

EUROPEAN UNION



Committee of the Regions

Energy efficiency: The role of local and regional authorities in the Eastern Partnership countries

**This file note was written by Karolina Zobel (main author)
(LSE Enterprise Ltd, United Kingdom, and CASE – Centrum Analiz
Społeczno – Ekonomicznych – Fundacja Naukowa, Poland).**

It does not represent the official views of the Committee of the Regions.

More information on the European Union and the Committee of the Regions is available online at <http://www.europa.eu> and <http://www.cor.europa.eu> respectively.

Catalogue number: QG-07-16-081-EN-N

ISBN: 978-92-895-0909-1

doi:10.2863/60935

© European Union, 2016

Partial reproduction is permitted, provided that the source is explicitly mentioned.

Table of contents

- Introduction 1
 - Scope and objectives 1
 - Methodology 1
 - Key findings 1
- Presentation and analysis 3
 - Armenia 3
 - Azerbaijan 4
 - Belarus 5
 - Georgia 6
 - Moldova 8
 - Ukraine 9
- Recommendations 13
 - Possible support to be provided by CORLEAP 13
 - Measures to be taken by LRAs 14
 - How LRAs would have to be empowered by the EU and national level 14
- Annexes 17
 - Development aid going to the ENP countries 17
- Bibliography 19
 - Online databases and statistics 19
 - Other sources 20

Introduction

Scope and objectives

The aim of this note is to provide the information necessary to prepare the Conference of the Regional and Local Authorities for the Eastern Partnership (CORLEAP) report on the role of local and regional authorities (LRAs), which covers the field of energy efficiency in all 6 Eastern Partnership (EaP) member countries. Given the limited space for this evaluation, and the differences between the countries in the report, the author discusses each country case individually. This approach was also done to improve the readability of the report. In order to avoid repetition, the descriptive material for each individual country is presented in the ‘Presentation and analysis’, while the ‘Recommendations’ section consists mainly of more analytical material to synthesize what has been learned.

Methodology

The work included in this report starts with a literature review of secondary sources and desk research, which involves gathering substantial background material on the relevant projects and initiatives in each of the 6 EaP countries. This approach aims to build an understanding of the relative competencies LRAs and European Neighbourhood Policy (ENP) as well as other international donors’ engagement to date with concrete results at the local and regional level. It also allowed to formulate certain focal points regarding bottlenecks and capacity constraints.

Consequently, the picture which emerges is most likely still selective. In some cases the author was able to attain substantial degree of depth in the analysis, while in some others even the most intensive efforts produced only a very modest harvest. However, the author made sure that the material gathered is up-to-date.

Key findings

The research phase emphasised the importance of energy reduction for all EaP countries. Although efforts on decentralisation reforms are clearly visible in most of the countries at stake, the LRAs’ role in promoting energy efficient (EE) solutions is still limited. The local innovation ecosystems that could potentially

empower energy savings, barely exist; and where they do exist, they do not offer adequate incentives for extensive experimentation nor cooperation between all the relevant stakeholders. On the other hand, even though the budgets for EE initiatives are not a big part of total EU funds directed to the EaP countries, LRAs have largely benefitted from EU support on this matter. These initiatives have had an important impact in terms of creating bottom-up municipal EE plans and communication/dissemination activities, sustainable management regulations, or leveraging EU funds. Most importantly, they increased the level of trust in the EU significantly.

Presentation and analysis

Armenia

Although some progress towards administrative decentralisation has been made since 2005, Armenia still remains a centralised country. Nevertheless, this does not mean that there are not any bottom-up initiatives worth mentioning: 11 municipalities take part in the Covenant of Mayors (COMO) initiative, out of which 7 submitted ambitious Action Plans. Moreover, the Eastern Europe Energy Efficiency and Environmental Partnership (E5P) financing is already underway, with the European Bank for Reconstruction and Development (EBRD) providing a EUR 5.5 million loan funding the modernization of solid waste management solutions in the Kotayk and Gegharkunik regions.

The National Programme on Energy Saving and Renewable Energy estimated that 40% of energy-saving potential in the buildings sector could be achieved through thermal isolation alone. Thanks to this document, Armenia established appropriate conditions for the development of hydro power. Moreover, in the long-term perspective, the country could also become a producer of photovoltaic solar panels.

Some legislation directly targeting municipalities like *the Law on Yerevan City Small Center* has been approved and the EE provisions included have had a great impact on local authorities. As a result, an EE laboratory has been established in State University of Architecture and Construction; educational curricula modules for younger pupils have been created; a database of locally produced and imported construction insulation materials has been developed; and locally produced insulation materials and pre-fabricates have been granted certificates by the relevant authorities. Yerevan authorities are doing exceptionally well in involving private developers which replicated United Nations Development Programme's (UNDP) EE pilot project solutions in 'Al Hamra Real Estate Armenia', where energy performance improvement will be around 36%. Although Yerevan seems to lead the group, thanks to cooperation with Swiss Development and Cooperation Agency (EDA), energy-efficient social building in Goris is just another success story.

Armenian LRAs deserve praise when it comes to dissemination activities related to EE. Under the EU-funded *Civil Society Local Energy Efficiency Network (CLEEN)* for Armenia, Georgia, Moldova and Ukraine, and thanks to collaboration with the Noyemberian Fine Arts School Armenian National YWCA, they have developed an interactive lesson on 'Energy Efficiency and Renewable Energy' for younger children. This initiative, which links the

presentation of new drawing techniques with environment friendly technologies, was broadly promoted during EU Energy Days in late September 2016. Other municipalities are also in the midst of preparing public campaigns that target youth.

A recent grant of USD 20 million from the Green Climate Fund (GCF) will allow municipalities to upgrade and insulate external walls, entrances, roofs, ceilings, floors and windows of around 6,000 family apartments and over 150 public buildings, including schools and kindergartens. This will help to achieve a reduction in energy use for heating, cost-savings, and association reduction in CO2 emissions. It is the first grant of this kind in the region and only the second GCF grant on EE worldwide, as well as one of the largest single investments UNDP in Armenia has ever received. Although the project touches upon typically municipal-related prerogatives, UNDP acts as a go-between, using its institutional capacity to deal with the challenge of producing proposals and implementing them – know-how that LRAs in Armenia still lack. Beginning in 2004, UNDP in Armenia has been steadily working across three pillars of energy efficiency: the heating sector, buildings, and currently in the lighting sector, where they focus on policy work and engagement with the private sector. It is hoped that the programme will be equally successful in involving municipalities in the next set of project proposals.

Azerbaijan

Azeri municipalities can do very little in terms of supporting local development, as the country is still very centralised. When municipalities have overlapping functions with central government, they must not interfere with the matters of local units of central bodies, meaning that if a common (especially trans-regional) project arises, the role of municipality is secondary. As a result, only one municipality (Icherisheher) has joined the COMO so far. This state of play is particularly adverse for a country whose potential for growth in EE could be primarily found in the residential sector – a typical competency of LRAs.

The State Strategy on Use of Alternative and Renewable Energy Sources (2012-2020) was prepared by the Decree of the President of Azerbaijan in December 2011. Apart from typical EE-related components and prioritising development of wind power by setting up preferential tariffs, there is a strong emphasis on raising awareness of energy consumers and promoting the active participation of the private sector. However, the role of LRAs is not mentioned at all in the document. On-going projects specifically targeting LRAs and local players (including SMEs) are directly managed by central government representatives, including EUR 993,343-worth for *CLEEN*, EUR 2.14 million-worth for

Regional Energy Efficiency Programme, Corporate Sector and South Caucasus Sustainable Energy Finance Facility. Total budget allocated for these types of projects is EUR 5.3 million.

Unsurprisingly, if an internationally-funded project arises, the role of independent organisations, such as the Cleaner Production and Energy Efficiency Center (established in 2004 within the framework of the *Azerbaijan – Norwegian Capacity Building Program on Energy Efficiency and Cleaner Production*), in advisory services or project implementation itself is comparable to that of LRAs, meaning it is almost non-existent.

As already mentioned, Icherisheher is the only one exception to the rule. With United Nations Environment Programme's (UNEP) support, they undertook a project which replaces 600 inefficient public street lights. Outdoor lighting accounts for 70% of total emissions in Icherisheher, the historic core of Azerbaijan's capital city, Baku. According to UNEP's estimations, if all of the reserve's approximate 2000 luminescent, metal halide and high pressure sodium bulbs were to be replaced with LED ones, 303,900 kWh of electricity would be saved each year - equivalent to 271 tons of CO₂ - compared to a baseline year of 2011. Replacing all inefficient light bulbs would represent 48% of the reserve's CO₂ reduction target to reduce 2011 emission levels by 20% by 2020. UNEP's technical support for the light bulb switch project in Icherisheher came in the form of a workshop held on Energy Efficiency and Street Lighting together with the reserve, the COMO and Enlighten initiative in Baku in September 2014. The workshop raised awareness among not only national, but also local authorities on energy saving potential and available solutions for street lighting and policy options.

Belarus

Regional development in Belarus is determined by top government bodies, mainly ministries and state agencies, as well as oblast executive committees. The effects of such centralization can be easily spotted, especially in the lack of responsibilities and management skills at the local level. So far, this has resulted in the inability of LRAs to access financing within E5P, even though there is a legislative basis to work on when it comes to EE. This is particularly unfortunate for a country with an extensive, albeit extremely aging, energy infrastructure. According to the International Energy Agency (IEA), even a minimal reduction in energy losses for energy transport would improve EE statistics by at least 8%.

The situation pertaining to participation in the Covenant of Mayors looks more optimistic, where out of the 10 Belarusian municipalities represented, only 2

have not yet submitted their Action Plans. Moreover, Belarus has notified the Energy Community of its interest to participate in its activities as an observer. Parties to the Energy Community Treaty are expected to approve the application for observer status by the end of 2016.

However, the country is mainly only willing to commit to technical and twinning projects, staying away from politically-sensitive gatherings and initiatives. In early October 2016, together with experts, officials, and professionals in urban development from other EaP countries, a Belarusian delegation participated in a workshop in Chisinau, which was organised by an EU-funded project on housing reform in the EaP. The discussions revolved around the development and implementation of training programmes for homeowners, current reforms, programmes for EE improvement for residential buildings, and various housing management issues. The current *Improving Energy Efficiency in Residential Buildings in the Republic of Belarus* project, funded by the UNDP, as well as the already-finalised EU assistance to raise energy saving and energy efficiency standards in the field of consumer goods and industrial production, have stimulated national/local authorities, private and non-governmental entities to be more proactive in this sphere.

What is surprising for EE-related endeavours in the case of Belarus is its willingness to make it a truly scientific transformation. Currently, an EU-funded programme for *Employment and vocational education and training in Belarus* is looking for a supplier to equip a new Resource Training Centre, which aims to increase the labour markets' and educational services' focus on the green economy, green productions and green technology. The centre will have laboratories specialized in electrical engineering management, including traditional and renewable energy sources, energy-saving and heat-saving technologies, bioenergetics, and thermal power equipment. It will provide trainings on automation of water treatment, filtration, water supply and sanitation, industrial facilities for renewable energy and technologies of production, distribution, and consumption of energy and R&D in general. Unfortunately, the role of the municipality in this initiative, particularly in the concept development stage or the day-to-day implementation of concrete ideas, has so far been almost invisible.

Georgia

Although experts from the Caucasian Institute for Economic and Social Research (CIESR) tend to believe that Georgian decentralization is still lacking actual fiscal decentralization, due to its meagre state budget, Geostat's statistics show a considerable degree of fiscal discipline in recent years. Moreover, where

net operating deficits have appeared, they have been on account of central government, not municipalities. It is too early to make any binding judgment on the real power of LRAs and the efficiency of managing their budgets, but current actions look promising from the point of view of local involvement.

Georgia's first National Energy Efficiency Action Plans (NEEAP) was launched in June 2015, thanks to technical assistance provided by EBRD and financial support from the Swedish International Development Cooperation Agency (SIDA). Other ambitious legislative acts include New Energy Policy with implications on Energy Efficiency and Renewable Energy development (2015) and Energy Strategy with a substantial chapter on LRAs role which is currently being developed.

Georgian willingness to reduce dependence on energy imports and enhance energy security was uplifted by the recent accession to Energy Community (October 2016), where LRAs are appear on track with the implementation of ambitious projects. Thus far, 10 municipalities representing around 55% of the country's population joined the Covenant of Mayors in kick-starting projects to improve EE in public buildings (kindergartens, hospitals, etc.), municipal street lighting, as well as establishing Tbilisi's Sustainable Energy Information Center. Supported by a Council of Europe Development Bank loan, *EE renovation and reconstruction of 25 state schools in Tbilisi* and *Tbilisi Bus Project* have been implemented (also under E5P). Similarly, KfW's assistance for Batumi and its *Pre-Feasibility Study for introduction of an EE Framework and Short-Listing for Municipal Buildings* sets a good example for cooperation between municipalities and advisory/implementation consultancies, as residential sector improvement is an absolute priority according to NEEAP.

The public sector in Georgia (which includes central government and municipal buildings as well as facilities and street lighting) is a large user of energy. While there is no centralized database of public buildings or energy use, some data exists from city-level Sustainable Energy Action Plans (SEAPs) prepared under the European Covenant of Mayors partnership. Based on these figures, the public building sector includes an estimated 2,000 public buildings, of which about 48% are schools and kindergartens. Cost effective investments in EE could reduce energy use in these buildings by roughly 30% to 40%. This would require an estimated EUR 150 million in investment, which would lead to nearly 2,200 GWh of lifetime energy savings, 1.1 million tons of greenhouse gas (GHG) reductions and the creation of approximately 1,600 jobs. These statistics are impressive, not only because Georgia strives to become a climate-neutral country by 2050, but also because they were constructed directly by municipalities that believe no external help was needed.

Last but not least, Georgia plans to establish an Energy Efficiency Fund with a focus on project/investment identification, donor coordination, facilitation of grant-making, and facilitation of technical assistance. It is envisioned that this Fund would eventually cover lending-type investments (in conjunction with private capital), making Georgia independent from external aid.

Moldova

Although decentralisation reforms in the country are already advanced, outside of the environmental and energy sectors, where EU (and other donor) support for local development has been significant, no international funding has trickled down to the local level. The Congress of Local Authorities from Moldova (CALM) insists that low absorption of foreign aid in general is not only an issue for the LRAs, but the central government too.

However, with 14 signatories in the Covenant of Mayors (out of which only 2 have not submitted their Action Plans yet), creation of an Energy Efficiency Fund aiming to attract and manage resources to finance and implement EE and RES projects, as well as a favourable legislative framework in the *National Development Strategy 'Moldova 2020'* and the *Energy Strategy of Moldova until 2030*, the country needs to be commended for giving high consideration to potential contribution of EE towards decreasing fuel imports and supporting economic growth and the environment. To meet the identified priorities, Moldova has continued transposition of the Energy Labelling Directive and adopted regulations on energy labelling of household dishwashers, household refrigerating appliances and televisions. Nevertheless, the majority of priorities touched upon in both documents remain to be attained.

Still, the major priority for Moldova is bringing the Law on Energy Performance of Buildings in compliance with Directive 2010/31/EU, and adoption of all missing secondary legislation, to ensure full implementation of Energy Efficiency and Energy Performance of Buildings Laws. As of today, none of the public procurement tenders on reinvigorating building envelopes focus on EE aspects. A second key priority is the adoption of the 2nd EEAP, the further transposition of energy labelling regulations, and updating of the Energy Efficiency Law in order to bring it into compliance with new Directive 2012/27/EU, as these are the areas with the biggest potential for energy savings.

The E5P Grant Agreement between Republic of Moldova, Cet-Nord JSC and EBRD in its capacity as Fund Manager to E5P was signed on 1 April 2016, in connection with the Balti District Heating Project. The project includes a loan amount of EUR 7 million and an E5P grant of EUR 3 million. The grant will co-

finance the improvement of district heating services, reducing consumption of natural gas as well as investing in an increase of biomass use. The E5P grant is mainly allocated to Individual Heating Stations (HIS) and will as such directly benefit consumers and pave the way for changing patterns in consumption behaviour. It also provides investment in biomass, which has great potential for the heating sector in Moldova. The Balti DH Project is the first E5P project in Moldova and is expected to lead to substantial gas utilisation and introduce the use of biomass, while also discontinuing the use of coal as a primary energy source. CO₂ reduction is expected to be approximately 20,000 tonnes annually and the project will benefit approximately 70% of the inhabitants in Balti, the second biggest city in Moldova. However, it is the project's accordance with the national legislation that should be seen as the biggest added value. The *Renewable Energy Law of Moldova* sets up quite an attractive framework for the promotion of biofuels' production, which LRAs used while applying for usually difficult-to-obtain E5P grants.

Ukraine

Even though administrative decentralisation reforms have not yet been fully implemented, there is broad experience in decentralised cooperation, with several projects being financed through programmes such as cross border cooperation, Non-State Actors and Local Authorities programmes, and Cooperation in Urban Development and Dialogue (CIUDAD). All these initiatives follow bottom-up approaches, especially those of the 95 Ukrainian signatories in the COMO. Interestingly, out of the 4 flagship case studies describing experiences of most advanced cities in the EaP region, often presented by the Covenant of Mayors in its promotion of Eastern European and Central Asian municipalities, 3 are in Ukraine: Lviv, Dolyna and Kamyanets-Podilskiy.

Economic and political turmoil in Ukraine has already led to a significant reduction in energy consumption. The country nevertheless continues to depend on energy imports, and this trend is perceived by Kyiv as a major threat to national security. The energy import bill paid by national oil and gas company Naftogaz is indeed one of the most important internal economic and political challenges faced by Ukraine, which has a direct impact on local budgets as well. Almost all the proposed solutions have one common point: diversification of energy supplies and a shift away from dependence on Russia's Gazprom. What is more, current geopolitical turmoil overshadows debate on internal reforms, such as privatization and private involvement in energy creation and transmission, without which accession to international organizations such as IEA might be further delayed in the long-term.

Moreover, high energy intensity of heavily subsidised industries (which accounts for 35% of energy consumption according to EBRD) means that Ukrainian firms compete poorly on the world markets, negatively affecting business operations, hampering the setting up of new companies and job creation, and limiting tax revenues of LRAs. Uncertainty surrounding Russian gas supplies and the possibility of frequent price changes means that Ukrainian LRAs are also more exposed to variable energy costs, thus scaling up EE could improve not only the condition of local budgets, but also the competitiveness of Ukraine's industry.

The good news is that there is a large potential for energy gains in the country, particularly in the residential and industrial sectors. In this regard, Ukraine's NEEAP outlines some of the measures to be taken, such as: widespread residential building envelope refurbishments, installation of building energy control system and meters, and replacement of inefficient appliances and equipment.

In this regard, in mid-September 2016, the Nordic Environment Finance Corporation (NEFCO) signed 6 new agreements aimed at financing energy efficiency measures in the cities of Dobropillya, Slovyansk, Vugledar, Kurakhove, Kreminna and Myrnograd. The funding is provided from the Nordic energy efficiency and humanitarian support initiative (NIU) and E5P. This investment has a symbolic dimension too as it will provide support to people who have fled the conflict in Eastern Ukraine.

The signing event took place in conjunction with a seminar on municipal energy efficiency investments in Kiev. The purpose of the seminar hosted by NEFCO was to highlight challenges and success stories from previously implemented energy efficiency projects in a range of Ukrainian municipalities. The seminar was attended by Ukrainian government officials, municipal decision-makers, foreign investors and NEFCO staff representatives. This seminar was a follow-up on a previously organised event of its kind. The E5P Seminar on 'Municipal Investments in Ukraine – Financing Options and Governance with E5P' took place in Ternopil, in April 2016. This seminar was coordinated with the Energy Days in Ternopil and the opening of Energy Efficiency Centre by the City, which is aimed to assist public. These events demonstrate the huge demand for such initiatives - with 80 municipal EE projects ongoing, platforms for knowledge sharing are of the utmost importance. The assistance from this fund is provided primarily for the refurbishment and reconstruction of municipal buildings in vulnerable areas of eastern and southern Ukraine. Emphasis is placed on social infrastructure, such as schools, day-care centres, hospitals and health centres.

Additionally, *the Nordic EE and Humanitarian Support Initiative* currently has funds with a total value of EUR 10 million. The initiative has so far allocated funding for 22 projects in Ukraine, with over 5,300 children at day-care centres and 10,700 pupils benefitting from this humanitarian programme. The initiative also entails environmental benefits, as reduced electricity consumption, decreased emissions from carbon dioxide, as well as nitrogen and sulphur oxides.

In sum, all EaP countries currently face a challenging energy environment. On average, they are 3 times more energy-intensive than the average EU country. On the other hand, while some of them get revenues from the transit or export of energy resources, others are heavily dependent on energy imports. There are, however, administrative and fiscal decentralisation differences that distinguish all the countries at stake. Still, regardless of the progress on decentralisation reforms, we can identify 3 main groups of barriers impeding implementation of ambitious EE-related projects by LRAs, namely: a) legal and regulatory, including the inability to access funding without central government approval; b) lack of local capacities as, even when the legislative framework is in order, most LRAs lack practical tools to implement relevant tasks and need to be supported by external actors; and c) investment climate, as the concept of EE is still not understood as a tool for economic prosperity, it is undermined by a limited awareness of potential energy savings that directly translates into limited interest of both public and private sectors in investing significant resources. This should be particularly alarming as avoiding discussions on privatization or private involvement in energy creation and transmission, as well as lack of interest in public-private partnerships (PPPs), will additionally retard the process of decoupling from external aid resources.

Nevertheless, most municipalities in the EaP region have largely benefited from EU support on EE initiatives, although budgets of these initiatives per country represent relatively small fraction of total EU funds directed there. However, the EU is not the sole supporter of sustainable development across the region. Other major players include EBRD, World Bank (WB), European Investment Bank (EIB), International Bank for Reconstruction and Development (IBRD) and bilateral donors, such as United States Agency for International Development (USAID) or die Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Additionally, financial mechanisms are often accompanied with grants or subsidies, as well as technical assistance. As a result, initiatives have an important impact in terms of creating bottom-up municipal EE-related endeavours: the Covenant of Mayors has been instrumental in fostering energy savings at the local level and the INOGATE programme has helped partner countries improve the business climate on EE and RES.

Last but not least, the first ever EaP formal ministerial meeting on environment and climate change took place on 18 October 2016, in Luxembourg. During the meeting, all counterparties adopted a declaration, confirming their cooperation on environmental challenges and climate change, and promoting sustainable and inclusive economic development, bringing the discourse to an entirely new high-level. However, there are still various measures that could be taken to foster LRAs' role in EE.

Recommendations

Possible support to be provided by CORLEAP

- **Enhanced discussion on funding schemes.** Perhaps it is time to reopen the discussion on funding priorities. Should the funds available be divided in accordance with ‘more for more’ principle of providing incentives to effective performers or would it be better to focus on those who still lag behind with implementation of projects on the local/regional level?
- **Innovation architecture matters.** One should remember that absorption, diffusion, demand and supply of research and development have direct impacts on sustainable growth. In this regard, CORLEAP should involve R&D, especially on EE solutions, to its priorities list.
- **Push LRAs to include EE components in their communication plans.** So far chapters on energy saving measures barely exist in the discourse of local planning. The ideas implemented within majority of the projects not only support environmental monitoring, but the results are used for public engagement and educational and awareness-raising activities for both tourists and citizens. In effect, society can be motivated to bear responsibility for environmental protection actions.
- **Raise awareness of the role individual stakeholders can play in support of sustainable development.** Most recent EU Neighbourhood Barometer (ENPI East Autumn 2014) shows that out of all international organisations working in the EaP region, it is EU that people trust most (49%). Compared with the Spring 2014 edition, both the availability and quality of information about the EU have improved. For the first time in the history of the barometer, the absolute majority of respondents in the EaP agrees that there is enough information on the EU available in their country (52%). Also, exactly half of respondents (50%) that think communication from the EU about their country is easy to understand. Thanks to such a strong support from the society, EU’s impact on changing people’s perceptions on various aspects concerning their lives should be properly utilised.
- **Foster transnational cooperation.** In addition to specific programme goals, many of the described projects described above also initiate or strengthen relationships between LRAs from all the beneficiary countries. The creation of these ‘bridges’ is a key deliverable, as the differences among these countries are significant in terms of economic, cultural, and

societal issues. It would be highly advantageous to maintain these bridges after the projects conclude. CORLEAP seems to be the right forum to do so.

- **Pleading for limitation of the co-financing requirements for LRAs within EU aid programmes.** Clearly, a great deal of EU Directives needs to be implemented directly by the LRAs or have consequences for their budget spending. The timely implementation (and additional costs that come along with it) of the Services Directive at regional/local level is a good example of the latter. However, strict requirements on the percentage required from the municipalities only hinder already-limited financial capacities. It would be advisable to take into account other resources (such as local staff) making the own contribution component more flexible.

Measures to be taken by LRAs

- **Supporting behavioural change towards EE.** This includes general EE public awareness campaigns as well as narrow, more thematic articles, calendars, media contests, websites (local, regional and national projects), TV programmes on pilot projects and journalist trainings.
- **Creation of ‘green centers’ in municipal offices** providing face-to-face advice for visitors around recycling, energy efficiency and biodiversity in general. Additionally, programme of ‘one-off’ events (e.g. ‘plastic bag amnesties’) should be organized to complement the centre’s drive to connect with the public, boost its profile and engender greater interest and increased visitor numbers.
- **Adding EE components in public procurement tender documents.** Ensuring that authorities select not only the lowest price in the short term but also consider the potential long-term energy usage impact of any procurement related to energy.

How LRAs would have to be empowered by the EU and national level

- **Devolving more powers and responsibilities to individuals, communities and LRAs.** This could include: effectively returning decision-making powers on housing and planning to local councils; giving councils a general power of competence; giving local government and community groups greater financial autonomy; and **creating Local**

Enterprise Partnerships – joint local authority-business bodies to promote local economic development (replacing Regional Development Agencies equivalents). According to the European Commission (2012) more decentralised system seems to offer more innovation freedom and thus competitiveness. More innovation freedom means at least two things: a) more role of decentralised initiation; and b) much more closeness among stakeholders being more likely to cooperate and create imitations and innovations (especially in fields like EE).

- **Focus on business-oriented initiatives.** In countries where decentralisation reforms are still not envisaged (Azerbaijan, Belarus), attention should be paid to non-political initiatives such as study tours. A recent German delegation to Baku (March 2016) undertaken within the Export Initiative ‘energy efficiency – made in Germany’ proved extremely effective, as Azerbaijani local authorities and SMEs had a chance to get a first-hand overview about solar energy and EE projects in buildings, market development and legal frameworks in Germany and take build their development strategies thanks to such know-how.
- **Create a coherent database of knowledge.** EE monitoring is a complex and sophisticated process. Many project teams faced similar problems at various stages of their projects. Hence, it would be beneficial to develop a dedicated database of monitoring tools, where the main findings and observations from each project would be compiled in order to share knowledge and experiences and to reduce or avoid trial and error. In this respect, we suggest the development of an efficient online information platform, and granting each scientist or project leader free access (at least for EU-funded projects). Well-structured and easily understood processes can be replicable in space and time, which is useful for both scientists and stakeholders. Thus, during the development phase, the importance of simplicity and clarity should not be underestimated.
- **Open discussion on what a monitoring mechanism should include.** Monitoring tools are an essential part of public projects, especially in the environmental sector. These tools allow project leaders to measure the pace and progress of improvement and additionally reinforce knowledge-sharing.
- **Simplification of EE Fund application procedures.** Currently complicated procedures of applying are mentioned as the most pressing issue by LRAs from all the countries at stake. Hence, more flexibility and clearer guidelines would allow public administrations to apply for available funds.

Annexes

Development aid going to the ENP countries

Gross disbursements of development aid in millions of euro, by recipient countries, 2011-2014

Recipient		Belarus				Moldova				Ukraine			
Year		2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Donor	Flow												
All Donors, of which:	Official Development Assistance, of which:	71.3	67.5	77.7	89.7	322.0	361.7	264.3	415.8	537.0	574.3	574.0	1055.0
	grants	71.3	67.5	77.7	89.7	198.1	207.4	210.3	328.8	405.9	462.3	459.3	833.1
EU Institutions	Official Development Assistance, of which:	11.1	15.6	14.1	20.8	121.6	146.7	90.6	138.2	161.0	190.8	277.6	369.9
	grants	11.1	15.6	14.1	20.8	107.6	91.5	68.5	98.5	109.0	86.8	162.9	359.9
EU individual member states	Official Development Assistance, of which:	32.9	22.4	33.5	43.4	40.4	52.5	40.5	98.7	138.5	128.6	116.7	211.8
	grants	32.9	22.4	33.5	43.4	39.5	52.5	39.5	98.7	136.3	124.6	116.7	208.0

Recipient		Azerbaijan				Georgia				Armenia			
Year		2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Donor	Flow												
All Donors, of which:	Official Development Assistance, of which:	227.2	255.0	205.9	202.4	457.5	556.4	535.6	509.4	312.0	256.6	243.6	232.8
	grants	90.5	81.0	84.6	74.6	320.6	295.0	308.8	267.7	189.1	117.1	114.8	107.5
EU Institutions	Official Development Assistance, of which:	17.8	20.4	13.1	9.1	131.7	129.0	169.9	127.7	71.8	33.8	52.5	59.7
	grants	17.8	20.4	13.1	9.1	101.9	91.8	82.4	61.2	68.8	31.8	37.6	38.1
EU individual member states	Official Development Assistance, of which:	21.9	23.6	23.4	45.9	88.3	144.1	78.0	66.5	43.6	51.7	44.8	54.4
	grants	12.4	13.3	14.6	13.1	55.3	59.1	61.6	57.6	22.1	23.4	24.8	26.0

Source: OECD Creditor Reporting System database.

Notes: Statistics cover disbursements rather than commitments as they better illustrate aid flows from a recipient point of view. Amounts in USD were converted into euros using annual average exchange rates, as published by the OECD.

Israel is classified as donor in the OECD stats and therefore there is no data on ODA inflows.

Bibliography

Online databases and statistics

Deutsches Gesellschaft für Internationale Zusammenarbeit (GIZ). Official website. <https://www.giz.de/de/html/index.html>

Eastern Partnership Civil Society Forum (EaP CSF). <http://eap-csf.eu/en/document-filter/>

EBRD. Official website. <http://www.ebrd.com/home>.

EU Neighbourhood Info Centre Portal and News Service. EuroEast. <http://www.euneighbours.eu/indexeast.php>

EUROSTAT. <http://ec.europa.eu/eurostat/>

GEOSTAT. Official website. <http://www.geostat.ge/index.php?action=0&lang=eng>

IEA Statistics. <https://www.iea.org/statistics/>

IMF Data. <http://www.imf.org/en/Data>

Knowledge and Expertise in European Programmes (KEEP). <http://www.keep.eu/keep/>

National Bureau of Statistics, Moldova. Official website. <http://www.statistica.md/index.php?l=en>

National Statistical portal of the Republic of Belarus. Official website. <http://www.belstat.gov.by/en/>

National Statistical Service of the Republic of Armenia. Official website. <http://www.armstat.am/en/>

NEFCO Nordic Environment Finance Corporation. Official website. <http://nefco.org/>

OECD Statistics. <http://stats.oecd.org/>

State Statistical Committee of the Republic of Azerbaijan. Official website. <http://www.stat.gov.az/indexen.php>

State Statistics Service of Ukraine. Official website. <https://ukrstat.org/en>

UNEP Data. <http://geodata.grid.unep.ch/>

USAID Development Data Library. <https://www.usaid.gov/data>

World Bank Database. <http://data.worldbank.org/>

Other sources

Arabidze, M. (2016a), *Georgia: First national Energy Efficiency Action Plan*, presentation to the 10th EECG Meeting, Vienna.

Arabidze, M. (2016b), *Plans for Energy Efficiency in Public Sector*, presentation at EE Roundtable, Tbilisi, Georgia.

Blyth, W. and M. Savage, (2011), *Financing energy efficiency: A strategy for reducing lending risk*, Chatham House Report, at http://www.chathamhouse.org/sites/files/chathamhouse/19462_0511pp_blythsavage.pdf.

Clean Technology Fund (2013), *Investment plan for Ukraine. Revision note*, August 2013, at <https://www.climateinvestmentfunds.org>.

Climate Policy Initiative (CPI) (2013), *The landscape of climate finance 2013*, at <http://climatepolicyinitiative.org/wp-content/uploads/2013/10/The-Global-Landscape-of-Climate-Finance-2013.pdf>.

Committee of the Regions (2014), *Local and Regional Authorities for a Successful Eastern Partnership*, at <http://cor.europa.eu/en/documentation/studies/Documents/LRA-SUCCESSFUL-EASTERN-PARTNERSHIP.pdf>.

Committee of the Regions (2016), *New Approach to the European Neighbourhood Policy*, at <http://cor.europa.eu/en/documentation/studies/Documents/New%20Approach%20to%20the%20European%20Neighbourhood%20Policy.pdf>.

Committee on Foreign Affairs and EURONEST Parliamentary Assembly, at http://www.europarl.europa.eu/RegData/etudes/workshop/join/2013/433708/EX-PO-AFET_AT%282013%29433708_EN.pdf.

Eastern Partnership Civil Society Forum (2015), *European Integration Index 2014 for Eastern Partnership Countries*, at <http://www.eap-index.eu/sites/default/files/EaP%20Index%202014.pdf>.

European Commission (2012), *Policies Supporting Innovation in Public Service Provision*, INNO-Grips Policy Brief, European Commission, DG Enterprise and Industry, Brussels.

European Commission (2014), *EU Neighbourhood Barometer - ENPI East Autumn 2014*, Wave 6, at <http://www.enpi-info.eu/library/content/eu-neighbourhood-barometer-enpi-east-autumn-2014>.

European Parliament (2013), *Eastern Partnership prospects on energy efficiency and renewable energy*, Workshop requested by the European Parliament's

IEA (2015), *Energy Efficiency Policy Priorities – Ukraine*, at <https://www.iea.org/publications/freepublications/publication/EEPPUkraine4dec2015.pdf>.

JRC (2014), *JRC Technical Reports: Replicable Measures from Sustainable Energy Action Plans (SEAPs) of Ukraine*, Ispra.

Kovacs, O. (2016a), *Energy Efficiency in Eastern Partnership Countries: Unfolding Research & Development and Innovation in Promoting Energy Efficiency*, Innover East Synthesis Report.

Kovacs, O. (2016b), *Disorientation - Encoded Weakening of the European Integration?*, Paper presented at ECPR General Conference, Prague 07-10 September 2016.

OECD (2012), *Greening public budgets in Eastern Europe, Caucasus and Central Asia*, Paris, at <http://www.oecd.org/russia/greeningpublicbudgetsineasterneuropecaucasusandcentralasia2011.htm>.

OECD (2014), *Environmental Lending in EU Eastern Partnership countries*, EaP GREEN at https://www.oecd.org/env/outreach/Binder_final%20report_environmental%20ending_update%20Oct2014.pdf.

Rukhadze, T. (2012), *Energy Efficiency in Buildings: Policy and Practice in Georgia*, Third International Forum: Energy for Sustainable Development, Bishkek,

September 2012 at https://www.unece.org/fileadmin/DAM/energy/se/pp/eneff/IEEForum_Issyk_Ku1_Lake_Sept.2012/day_2/workshop_4/3_Tamar_Rukhadze_Georgia_discussions.pdf.

Sivogorakov, O., Kasianenko, A., and A. Lysyuk (2014), *Analysis of the Regional and Local Development Sector in Belarus*, at <http://eng.oeec.by/wp-content/uploads/2015/04/Analysis-of-Regional-and-Local-Development-Sector.pdf>.

UNDP (2014), *Energy efficient public buildings and housing in Armenia*, NAMA

Project Document at http://www.nama-database.org/images/5/5c/NAMA_public_buildings_and_housing_Armenia_project_document_15.10.2014.pdf.

UNEP (2015), *Accelerating Energy Efficiency Initiatives and Opportunities in Eastern Europe, Caucasus and Central Asia*, Sustainable Energy for All (SE4All) at http://kms.energyefficiencycentre.org/sites/default/files/C2E2_EXEC-SUM_CIS_ENGLISH_Office%20print_Full-page.pdf.

UNFCCC (2015), *NS-144 - Energy Efficient Public Buildings and Housing in Armenia*, NAMA Registry, at https://process.unfccc.int/sites/NAMA/_layouts/un/fccc/nama>NamaSeekingSupportForImplementation.aspx?ID=144&viewOnly=1.

USAID (2007), *National Program on Energy Saving and Renewable Energy of Republic of Armenia*, United States Agency for International Development, Scientific Research Institute of Energy for the Alliance to Save Energy. Yerevan.