



SUCCESS STORY

System Operators, Regulators Collaborate on Steps to Increase Reliability and Promote Investment in Black Sea Region

Transmission System Operators (TSOs) and regulators in the Black Sea region have come together to collaborate on a first-of-its-kind report that provides a path to dramatically increase reliability and energy security in the region.

Developed through the support of the U.S. Agency for International Development (USAID), the report finds countries in the region will benefit significantly by sharing balancing resources across national boundaries. Implementing cross-border sharing of balancing resources — and, eventually, a balancing market — would help to promote investment, bolster reliability, increase private sector productivity and strengthen security and governance, the report finds.

USAID supported the development of the report — titled “Analysis of the Potential to Provide Cross-Border Balancing Reserves and Energy in the Black Sea Region with Sensitivity Analysis” — through both the Black Sea Regional Transmission Planning Project (BSTP), which is supported by USAID and the U.S. Energy Association (USEA) and the Black Sea Regulatory Initiative (BSRI), a collaboration between USAID and the National Association of Regulatory Utility Commissioners (NARUC).

The report marks the first time Black Sea countries have explored the value proposition of cross-border sharing of reserves and other ancillary and balancing services in this fashion.

Balancing resources help keep electricity systems balanced between power supply and power demand. All electricity systems need balancing in some fashion, as variations in load and unexpected issues with power supply occur. If left unaddressed, these variations can damage the system and cause power outages.

In some systems, individual utilities provide their own balancing services. But if a market for balancing services can be created, balancing services can be procured in a more cost-effective fashion and the system as a whole will operate more reliably. USAID aims to help countries to proceed forward in developing a market and identifying interim steps to capture the benefits of broader balancing.

The report provides practical recommendations and next steps on moving toward a balancing market, beginning with implementation of a practice known as “imbalance netting.” Under imbalance netting, generators provide electricity to neighbors who need balancing services at regular intervals. Those physical imbalances of electricity are then netted out between TSOs, which are then paid for the amount of electricity they provided less than the amount of balancing services they used.

Imbalance netting offers significant benefits to the region in the near term. The report estimated that Georgia and Armenia could realize cost savings of between 15 percent and 27 percent compared to current operations. For Moldova and Ukraine, potential cost savings range from 3 percent to 4.5 percent using imbalance netting as compared to the status quo, where technical imbalance netting actually takes place but without formal agreement and without market-based price compensation.

Links between the electricity systems of Black Sea countries make the sharing of balancing services possible, but no price signals or market structures currently exist that would facilitate the development of competition.

Regulators and TSOs aim to use this report to create awareness of the savings potential as a result of varying forms of balancing market integration, and to incentivize TSOs and regulators to reform their balancing regimes. Collaboration between regulators and TSOs is critical to progress on balancing at both the regional and national levels.