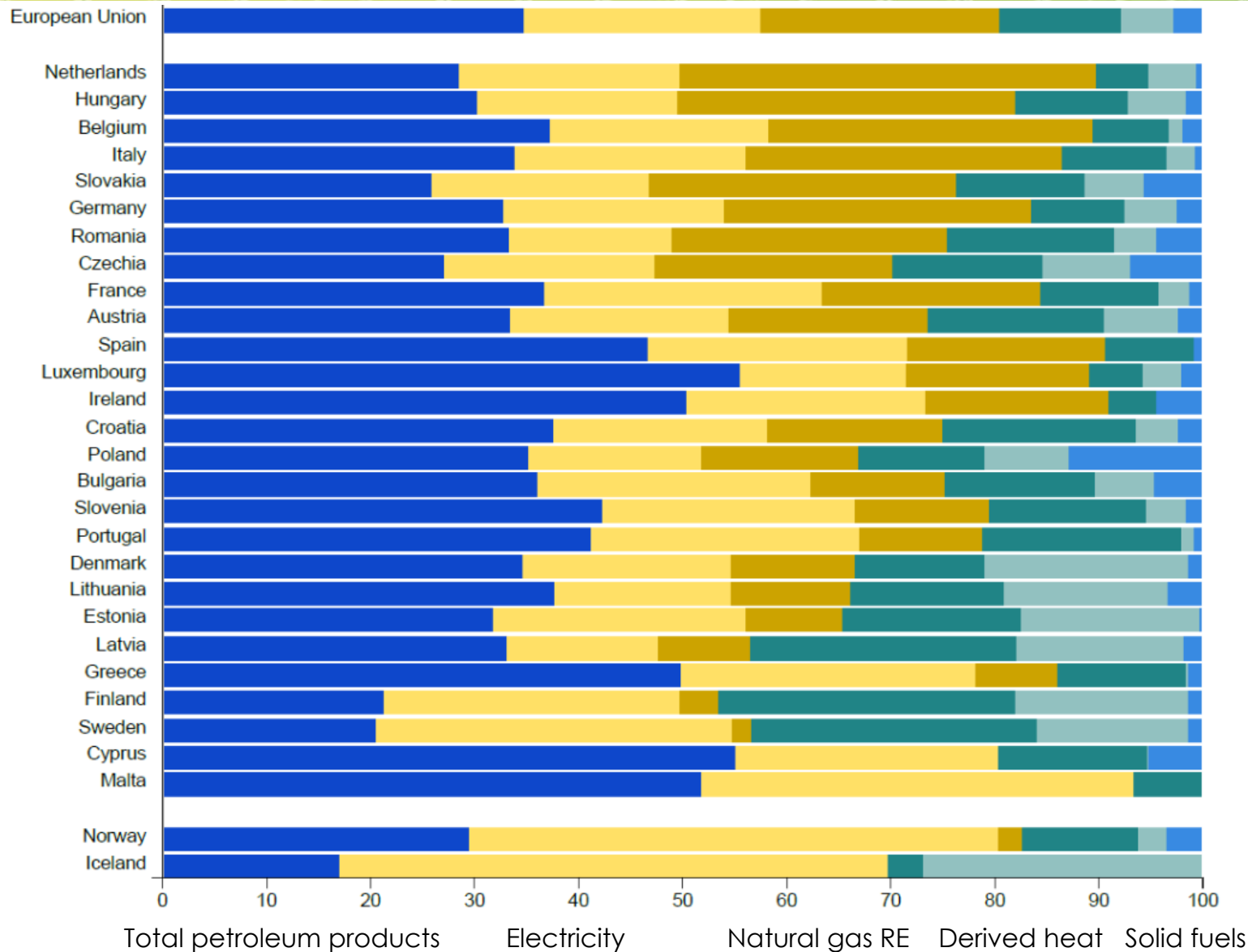


Renewable energy in the EU (4)

- Shares of different energy sources in final energy consumption in 2021:
 - Petroleum products – 35%
 - 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 %)

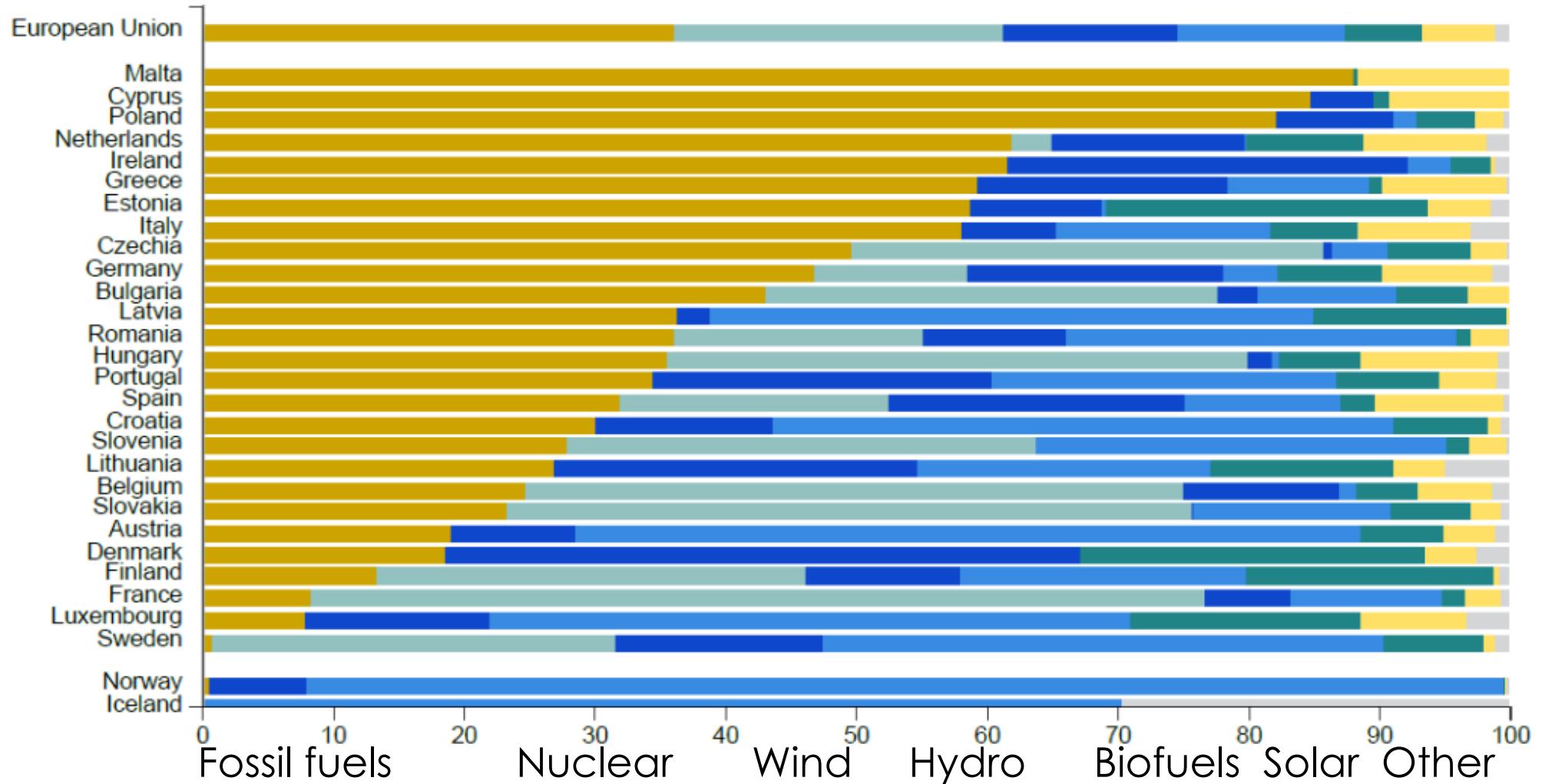


Renewable energy in the EU (5)

- Shares of different energy sources in electricity production in 2021:
 - Renewable energy - 38%
 - ✓ *Wind turbines – 13%*
 - ✓ *Hydropower plants – 13%*
 - ✓ *Biofuels – 6%*
 - ✓ *Solar power 6%*
 - 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

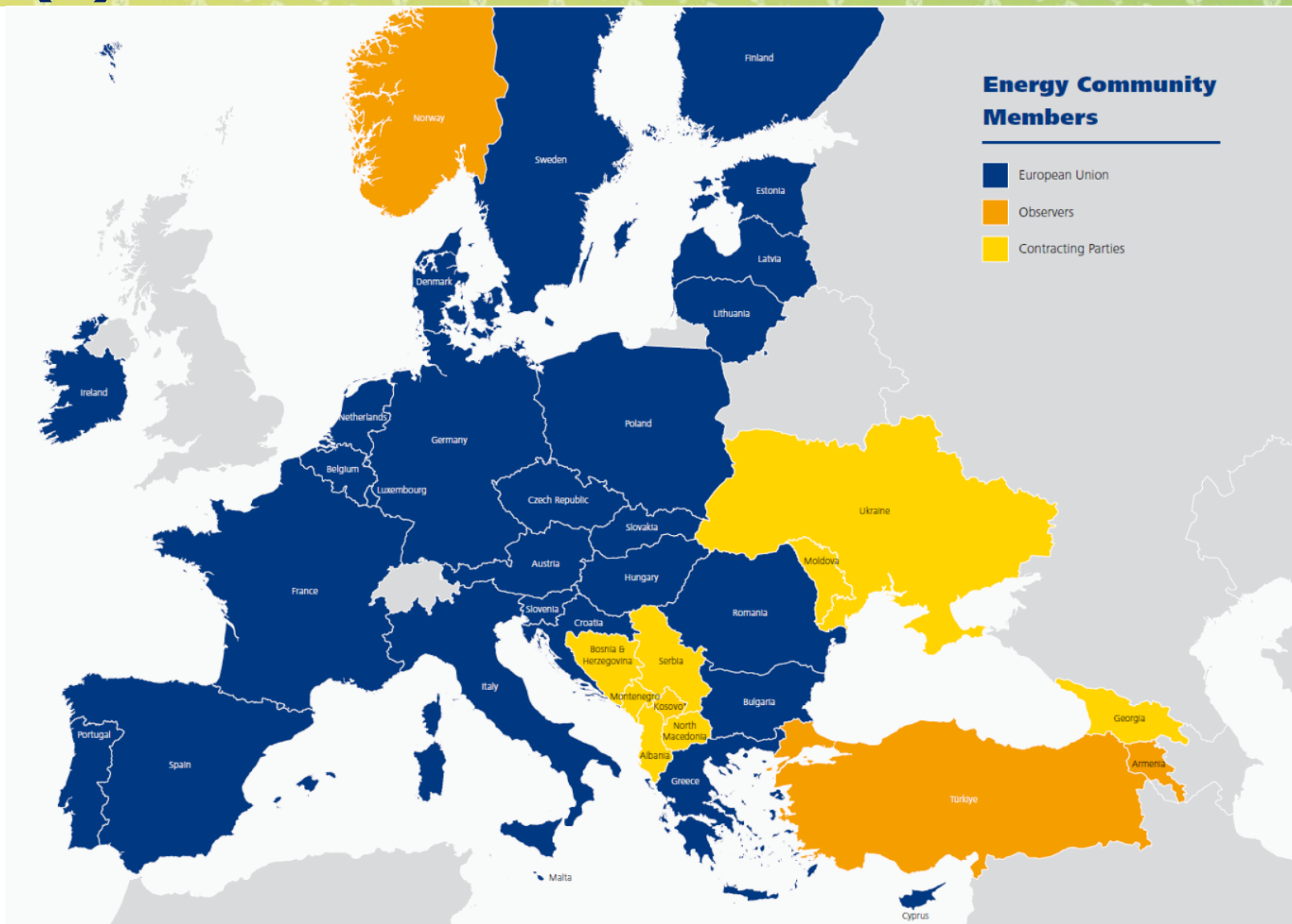


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Renewable energy in Energy community contracting parties

- 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:**
 - Albania
 - Bosnia and Herzegovina
 - Georgia
 - Kosovo
 - North Macedonia
 - Moldova
 - Montenegro
 - Serbia
 - Ukraine
- **Observers:**
 - Armenia
 - Norway
 - Turkey

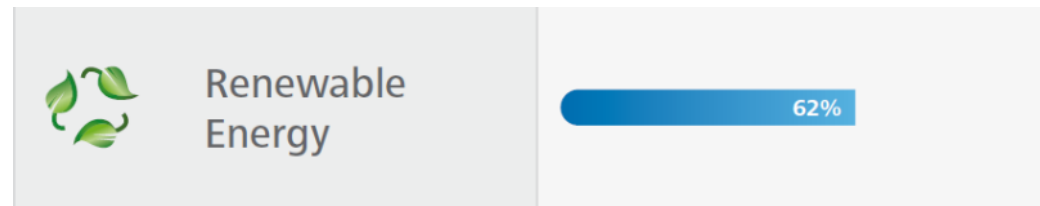
Renewable energy in Energy community contracting parties (2)



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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)

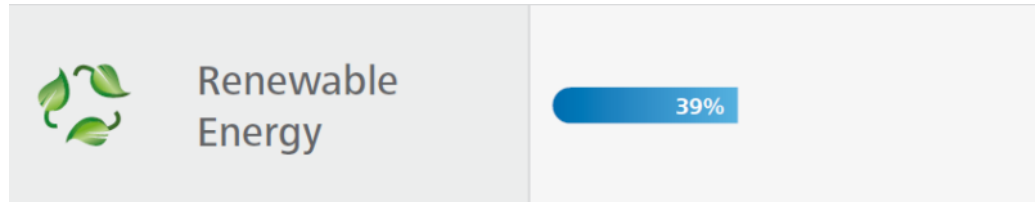


- Bosnia and Herzegovina is close to reaching its 2020 target

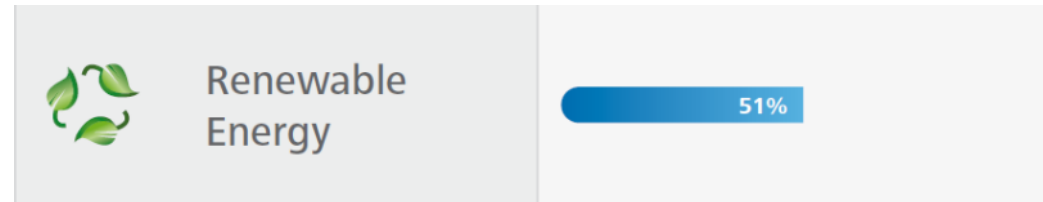


Renewable energy in Energy community contracting parties (4)

- Georgia – amendments to the Renewables Law should enable first auctions for renewable energy projects to start



- Kosovo - close to reaching its 2020 target

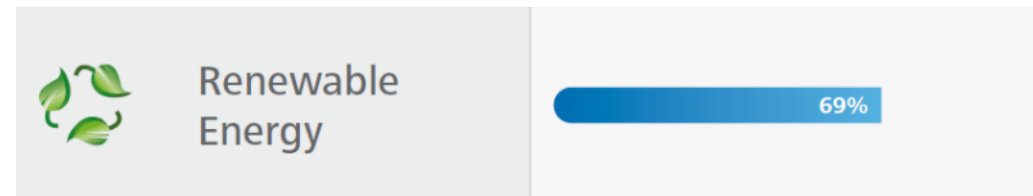


Renewable energy in Energy community contracting parties (5)

- Moldova – has achieved its 2020 renewables target



- Montenegro – has achieved its 2020 renewables target

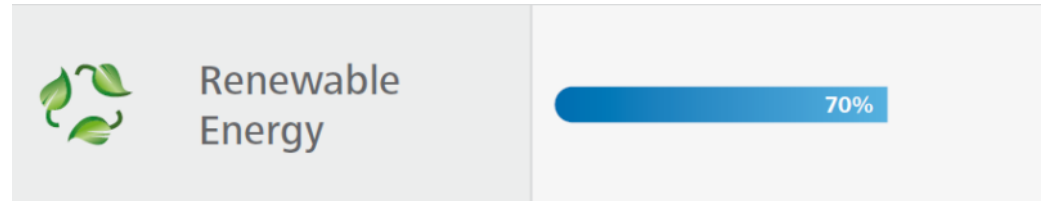


- North Macedonia - far from achieving its 2020 renewables target, but it keeps being a frontrunner in implementation of auctions for renewables projects



Renewable energy in Energy community contracting parties (6)

- Serbia – close to reaching its 2020 target



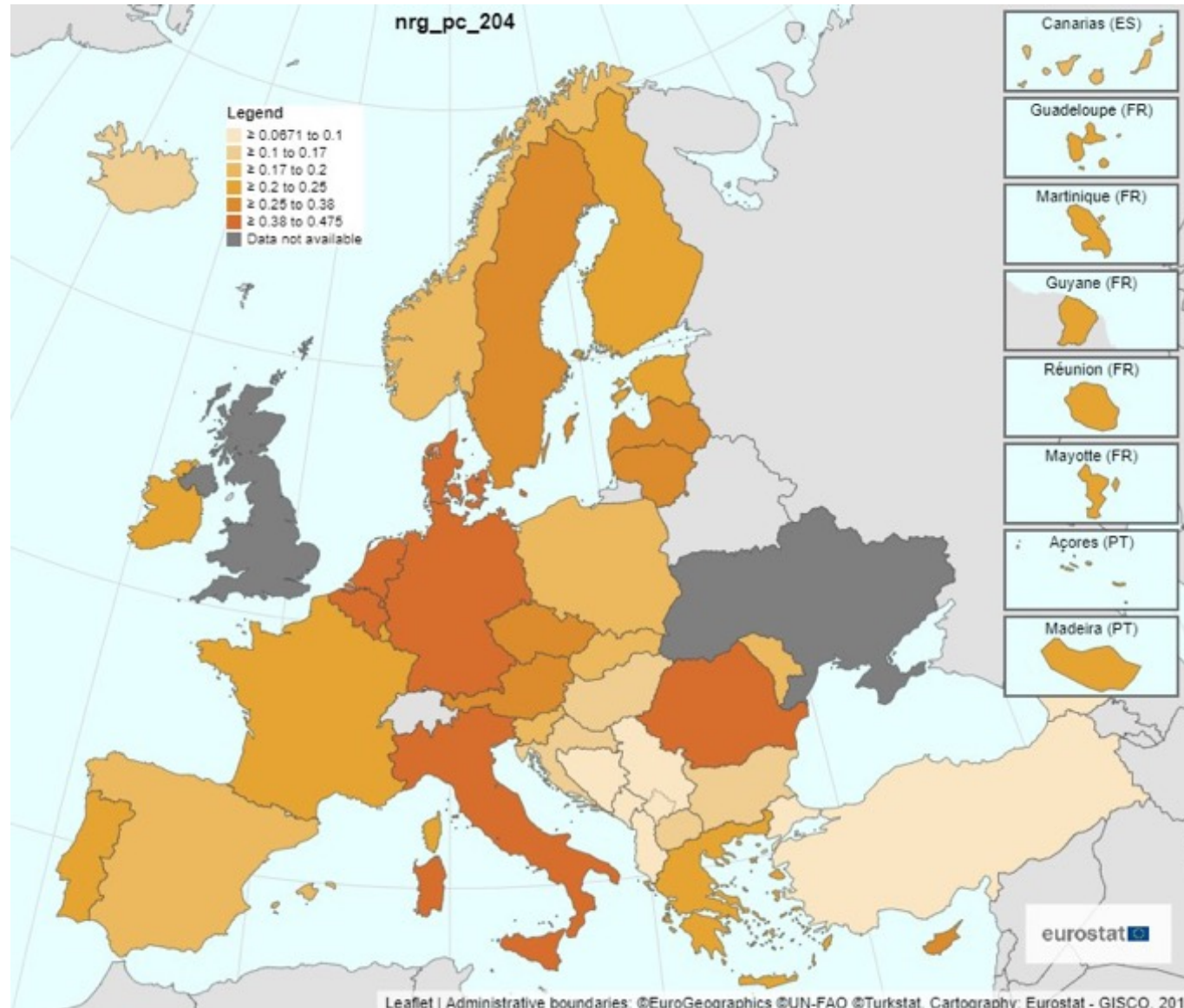
- Ukraine - implementation of the renewable energy acquis is a priority





ELECTRICITY TARIFFS IN THE EU AND ENERGY COMMUNITY CONTRACTING PARTIES

Electricity tariffs in the EU and Energy Community Contracting Parties



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**THANK YOU
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