





Regulators in Europe and Eurasia Launch Competitive Electricity Markets and Lay Foundation for Regional Market Integration



March 2024 – Integrating national electricity markets through a process known as market coupling creates linkages between countries to support more reliable and affordable energy as well as opportunities to enable seamless electricity trade, increase competition in the electricity market, and ensure long-term transparency to attract investments. With support from the United States Agency for International Development (USAID), the National Association of Regulatory Utility Commissioners (NARUC) is advancing cooperation among national regulatory authorities (NRAs) in the Europe and Eurasia (E&E) region to couple their respective markets and become part of the single European market for electricity. These efforts support the USAID U.S.-Europe Energy Bridge goals of promoting competitive markets integrated with Europe and strengthening critical infrastructure protection by working to build a more connected electricity grid that increases energy sector security and resiliency for consumers.

In 2022, NARUC launched an electricity market performance initiative with support from USAID and Energy Bridge partners called the Southeast Europe Market Coupling (SEE-MC) Initiative. NARUC's goal under the initiative is to assist NRAs in the formation of competitive and transparent markets. Through SEE-MC, NARUC is partnering with the Greek Regulatory Authority for Energy Waste and Water (RAEWW) and focusing on improving the readiness of Albania, Kosovo, and North Macedonia to couple electricity markets with their neighbors and advance internal market development and operations. By learning from one another and sharing their regulatory challenges, participating NRAs are gaining an understanding of the frameworks they must develop as well as reporting requirements and timelines that will need to be in place to enable seamless market integration regionally, and with European Union (EU) member states.

In November 2023, all participating countries signed a Memorandum of Understanding (MoU) to affirm their commitment to advancing the development of competitive and transparent electricity markets in the Western Balkans and integrating them with the rest of Europe. In December 2023, NARUC convened NRAs from Moldova, Ukraine, and Romania, alongside Energy Bridge partners United States

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Energy Association and USAID Connect for Growth project, to begin building a foundation for electricity market integration in the Black Sea region. After the meeting, the NRAs pledged their commitment to pursuing further cooperation efforts aligned with regional electricity market integration. Further, Romania confirmed its commitment to serve as an enabling partner with Moldova and Ukraine to support interconnectivity in the region.

Benefits and Challenges of Market Coupling

Aside from the enabler partners Greece and Romania, all participating countries are contracting parties to the Energy Community, which is an international organization that works to bring together the EU and its neighbors to create an integrated pan-European energy market. An integrated EU electricity market with common electricity market rules and cross-border infrastructure will allow electricity to be produced in one EU country and delivered to consumers in another, as well as help to reduce the influence of malign actors by promoting transparency, efficiency, and reliability to strengthen the energy security of Europe against supply disruptions, grid backup, and cost/resource inefficiencies.

Regional integration can also stimulate investment in renewable generation, as the economic feasibility of investing in these projects will improve as the number of potential buyers expands. Greater penetration of renewable resources into countries' generation mixes has the potential to reduce greenhouse gas emissions as well as reliance on old and inefficient power sources while increasing the overall energy security of the region.

While the benefits of market coupling are clear, moving forward can be technically challenging. The process often requires a significant level of infrastructure investment to be in place, including cross-border transmission upgrades and advanced communications software. Electricity sector personnel will also have to learn new procedures to ensure fair competition, enable the effective trading of electricity, and protect against market manipulation (e.g., withholding or diverting electricity across borders). Open and transparent dialogue between NRAs, transmission system operators (TSOs), market operators, and other industry stakeholders will be an integral part of moving forward with the technical aspects of market coupling.

Preparing for Market Coupling in the Western Balkans



In the context of preparing for market coupling between Albania, Kosovo, and North Macedonia, in 2022 NARUC and the RAEWW partnered to host a series of trainings to bring together NRAs, TSOs, and power exchanges (PXs) to explore electricity market integration requirements based on Greece's experience launching its market in 2020 and coupling with Italy and Bulgaria soon after. Alongside NRAs and TSOs, PXs will serve as a key part of the market coupling process as they provide the platforms where the participating countries can trade electricity through price and

quantity bids submitted by distribution utilities, large consumers, electricity producers, and other electricity suppliers.^{iv}

The most recent training, which took place in November 2023, allowed for discussion on legal and regulatory requirements to foster market coupling, including the need for a market monitoring body for the Western Balkans and monitoring rulebooks to ensure regional cooperation and transparency.

Strong cooperation with PXs will be required to flag suspicious activity along with well-trained and well-developed market monitoring departments, as NRAs are responsible for investigating suspicious activity and issuing penalties.

On November 14, 2023, the participating NRAs, TSOs, and PXs signed their own Memorandum of Understanding, pledging their commitment to coordinate closely and move forward on market coupling. Per the RAEWW press release on the MoU, Ymer Fejzullahu, the Chairman of the Board of the Energy Regulatory Office of Kosovo, noted, "With the signing and implementation of this memorandum, we estimate that our countries are taking a big step for the benefit of consumers as well as energy companies. The creation of a common market between our countries has been preceded by a relatively long process, with many activities and challenges, but as never before, no obstacle has hindered us, since we had a major goal to have a common market. We are more than ever convinced that the integration of our countries into a regional market will improve competition, transparency, and fulfill the obligations we have as a state in relation to the Pan-European market."

Following the signing of the MoU, the NRAs, TSOs and PXs focused on establishing implementation bodies for the market coupling project, adopting governance terms, and electing members for each body. As these operations commence, NARUC will continue to guide each NRA as they work to enhance their market designs, implement market monitoring practices, and adopt the necessary legal and technical frameworks to enable market integration.

Preparing for Market Coupling in the Black Sea Region

Throughout the Black Sea region, increasing cooperation among energy sector stakeholders will help to build a more connected electricity grid. The resulting access to larger markets, optimization of the use of the existing cross-border capacity, and improved reliability and resiliency through regional network planning are vital for the security of supply of both Ukraine and Moldova. Further, the diversification of power sources across a broader geographical area reduces the risk of supply disruptions. In times of crisis or other



unexpected events, regions with integrated markets can better ensure that essential services and infrastructure continue to operate.

In December 2023, NARUC held an initial technical workshop to discuss market coupling among Moldova, Ukraine, and Romania. Using Romanian stakeholders' experience in previous market coupling projects, the training served to facilitate initial cooperation between the NRAs of Moldova and Ukraine, and included presentations from the Romanian NRA, TSO, and PX as resource institutions and partners for regional integration.

In addition, the Moldovan and Ukrainian NRAs presented their respective market developments and objectives. Finally, NARUC, and its partner Energy Bridge implementers highlighted the benefits of market coupling and provided examples from similar initiatives. At the end of the training, participants addressed what the next steps should be to prepare for market coupling as well as other stakeholder engagement strategies needed to advance market coupling in the region and requested continued assistance with establishing a market coupling implementation project.

Looking Ahead

As competitive electricity markets have launched in Albania, Kosovo, and North Macedonia, these countries are moving to the second stage of the market integration project and will coordinate with their Greek counterparts to begin the challenging work of ensuring policies and procedures are in place for market integration to become operational. In the Black Sea countries, the project will continue to engage the electricity sector stakeholders of Moldova, Romania, and Ukraine as well as engage other neighbors, such as Poland and Hungary, to pave the way for regional market integration and ensure energy security in the region.

Throughout this process, NRAs in both the Western Balkans and the Black Sea region will be able to share the knowledge and experience they gain through the Energy Bridge as they all work to couple with their European neighbors for the first time. As they advance in their respective journeys toward market coupling, NARUC will continue to provide ongoing regulatory expertise in support of both national and regional goals.

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<u>First photo</u>: NRAs convene for the market coupling project kick-off meeting in Greece in November 2023. Photo Credit: NARUC

<u>Second photo</u>: Discussion during a break at the market coupling kick-off meeting in Greece in November 2023. Photo Credit: NARUC

<u>Third photo</u>: Group photo at the regional electricity markets training in Moldova in December 2023. Photo credit: NARUC

[&]quot;Who We Are." Energy Community. https://www.energy-community.org/aboutus/whoweare.html

[&]quot;"Electricity Market Design." European Commission. https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/electricity-market-design_en

iii Singh, Ghanshyam. "Europe Power Market Coupling-Pros & Cons." LinkedIn. February 2023. https://www.linkedin.com/pulse/europe-power-market-coupling-pros-cons-dr-ghanshyam-singh/

iv "Decoding Power Exchanges." FSR Global. https://fsrglobal.org/decoding-power-exchanges/

v "Memorandum of Understanding for electricity Day-Ahead Market coupling in the Balkans." RAEWW. November 2023. https://www.rae.gr/genika-nea/73803/