
Briefing – Energy Transformation CEE

What's happening in the partner countries

Welcome to the second briefing for our network partners in the Energy Transformation CEE project. In every briefing, we will provide you with an overview of climate and energy developments in selected countries of the project area. These are topics which are interesting to us and which we have identified as important in each of the countries. If you have additional questions, comments or would like to add some information on your country for the next briefing, please do not hesitate to contact us.

Bulgaria

by Rusland Stefanov, Center for the Study of Democracy

Bulgaria faces the challenge to adapt the dynamically evolving European strategies and policies for a low carbon economy to its national priorities. The process of reaching the targets set by the EC reflects the regional characteristics of South East Europe (SEE) and the technological potential of the Bulgarian economy and energy sector, which causes some tension between the market players, consumers and stakeholders, thus hindering adequate policy formulation and implementation.

Bulgaria is on track to reach its renewable energy target for 2020. The 2016 share of renewable energy sources in the gross final energy consumption stands at 18.8%, above the 16% target. Even if Bulgaria is over-achieving its RES-goal for 2020, there are some frustrating details. Investments in large RES projects practically stopped after 2012 (with the exception of some biomass plants) and the statistics show that a large part of the RES in the final energy consumption comes from biomass, burnt by households. The development of small RES, close to the consumers, has not taken off and, without proper incentives, will not improve. Reaching the 94% EU decarbonisation target set in a *SEERMAP scenario* (<http://www.csd.bg/artShow.php?id=18034>) would require Bulgaria to commit to a much deeper policy intervention that would significantly shift the balance of the electricity mix away from fossil fuels and centralised electricity systems towards prosumers.

The Center for the Study of Democracy (CSD) has held a round table on the **South East Europe Electricity Roadmap until 2050: Decarbonization and Decentralization** on 27 March 2018.

Experts from CSD presented their analysis based on an elaborate outlook for the development of the electricity sector in SEE until 2050. This was followed by a constructive discussion focusing on electricity market liberalization and the decarbonisation and decentralisation of electricity generation in order to identify possible solutions to respond to the existing regulatory and governance obstacles.

You can access the documentation and more information on the SEE Electricity Roadmap until 2050: Decarbonization and Decentralisation here:

<http://www.csd.bg/artShow.php?id=18185>

National News/Updates:

In June, the Bulgarian parliament approved a proposal to revive a nuclear power plant whose construction had formerly been halted as the U.S. and the EU reproved Bulgaria for being too dependent on Russian fuel imports. Building the Belene plant may resume despite questions concerning its feasibility.

For further information visit: <http://bellona.org/news/nuclear-issues/2018-06-bulgaria-moves-to-revive-suspended-russian-built-nuclear-plant>

Hungary

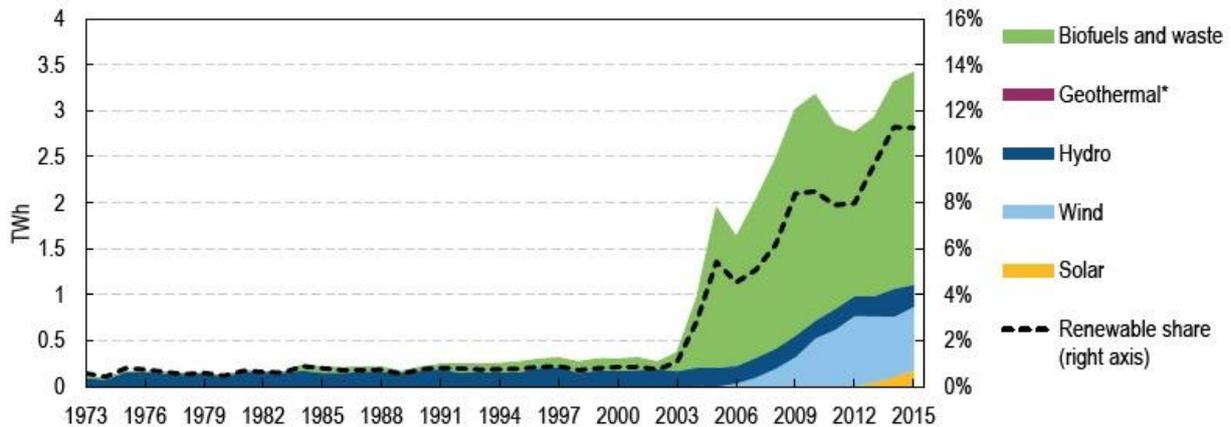
by Dr. Béla Munkácsy, Csaba Csontos and Tamás Soha (Environmental Planning and Education Network)

Hungary has a population of 9.9 million inhabitants. Its Total Primary Energy Supply (TPES) was ~960 PJ in 2015, of which ~760 PJ were heat, ~154 PJ (43 TWh) were electricity and ~48 PJ were transportation.

The import ratio is significant, as it reaches 80-85%, considering also the imported nuclear fuels. Due to decreasing international electricity prices, the direct electricity import has increased in the last years up to 31.4 % in supply. In the meantime, the natural gas import (as well as the natural gas based electricity production) has decreased significantly.

In the last 10-15 years, there has been a lot of debate over the quantity of renewable energy sources in Hungary. In our calculations (Munkácsy, B. 2011; Kohlheb, N. et al. 2015), using strict sustainability and considering technological limitations, the country's overall sustainable technical potential resulted in around 800-850 PJ. This number highlights that the quantity of renewable energy resources are significant in Hungary, since it is very close to the TPES, which peaked in 2005 (1166 PJ) (HCSO 2016). Knowing that the efficiency and sufficiency potentials of the recent energy systems are huge, and according to the research in this field (Munkácsy, B. 2011), the energy consumption can be decreased easily to 30-40% of the recent values.

The capacity of the operating RE plants is still very low and there are no reliable predictions about their increasing growth. However, according to the IRENA report, there are 1015 MW installed RE capacity in Hungary, with 92 % of biofuels and waste, 3 % geothermal, 2 % solar, 2 % wind and 1 % hydro share (IEA 2017; IRENA 2017). It is important to know that establishing new wind energy capacity has been banned in Hungary for 10 years due to the legal and technical regulations.



Renewable energy as a percentage of electricity generation, 1973-2015 [© IEA 2017]

The country had 8558 MW total electricity production capacity in 2015. From which only 4-5 GW will still be operating in 2030 due to the closing of old, mainly fossil-based power plant capacities. Therefore, according to the Hungarian transmission system operator's (MAVIR) calculations (2014), 6-7 GW of new power plant capacities has to be built or extended in Hungary by 2030. The official Hungarian energy strategy (2011) planned to have 11.3 GW capacity by 2030, from which 4.4 would be nuclear capacity. There is a 2 GW nuclear power plant, which lifetime is planned to be extended by another 20 years. A new 2.4 GW power plant is in the planning and construction phase. Independent financial feasibility studies show that the return of investment is unlikely and a significant state aid will be needed (Felsmann, B. 2015).

STATEMENTS about the Hungarian energy system:

- 1) The overall dependence on imported fossil and nuclear fuels is distressing, the geographical diversity of the imported sources is extremely low (thorough dependency on Russia);
- 2) The wind energy developments have been blocked for almost 10 years;
- 3) The government is planning to build a new nuclear power station, moreover its economic interests are invested in the biggest lignite power station, which will prolong the centralized and polluting energy system in the country.

Estonia

by Siim Vahtrus, Estonian Environmental Law Center (translated and shortened by Kadi-Kaisa Kaljuveer), published in “Hea Kodanik” in spring 2018.

Take action as quickly as possible to tackle climate change

Awareness is good in Estonia - climate change is being talked about more and has reached everyone’s attention. It is positive to note that Estonia has already fulfilled its 2020 renewable energy target - in 2015, the share of renewable energy in final energy consumption in Estonia was 28.6%. Meanwhile, Estonia ranks third in the in EU after Luxembourg and Iceland concerning GHG emissions per capita.



Oil shale at Kimmeridge Bay [© David Squire

(https://commons.wikimedia.org/wiki/File:Cliff_at_Kimmeridge_Bay_-_geograph.org.uk_-_165326.jpg), „Cliff at Kimmeridge Bay - geograph.org.uk - 165326“, www.l.duh.de/ccbysa20]

The main reason for this is the production of our high-carbon oil shale electricity: about 90% of the Estonian greenhouse gas emissions comes from the energy sector (which mainly produces energy from oil shale). Last spring’s *OECD Environmental Performance Review: Estonia 2017* (https://read.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-estonia-2017_9789264268241-en#page1) concluded that Estonian

strategies are not sufficient to mitigate climate change and that they need more ambitious goals and more effective actions. Unfortunately, this criticism must be accepted. The fundamentals of the recently adopted climate policy until 2050 do not even contain a general signal that the use of oil shale should decrease and will end in the long run, it also does not mention any measures to do that. Instead, it is expected in the development plan that the price of the world oil market and EU carbon trade will direct the use of oil shale for the production of direct oil. Even if this happens, there is no global difference in which country the carbon is released into the atmosphere - in the interest of the climate, oil shale should be phased out. 2030 is only 12 years away. In order to move at least closer to meeting the goals by the time, Estonian carbon dioxide emission reduction plans should be introduced in the coming years, which would include clear measures that will be implemented quickly. As this inevitably entails major restructuring in the whole society, such as shrinking the oil shale industry in Ida-Virumaa, it is important that in addition to this, the climate component would also have a social dimension, including re-training people, stimulating jobs, etc.

How can the NGOs contribute? An important keyword is collaboration. Organisations working in the field of the environment have contributed many years to it, that Estonia would take bold steps that would really reduce Estonia's contribution to climate change. We have participated in policy-making and contributed to raising awareness about climate change, for example, collecting stories about environmental changes from people in Ida-Virumaa. In the future, we plan to work more together on this subject. As mentioned above, the creation of an effective climate policy is not confined to the environment, and therefore all non-governmental organisations that are exposed to the environment, urban space, oil shale-dependent communities or any other related topic should be interacting more and contributing to finding solutions. Acting together is essential in order to open the eyes of the national and local governments on this topic and support the implementation of said solutions.

Estonia

by Ederi Ojasoo, Peipsi Centre for Transboundary Cooperation

We would like to focus on the national strategy for phasing out fossil fuels. There is an ongoing national campaign titled "PÕXIT" (PÕ meaning oil shale and XIT is exit), led by other environmental NGOs but supported by Peipsi CTC and KÕK (Estonian Environmental Law Center).

Estonia will meet its 2020 renewables targets mainly due to the big share of local biomass used for heat production (central heating is still widespread).

Currently, the main focus of activities by NGOs on the national level are raising awareness and lobbying for

- shift from oil shale to renewables,
- energy saving,
- green urban transport

As a major joint effort, environmental NGOs have launched a campaign titled "PÕXIT" to initiate a national plan for gradual phase-out of fossil fuel use. As a first and major win, 1000 signatures were collected in support of the phase-out petition which was handed to the national Parliament in April 2018. According to national legislation, Parliament has to react to any petition that was backed by more than 1000 adult citizens. Regardless of the decision of the Parliament (they will probably reject it), next steps in the campaign are currently being discussed among NGOs.

In support to the broader campaign, Peipsi Center for Transboundary Cooperation is raising people's awareness of the impacts of current energy production and consumption patterns. Two new videos on the impacts of the extraction of oil shale in Ida-Viru County were released in February 2018 and are available to all interested parties. With the the support of the SAME World project, these environmental injustice cases show how oil shale mining affects everyday life in the region.

Locals Kairi Nõmmemees and Imre Poom describe the problems - from the noise and vibration caused by underground explosions during the mining to the collapse of the earth many decades later. Both stories about the impacts of oil shale mining are available on the Internet with subtitles in English - Kairi's story: <https://youtu.be/OTEayJ-mKOE> and Imre's story: <https://youtu.be/DsqJyuUf7qE>

For further information visit: <http://www.ctc.ee/peipsi-info-eng/news/new-videos-on-environmental-injustice-cases-of-oil-shale-mining-in-estonia>

National News/Updates:

In June, Jean-Claude Juncker, Head of the European commission, together with the heads of state of Lithuania, Latvia, Estonia and Poland signed the political roadmap for the synchronisation of the countries' electricity grids with the continental European networks. This step is supposed to improve the security of supply in the region and also an expression of an Energy solidarity within the EU.

For further information visit: http://europa.eu/rapid/press-release_IP-18-4284_en.htm

Here you can find the entire roadmap as a document:

https://ec.europa.eu/energy/sites/ener/files/documents/c_2018_4050_en_annexe_acte_autonome_nlw2_p_v2.docx

Romania

by Mihai Toader-Pasti, *energiaTa*

Founded in 2016, *energiaTa* is one of the Romanian initiatives that tried to push prosumers on the public agenda in the last two years. In Romania, people could not produce their own energy and feed it into the grid.

This spring big advances were made as the Draft Proposal Law was discussed by the committees and after postponing the decision multiple times, it finally passed. The parliament and the President of Romania recently approved it. Now the National Regulatory Authority has three months in order to elaborate the norms. As long as the installed power is under 27 kW and its main purpose is not the sale of energy, the new regulation is addressing households, but also companies, schools and everybody else.

This is a big step forward for prosumers in Romania. For example, it is now mandatory for the utility companies to accept the energy, install smart meters and buy the energy at a minimum fixed price which is approximately one third of the consumption price. Furthermore, there are no taxes or fiscal fees. It is a quantitative adjustment on the utility bill.

This autumn further positive developments are in sight for prosumers in Romania as the government holds out the prospect of significant subsidization of adopters of solar energy.

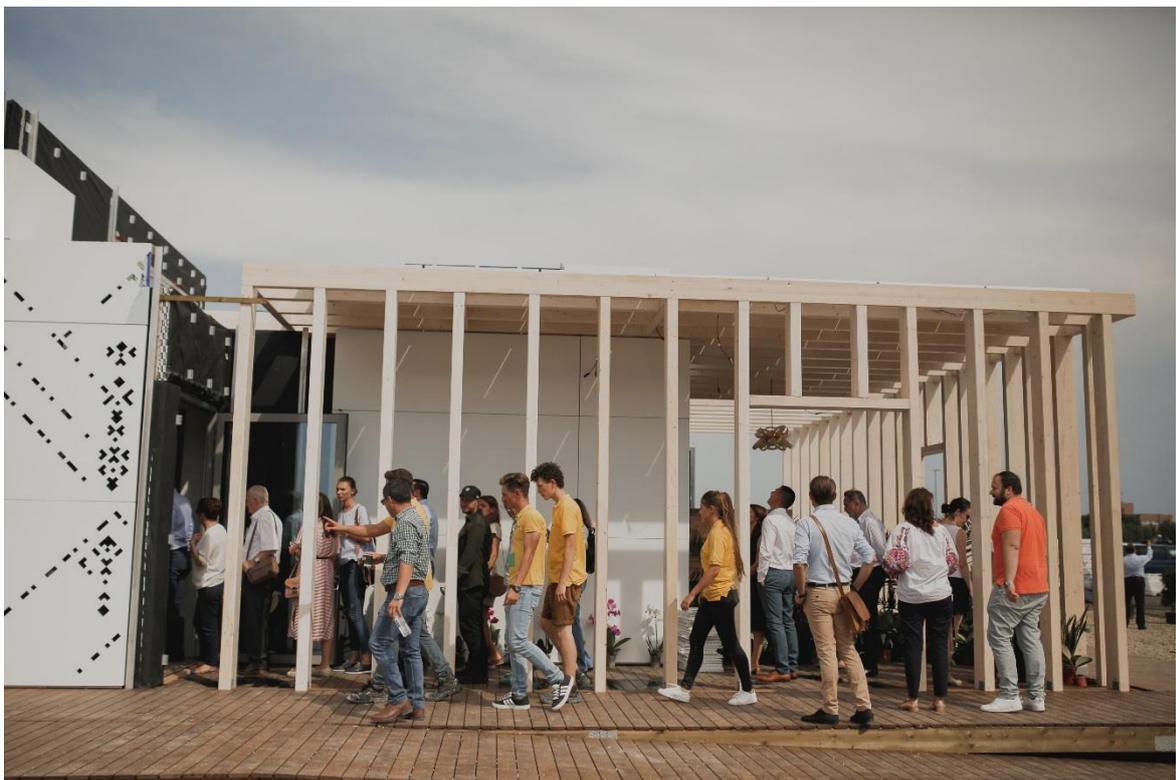
More positive news from Romania can be reported by network member *EFdeN*.

The organisation's efforts are converging on reducing the environmental footprint of buildings, energy efficiency and decarbonisation of buildings, but also on home production of clean solar energy. They are an educational and research NGO that grew to be the most important organisation supporting sustainability in Romania. They have been trying to make prosumers a reality in Romania for two years now, accelerating the transition towards smart metering and smart grids.

EFdeN believes that an international outlook is essential to driving change on a national level. They discussed trends at the macro level, taking into account geopolitical factors, about how consumers transition into producers, about the Internet of Things and smart metering for dwellings and how to combine sustainability and comfort using smart technologies.

The organization recently finished the „*EFdeN* Signature home”. It was developed by an interdisciplinary team of 60 students from the Technical University of Civil Engineering of Bucharest, the Ion Mincu University of Architecture and Urbanism, BITS Piani Dubai and two other universities that designed and built a 100 percent solar and environmentally friendly house, with a high degree of comfort, health and safety for the occupant.

With this project, *EFdeN* will enter a high-level competition for sustainable buildings, the Solar Decathlon in Dubai. During the launch ceremony, the organisation welcomed the President of Romania, Klaus Iohannis.



EFdeN Signature home [© Toader-Pasti/EFdeN]

For further information on the project visit: efden.org

Poland

Poland is often regarded as the EU-country with the lowest ambition to address climate change and reduce CO₂-emissions. Today, the country still generates more than half of its electricity by burning coal and is often an opposing force in climate target negotiations. However, about 60 coal-based power plants are to reach the end of their lifespan by 2035, some of them in the next few years. This situation has the potential to let Poland undergo a shift towards more sustainable ways of energy generation, which many hope to see in the new Polish energy strategy that is supposed to be revealed by the end of the year. With its Baltic Sea shoreline, the Eastern European country could make use of offshore wind energy and domestic energy operators already signaled interest in doing so.

For further information on the Polish power system visit: <https://www.agora-energiewende.de/en/publications/report-on-the-polish-power-system-2018/>

National News/Updates:

Despite its predominant reliance on coal as its main energy source, Poland's parliament recently amended the country's renewable energy law. Currently being on the pathway to missing its EU target of 15% of energy from renewables overall in gross final energy consumption, the parliament approved the dismissal of tax disincentives and new auction schemes for renewable power plant operators.

For further information visit: <https://www.euractiv.com/section/energy/news/polish-parliament-approves-changes-to-green-energy-law/>

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