Scaling Up Energy Efficiency in Buildings in the Western Balkans

Municipal Budgeting and Finance

Guidance Note

May 2014

Prepared by the Network of Associations of Local Authorities in South-East Europe (NALAS)

Contents

Abbreviations and Acronyms

AAM	Albanian Association of Municipalities
AKM	Association of Kosovo Municipalities
BiH	Bosnia and Herzegovina
EBRD	European Bank for Reconstruction and Development
ECS	Energy Community Secretariat
EE	energy efficiency
EEA	European Energy Award
EERF	Energy Efficiency Revolving Fund
EIB	European Investment Bank
EMS	energy management system
EPSC	energy performance service contract
ESA	energy supply agreement
ESCO	energy service company
ESMAP	Energy Sector Management Assistance Program
EU	European Union
EU27	The 27 European Union member states before Croatia joined the EU in July 2013
EU7	The seven Eastern European countries among those that joined EU in 2004 (Czech, Estonia, Hungary, Latvia, Lithuania, Poland, and Slovakia)
FBiH	Federation of Bosnia and Herzegovina (entity of Bosnia and Herzegovina)
GDP	Gross domestic product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
IFI	international financial institution
KfW	Kreditanstalt für Wiederaufbau (German Financial Cooperation)
LG	Local government
kWh	kilowatt-hour
MEEAP	Municipal Energy Efficiency Action Plans
MTEF	Medium-Term Expenditure Framework
MOF	Ministry of Finance
MUNEE	Municipal Network on Energy Efficiency
NALAS	Network of Associations of Local Authorities in South-East Europe
PPMRN	Public Performance Measurement and Reporting Network
PPP	public-private partnership
RS	Republika Srpska (entity of Bosnia and Herzegovina)
SCTM	Standing Conference of Towns and Municipalities (Serbia)
SDC	Swiss Development Cooperation
SEE	South-East Europe
SOGFBiH	Association of Municipalities in the Federation of Bosnia and Herzegovina
TRACE	Tool for Rapid Assessment of City Energy
UNECE	United Nations Economic Commission for Europe
UOM	Union of Municipalities of Montenegro
USAID	United States Agency for International Development
ZELS	Association of the units of local self-government of Macedonia
WB	World Bank

Executive Summary

To support energy efficiency (EE) capital investments in municipal public buildings and services in the Western Balkans region, this guidance note outlines current regional policies and procedures for municipal budgeting and financing, identifies shortcomings, and presents a "road map" of recommended options for improvement. These recommendations can help support capital investments for providing a variety of municipal services, not just those for EE.

In general, municipal budgeting is more centralized in the region than in the rest of the EU, with local government revenues representing only about 11-25 percent of consolidated public revenues. Further, the heavy use of "conditional transfers" from national to local budgets further diminishes municipalities' authority to allocate funding based on their priorities. In three countries—Albania, Kosovo, and the former Yugoslav Republic of Macedonia—local governments receive more than 40 percent of their revenues from conditional or earmarked grants from their national governments. Despite this, capital investments (and the need for additional investments) are higher than in the rest of the EU because of chronic underinvestment over the past two decades. Although the current process of fiscal decentralization is designed to increase local governments' budgetary autonomy, progress has been relatively slow.

Municipal budgeting practices and lack of access to finance further restrict municipal efforts to reduce operating costs through EE. Municipalities' one-year budgeting, inability to retain energy cost savings in future years, line item budgeting, and other practices make investing in EE much more difficult. Similarly, many municipalities in the region face substantial limitations on borrowing, some do not have sufficiently strong accounting for commercial bank lending, most do not have credit ratings or borrowing histories, and many are prohibited from assigning public assets to collateralize loans; all this makes it increasingly difficult for viable EE projects to secure appropriate financing.

The guidance note describes these barriers and points to a range of solutions that other countries—from across the EU and beyond—have used to overcome these same difficulties. The Western Balkan countries will need to carefully select and adapt these solutions to suit their individual needs.

Selected main findings and lessons are as follows (See Section 4):

- EE investments in public buildings are usually not a high priority for local government officials. The major reason for this is the lack of information and awareness of local decision makers regarding the need and economic potential for improving EE in municipal public buildings; this is urgently needed.
- Municipal energy planning can be an important means of improving EE in municipal public buildings; its application is supported by national EE Laws.
- Implementation of EE measures identified in Municipal Energy Efficiency Action Plans (MEEAPs) needs financial support either from the national government or from the private sector in the form of energy service companies (ESCOs).
- A legal framework that allows municipalities to establish long-term contracts with ESCOs is in place in four of the six countries, with Bosnia and Herzegovina and Macedonia being the exceptions. The development and implementation of ESCO projects are now impeded by the local municipalities' lack of relevant capacity. Both municipalities and potential ESCOs lack experience and trust in long-term cooperation.

Recommended milestones in the fields of municipal finances and budgeting, which should be including in a roadmap for the scaling up EE in public buildings in the Western Balkans are as follows (see Section 5):

(1) Implementation of EE issues as a criterion for allocating national investment funds ("conditional subsidies").

(2) Earmarking of funds provided through national EE funds for municipalities.

(3) Establishment of specific national support programs for EE in municipalities.

(4) Development, implementation, monitoring, and regular updating of local EE action plans (MEEAPs and SEAPs).

(5) Introduction of energy accounting in municipal budgeting and finance.

(6) Establishment of national grant programs supporting the development of local energy action plans and energy audits in municipal buildings.

(7) Establishment of national support programs for the introduction of energy management systems in municipalities.

(8) Establishment of national support programs for the setup and implementation of ESCO models in municipal public buildings and services.

(9) Improvement of the ability of municipalities to access credit.

Further development and implementation of this roadmap should be based on a broad consensus among the six national governments, local authorities and their associations, and the international donor community. It should be reviewed and updated on an annual or similar basis.

1. Introduction

Within the Western Balkans region,[1] a secure and reliable energy supply is critical for sustainable economic growth. Expensive, imported energy and inefficient energy use place a huge burden on municipalities that require affordable and reliable infrastructure services to attract investment and provide services to their citizens. With energy prices projected to rise, service delivery costs will increase, further straining municipal budgets and disproportionally affecting poorer households. The ability of municipalities to adequately budget for and finance reductions in energy use thus will be a critical need in the years ahead. Saving energy can also help cities renew their building and infrastructure stock while helping to create employment opportunities—all paid for through the reductions in their energy bills.

The municipal budget is the main financial planning document at the local level. It contains a list of municipal revenues and expenditures for the coming year, the latter of which are divided into operating and capital expenditures. Typically, municipal budgets are for a single year.

With respect to how countries plan and implement capital investments, including those in energy efficiency (EE), the municipal budget, and the rebalance[2] of the budget are the most important documents. Therefore, the municipal budget is the starting point for understanding how EE investments can be implemented.

The municipal budget also communicates investment priorities, among which EE investments rarely rank high in Western Balkan countries because of other pressing investment needs, particularly in infrastructure. This is due to the chronic underinvestment in energy and other infrastructure over the past two decades. If the municipal budget is to be an effective tool for supporting EE investments, municipal sector representatives (managers of public buildings, street lighting, and other areas) must be able to (i) communicate to decision makers the importance of such investments—in particular their potential for reducing the operating costs of municipal buildings—and (ii) provide the tools and financial means necessary to implement them.

However, municipal budgeting practices also require some adjustments to allow EE investments to be more readily financed and implemented:

- Typical one-year budgeting often prevents municipalities from signing multi-year contracts with energy service companies (ESCOs) which can help amortize investment costs over longer periods by paying from the energy savings;
- Municipalities need to be able to retain budgetary energy cost savings in later years in order to repay any debts incurred from EE investments; and
- Line item budgeting and separate accounts for capital and operating expenditures can make investments in EE (i.e., "capital investments") difficult to repay out of energy cost savings (i.e., reductions in "operating expenses").

For a variety of reasons, municipal financing (i.e., borrowing) is also difficult. For example, many municipalities face substantial limitations on borrowing, some do not meet the accounting standards required for commercial bank lending, most lack credit ratings or borrowing histories, and many are prohibited from assigning public assets to collateralize loans.

This guidance note will review current policies and procedures for municipal budgeting and financing in the region, identify shortcomings, and present a "road map" for improvement based on several proposed "milestones." These recommendations can help support capital investments for providing a variety of municipal services, not just those for EE.

[1] The Western Balkans region comprises Albania, Bosnia and Herzegovina, Kosovo, the former Yugoslav Republic of Macedonia, Montenegro, and Serbia.

[2] The budget "rebalance" is usually published annually following publication of the budget.

2. Review of Existing Municipal Budgeting and Financing Practices and Identification of Key Barriers for EE Investments in Public Buildings

Public revenues and expenditures at the local level are subject to annual budget plans approved by local councils. The municipal budget is a *political tool* reflecting the political agenda and the investment priorities of the majority of elected council members. The fiscal regulations and decision-making rules comprising the framework for municipal budgeting include the following mechanisms:

- *Forecasting* on planned revenues and expenditures
- *Assessment* of fiscal consequences of public policies
- *Authorization* of the use of public funds
- *Allocation* of public funds according to expenditure ceilings
- *Controlling and monitoring* public spending and revenue collection

The municipal budget provides the basis for administrative accountability and serves as an evaluation instrument over local public activities.

The extent to which municipal budget plans provide for EE investments in public buildings depends on two things: the priority accorded to EE issues by local decision makers and the amount of available investment funds. In cases where local councils put a high priority on EE investments in public buildings but municipalities' budgets are insufficient, the implementation of EE investments depends on the availability of grants, government transfers, or loans—including third-party financing from entities such as energy service companies (ESCOs).

2.1 Municipal budgeting and financing practices in the region

In all European countries, municipal budgeting and financing practices are determined by fiscal rules and regulations set by national governments. The availability of public funds for EE investments of municipalities depends on, among other things, how these rules and regulations affect (i) allocations to municipalities, (ii) mandatory expenses incurred by municipalities, and (iii) limitations on local borrowing. This section describes how these issues influence local governments' ability to invest in improving EE in public buildings.

Revenues allocated to municipal budgets by national governments

Compared to the EU27[3] member states, the regional share of consolidated public revenues—including public revenues at all levels of national, regional, and local government—in the GDP of the six analyzed countries is relatively high. Conversely, the share of local government revenues in the total of consolidated public revenues is relatively low (Figure 1).[4]

Thus, the influence of municipal councils on how public funds are spent in their countries is lower than in the EU27 lower than in the EU27 member states. This is especially the case in Albania, FYR Macedonia, and Kosovo, where more than and Kosovo, where more than 40 percent (Kosovo is as high as 57 percent) of local government revenue comes from revenue comes from regional or national governments in the form of conditional, or earmarked, grants (see Note: BiH = grants (see Note: BiH = Bosnia and Herzegovina. RS = Republika Srpska (entity of Bosnia and Herzegovina). FBiH= Federation of Bosnia and Herzegovina (entity of Bosnia and Herzegovina).

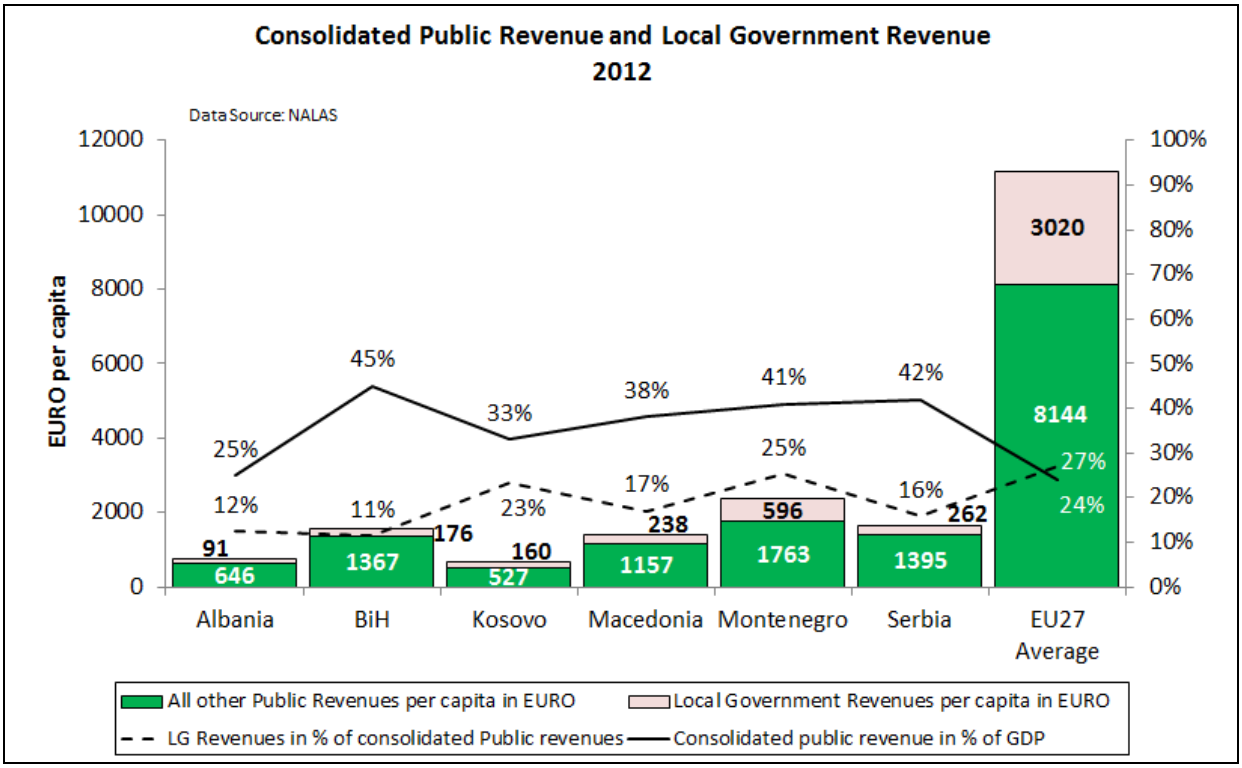
This overall effect can be both good and bad for EE investments.).

Municipalities must apply each year to regional or national authorities for these grants. However, because the total amount of funds applied for may exceed the total amount of financial assistance

[3] EU27 = the 27 European Union member states before Croatia joined the EU in July 2013.
[4] NALAS: *Fiscal Decentralization Indicators for South-East Europe: 2006-2012* (3rd edition, April 2014), 21.

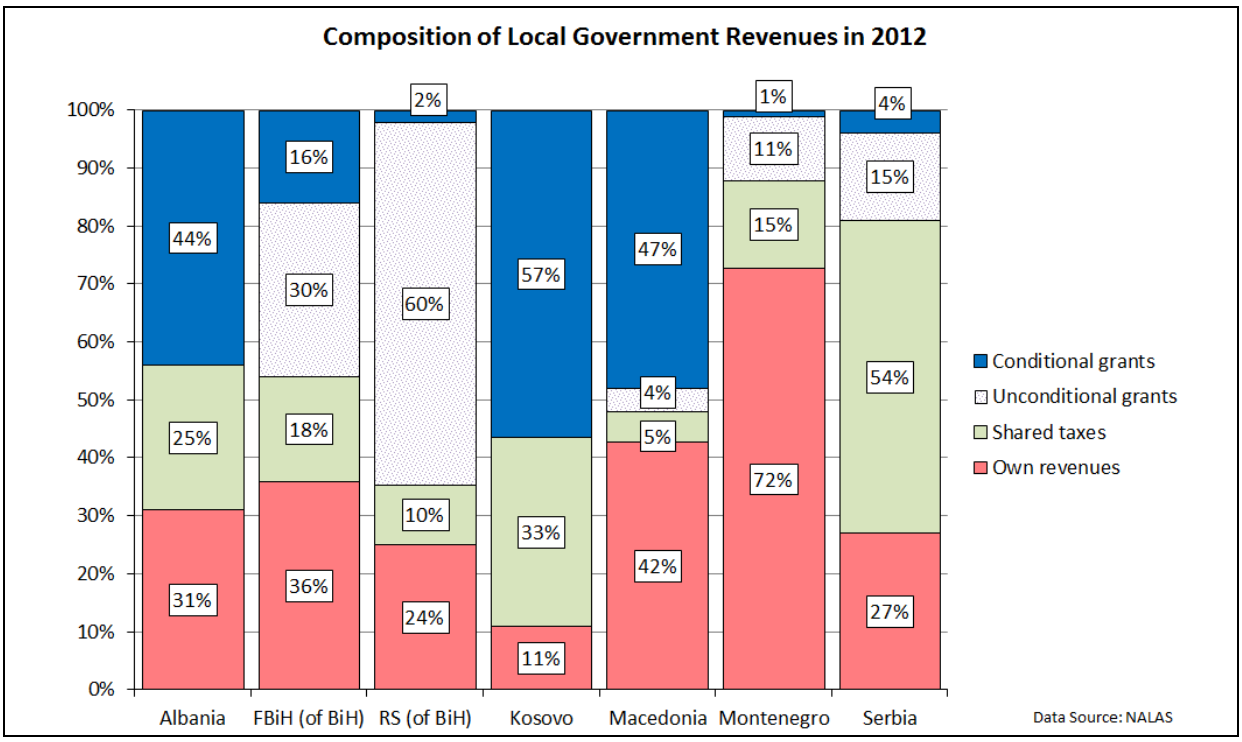
provided, they may receive less than, or none of, the requested amount. Municipalities thus cannot plan in advance their receipt of these funds. Further, eligible investments for such conditional grants may or may not align with local government priorities.

Figure 1. Consolidated Public Revenue and Local Government Revenue, 2012



Note: BiH = Bosnia and Herzegovina. LG = local government.

Figure 2. Composition of Local Government Revenues[5] in 2012



Note: BiH = Bosnia and Herzegovina. RS = Republika Srpska (entity of Bosnia and Herzegovina). FBiH= Federation of Bosnia and Herzegovina (entity of Bosnia and Herzegovina).

This overall effect can be both good and bad for EE investments. On one hand, local governments that wish to invest in EE improvements for public buildings are constrained if regional and national governments themselves do not prioritize EE in public buildings through these grants.

On the other hand, the conditional grants may also be used to *motivate* local governments to adopt specific national investment priorities, significantly influencing municipal investments in EE.[6] The more municipal budgets depend on conditional funds offered by their national government, the more municipalities depend in their budgeting and financing on regional and national investment priorities.

As long as EE is not a criterion for the awarding of national government transfers to municipalities for the implementation of their own investments, municipalities' motivation to prioritize EE investments in their own expenditure planning tends to be low. In countries such as Bosnia and Herzegovina, Montenegro, and Serbia, where municipalities can rely on their own revenue sources for more than 80 percent of their annual budgets, local investment priorities usually do not include EE. A 2006 World Bank survey of FYR Macedonia showed that local stakeholders are traditionally more interested in improving infrastructure—especially local roads, water supply and treatment systems, regional landfills; public marketplaces, parks and green spaces; and facilities for sports and recreation, education, health care, and community centers.[7]

[5] In Figure 2, *shared taxes* are taxes that are by law shared between different government levels; the municipalities need not apply to receive their share because they are entitled by law to receive them directly from the tax authorities. *Unconditional grants* are funds transferred from central government budgets to local budgets, usually on a legal basis. No conditions are attached, and the effect on local budgets is similar.

[6] I. Bishoff and F. Blaeschke, *Conditional grants to independent regional and local governments: The trade-off between incentive and wasteful grant-seeking* (No. 30-3010, Joint Discussion Paper Series in Economics by the Universities of Aachen, Gießen, Göttingen, Kassel, Marburg, Siegen).

[7] World Bank, *Former Yugoslav Republic of Macedonia: Issues in Urban and Municipal Development* (Policy note, Sustainable Development Department, South East Europe Country Unit, Europe and Central Asia Region: November 2006), 5.

The more municipalities rely on their own revenues and taxes, the more it becomes important to raise awareness at the municipal level of the potential benefits of EE improvements in municipal buildings. Awareness raising among political decision makers regarding the socioeconomic benefits of promoting EE in municipal facilities is important to motivate them including EE investment in municipal buildings in their municipal budget plans.

High investment rates are typical for the municipal budgets in the six countries

Municipalities in all six countries managed in 2012 to allocate 19–35 percent of their budgets to capital investments, which is a much higher share than the EU27 average of 11 percent.[8] This is due to the substantial need for infrastructure upgrades and rehabilitation caused by the historic underinvestment in municipal infrastructure over the past two decades.

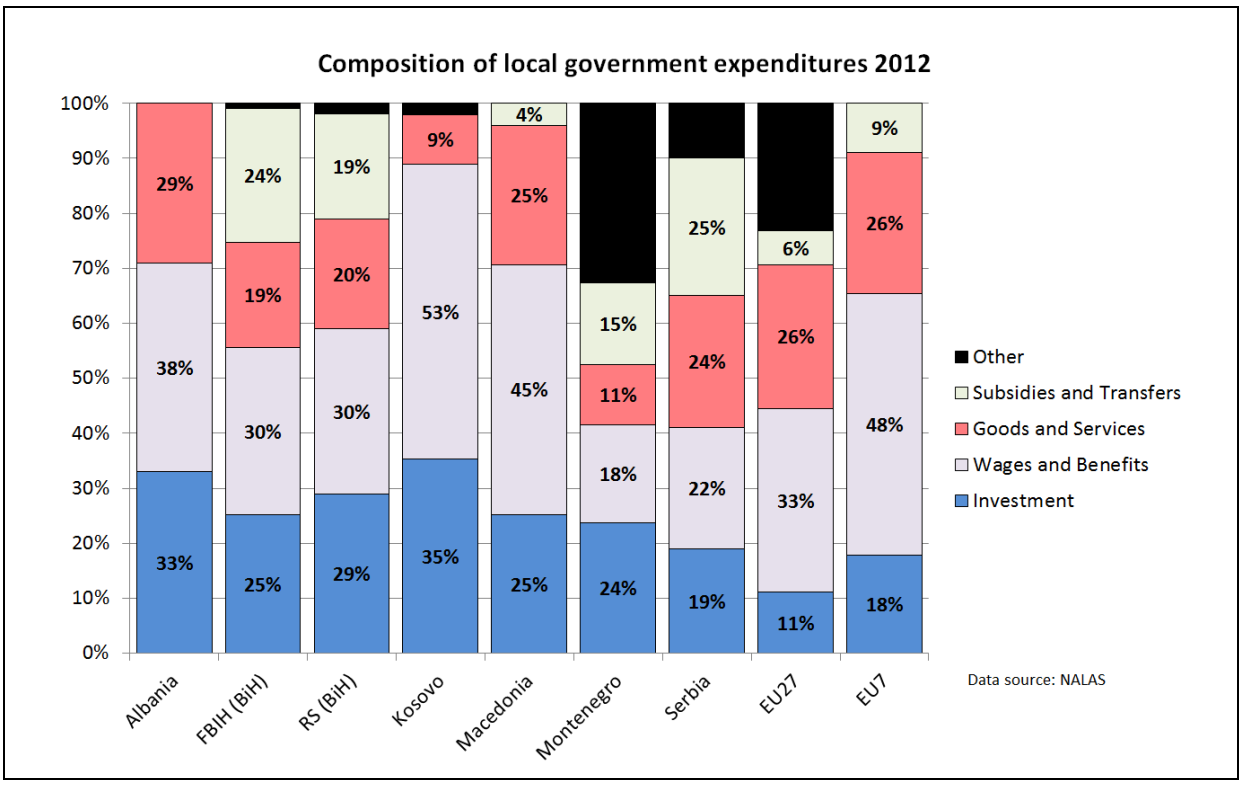
A similar situation was observed a few years ago in the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, and the Slovak Republic (see Figure 3, in which these countries are collectively referred to as "EU7") when they joined the EU in 2004. In 2012, municipalities in those countries were still spending an average of 18 percent of municipal revenues on investments in public service infrastructure. It will likely be necessary to keep municipal investment rates similarly high in the six countries of the Western Balkans, for at least another 10 to 20 years, in order to gradually upgrade public service infrastructure to European standards.

The priority of investments to improve EE in municipal buildings is low

As part of the EU pre-accession efforts, several of the Western Balkan countries have passed EE laws requiring municipalities to prepare and implement Municipal Energy Efficiency Action Plans (MEEAPs). These MEEAPs usually include a prioritized pipeline of EE investment projects. However, development of the MEEAPs, even though legally required in most countries, is often donor-driven and few identified investments are actually financed and implemented. Almost all of the EE improvements by municipalities in the six countries have been financed by donors through a combination of grants and concessional loans.

[8] NALAS, *Fiscal Decentralization Indicators*, 29.

Figure 3. Composition of Local Government Expenditures, 2012



Source: NALAS: Fiscal Decentralization Indicators for South-East Europe: 2006-2012 (3rd edition, April 2014).
Note: EU7 = the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, and the Slovak Republic.

Municipal spending on EE improvements in public buildings is still marginal compared to other budget items. In Albania, for example, where municipalities accounted for a total of €478 million of investments in 2013, municipalities reported investments in EE improvements of only €92,600 (i.e., 0.02 percent) for the same year.[9]

(The extent to which municipalities in the other five countries are contributing to the improvement of EE in municipal buildings—either directly or as a side-effect of rehabilitation of public buildings—is not accounted for in the municipal budgeting systems, and not reported in official statistics.)

As long as citizens experience deficits in public service infrastructure, EE investments in municipal buildings are likely to remain a low priority for municipal decision makers. Where municipal investment priorities include public building rehabilitation, they usually focus on critical and structural issues or the beautification of facades, rather than on EE improvements. In most cases, municipalities see EE as important only when necessary to comply with EE priorities set by international financial institutions (IFIs) or bilateral donors providing funds for building rehabilitation demonstration projects.

2.2 Energy Expenditures in Municipal Budgeting and Finance

Although energy prices are increasing in all six countries, the political relevance of total energy expenditures of municipalities is still low. None of the mayors and council members interviewed by NALAS experts in the six countries was aware of the amount of the total annual energy bill of their municipality. This is because energy is not a separate category in any of the municipal budget plans (it is usually subsumed under "goods and services"), and energy costs are scattered

[9] Data source: AAM.

within a variety of budget categories. Energy costs also tend to form a relative low share of total municipal budgets—about 1-3 percent.

In 2012 in Macedonia, for example, all municipalities together spent €1.46 million on electricity, €210,961 on central heating, and €494.175 on fuel for heating. Total municipal expenditures for electricity and heating in Macedonia were €2.165 million, which was equivalent to approximately €1 per inhabitant and to almost 0.5 percent of total revenues of municipalities in the country in the same year.[10] If local health clinics, schools and social buildings are included, which are generally managed by municipalities, energy costs are an additional €20 million each year.[11]

Energy expenditures (buildings, transport, street lighting) by municipalities in Albania in 2013 totaled €21.4 million, of which energy expenditures for buildings were €5.7 million,[12]—which is equivalent to approximately €2 per inhabitant and to approximately 2 percent of total municipal expenditures.[13]

Against this background, a World Bank's 2013 *National Building Energy Efficiency Study for Kosovo*[14] calculated the total *Kosovo*[14] calculated the total energy expenditures in Kosovo for all of their public buildings as €33.96 million,[15] which €33.96 million,[15] which would be equivalent to almost €20 per inhabitant and to about 9.5 percent of total municipal of total municipal revenues in Kosovo, which were €352.4 million in 2012. While the share of goods and services (including goods and services (including energy) in the municipalities' total expenditures accounted for only 9 percent of the overall 9 percent of the overall expenditures of municipalities in 2012 (see *Source: NALAS: Fiscal Decentralization Indicators for South-East Europe: 2006-2012* (3rd edition, April 2014).

Note: EU7 = the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, and the Slovak Republic.

), this figure also includes central government buildings, many of which do not flow through municipal budgeting systems.

The *National Building Energy Efficiency Study for Serbia*,[16] published by the World Bank in December 2012, estimated the total energy expenditures in all public buildings (central and local level) in the amount of €269.4 million,[17] which would be equivalent to approximately 2 percent of the US$13.3 billion in government expenditures Serbia has budgeted for 2014.[18] This is in the same range as the figure provided for Albania by the Albanian Association of Municipalities.

The figures given above for Albania, Macedonia, and Serbia indicate that the municipalities' total expenditures on energy in public buildings tend to be in the range of 1 to 3 percent, which while small as a percentage is a large budget item if aggregated at the national level. However, energy cost are disguised in municipal budgets in all six countries behind the headline "Goods and Services," and this is scattered to many different budget positions, which makes it difficult for local decision makers to have a clear picture of the importance of energy expenditures in their municipal budgets. Considering many of these buildings do not achieve a basic comfort level of 20–22° C, the actual energy use could be even higher.

Below-norm comfort levels and the lack of detailed energy accounting are major barriers to public and political awareness of the potential for energy savings in individual public buildings and in specific public services. This is one reason why local governments in the region have not placed a high priority on realizing energy savings—despite, for example, the potential for an

[10] Data sources: ZELS, and author's calculation.
[11] Ministry of Economy, "*National Program for Energy Efficiency in Public Buildings in the Republic of Macedonia until 2019 (Phase 1)*," February 2013.
[12] Data source: AAM.
[13] Author's calculation based on data from AAM presented earlier.
[14] World Bank, *National Building Energy Efficiency Study for Kosovo* (February 2013).
[15] No reference year mentioned by EPTISA. Other data in the report referred to 2010.
[16] Econoler/World Bank: *National Building Energy Efficiency Study for Serbia*, December 2012.
[17] No reference year mentioned.
[18] Data source: Bloomberg. http://www.bloomberg.com/news/2013-12-13/serbia-adopts-2014-budget-with-europe-s-highest-fiscal-deficit.html.

estimated 515 GWh in annual energy savings in schools and hospitals identified in a 2012 regional market assessment commissioned by the Energy Community Secretariat (ECS)[19] across the six countries. (The assessment calculated the average payback for EE investments to be 6.4 years.)

Another reason is that the municipalities do not employ proper energy accounting—measuring energy consumption and related energy cost at the level of individual buildings or specific public services—because it is not mandatory to do so in any of the six countries.

Energy accounting could help identify the biggest energy losses in municipal buildings and motivate local decision makers to focus on improving EE in those buildings that would provide the highest energy saving potential and the shortest payback periods. Proper energy accounting could illustrate to local politicians (i) the relatively high share of energy costs in the budgets for these specific services and (ii) the potential for budgetary savings, helping to motivate them to invest in improving EE in these buildings.

A final reason for the municipalities' lack of interest in EE is that the process of fiscal decentralization has not sufficiently progressed in the region. In Macedonia, for example, although many municipalities have jurisdiction over the elementary schools, they are not yet responsible for the schools' financial obligations, including the cost of the electricity, heating, and water being provided by the national authorities. The region's Ministries of Finance transfer funds to the Ministries of Education, which in turn transfer budgets to municipalities, which then provide funds to the schools to cover these costs. Funds for capital improvements are typically not included in these transfers, so any EE investments in the schools would have to be made by the municipalities themselves.

Because they are not directly paying the energy bills, then, the municipalities see little benefit in investing in EE for schools.[20] However, if schools received budgets based on the number of students, they would be able to retain operating cost savings from EE and other measures, providing a clear incentive to be more energy efficient.

In those rare cases where a well-informed administration or a motivated mayor in the region is aware of the potential economic benefits of EE investments in schools or hospitals, they usually lack access to an appropriate financial mechanism within their municipal budget that would allow for the direct amortization (payback) of EE investments from the achieved energy cost savings.[21]

2.3 Key barriers for EE investments in public buildings resulting from municipal budgeting and financing practices

In its interim report dated September 2013,[22] the World Bank identified four major barriers for EE investments in public buildings that are related to municipal financing and budgeting rules and procedures:

- *A one-year budgeting process* that prevents municipalities from amortizing the current year's EE investments through future energy savings.
- *Separate accounts for capital and operating expenditures* makes EE investments (which are considered capital expenditures) difficult to repay using energy cost savings (considered operating expenses).

[19] Quoted with reference to World Bank: *Scaling Up Energy Efficiency in Buildings in the Western Balkans* (Interim Report), September 2013.

[20] T. Milchevski and M. Stojanovik, "Financing municipal energy efficiency in Macedonia." http://web.worldbank.org/archive/website01354/WEB/IMAGES/TODORMIL.PDF.

[21] Results of many stakeholder consultations performed by NALAS and its experts during the past five years.

[22] World Bank, *Scaling Up Energy Efficiency in Buildings in the Western Balkans* (Interim Report), September 2013.

- *Line-item budgeting* prevents municipalities from using money budgeted for paying energy bills for the repayment of loans for EE investments instead.
- There is a *lack of budgetary provisions for retaining energy cost savings in future years* to repay any debts incurred.

Additional barriers identified by the NALAS team of experts include:

- The *short-term perspectives of local political decision makers* makes EE investments, which often have payback periods longer than five years, less attractive.
- *Municipalities' lack of budget autonomy* prevents them from investing in EE if this is not in line with central government priorities.
- National laws impose *social costs* on municipal budgets.
- There are *limitations on local borrowing*.

A One-Year Budgeting Process and Retention of Energy Savings

In Albania, Montenegro, and Serbia, municipalities lack reserves or other means to carry over budget provisions from one year to the next. They must balance their annual expenditures with revenues received in the same budget year, or by means of loans taken from financing institutes in the same year. Municipal budget rules do not provide for any internal accounting mechanism that would allow for the direct amortization of one year's investments using the next years' additional revenues or energy savings. This applies also for EE investments in municipal public buildings.

When municipalities depend on state budgets for their operational budgets,[23] future energy savings would result in a deduction from their operational budgets, and the saved energy cost cannot be used for other local purposes—creating a huge disincentive to save energy.

A Medium-Term Expenditure Framework (MTEF) could help to establish a medium-term perspective in public investment plans. MTEFs are currently used at the national level in all EU member states as well as in Bosnia and Herzegovina, Kosovo, and Macedonia—but not in Albania, Montenegro, and Serbia. However, even those cases where an MTEF is established at the local level, EE is not yet included as an investment priority.[24]

Separate Accounts for Capital and Operating Expenditures

It is common practice in municipal budgeting all over Europe to separate the accounts for operating expenditures (such as salaries, goods and services, and fees) from those for capital expenditures (such as investments, reserves, and loans). Where local authorities have full local budget autonomy—as in Germany, for example—they may in their budget plans foresee the transfer of a surplus from their operating budget to their capital budget, and vice-versa.

This is impossible where local authorities have limited budget autonomy—particularly in countries like Albania, Bosnia and Herzegovina, Kosovo, Macedonia, and Serbia, where municipalities depend on state transfers for both capital and operating budgets. If EE investments generate savings on a municipality's energy bill, the saved operating funds may remain unused if they cannot be transferred to the capital budget (which would require prior national government approval). Further, the saved amount is usually deducted from the operating budget approved by the national government in future years, since budgets are often based on the prior year's actual expenditures.

[23] Compare NALAS: *Fiscal Decentralization Indicators*.
[24] Information sources: ZELS, AKM, SCTM, UOM.

Line-Item Budgeting

The use of standard line-item budgeting means that the amount set aside in a municipality's budget to pay energy bills (measured, for example, in cost per liter, cubic meter, ton, or kWh of purchased energy) usually cannot be used for other purposes—in particular if it is taken from state subsidies.

This creates a high uncertainty among local decision makers (as reported, for example, in BiH and Macedonia[25]) as to whether and how they can use this money to procure EE services instead of purchase energy.

This is independent from the question of whether energy supply is organized by the municipality itself, or one of its public utilities, or any other third party.

Short-Term Perspective of Local Political Decision Makers

The office term of mayors and councils in the Western Balkans ranges from three years (Albania) to four years (Bosnia and Herzegovina, Kosovo, Macedonia, and Serbia) to five years (Montenegro). The elected politicians are usually focused on the creation of visible and tangible improvements for their voters within their office term, to improve their chances of being reelected. Therefore, 6-8 year payback periods for EE investments, as presented in the ECS average calculated for hospitals and schools in the Western Balkans, are usually not compatible with the investment horizons of local politicians.

Lack of Municipal Budget Autonomy

State government control of municipal budgets is high in the region's six countries. In each country the national government must regularly approve investment budgets, and then provide the municipalities with some or all of the necessary investment funds from the national budget. While this does not necessarily constitute a barrier for EE investments, per se, it does mean that the municipal priorities must align with those of the national government which creates some unpredictability for budget planning purposes. In cases where a national government does not place a high priority on EE investments and building refurbishment, particularly when compared with other investment needs, such investment proposals may run the risk of being rejected by the Ministry of Finance. Loans taken by municipalities are also usually subject to national government approval.

Mandatory social cost incurred on municipalities imposing additional restrictions on local budget autonomy

The more the budgetary autonomy of municipalities is restricted by nationally mandated expenditures, the less financial means are available from the municipal budget for EE investments. In some Western Balkans countries, municipal decision making is further restricted by mandatory expenditures imposed on them by national law.[26] This has a strong influence on the structure of local expenditures. In Kosovo, where municipalities must pay the full cost of preschools, primary schools, secondary schools, and primary health clinics, wages and salaries consume 59 percent of overall municipal expenditures. By contrast, in Montenegro, where the cost of schools and hospitals are paid by the central government, the share of wages and salaries in the municipal budgets is only 18 percent.[27]

[25] Result of a series of intensive stakeholder consultations performed by NALAS in Bosnia and Herzegovina, Macedonia, and Ukraine during 2010–13.
[26] NALAS: *Fiscal Decentralization Indicators,* 20.
[27] NALAS: *Fiscal Decentralization Indicators,* 20.

Limitations on local borrowing

Most of the municipalities in the six countries have borrowing restrictions, are not creditworthy, or have limited access to credit. Those that are able to borrow often have debt levels near or at their legal limitations for municipal borrowing. Debt limits are defined by law for municipalities in each of the six countries.

In Kosovo, for example, most municipalities are simply not allowed to borrow from commercial banks. This is because municipalities in Kosovo may not incur any debt unless they have received unqualified audit opinions from the Office of the Auditor General as part of the mandatory annual audits for at least the previous two years. Only two municipalities, Pristina and Prizren, met this condition in 2012.[28]

An overview of debt limits for municipalities in the six countries is given in **Error! Reference source not found.**. Others may not be deemed creditworthy by commercial lenders due to their heavy reliance on state transfers, less certain conditional grants, lack of borrowing histories or underdeveloped bookkeeping practices.

Table 1. Legal Limitations on Municipal Borrowing

Limitation	Albania	RS, BiH	FBiH, BiH	Kosovo	Macedonia	Montenegro	Serbia
Maximum ratio of debt to budget revenues[29]							50%
Maximum ratio of debt service to budget revenues[30]		18%	10%	10%	30%	10%[a]	15%
Maximum ratio of net operating revenues to total debt service[31]	1.4						

Source: NALAS, *Fiscal Decentralization Indicators.*
Note: BiH = Bosnia and Herzegovina. RS = Republika Srpska (entity of Bosnia and Herzegovina). FBiH= Federation of Bosnia and Herzegovina (entity of Bosnia and Herzegovina).
a. 10 percent of realized current revenues.

Even in cases where a municipality is creditworthy, new loans are in most cases subject to national government approval in terms of both purpose and amount. Other municipalities have expressed reluctance to borrow from commercial banks for reasons including perceptions of very high interest rates, onerous documentation requirements, and difficulties with providing appropriate collateral.[32]

Experience shows that national governments that do not accord a high priority to EE investment—as is the case in all six Western Balkans countries—tend to approve municipal loans only for investments in tangible public service infrastructure, such as roads or wastewater treatment plants, rather than for investments in EE improvements in municipal buildings.[33]

[28] Eptisa, *National Building Energy Efficiency Study for Kosovo* (2013).
[29] Debt from all sources, including loan guarantees issued by the municipality.
[30] *Debt service* is the sum of the repayments of principal and interest.
[31] A ratio of net operating revenues to total debt service (interest plus principal payments) of less than 1 would indicate that a municipality is not be able pay for its debts repayments and interest rates.
[32] Information provided by SCTM, UOM, AKM, SOGFBiH, ZELS, and AAM.
[33] Wilhelm, B. et.al.: *NALAS Study on EE Measures in South-East European Municipalities and the Role of National Associations – a Study of NALAS Task Force Energy Efficiency in cooperation with NALAS Member Associations and the GTZ Open Regional Fund Energy*, May 2010.

3. Potential Solutions Derived from International Experience

The barriers to EE investment in municipal buildings described in Section 2 can be grouped into three "action areas":

- Barriers related to political investment priorities
- Barriers related to municipal budgeting and accounting rules and requirements
- Barriers related to financial restrictions in the municipal funds available for EE investments in municipal public buildings

International experience suggests potential ways to overcome barriers in to all three areas. Table 2 (see next page) summarizes these potential solutions, and the remainder of Section 3 provides concise explanations of some of the major issues. Recommendations are focused on small, incremental adjustments to existing rules and procedures rather than those that would require substantial changes in the municipal budgeting systems.[34]

Municipal EE Action Plans (MEEAPs) and Sustainable Energy Action Plans (SEAPs)

MEEAPs—as required by EE laws in Albania, Kosovo, and Macedonia[35]—are similar to the concept of SEAPs promoted by the Covenant of Mayors in Europe, although SEAPs are voluntary. The Covenant of Mayors—a movement led by Energy Cities, the European Association of local authorities in energy transition—has been signed by 5,500 European municipalities so far, including one from Albania, 15 from Bosnia and Herzegovina, two from Macedonia, three from Montenegro, and two from Serbia.[36] Through a number of projects, international donors are providing municipalities in all six Western Balkan countries with technical assistance and capacity development services to help them develop MEEAPs and SEAPs.[37]

Each MEEAP or SEAP approved by a local council includes a prioritized list of EE and renewable energy projects; this list then provides a basis for negotiations with national government as well as with the private sector and with IFIs. The first SEAPs were approved by cities in Bosnia and Herzegovina in 2012 and 2013. Some of these cities—Zenica, for example—managed to begin implementing the first projects as soon as their SEAPs were approved. However, in most cities that have developed SEAPs or MEEAPs, implementation has not occurred due to a lack of both internal capacity and access to budget or loan funds.[38]

[34] As the total energy saving potential of municipal local buildings is usually in the range of 1 to 3 percent of the total municipal budget, it is not expected that tackling these energy saving potentials, or a part of it, would be accepted by national governments as rationale for proposals changing the entire budget regime of municipalities.

[35] Information source: NALAS, *EE Measures*, 12.

[36] http://www.covenantofmayors.eu/about/signatories_en.html.

[37] For example, GIZ has Open Regional Funds addressing EE in all six countries, and bilateral projects are particularly active in Serbia as well as Bosnia and Herzegovina. See http://www.giz.de/fachexpertise/downloads/giz2013-en-flyer-energieeffizienz.pdf.

[38] Information provided by AAM, SCTM, UOM, ZELS, and SOGFBiH.

Table 1. International Solutions for Overcoming Barriers to EE Investments in Municipal Buildings

Action Areas	Barriers	Potential solutions
Political investment priorities	Low priority of EE in municipal investment plans	• Obligations to develop and implement Municipal EE Action Plans (MEEAPs) or Sustainable Energy Action Plans (SEAPs) • Conditional budgetary/grant transfers from MOFs for EE • Public ranking of municipal EE performance (Ukraine) • Use of energy service agreements (ESAs) or ESCO contracts where EE investments can be financed off-budget (Armenia)
	Lack of political awareness of potential for major energy savings in municipalities	• Introduction of energy accounting and energy management systems in municipalities (Germany) • EE benchmarking of public facilities (e.g., ESMAP's TRACE) • Information dissemination and awareness raising • Appointment of energy managers, use of universal metering • Penalties for the wasteful use of energy
Budgeting and accounting rules and requirements	Conditional state subsidies	• Integration of municipalities as privileged beneficiaries of national EE Fund schemes
	Centralized budget control	• Fiscal decentralization • Increased local revenue sources
	One-year budgeting preventing multi-year contracting	• Integration of EE investments into Medium-Term Expenditure Frameworks (MTEFs) with rolling three-year budgetary plans (EU) • Reclassifying EE investments as utility services, where long-term contracts are implicitly allowed
	Line-item budgeting	• Performance-based budgeting • MOF exemptions on project basis for EE/ESCO projects (Armenia, India) • Changes to budgeting rules for EE and other cost-saving measures (Germany, United States) • Energy service agreements (Armenia, Macedonia – proposed) • Utility on-bill financing, allowing bundling of energy and energy savings payments (United States)
Financial constraints	Lack of municipalities' own investment funds	• EE revolving funds (Bulgaria, Romania, United Kingdom) • National support for municipal EE programs • Third party financing/leasing, including ESCO models mobilizing private capital (Czech Republic) • Credit lines • Conditional budgetary/grant transfers from MOF • Accelerate fiscal decentralization—allowing greater budgetary flows to, and autonomy for, municipalities
	Limitations for local borrowing	• Exclusion of energy service performance contract (EPSC) repayments from public debt • Energy service agreements (Armenia, Macedonia—proposed) • Accelerate fiscal decentralization • Allowing municipalities greater autonomy in borrowing without MOF approval
	Lack of creditworthiness	• Loan guarantees and risk-sharing facilities (Hungary) • Development of municipal shadow credit ratings (informal credit ratings where formal ones do not exist) • Initial use of public financing (e.g., EE Fund) to establish credit history • MOF budget capture for municipal loans (Mexico, RS in BiH) • Strengthening of municipal bookkeeping
	Limited collateral for commercial bank loans	• Pledging of future revenues and assets against debt • Increased use of escrow and other reserve accounts
	High transaction costs	• Grants for energy audits • Bundling of public facilities at municipal level • Bundling of public projects through ESCOs • Standardization of documentation and procedures

Conditional budgetary/grant transfers from MOF / National support programs for EE in municipalities / Integration of municipalities as privileged beneficiaries into national EE Fund schemes / Credit lines / Conditional budgetary/grant transfers from MOF

Motivated by the EU's climate protection targets, the German government is offering specific grants and subsidies to German municipalities. Since 2008, it has supported more than 2,500 municipal projects. As of 2014, the program is focusing on, among other things, investments in the rehabilitation of lighting (30 percent of subsidies) and ventilation systems (25 percent) in public buildings. In the past, the rehabilitation of kindergartens and schools (65 percent of subsidies) has been another focus of the project, initiating investments all over the country.[39] The driving forces for this program have been both the national German priority on climate change issues and the political will to create public investments in order to avoid negative effects of the European financial crisis on the German economy.[40]

In addition to these grants and subsidies, the German Climate Initiative, which is carried out through the Kreditanstalt für Wiederaufbau (KfW), makes EE-related concessional loans to German municipalities for the rehabilitation of street lights, water supply and wastewater treatment facilities, and buildings. It does not require collateral.[41]

The transfer of similar programs to the Western Balkans usually depends on the availability of funding from IFIs such as the World Bank, EIB, EBRD, and other donors, including the use of EU-IPA funds. The potential for implementing future loan programs, if any, for EE in municipal public buildings must be assessed in the light of existing restrictions on municipal loans (see above) as well as potential limitations on national public. Macedonia recently announced that it will establish an EE revolving fund and provide municipalities with ESAs that will not count against their public debt; this is a good example of how other countries in the region could address some of these challenges.

Grants for energy audits / local energy action plans

In Germany and the Czech Republic, the provision of grants for municipal energy audits and plans is a major component in the framework of national EE support schemes for municipalities (see above). The energy audits are necessary to create reliable information concerning actual energy saving potentials in buildings; identify suitable measures to address these issues; and provide cash flow estimates for use by lenders.[42] In the Western Balkans, grants for energy audits and local energy planning are provided so far only by international donors in the context of demonstration and capacity-building programs. Over the long term, this will not be sufficient to substitute for national support programs, which must be developed by local municipalities—for example, on the basis of mandatory provision made in the national EE Laws.

Information and awareness raising / EE benchmarking of public facilities / public ranking of municipal EE performance

Experience from the EU over the past two decades[43] indicates that information and public and political awareness of the needs and potential for improving EE in municipal public buildings has always been the first step towards making actual investments.

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[39] Service Center "Kommunaler Klimaschutz." http://kommunen.klimaschutz.de/foerderung/kommunalrichtlinie/auf-einen-blick.html.

[40] http://www.energieeffiziente-kommune.de.

[41] https://www.kfw.de/KfW-Konzern/Service/Download-Center/Förderprogramme-(Inlandsf.)-(D-EN)/Barrierefreie-Dokumente/IKK-Quartiersversorgung-(201)-Merkblatt/index.html.

[42] Service Center "Kommunaler Klimaschutz." http://kommunen.klimaschutz.de/foerderung/kommunalrichtlinie/auf-einen-blick.html.

[43] The author of this report has for more than 25 years been involved in the "Rational Use of Energy" programs of the European Commission as well as a number of international cooperation projects promoting EE in municipalities in Europe and abroad.

In the United States, the government-backed ENERGY STAR program follows this logic when offering tools for benchmarking EE in individual buildings. San Francisco, Seattle, and an increasing number of other cities have joined this initiative and started their own local energy benchmarking campaigns for public and private buildings.[44]

The ESMAP Tool for Rapid Assessment of City Energy (TRACE) is a decision-support tool designed to help cities quickly identify under-performing sectors, evaluate improvement and cost-saving potential, and prioritize sectors and actions for EE intervention. It covers municipal buildings as one of six sectors and consists of three modules: (i) an energy benchmarking module, which compares key performance indicators (KPIs) among peer cities; (ii) a sector prioritization module, which identifies sectors that offer the greatest potential with respect to energy-cost savings; and (iii) an intervention selection module, which functions like a "playbook" of tried-and-tested EE measures and helps select locally appropriate EE interventions.[45] As of the end of 2013, TRACE had been deployed in 25 cities in Africa, Asia, Eastern Europe, and Latin America.[46]

GIZ also promotes municipal EE benchmarking in Ukraine in cooperation with the Union of Energy Efficiency Cities in that country. A commercial tool developed by a Ukrainian engineering company has been introduced to provide municipalities with information on energy use.[47]

The European Energy Award (EEA) tries to create a competitive environment for local decision makers in which they can qualify with their municipalities as "Members," "Members with Distinction," or "Gold Members." Begun in Austria, France, Germany, Italy, and Luxembourg, Monaco, and Switzerland, the EEA is now being piloted in Hungary, Morocco, Romania, and Ukraine. [48] (In Ukraine it will be supported by the Swiss Development Cooperation (SDC) in cooperation with GIZ.)

Use of Energy Supply Agreements (ESA) / Energy Service Company (ESCO) model

Energy supply agreements (ESAs) are described in detail in a separate guidance note on EE revolving funds.[49] Simply put, an ESA allows a municipality to make "baseline" energy payments equivalent to its existing energy expenditures into an escrow account; energy bills are then repaid from this account, with the balance going to the financier of the EE project, such as an EERF or ESCO. This allows the baseline energy budget to be more easily secured so that it cannot be reduced in later years; further, ESAs have generally been classified as a long-term service agreement and not municipal debt.

The ESCO model is another important instrument for promoting EE in municipal public buildings. It has been used to encourage private sector participation in the financing of investments in EE of municipal public buildings in Germany, Denmark, Austria, Slovenia, and the Netherlands.

In the past few years, several Western Balkans countries have developed the legal framework necessary to implement the ESCO model. Municipalities may now use ESCO contracts in Albania, Montenegro, and Serbia (since 2013), independent from whether the ESCO is a private enterprise, another public body, or a municipality's own utility.[50] In Bosnia and Herzegovina and

[44] https://www.energystar.gov.
[45] http://esmap.org/TRACE.
[46] ESMAP: *Annual Report 2013*, 48. See also http://esmap.org/TRACE.
[47] GIZ project on EE in Municipalities in the Ukraine, started in 2013.
[48] http://www.european-energy-award.de/european-energy-award/award.
[49] Dilip Limaye, Jas Singh, and Kathrin Hofer, "Establishing and Operationalizing an Energy Efficiency Revolving Fund" (World Bank guidance note, forthcoming).
[50] Information provided by SCTM and UOM.

Macedonia, such a framework is not yet in place.[51] In Kosovo there are no legal barriers preventing municipalities from concluding ESCO contracts, but developing a reliable calculation of ESCO fees on the basis of achieved energy savings is seen by the municipalities as a major challenge.[52] A variety of donor projects in the region are helping to develop adapted ESCO models, such as a model contracts for dissemination and replication.[53] However, in these countries it remains difficult to establish ESCOs with balance sheets large enough to finance long-term municipal EE projects.

Introduction of energy accounting and energy management systems (EMS) in municipalities / appointment of energy managers, universal metering

The USAID-financed Municipal Network on Energy Efficiency (MUNEE) in Southeast and Eastern Europe has developed a standard methodology, including a software tool,[54] for introducing energy accounting and energy management system (EMS) to municipalities.[55] Because the biggest technical problem impeding the establishment of proper energy accounting is the lack of metered energy consumption data, a local metering campaign is therefore usually the starting point of any campaign for the introduction of municipal EMS.

Typically, a precondition of a successful EMS is the appointment of a municipal energy manager (or, in bigger cities, of an energy management unit) within the public administration. Although energy managers are required in some of the region's countries, EMSs are not mandatory in any of the six countries so far. However, more and more of the cities joining the Covenant of Mayors are considering establishing an internal working group, or similar, on energy management on a voluntary basis in their administrations.

Role models for the establishment and operation of local EMSs can be found in all EU member states. The existing EE networks municipalities in Southeast Europe (such as the NALAS Task Force on Energy Efficiency, MUNEE, Energy Cities, and the Covenant of Mayors East) can help establish bilateral exchange of know-how and experience between cities in the Western Balkans and cities using EMS in other European countries.

Fiscal decentralization / Accelerate fiscal decentralization—allowing greater budgetary flows to, and autonomy for, municipalities

Although fiscal decentralization has begun in all six countries, progress has been slow and variable among countries. NALAS, a major stakeholder in fiscal decentralization in South-East Europe, publishes monitoring reports on fiscal decentralization in the region every 2–3 years.[56]

Because EE in municipalities is not yet a major concern for local governments, it is not a driver of further fiscal decentralization. It may benefit, however, if the trend leads to greater municipal freedom regarding the transfer of funds between operating and capital expenditure budgets, the acquisition of loans for EE investments, and the conclusion of long-term ESCO contracts.

Performance-Based Budgeting

Performance-based budgeting is a way to allocate resources to achieve specific objectives based on program goals and measured results (such as the number of students in schools, or the number of medical treatments in hospitals). In the United States, for example, most federal agencies in the

[51] Information provided by SOGFBiH and ZELS.
[52] Information provided by UOM.
[53] E.g., UNECE Programme Financing Energy Efficiency and Renewable Energy Investments for Climate Change Mitigation.
[54] Energy accounting software ASE 2.3.
[55] http://www.munee.org/node/32.
[56] See NALAS, *Fiscal Decentralization Indicators*, various years.

United States and many local governments (> 25 states, and over 100 cities or counties) currently use a performance-based budgeting approach.

According to a survey performed by the U.S. Governmental Accounting Standards Board, more than 50 percent of all respondents (state and local officials) indicated that the implementation of performance measures had increased the efficiency and effectiveness of their various governmental programs.[57]

Reduction of high transaction costs / Bundling of public facilities at municipal level / Bundling of public projects through ESCOs

In Austria, Denmark, Germany, and other countries where the development of the ESCO market started one or two decades ago, the bundling of public facilities for ESCO contracts is common, particularly in large municipalities owning sufficient number of buildings themselves. The City of Berlin, for example, has been implementing the ESCO model since 1996. In more than 500 properties with more than 1,300 public buildings—including the Rotes Rathaus (Berlin's town hall), public swimming pools, and the Deutsche Opera—existing energy saving potentials are tapped in this way. This allows Berlin to achieve its climate-protection and energy-policy goals even with a tight budget, saving money at the same time. Both innovative and standardized technical solutions are implemented. The average energy savings in Berlin's 25 energy saving partnership pools is 26 percent.[58]

To achieve similar economics of scale, most of the municipalities in the Western Balkans would have to form a joint project pool with their neighboring municipalities. This would require inter-municipal cooperation—which, in the facility management sector, would be new for most of the potential partner municipalities. Bundling similar types of facilities, such as schools or street lighting, could also result in lower prices from service and equipment suppliers.

4. Lessons Learned

- Although the relative share (in percent) of investments in municipal spending is higher in the Western Balkans than in the average of EU27 member states, the amount of available investment funds (in euros, per capita) is much lower.
- In 2012, the current available municipal investment funds per capita (in euros) in five of the region's six countries ranged from 9 percent (Kosovo) to 18 percent (Macedonia) of the average of available investment funds in the EU27. Only in Montenegro was this somewhat higher: the municipal investment funds spent per capita in 2012 reached 43 percent of the EU27 average.
- In all six countries, the small municipal investment budgets are usually earmarked for investments in tangible public service infrastructure, rather than for EE investments in public buildings.
- EE investments in public buildings are usually not a high priority for local government officials. The major reason for this is the lack of information and awareness of local decision makers regarding the need and economic potential for improving EE in municipal public buildings; this is urgently needed.
- Further fiscal decentralization, while giving municipalities greater budget autonomy, will not necessarily make EE investments in public buildings a higher priority for local governments deciding how to spend their limited investment budgets.

[57] Jeremy Carter: "Performance-Based Budgeting: Interpretations and Best Practices." Presentation to the 2012 PPMRN Conference.
[58] http://www.berliner-e-agentur.de/en/topics/energy-performance-contracting.

- Municipal energy planning can be an important means of improving EE in municipal public buildings; its application is supported by national EE Laws.
- Implementing EE measures identified in MEEAPs or SEAPs for municipal public buildings requires financial support either from the national government or from the private sector in the form of ESCOs.
- A legal framework that allows municipalities to establish long-term contracts with ESCOs is in place in four of the six countries, with Bosnia and Herzegovina and Macedonia being the exceptions. The development and implementation of ESCO projects are now impeded by the local municipalities' lack of relevant capacity. Both municipalities and potential ESCOs lack experience and trust in long-term cooperation.

5. Roadmap for Scaling Up EE in Public Buildings in the Western Balkans

It is recommended that the governments of the Western Balkans scale up EE in their public buildings by following a "roadmap" containing the milestones shown in Table 3.

Further development and implementation of this roadmap should be based on a broad consensus among the six national governments, local authorities and their associations, and the international donor community. It should be reviewed and updated on an annual or similar basis.

Table 3. Roadmap, Including Recommended Milestones, Supporting the Scaling-Up of EE in Public Buildings

Milestone	National government level	Local government level	International support

1. Implementation of EE measures as criterion for allocating national investment funds ("conditional subsidies").	• Adaptation and publication of revised criteria for conditional subsidies including EE improvements as a criterion	• Lobbying for the inclusion of EE in the award criteria for conditional subsidies
		• Assessment of expected EE effects for all planned investments and revision of the investment priorities according to expected EE effects
			• Policy advice at the national and local levels
			• Technical assistance at the local level:
			  ○ Introduction of appropriate methods and tools (e.g., ESMAP TRACE)
			  ○ Training and capacity building
			  ○ Demonstrations

2. Earmarking of funds provided through national EE funds for municipalities	• Establishment of national EE Revolving Funds for municipalities
	• Definition of funding criteria compatible with actual need and potential, respecting the financial constraints of local government
	• Adoption of MTEFs and revised budgeting to prevent disincentives for EE investments by municipalities
	• Acceleration of fiscal decentralization
		• Lobbying for the establishment of a national EE Fund and for the privileged inclusion of municipalities in the beneficiaries of the Funds
		• Development and submission of EE investment measures compatible with the funding criteria of the EE Fund
			• Policy advice at the national and local levels
			• Technical advice at the national level for the establishment and management of national EE Funds (preferred in the form of revolving funds)
			• Financial support for the establishment of EE Funds
			• Technical assistance at the local level:
			  ○ Introduction of appropriate methods and tools
			  ○ Training and capacity building

3. Establishment of specific national support programs for EE in municipalities	• Development of support programs (grants and loans) for the promotion of EE in municipalities in cooperation with commercial banks and IFIs
	• Inclusion of municipalities as beneficiaries of EE Funds
	• Definition of funding criteria compatible with actual need and potential, respecting the financial constraints of local government
	• Adjustment of procurement rules to facilitate ESCO contracting and purchase of EE equipment
		• Lobbying for the establishment of a national EE Fund and for the privileged inclusion of municipalities in the beneficiaries of the Funds
		• Development and submission of EE investment measures compatible with the funding criteria of the EE Fund
			• Policy advice at the national and local levels
			• Technical advice at the national level for the establishment and management of national EE Funds (preferred in the form of revolving funds)
			• Financial support for EE Support programs (risk-sharing, guarantees, loans, etc.)
			• Negotiation of conditions and terms and conclusion of contracts with national governments and banks
			• Technical assistance at the local level:
			  ○ Introduction of appropriate methods and tools
			  ○ Training and capacity building

4. Development, implementation, monitoring, and regular updating of local EE action plans (MEEAPs and SEAPs)	• Enforcement of the obligation of municipalities, in those countries where appropriate, to develop and implement municipal energy action plans
	• Provision of financial support for the development of MEEAPs
		• Development and implementation of local MEEAPS (metering campaign, energy consumption baseline studies, energy saving objectives and targets, project pipeline, investment priorities, action planning, etc.)	• Technical assistance at the local level:
			  ○ Introduction of appropriate methods and tools
			  ○ Training and capacity building

Milestone	National government level	Local government level	International support

5. Introduction of energy accounting in municipal budgeting and finance	• Publishing of high and low municipal performers in terms of EE
	• Benchmarking of key municipal services to identify areas for improvement
		• Introduction of local energy accounting systems and procedures	• Technical assistance at the local level:
			  ○ Introduction of appropriate methods and tools
			  ○ Training and capacity building
			• Financial support at the local level:
			  ○ Subsidies for the procurement and installation of energy meters and computer hardware

6. Establishment of national grant programs supporting the development of local energy action plans and energy audits in municipal buildings	• Launching an energy auditing program for municipal public buildings that provides grants for implementing energy audits	• Implementation of energy audits in municipal public buildings	• Technical and financial support to the national government for the setting up and implementation of a national grant program
			• Technical assistance at the local level:
			  ○ Introduction of appropriate methods and tools
			  ○ Training and capacity building

7. Establishment of national support programs for the introduction of energy management systems in municipalities	• Establishment of national support programs	• Development of local capacity for the performance of energy audits in public building and for the development and implementation of local energy action plans
		• Establishment of local energy management system
			• Technical and financial support to the national government for the setting up and implementation of a national support program
			• Technical assistance at the local level:
			  ○ Capacity development
			  ○ Technical advice

8. Establishment of national support programs for the setup and implementation of ESCO models in municipal public buildings and services	• Establishment of national support programs
	• Risk-sharing facilities
	• Guarantees
		• Selection and pooling of public buildings for ESCO projects
		• Specification of the scope of ESCO services
		• Tendering of ESCO projects
		• Implementation and monitoring of ESCO contracts
			• Financial assistance:
			  ○ Guarantees, risk-sharing facilities, loan programs for ESCOs
			• Technical assistance:
			  ○ Expert advice
			  ○ Local capacity development

9. Improvement of the ability of municipalities to access credit	• Fiscal decentralization • Credit lines • EERFs • Shadow credit ratings	• Lobbying for the further promotion of fiscal decentralization	• Technical and financial assistance to national governments for the establishment of credit lines and EERF

References

Albania 2013 Progress Report: Communication from the Commission to the European Parliament and the Council: Enlargement Strategy and Main Challenges 2013-2014 (2013).

Austrian Federal Ministry of Finance, *The Austrian Federal Budget Reform* (2011).

Black Sea Energy Research Centre, www.bserc.eu

CIA. *CIA Factbook.*

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) – Open Regional Fund for South-East Europe (ORF) Energy Efficiency. *Preliminary Report on Implementation of the First National Energy Efficiency Action Plan for 2011 in Bosnia and Herzegovina* (2012).

Energy Agency of the Republic of Serbia website: http://www.aers.rs/Index.asp?l=1&a=21.05&tp=TarifeEE.

Eptisa. *National Building Energy Efficiency Study for Kosovo* (2013).

Eurostat website: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Energy_price_statistics.

Government of the Republic of Serbia. *Fiscal Strategy for 2014 with Projections for 2015 and 2016* (2014).

Kasek, L. and D. Webber, eds. *Performance-Based Budgeting and Medium-Term Expenditure Frameworks in Emerging Europe* (World Bank, 2009).

Milchevski, T., and M. Stojanovik. *Financing municipal energy efficiency in Macedonia* (World Bank) (undated). http://web.worldbank.org/archive/website01354/WEB/IMAGES/TODORMIL.PDF.

Ministry of Economy of Macedonia. *National Program for Energy Efficiency in Public Buildings in the Republic of Macedonia until 2019 (Phase 1)* (February 2013).

Ministry of Finance of Serbia. *Debt statistics* (January 2014).

NALAS. *Fiscal Decentralization Indicators for South-East Europe: 2006-2012* (3rd edition, April 2014).

National Bank of Serbia. *Analysis of the Republic of Serbia's Debt* (March 2012).

Novović, T. *Report on assessment of capacities for budgeting at the local level in Montenegro* (2011).

Power, A. and M. Zulauf. *Cutting Carbon Costs: Learning from Germany's Energy Saving Program* (London School of Economics, 2011).

Republic of Kosovo. *Law on public debt* (2009).

Republic of Macedonia. *First National EE Action Plan 2010-2018.*

Republic of Serbia. *Report on Implementation of the First National Energy Efficiency Action Plan in the Period 2010-2011* (June 2012).

Rakocevic, Lucija, and Igor Kovacevic. *Case Study: Montenegro. An Analysis of the Policy Reform Impact on Energy Performance in Buildings* (2012).

Republic of Serbia. *The First Energy Efficiency Plan of the Republic of Serbia for the Period from 2010 to 2012.*

Statistical Office of the Republic of Serbia. *Statistical yearbook of the Republic of Serbia 2012.*

Steger, Gerhard. "Budget Reform in Austria: From traditional to modern budgeting." *Presupeusto y Gasto Publico* 69/2012: 147–62.

UNECE: *Development of energy service companies market and policies* (2013).

WBiF. *Financing Energy Efficiency Investments in the Western Balkans*. (2013)

World Bank: *Scaling Up Energy Efficiency in Buildings in the Western Balkans* (Interim Report, September 2013).


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