



საქართველოს პოლიტიკის ინსტიტუტი  
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# POLICY BRIEF

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## Regional Cooperation in Electricity Sector: Challenges and Opportunities for Georgia

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### EXECUTIVE SUMMARY

This policy brief analyzes multiple paths Georgia may take to strengthen its energy security and enhance regional cooperation in the electricity sector. The growing demand for electricity has gradually increased the country's dependency on imported energy and must prioritize investment into power generation. Because it is a small country with limited access to global energy markets, Georgia must be able to provide state-level guarantees and be able to ensure regional cooperation in order to attract necessary investments and reduce overall costs. Becoming a contracting party of the Energy Community Treaty (EnCT) would enable Georgia to become a bridge from South Caucasus to the EU. To this end, Turkey plays a crucial role in enhancing Georgia's cross-border trading opportunities. Besides of being largest energy consuming country in the region, in both short and medium terms Turkey is the only option for Georgia to connect its power grid with the EU. Therefore, in parallel with domestic market reforms, Georgia needs to update the existing cross-border cooperation framework with Turkey and at the same time strengthen bilateral cooperation in the electricity sector with its other neighbors.

**Key words:** Energy; Regional Cooperation; Cross-border electricity trade.

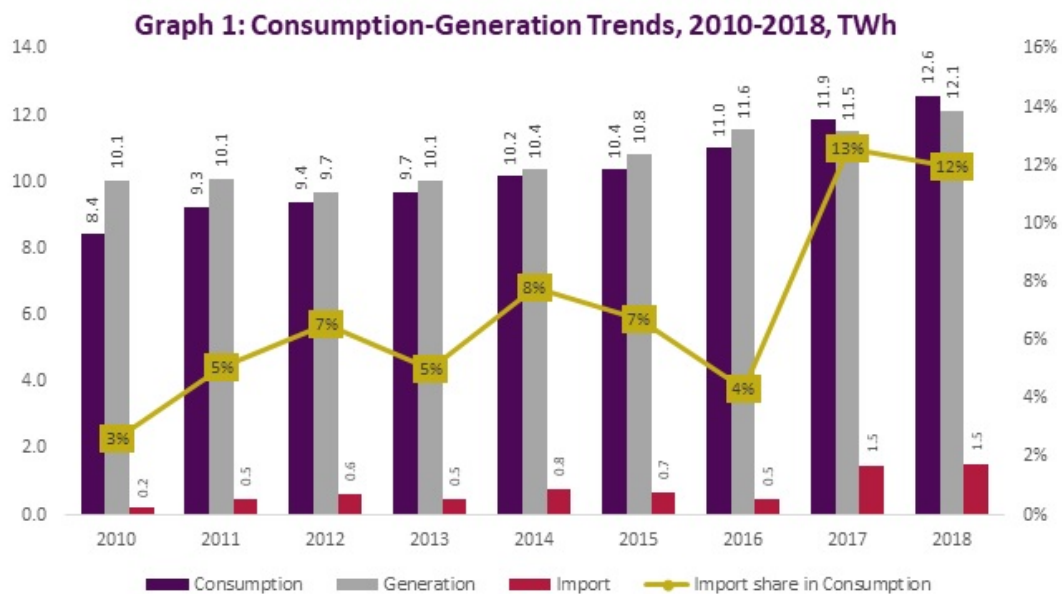
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# Introduction

The growing demand for electricity domestically challenges the energy security of Georgia by increasing country's dependence on imported energy. Within the last three years, imported electricity as a share of total consumption almost tripled, reaching 12%.<sup>2</sup> If demand follows a similar growth trend, national electricity consumption will exceed 18 TWh by 2025. Without facilitating investment in domestic power generation, Georgia will experience a substantial deficit in electricity supplies.<sup>3</sup>

Georgia's untapped renewable energy potential creates an opportunity to both satisfy domestic demand and become a major supplier of clean energy in the region. However, attracting investments for power generation projects remains difficult due to the small size of the domestic market, the absence of competitive mechanisms for the electricity trade and limited cooperation in the region.



The geographic location, positive relations with neighboring states and increased cooperation with the EU creates a sound basis for Georgia to become a bridge between EU and South Caucasus electricity markets. However, the difference in legal and structural framework of energy markets, absence of a direct connection with the EU energy market and lack of common framework on cross-border electricity trade remain the main barriers which need to be addressed.

<sup>2</sup> *Electricity Balance of Georgia for 2010-2018 years*, Electricity System Commercial Operator (ESCO) Available at: <https://esco.ge/energobalansi/by-year-1> Accessed: April, 2020

<sup>3</sup> Source: *Georgia's Ten Year Network Development Plan for 2019-2029*, G2L2 scenario assuming 5% growth of consumption, Georgian State Electrosystem (GSE), Available at: [http://www.gse.com.ge/sw/static/file/TYNDP\\_GE-2020-2030\\_ENG.pdf](http://www.gse.com.ge/sw/static/file/TYNDP_GE-2020-2030_ENG.pdf), Accessed: April, 2020

## Regional Cooperation in Electricity Sector: Perspectives for Georgia

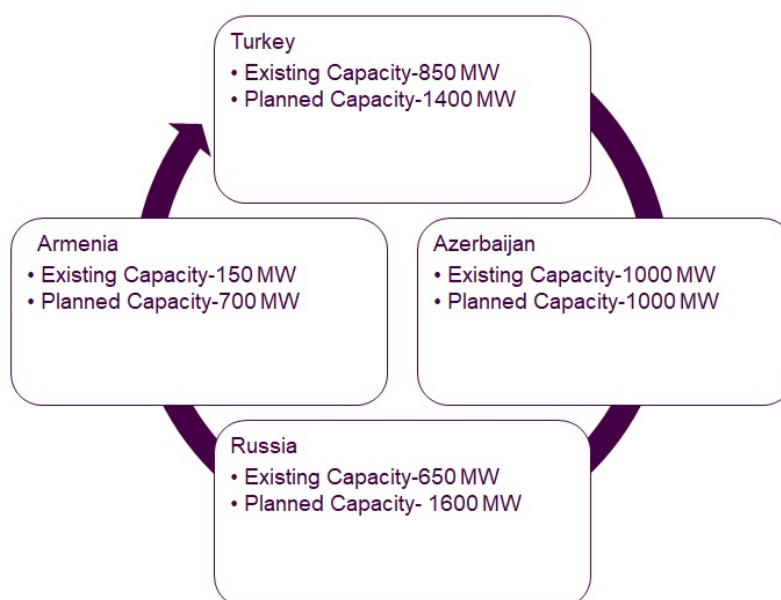
Georgia's favorable geographic location enables it to become an electricity bridge for South Caucasus states. An east-west energy corridor links Georgian, Azerbaijani and Turkish electricity grids allowing Georgia and Azerbaijani to establish a connection with EU market. Armenia, due to long standing and complicated geo-political conditions, remains separated from participation in the east-west regional energy projects and is reliant on a north-south energy corridor from Russia, via Georgia in the north, and from Iran in the south<sup>4</sup>.

The well-established cross-border transmission infrastructure, the development of local generation sources, and the existence of common rules and procedures for capacity allocation represent the preconditions for successful cooperation cross-country cooperation in the electricity sector.

Despite the potential economic and security benefits visible to all parties, the differences of political systems and energy markets as well as long standing interstate conflicts makes it difficult to achieve stronger cooperation in the electricity sector in the south Caucasus.

The absence of a common framework for capacity exchange and allocation (the first step in the path towards market integration) is yet another barrier to enhancing cross-border cooperation between neighboring systems.

Graph 2: Existing and Planned Transmission Capacity with Neighboring States



<sup>4</sup> Tsurtsunia T, 2015, "Electricity Cooperation in South Caucasus", Energy Community Secretariat Knowledge Center

Georgia, having already developed connections with its neighbors, currently, has capacity to exchange up to 2650MW of electricity with further expansion of cross-border transmission capacity planned for some time before 2030.<sup>5</sup> However, the current potential of existing transmission lines is not fully utilized due to the lack of a flexible framework on capacity allocation and exchange. Currently the only neighbor Georgia has developed such a framework with is Turkey, however it lacks flexibility and requires amendments to yield maximum benefits.<sup>6</sup>

Therefore, in parallel to the development of cross-border transmission lines, Georgia needs to apply active measures to elaborate common rules and procedures between neighboring states to enhance cross-border electricity trade and achieve greater integration with neighboring systems.

## Perspectives for the Development of the East-West Electricity Corridor

Georgia already has well-established partnerships with many of its neighbors as a result of strategically important infrastructure projects such as the Baku-Tbilisi-Ceyhan, Baku-Tbilisi-Supsa, and Baku-Tbilisi-Erzurum pipelines as well as the Baku-Tbilisi-Kars railway. These partnerships provide crucial transportation and energy links between Europe and Central Asia. These existing partnerships with Azerbaijan and Turkey foster a positive environment to expand cross border connections into the electricity sector as well.

The development of an east-west electricity corridor linking Azerbaijan and Georgian to the European energy grid through Turkey has received a wide range of technical and financial support; with both the US and EU having spent resources to strengthen cross-border infrastructure and facilitate reforms in energy markets.<sup>7</sup>

Strengthening an east-west energy corridor is of especially strategic importance for Georgia, as it allows the country access to the EU energy markets. Georgia's renewable energy potential, Azerbaijan's cheap natural gas reserves, and Turkey's growing electricity consumption reveal opportunities for all parties to benefit from a cross-border electricity trade and greater interconnectedness to the European energy grid.

The newly constructed Azerbaijan-Georgia-Turkey (AGT) transmission bridge enables transfers of up to 700 MW, however electricity exchanges primarily occurs during the

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<sup>5</sup> *Georgia's Ten Year Network Development Plan for 2019-2029*, G2L2 scenario assuming 5% growth of consumption, Georgian State Electrosystem (GSE), Available at: [http://www.gse.com.ge/sw/static/file/TYNDP\\_GE-2020-2030\\_ENG.pdf](http://www.gse.com.ge/sw/static/file/TYNDP_GE-2020-2030_ENG.pdf), Accessed: April, 2020

<sup>6</sup> *The Agreement between Georgia and the Republic of Turkey concerning Cross-Border Electricity Trade via Borcka-Akhaltshikhe Interconnection Line*, signed in 2012, Available at: <https://matsne.gov.ge/ka/document/view/2319095?publication=0> Accessed: April, 2020

<sup>7</sup> Ghvinadze N, Linderman L, 2013, "Cross-border Electricity Exchanges: Bolstering Economic Growth in South Caucasus and Turkey", Atlantic Council

summer and utilize only 21% of available capacity.<sup>8</sup> In order to capitalize on the full benefit of existing interconnections Georgia need to facilitate negotiations with Azerbaijan and Turkey to elaborate common rules for capacity allocation and share capacity reserves to jointly meet their shared energy needs.

Azerbaijan, Turkey, and Georgia have already formalized a trilateral partnership. In 2012 the countries presented the Trabzon Declaration to expand their strategic partnership in economic as well as in military and security-related aspects.<sup>9</sup> Furthermore, they are signatory to the Energy Charter Treaty (ECT), which could be an effective platform for facilitating high-level policy dialogue related to existing cross-border trading arrangements, and enable stronger cross-border integration by elaborating a common legal and technical framework to deal jointly with energy related security needs.

## Perspectives of Cooperation in Electricity Sector between EU and Georgia

Georgia, as a contracting party of the Energy Community Treaty (EnCT), is on its path to establish a competitive electricity market and harmonize its network operation rules to EU standards. This would enable Georgia to link its system with the existing EU network via Turkey, as is the logical continuation of the East-West Electricity Corridor linking Azerbaijan, Georgia and Turkey.

However, Azerbaijan and Turkey have thus far preferred to develop independent energy policies and have refrained from making binding commitments such as becoming signatories of the EnCT. In light of this, Georgia must to find alternative options to facilitate dialogue with Azerbaijan and Turkey regarding cross-border cooperation and better integration of their electricity networks.

One potential solution for Georgia to enable trade with the EU energy market, is to negotiate with Turkey to obtain its support for becoming a member of the Coordinated Auction Office in Southeast Europe (SEE CAO). The organization connects Transmission System Operators (TSOs) of from Albania, Bosnia and Herzegovina, Croatia, Greece, Kosovo, Montenegro, Northern Macedonia, Romania, Slovenia and Turkey and assists member countries in running a cross-border electricity trade compliant with the EnCT principles.<sup>10</sup> SEE CAO membership would grant Georgia a common platform to enable trade with the EU countries beyond Turkey. Furthermore, the opening of access to the EU market would increase Georgia's role as a transit country in the region and increase incentives of neighboring states

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<sup>8</sup> *Annual Report of the Georgian Energy and Water Supply Regulatory Commission (GNRC)*, 2018

<sup>9</sup> Celikpala M, Veliyev C, November 2015, "Azerbaijan-Georgia-Turkey: An example of successful regional cooperation", Center for International and European Studies (CIES)

<sup>10</sup> SEE CAO Official webpage, Available at: <http://www.seecao.com/company-background> Accessed: April, 2020

to strengthen cooperation in electricity sector by exchanging power in regional markets through Georgia.

The construction of the Black Sea Submarine line connecting Georgian and Romanian power grids is another option to establish a direct connection between Georgia and the EU. The project, initiated by Government of Georgia, has been presented to the Energy Community Secretariat in order to gain status as a Project of Mutual Interest (PMI)<sup>11</sup>. The implementation of the project has strategic importance for Georgia, as it would gain direct access to Energy Community member states and would be able to exercise the full benefits of EnCT membership, including the possibility of assistance in the event of an energy crisis. Further, it would allow neighboring countries to reach the EU energy market through Georgia. The economic viability of the project, depends on the Georgia's ability to accumulate sufficient electricity as from the domestic production as well as from the neighboring states to transfer it through the transmission line. Also, even if approved, the construction of Black Sea Submarine line would not be expected to be complete until 2029, therefore, Georgia needs to find more immediate actions to strengthen regional integration with its neighboring systems.

## North-South Electricity Corridor: Iran-Armenia-Georgia and Russia

Implementation of the North-South Electricity Corridor connecting Armenia, Russia, and Iran through Georgia remains delayed. According to an intergovernmental agreement, signed in 2016, the project was expected to be complete by 2019. However, there remains uncertainty about the construction of transmission lines in Armenia due to financial problems and the future of the project as a whole remains uncertain.<sup>12</sup>

In order to ensure successful cooperation on the project, it is important to create an intergovernmental working group, comprised of high-level state officials, which would coordinate project implementation and elaborate the common rules for cross-border electricity trade and capacity allocation. Georgia, Armenia, and Russia are already members of the Energy Charter Treaty, which can serve as an efficient platform to establish a regional task force for knowledge sharing and system integration.

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<sup>11</sup> List of Proposed PEI and PMI projects proposed to Energy Community for public consultations, Energy Community Official webpage, Available at: <https://energy-community.org/regionalinitiatives/infrastructure/PC.html> Accessed: April, 2020

<sup>12</sup> Georgia's Ten Year Network Development Plan for 2019-2029, G2L2 scenario assuming 5% growth of consumption, Georgian State Electrosystem (GSE), Available at: [http://www.gse.com.ge/sw/static/file/TYNDP\\_GE-2020-2030\\_ENG.pdf](http://www.gse.com.ge/sw/static/file/TYNDP_GE-2020-2030_ENG.pdf), Accessed: April, 2020

## Conclusion & Recommendations

Expanding the cross-border trading potential is only solution for Georgia to mitigate its energy-security risks. Georgia has already developed cross-border transmission infrastructure with neighboring systems, however the absence of flexible trading arrangements limits its ability to achieve greater cooperation in the electricity sector. Therefore, in parallel with domestic market reforms, Georgia should facilitate a dialogue with its neighbors to establish common bilateral or multilateral trading arrangements, while establishing more flexible rules and procedures for conducting cross-border electricity trade.

### Recommendations

- Establish a competitive energy market structure and introduce competitive electricity trading mechanisms
- Renew a high-level policy dialogue with Turkey to strengthen cooperation in the electricity sector and by designing more flexible rules for capacity allocation and exchange
- Apply for membership in SEE CAO, to serve as an alternative platform for cross-border electricity trade with the EU and Turkey
- Use the energy community charter treaty (ECT) as a platform to establish a regional task force and stimulate implementation of East-West (Azerbaijan, Georgia, Turkey) and North-South (Russia, Georgia Armenia, Iran) electricity corridor projects
- Provide transparent support mechanisms for facilitating investment in local renewable energy sources
- Strengthen cross-border network infrastructure and enhance cross-border capacity to exchange power with neighboring countries
- Use existing bilateral and multilateral platforms which incorporate neighboring countries to facilitate high-level energy policy talks related to cross-border electricity trade.



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