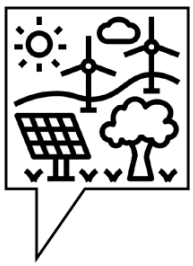
12-13 October 2021

Building Support for Renewable Energy Investments in Georgia



HARDTALK

OVERVIEW

In the framework of the UNECE RE-Uptake Project in 2021, a Renewable Energy HardTalk dedicated to Georgia was held virtually on 12-13 October 2021. The HardTalk focused on **building support for investments in renewable energy (RE) in Georgia.**

With 75 participants across the two days, the HardTalk featured presentations, perspectives and highly interactive discussions amongst all participants. Participants represented all major stakeholder groups and various geographies, including: the Ministry of Economy and Sustainable Development of Georgia (MoESD), Parliament of Georgia, Ministry of Finance of Georgia, Ministry of Environmental Protection and Agriculture, Georgian Energy Exchange (GEDEX), National Statistics Office of Georgia (GEOSTAT), Georgian Energy Development Fund (GEDF), United States Agency for International Development (USAID), European Bank for Reconstruction and Development (EBRD), Asian Development Bank (ADB), World Experience for Georgia, ISET Policy Institute, United Nations Industrial Development Organisation (UNIDO), Georgian Renewable Energy Development Association (GREDA), Green Alternative, Energy Efficiency Centre (EEC), Tbilisi Transport Company, Helios Energy, Infinity Energy LLC, among others.

The HardTalk focused on ways to increase support and attractiveness for investments in RE in Georgia, by looking into the policy landscape, market structure and public support for the sector. The aim was to (1) mobilise stakeholders (local and external) to discuss concrete actions and increase their individual and collective impact, and (2) provide recommendations to actors in and outside Georgia, which could help bolster investment in RE. For this, key bottlenecks, drivers to change, solutions and recommendations were explored.

SNAPSHOT: KEY RECOMMENDATIONS

While an extensive list of challenges and potential solutions/recommendations, discussed during the HardTalk, can be found in the table below this section, here is a snapshot with the main takeaways:

- Establish a **long-term policy strategy**, setting longer-term (technology specific) RE targets that will provide clear signals to investors.
- Improve existing and introduce new **RE support schemes**. There is a need for flexible, technology-based support mechanisms, with the ability to accommodate dynamic changes in the market.
- Provide **stable and transparent market rules**. With the market reform underway, a transitional action plan that supports investors, as the pricing mechanism becomes clearer, would increase investors' confidence.
- Develop a tactical, long-term **communication strategy** involving various stakeholder groups to overcome social opposition. Promote communication campaigns and social engagement in RE project implementation.
- Intensify **capacity building activities** through the development of local education programs. Update existing curricula to introduce students to the new technologies and skills required and encourage the collaboration between universities and industry.
- Convene **regular multi-stakeholder discussions** to advance the renewable energy agenda in Georgia.

CHALLENGES AND RECOMMENDATIONS

Challenge	Recommendations
1. Lack of network capacity: Grid limitations for RE integration, lack of reserve capacity	➢ Flexibility options, including energy storage (such as pumped-storage power stations (SPPS) and battery storage), dispatchable generation, interconnections, demand-side management, and other innovative technologies for better integration of variable RE sources can be promoted ➢ Retrofitting of and constructing power grids play an important role for better RE integration ➢ Accelerate the roll out of smart meters and smart, digital technologies
2. Uncertainty regarding market reform: • Slow energy market reform, causing uncertainty with investors (policy, social issues, market prices) • Low electricity prices and missing transparent price mechanism in market PPAs. Marginal price bidding (consideration of fixed and finance costs) • Extra fees (GENEX fee, BM fee, guarantees, imbalances, additional staff costs) are expected increase the financial burden that generators would have to pay. • Low participation in balancing and ancillary services market (market concentration related to major HPPs)	➢ Accelerate the adoption of electricity market rules, offer more transparency to market participants and investors on the market design, and provide the stability and visibility necessary to attract investments ➢ Monitor the implementation of the new electricity market and make transparent improvements. ➢ The market transitional period impacts the decisions of investors; to this end, there should be a transitional action plan that supports investors, as the pricing mechanism becomes clearer. ➢ Preserve the Regulator's independence and authority to effectively regulate the market and create competitive rules.
3. RE support mechanisms need strengthening: • Feed-in premium (FiP) offers 1.5 USc/KWh on top of the market price, but there is a limit to 5.5 USc/KWh, which is quite low considering the high procurement (mostly imports), construction and infrastructure installation costs	➢ Create new and more flexible support schemes, which can accommodate different RE types and dynamic changes in the market. The existing scheme could be modified to shift towards market-based tariffs, through the introduction of a changing cap system instead of the existing static support caps. ➢ The FiP scheme could be expanded to apply also to summer months, as hydro and solar plants produce more electricity during the summer period. Furthermore, the mechanism should provide some guarantee (through a minimum floor price) to the investor at least during the first 10 years.

• Furthermore, the support scheme does not apply during the summer months. (Although over 16 HPP projects have benefited off this scheme). • No incentives for the private sector towards energy saving strategies or approaches	➢ Introduce a Contract for Difference (CfD) mechanism to enable generators to stabilise their revenues at a pre-agreed level for the duration of the contract. ➢ Develop transitory support schemes (e.g., temporary (3-4 years) tariff guarantee) and plans for market stability during transition to the new market model.
4. Societal opposition - lack of information and trust: • 43 suspended RE projects currently, due to public opposition and prevailing misinformation. Resulted in stopping investments of USD 3.8 billion, corresponding to a total capacity of 2,000 MW and approximately 20,000 jobs • Lack of public awareness about RE and co-benefits, neither about the risks of inaction (environmental impacts, on quality of life, including disruption to the ecosystems, landscape deterioration, etc) • Disinformation exists for existing RE projects (e.g., perception that HPP construction will lead to the flooding and destruction of karst caves and that a potential dam break will flood Kutaisi city and another 17 municipalities of western Georgia) • There is a lack of trust and communication between parties (policymakers, the public, industry, and investors). • Lack of citizen involvement in project development (renewable communities, benefits sharing). Misconception in the private sector about investments profitability and the benefits, costs and policies that can support them.	➢ Develop a strategic long-term communication plan and campaigns (on myth-busting, co-benefits, etc.) to overcome the lack of social acceptance - through knowledge exchange, communities of practice, and raise awareness among all stakeholder groups. Experts and non-experts should be involved in the process. ➢ Involve public figures (not necessarily technical) as RE "ambassadors" in the country. ➢ It is important to involve citizens, as well as other relevant stakeholders from the planning phase of the project development all the way through its implementation. Investors could carry out site visits to communicate with locals before the implementation of the project (potentially organise a kick-of-meeting with locals). ➢ Introduce legislation for developers to carry out societal engagement prior to project implementation. Currently, social impacts are only part of the environmental impacts assessment. Strategies that developers could consider, depending on the development phase of the project, include regular exchange with relevant sector agencies, and environmental associations, assignment of a direct and reliable public relations officer, communications agency, etc. ➢ Sharing benefits directly with the local population of the impacted area, along with communication of the environmental benefits achieved through the project are likely to result in lower social opposition.
5. Lack of adequate policy support: • Lack of long-term energy strategy. While RE law exists, secondary legislation is missing • Lack of subsidies, tax incentives, loan assistance for renewables, while fossil fuels are highly subsidised	➢ There is a need for a long-term vision and strategic planning for the RE deployment. Set ambitious RE targets, consistent with the long-term national energy strategy and action plans to increase investors' confidence on Government's commitment and attract additional capital ➢ Develop strategic documents at regional level for energy planning in a more decentralised way.

• Market entry barriers for solar, wind, and other renewable resources as they need to compete with wealthier industries that benefit from existing infrastructure, expertise, and policy.	➢ There is a need for assurances especially during the transition period and coordinated action with the Ministry of Finance to mitigate investors' concerns by proper planning and a clear vision on the country's priorities ➢ Encourage RE investments beyond electricity (into renewables-based district heating/cooling; clean transport, etc.). District energy systems could be included in the national energy action plans. ➢ Government should end subsidies for fossil fuels and encourage replacement of gas boilers with more efficient ones. Planning of the heating and cooling sector should consider the availability of local resources (such as geothermal, solar, but also waste heat could be considered). ➢ The energy policy actions need to be more consistent with the policy objectives (e.g., eliminate distortions putting renewables at a disadvantage).
6. High investment costs: • High upfront investment cost for some RE technologies • RE technologies are imported in Georgian market, further increasing the cost • As opposed to investment costs, electricity prices are low	➢ Provision of incentives should take into consideration the high prices of the technologies. Currently, materials, know-how, and technology are all imported. ➢ Consider attaching local-content requirements to RE subsidies; however, need to consider how this will affect the project costs.
7. Lack of access to capital: • High interest rates with banks • Lack of access to micro-financing, poor business development skills by RE system suppliers/developers	➢ Introduce programs to increase awareness and expertise of local financial institutions for RE opportunities ➢ Establish micro-financing schemes and increase access to capital
8. Project implementation challenges: • Reliance on outdated historical data for the planning and financial modelling of RE projects. Because of many issues such as climate change, these historical data may not be valid and the predictions may change, creating a big gap	➢ Bureaucracy of the state agencies has been reduced and is more accessible now; however, there is need for more transparency in the project development processes ➢ Accurate resource assessment is necessary. Enhance quality and availability of energy resource data and transparency regarding assumptions. ➢ Introduce policy to cater for differences in the estimation of investors' finances at a later stage due to unpredictable meteorological challenges.

• Weather forecasts are not so accurate in Georgia, and this creates hurdles in the reliable hourly projection of generation. Without reliable forecast, investors are unable to project day/night hourly prices and account for imbalances • Lack of capacity developing full CBA for each project	➢ Proper treatment/allowance should be provided in the formulation of rules for Electricity Market Reforms to account for challenges in weather forecasting.
9. Lack of local capacity/ human resources: • With the new market reforms, new skill sets will be required. There is currently a lack of skills for supporting services (e.g., in forecasting, pricing for the next day), not only technicians and engineers, but other specialists, too, such as economists • Lack of spare parts and adequate skills to repair/service the equipment leads to equipment failure. This together with low reliability in a technology lowers customer confidence in some RE technologies and hinders their adoption • The Ministry of Economy and Sustainable Development is under-staffed.	➢ Intensify capacity building activities through the development of local education programs and incentivise exchange programs for local promising students ➢ Update existing curricula in local universities and develop new programs that introduce students to the new technologies and skills required ➢ Encourage the connection/collaboration between the universities and industry and promote an industry-oriented focus to research/academic programmes ➢ Provide support to companies that focus on the use of local resources and incentivise local production of machinery, spare parts, etc. ➢ Capacity building should also take place at a legislative and project level. It is important to have competent people in policy and project development. ➢ Need for more human resources in the Ministry of Economy and Sustainable Development

This UNECE RE-Uptake Project is supported by the German Federal Ministry for Economic Affairs and Energy.

In cooperation with

UNECE: The United Nations Economic Commission for Europe is one of the five regional commissions under the jurisdiction of the United Nations Economic and Social Council. All activities relating to the Hard Talks are implemented in close cooperation with the UNECE Secretariat.

Dena: dena is Germany's centre of expertise for energy efficiency, renewable energy sources and intelligent energy systems. As the "Agency for the Applied Energy Transition" it contributes to the attainment of energy and climate policy objectives. DENA develops solutions and put them into practice, both nationally and internationally.

REN21: REN21 is the global community of renewable energy stakeholders from science, academia, governments, NGOs, and industry. They provide up-to-date facts, figures and peer-reviewed analysis on global developments in technology, policy and markets, to inform decision makers.

MoESD: The Ministry of Economy and Sustainable Development of Georgia (MoESD) is responsible for shaping policy in Georgia's energy sector. It is a close country partner for the UNECE RE-Uptake Hard Talk in Georgia.