GEORGIA TACKLES ENERGY EFFICIENCY CHALLENGE WITH NATIONAL ACTION PLAN

Imagine you own a large house that you want to make more energy efficient while also making it more comfortable. Which parts of the house do you start working on first and which improvements represent the best value for money? How do you even know how much energy you are wasting and how this could be prevented? And what energy efficiency obligations do you have based on your commitments to the wider community?

This analogy helps to illustrate the challenge facing Georgia and which the National Energy Efficiency Action Plan (NEEAP), drawn up with assistance from the EBRD, seeks to address: how to reduce the economy's energy intensity, which is currently some 30 per cent higher than the average for the countries of the European Union (EU), while allowing for continued economic growth and compliance with the country's international commitments?

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The NEEAP (or the Plan) is a checklist of measures that Georgia needs to undertake over the next three years in order to improve its energy efficiency (EE) levels while satisfying higher energy demand. The policies and investments listed in the NEEAP, which will cost €1.37 billion to implement, aim to help Georgia realise energy savings of 14 per cent by 2025, compared with a business as usual (BAU) scenario. These savings will help the country meet its international obligations related to combating climate change, increase its energy security and strengthen its energy links with the EU.

"The Georgian NEEAP is a very wide-ranging and ambitious document in terms of the objectives it sets out and the measures it employs to meet these objectives," says Vesselina Haralampieva, a Principal Counsel in the Legal Transition Programme who co-led the EBRD's work on the Plan. This work benefited from support from the Swedish International Development Agency. "It is a landmark for Georgia, which until now had virtually no energy efficiency regulations in place and very limited investment in energy performance. The NEEAP is Georgia's signal to the world that it is serious about energy efficiency and taking concrete action to prove it."

As well as detailing the potential energy savings for each of its proposed measures, the NEEAP provides an estimate of their cost. Some of this will be borne by the Georgian authorities and some by the private sector. Donor governments are also expected to help fund improvements and the Plan helps them decide which use of their contributions represents the best value for money.

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FIGHTING CLIMATE CHANGE

The urgent need for the NEEAP is underlined by Georgia's binding commitment to reduce greenhouse gas emissions by 15 per cent by 2030, compared with a BAU scenario. The commitment is contained in Georgia's Nationally Determined Contribution (NDC) to the global response to climate change that was enshrined in the Paris Agreement of 2015.

"Fossil fuels, which are the main source of greenhouse gas emissions, accounted for 75 per cent of primary energy supply in Georgia in 2015," says Remon Zakaria, an Associate Director within the EBRD's Energy Efficiency and Climate Change team and co-leader of the project. "Improving energy efficiency is widely seen as the most cost-effective way of reducing fossil fuel consumption and therefore has a key role to play in helping Georgia achieve its emissions targets."

"Before the introduction of the NEEAP," adds Vesselina, "the country did not have a clear programme of the energy efficiency measures it needed to carry out in order to meet these targets. So the importance of this document to Georgia's contribution to the collective fight against global warming cannot be overemphasised: if the NDC is the destination, the NEEAP and its implementation constitute one of the main means of getting there."

GEORGIA AND THE EU

The NDC is just one of Georgia's international obligations relating to energy efficiency. In order to strengthen its political and economic ties with the EU, Georgia signed an Association Agreement with the 28-nation bloc in 2014. The agreement requires Georgia to align many of its laws and regulations with European legislation, including the 2012 EU Energy Efficiency Directive (EED), which Georgia has agreed to transpose into national law by 31 December 2018.

The commitment to adopt the EED also flows from Georgia's membership of the Energy Community, an international agreement that brings the EU and its neighbours together to create a pan-European energy market. Other parts of the acquis communautaire – the accumulated body of EU laws and regulations – that Georgia has pledged to adopt include the 2010 Energy Performance in Buildings Directive (EPBD) and the 2010 Energy Labelling Directive regarding products that consume energy.

A major benefit for Georgia of being a member of the Energy Community is that it will boost efforts to increase the country's energy security.

"Ninety-five per cent of the fossil fuels Georgia consumes are imported from neighbouring countries – these days, mainly Azerbaijan," says Remon. "So becoming more energy efficient will help Georgia to rely less on fuel imports. Plus being part of a wider European energy market could mitigate the impact of any energy shocks stemming from geopolitical uncertainty in the Caucasus region."

NEW RULES, MORE INVESTMENT AND GREATER AWARENESS

The policy and legal measures featured in the NEEAP will help to make EU energy efficiency rules part of the legal and regulatory landscape that Georgian officials, businesses and consumers have to live with daily. The NEEAP also recommends regulatory and investment measures that will help Georgians to meet the requirements set out in the EED and awareness-raising measures to highlight the importance of saving energy.

"Currently, many people in Georgia have a low level of awareness of the importance of energy efficiency and there is very little in the way of policy to discourage wasteful energy use," notes Remon. "Another problem is that the country lacks reliable data on its energy consumption, especially in industry, transport and the buildings sector.

Vesselina adds: "So moving from the present situation to one in which Georgians know how much energy they are using, have energy efficiency legislation in place, comply with it and understand why they are being asked to do so, is a big undertaking. This is another reason why the NEEAP is so significant for Georgia and why the EBRD and the Bank's Regional Director for the Caucasus, Moldova and Belarus, Bruno Balvanera, have been so committed to making it a reality."

POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

The NEEAP states that the achievement of its targets is partly dependent on the planning and establishment of a number of horizontal instruments underpinning the energy efficiency agenda. Such measures envisaged in the NEEAP include developing an energy efficiency law detailing new sector requirements, obligations and financing incentives; energy efficient public procurement rules; the training of energy efficiency professionals (that is, energy auditors,

industry inspectors, and so on) who would ensure the implementation of the new regime; and consumer information and capacity building programmes.

The creation of a government agency that would be responsible for an overall scheme tasked with project identification, technical assistance management and grant distribution is a key institutional measure. Ongoing EBRD policy dialogue, including work on the country's first EE law, plans to bring more clarity on the institutional framework supporting EE in the country.

The NEEAP tackles energy waste in five sectors of the Georgian economy. By decreasing order of size of their potential energy savings, these are: energy transformation and distribution; transport; industry; the public sector and buildings.

ENERGY TRANSFORMATION, TRANSMISSION AND DISTRIBUTION

The only significant energy transformation in Georgia is of natural gas into electricity. In 2014 the net efficiency ratio for gas transformation was 34.6 per cent – meaning that in Georgia, for every 1 kWh of electricity produced from natural gas-fired plants, almost 3 kWh of natural gas needs to be burnt. An efficient system would only require 2 kWh of natural gas per kWh of electricity produced.

The Plan urges an investment of €726 million to improve the efficiency of gas and hydropower plants in Georgia as well as of the transmission and distribution system. These improvements would represent 43.5 per cent of all energy savings resulting from the NEEAP by 2020, making it the most important single sector for the Plan.

TRANSPORT

In 2015, the most recent year for which figures are available, transport accounted for 34.7 per cent of all energy consumed in Georgia[1] and improvements in this area would generate 36.1 per cent of the savings the NEEAP seeks to achieve by 2020. Road transport consumes the vast majority of energy in the sector. There is no official data on the fuel efficiency of passenger vehicles in Georgia, but it is assumed ` to be far below that of the EU given that 91 per cent of these vehicles are older than 10 years.

The NEEAP recommends introducing mandatory technical inspections for vehicles to enhance their energy performance. It also recommends replacing the existing, very inefficient municipal bus fleet with new, gas-powered vehicles. Other actions seek to improve urban road infrastructure and transportation systems and to raise public awareness in order to encourage a shift from cars to public transport, cycling and walking. In total, measures in the transport sector would involve an investment of more than €421 million.

INDUSTRY

This sector accounted for 14.7[2] per cent of the energy used in Georgia in 2015 and consumption is expected to grow substantially between now and 2030 as a result of economic development. The main industries in Georgia are non-metallic minerals (notably cement), chemicals and iron and steel production.

Industry-specific actions listed in the NEEAP would account for 12.8 per cent of targeted energy savings by 2020. These include work to improve the availability of data and an investment project in the cement industry. Horizontal measures

featured in the Plan would introduce incentive-based and mandatory schemes to stimulate better energy performance in industry; create energy audit and management systems and certification schemes for the sector; and bring in financing schemes for energy efficiency. These measures are required by or are strongly encouraged by the EED and would need to be accompanied by primary or secondary legislation for their full implementation.

BUILDINGS AND THE PUBLIC SECTOR

The Plan recommends energy efficiency improvements in schools and other public buildings; it also outlines plans for the development of a national energy efficiency information system for public building stock and street lighting; and the introduction of efficient lighting systems in public buildings and in street lighting.

Regarding private buildings, the NEEAP urges the introduction of regulations leading to more efficient lighting in residential and commercial premises, which is expected to take place as the country transposes the EU Ecodesign Directive into Georgian law. Horizontal measures featured in the Plan call for the transposition of the EPBD into Georgian law and its enforcement, for example by implementing qualification, accreditation and certification schemes for buildings and having energy efficiency standards for new buildings.

Remon notes that "new buildings in Georgia consume nearly twice as much energy per square metre as do equivalent buildings in neighbouring EU countries such as Bulgaria. Regulatory reforms would greatly help to bridge this gap, while also supporting the establishment of a supply chain for energy efficient materials and technologies in Georgia."

CHANGING ATTITUDES

In the two years it has taken to develop the NEEAP, the attitude of Georgia's national and municipal authorities towards energy efficiency has evolved considerably. The process involved 100 organisations, including most national ministries and major municipalities, many rounds of stakeholder consultations and engagement with the private sector and international partners.

"The process of NEEAP development has truly been participatory, making its successful implementation all the more likely," says Vesselina.

Now that the first NEEAP is on the verge of adoption, the EBRD and its partners in the international community plan to continue working with Georgia to ensure that it creates policies and implements investments which lead to greater energy efficiency, more economic development and increased energy security.

"The development and adoption of the NEEAP point the country in the right direction," says Vesselina, "although there are still a number of steps remaining to ensure implementation."

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1 http://geostat.ge/?action=page&&p_id=2288&lang=eng [last accessed 22 November 2017].

2 *Ibid.*