



Republic of Serbia
**MINISTRY OF MINING AND
ENERGY**

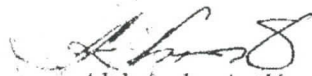
No 119-01-56/2016-06
Date: 14th January 2020
22-26 Nemanjina street
Belgrade

Dear Mr. Kopač,

Concerning the Decision of the Ministerial Council of the Energy Community D/2015/08/MC-EnC of 16 October 2015, please find enclosed hereto the Notification of the Republic of Serbia on the implementation of Article 7 of Directive 2012/27/EU on energy efficiency.

Yours sincerely,

MINISTER



Aleksandar Antić

Ec: Article 7 Notification of the Republic of Serbia

Energy Community Secretariat
Mr. Janez Kopač, Director
Am Hof 4
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AUSTRIA

Article 7 Notification of the Republic of Serbia

Introduction

In accordance with decision of the Ministerial Council No. D/2015/08/MC-EnC of 15 October 2015, Republic of Serbia has undertaken obligation of implementation of article 7. of the Directive 2012/27/EU¹ on Energy Efficiency (“EED”) as transposed for the Energy Community. This document is prepared in order to notify Secretariat of Energy Community on the implementation of Article 7 of EED. The document was prepared with the support of EBRD REEP project.

Notification is structured as follows:

- o *Section A1* of the document provides a description of the calculation of the Article 7 target as well as a summary of the energy savings expected from a set of core policy measures expected to be sufficient to meet the target.
- o *Section A2* describes these core policy measures, expected to be sufficient for achieving the Article 7 target for Serbia, in the terms required by Annex V Paragraph 4 of the EED.
- o *Section A3* then provides a brief summary of further savings expected from other ongoing and planned policy measures which are considered eligible to contribute towards the Article 7 target.

A1 Article 7 target and policy measures

A1.1 Derivation of Article 7 target for Serbia

Energy Balance data

The end-use energy savings target of Article 7 as transposed for Energy Community countries is based upon the average annual final energy sales for the three years prior to 1 January 2016. Table 1 uses final energy consumption data from the Energy Balance, of Republic of Serbia, according to Eurostat, over this period as the best available estimation of final energy sales.

¹ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC

Table 1 Average annual final energy consumption of Republic of Serbia 2013-15 (ktoe)

Sector	Solid fuels	Oils	Gas	RES	Heat	Electricity	Total
Industry	350	371	557	154	234	621	2,286
Transport	-	2,021	8	-	-	33	2,063
Residential	186	60	156	833	379	1,204	2,817
Services	69	66	115	44	73	412	779
Agriculture	-	113	19	7	-	26	165
Total	605	2,631	855	1,038	685	2,297	8,109

Source: Eurostat, <http://ec.europa.eu/eurostat/web/energy/data/energy-balances>

Excluding Transport

Article 7 Paragraph 1 allows transport consumption to be partially or fully excluded from calculation of the target. It is noted that even where transport consumption is subtracted from the calculation of the target, energy savings derived through energy efficiency measures focused on the transport sector remain eligible for meeting Article 7 targets. The calculation is summarised in Table 2.

Table 2 Excluding Transport from the reference quantity

	Ktoe
Gross total average final energy consumption	8,109
Transport	2,063
Net total average final energy consumption	6,047

Source: Eurostat, <http://ec.europa.eu/eurostat/web/energy/data/energy-balances>

Calculation of baseline cumulative savings target

The baseline target is cumulative savings over the period 2017-2020 equivalent to new savings per annum of 0.7% of the reference quantity derived above (6,047 Ktoe), so to have a cumulative savings target of 7% of the reference quantity over the period. The calculation therefore implies a linear roll-out of new energy saving measures per year over the period 2017-2020 as presented in Table 3.

Table 3 Calculation of cumulative target (baseline)

Year of new savings actions	Energy savings (ktoe) achieved from actions by year (equivalent to 0.7% of reference quantity)				Cumulative total Ktoe
	2017	2018	2019	2020	
2017	42.3	42.3	42.3	42.3	169.3
2018		42.3	42.3	42.3	127.0
2019			42.3	42.3	84.7
2020				42.3	42.3
Total	42.3	84.7	127.0	169.3	423.3

Source: ECA report

Article 7 Paragraph 2(a) of the EED allows for the above calculation to be carried out using values of 0.5% in 2017 and 2018. This has the overall effect of reducing the cumulative target by 20% as indicated in Table 4.

Table 4 Build-up of Article 7 target

Year of new savings actions	Energy savings (ktoe) achieved from actions by year (applying reduced equivalent new savings target of 0.5% for 2017 and 2018)				Cumulative total
	2017	2018	2019	2020	
2017	30.2	30.2	30.2	30.2	120.9
2018		30.2	30.2	30.2	90.7
2019			42.3	42.3	84.7
2020				42.3	42.3
Total					338.6
Total Table 3					423.3
Reduction ((Total Table 3 minus Total Table 4) divided by Total Table 3.)					20%

Source: ECA report

Additional allowances in meeting the target

Paragraph 2(b) to (d) of the EED give further allowances for energy savings from the following measures to count towards the annual – and hence cumulative - energy savings target:

- o Excluding from the calculation all or part of the sales, by volume, of energy used in industrial activities listed in Annex I to Directive 2003/87/EC;

- o Savings achieved in transformation, transmission and distribution of energy as a result of the implementation of the requirements set out in Article 14 (4), point (b) of Article 14(5) and Article 15(1) to (6) and (9); and
- o Savings achieved from early actions newly implemented since 31 December 2008 that continue to have an impact in 2020 and that can be measured and verified.

These further reductions in combination with the “slow start” allowance described above (and illustrated in Table 4) must total no more than a 25% reduction in the baseline cumulative target (i.e. after excluding for transport consumption). As the slow start allowance alone represents 20% of this reduction, these additional allowances are therefore restricted to 5% of the baseline cumulative target, or 21.2 ktoe.

Republic of Serbia intends to use early action savings achieved from a combination of one or more of the following eligible measures within the Third Energy Efficiency Action Plan of the Republic of Serbia (hereinafter: the Third NEEAP):

- o Credit lines and support through the Budget fund for improvement of energy efficiency or donors for energy efficiency measures in households, public and commercial and industrial sectors as supported by a range of international financial institutions (IFIs) (referenced as HH1, PC1, and I2 in the Third NEEAP).
- o Promotion of energy efficient household appliances (H3 in Third NEEAP)
- o Public lighting (PC3 in Third NEEAP)
- o Implementation of Regulation (EC) No 443/2009 on reduction of CO₂ emissions from new passenger cars (T1 in Third NEEAP)

The expected savings from the above measures, as described in the Third NEEAP, is far in excess of the remaining 21.2 ktoe allowance (Item D in Table 5). A description of the relevant procedures for meeting the calculation, monitoring, verification and reporting requirements of Article 7 with respect to the first of the above-mentioned measures (credit-lines and Budget fund) is provided in Section A2. This measure alone is expected to yield eligible early actions with cumulative energy savings in excess of 21.2 ktoe.

Final cumulative energy savings target under Article 7

The above calculation and resultant cumulative Article 7 energy savings target for Republic of Serbia is summarised in Table 5.

Table 5 Calculation of Republic of Serbia's Article 7 end-use target

		Ktoe	Notes
A	Reference quantity	8,109	From Table 1
B	Excluding transport consumption	6,047	As permitted under Paragraph 1 of Article 7 ("A" minus 2,063)
C	Cumulative savings target (baseline)	423.3	7% of residual reference quantity ("B")
D	Cumulative target with slow start allowance	338.6	Paragraph 2 (a) of Article 7 allows savings equivalent to 0.5% per annum for years 2017 and 2018 equating to cumulative reduction of 20% in end-use target ("C" * 0.8)
E	Cumulative target with additional allowances	317.5	Paragraph 2 (c) and (d) of Article 7 allowance for further reductions from savings in energy transformation and distribution as well as via early actions ("D" minus "C" * 0.05)

A1.2 Summary of Republic of Serbia's policy mix to achieve required savings

Republic of Serbia intends to use a mix of Alternative Measures to meet its Article 7 obligations. Three core eligible measures are estimated to provide sufficient savings as it is summarised in Table 6. Details regarding the compliance of each of these measures with the requirements of Article 7 and Annex V of the EED, following the format stipulated within Annex V Paragraph 4, are provided in Section A2 of this report.

It is noted that Republic of Serbia considers energy savings from further ongoing and planned policy measures to also be eligible for contributing towards Article 7, should the measures listed in Table 6 and described in detail in Section A2 fail to achieve the target alone. These additional measures are briefly described in Section A3 of this notification for reference.

Table 6 Summary of policy measure contributions to Republic of Serbia's Article 7 target (ktoe)

Measure (Third NEEAP references)	Year initiated	2017	2018	2019	2020	Total	% of target
Energy Management System Obligation (PC4 / I1)	2017	24.95	24.95	24.95	24.95	99.80	31.4%
	2018		24.95	24.95	24.95	74.85	23.6%
	2019			20.07 ¹	20.07 ¹	40.13	12.6%
	2020				20.07 ¹	20.07	6.3%
IFI support (HH1 / PC1 / I2)	2017	12.93	12.93	12.93	12.93	51.72	16.3%
	2018		13.30	13.30	13.30	39.91	12.6%
	2019			12.99	12.99	25.97	8.2%
	2020				12.99	12.99	4.1%
Budget Fund for Energy Efficiency	2017	0.57	0.57	0.57	0.57	2.28	0.7%
	2018		0.20	0.20	0.20	0.59	0.2%
	2019			0.51	0.51	1.03	0.3%
	2020				0.51	0.51	0.2%
Total						369.85	116.5%

Note 1: The Third NEEAP savings calculation for measure I1 forecasts a higher rate during 2018 than for subsequent years (see Section A2.1 for details)

A2 Key policy measures

A2.1 Energy Management System

General description

Republic of Serbia has introduced obligatory Energy Management System for large energy consumers and public sector which includes an obligation to deliver a quantified level of energy savings via implementing energy efficiency measures and implementation of periodical energy audits. This policy measure is exceeding the requirements of Article 8 of the EED. The policy measure is enabled by Article 16 of the *Law on the Efficient Use of Energy* (“Official Gazette of RS”, No. 25/13) and the subsidiary *Regulation on determining the limit values of annual energy consumption as a criterion for determining designated organisations, on annual energy saving goals and application form for achieved energy consumption* (“Official Gazette of RS”, No. 18/16).

Obligated parties of the Energy Management System

Obligated parties (termed “designated organisations”) are detailed within the above-mentioned legislation as being:

- o Companies, as well as public enterprises, performing activities predominant in the production sector as specified by Sectors A-F of the *Decree on Classification of Activities* (“Official Gazette of RS”, No. 54/10), with annual energy consumption of at least one site in excess of 2,500 toe (104.67 TJ or 29.08 GWh);
- o Companies performing activities predominant in the trade and services sector as listed by Sectors G-N and P-S of the *Decree on Classification of Activities* with annual energy consumption of at least one site in excess of 1,000 toe (41.87 TJ or 11.63 GWh);
- o Local self-governing units with populations above 20,000;
- o Publically-owned facilities of State administration bodies, of other bodies of the Republic of Serbia or of the autonomous province’s bodies, having an individual floor area over 2000 m² and
- o Facilities of the public institutions in the field of education, science, culture, public health, etc. with annual energy consumption of at least one site in excess of 1,000 toe (41.87 TJ or 11.63 GWh).

The implementing public authority is the Ministry of Mining and Energy (hereinafter: the MME).

Target sectors

This measure targets the industrial and public sectors as well as large commercial enterprises.

Level of energy savings target to be achieved over period

The annual savings target for the designated organisations listed above for each calendar year is 1% of the realised primary energy consumption in the previous calendar year.

As per the calculation described in the Third NEEAP, this is expected to achieve annual final energy savings in 2018 equivalent to 13.0 ktoe in the public and commercial sectors and 36.9 ktoe in the industrial sector. These figures correspond to 2 years' worth of installations and hence the *new* annual savings for each of 2017 and 2018 are estimated to be 6.5 ktoe and 18.45 ktoe for the public and commercial sectors respectively (24.95 ktoe in total). Furthermore, as described in the Third NEEAP, the industrial sector figure assumes an enhanced start with savings reaching 1.36% of primary consumption as opposed to simply the 1% target. Assuming the rate falls to 1% for 2019 and 2020, this would yield a reduced level of new annual savings in these years of 13.6 ktoe. No allowance is made in either sector for the compounding of percentage falls.

Based on figures from the Third NEEAP, the cumulative effect over the relevant period is described in Table 7.

Table 7 Contribution of EMS obligation to Article 7 target (ktoe)

Measure (Third NEEAP references)	Year initiated	2017	2018	2019	2020	Total	% of target
Energy Management System Obligation (PC4 / I1)	2017	24.95	24.95	24.95	24.95	99.80	31.4%
	2018		24.95	24.95	24.95	74.85	23.6%
	2019			20.07 ¹	20.07 ¹	40.13	12.6%
	2020				20.07 ¹	20.07	6.3%
Total						234.85	74.0%

Note 1: The Third NEEAP savings calculation for measure I1 forecasts a higher rate during 2018 than for subsequent years (see Section A2.1 for details)

Duration of the obligation period

The regulation does not have an end date applied for its expiry. EMS designated organizations are required to develop a "Programme" detailing their planned measures each three years. Plans are submitted annually both outlining measures to be undertaken in the forthcoming year and measures not undertaken as planned in the previous year.

Eligible measure categories

All end-use energy efficiency measures are deemed eligible, as well as renewable energy measures provided such energy is used for the needs of the building in which the energy production facility is located (Article 65 of the Law on the Efficient Use of Energy). The MME operates an Energy Management System database (SEMIS) which includes a set of

measures linked to the calculation methodologies described below. However, designated organizations are not restricted to this set of measures.

Calculation methodology, including how additionality and materiality are to be determined and which methodologies and benchmarks are used for engineering estimates

Calculation of compliance is undertaken solely ex-post via the metered savings approach, whereby savings from the installation of the package of measures is determined by recording actual energy use or engineering estimations. At present the effect of changes in production levels and other drivers of energy use are not explicitly factored in setting and evaluating the targets but instead considered on a case-by-case basis. A set of such parameters by which the targets may be indexed in future years is under review.

The MME is also able to undertake a bottom-up assessment of energy savings, using the scaled savings approach based on data provided by designated organisations (at present such data are only provided by designated organisations which are municipalities and other public sector entities). A set of 13 common methodologies have been adopted under the *Rulebook on the manner and deadlines for submitting data necessary for monitoring the implementation of the Energy Efficiency Action Plan in the Republic of Serbia and the methodology for monitoring, checking and evaluating the effects of its implementation* ("Official Gazette of RS", No. 37/15). Spreadsheets based upon these methodologies are available for use by the designated organisations which fill them in with data and submit to the MME. After check out, MME enters data into the program for calculation of total savings. According to the planned revisions to the Law on the Efficient Use of Energy foresee direct input to the new Monitoring and Verification Platform (MVP) by the energy managers of the designated organisations. Reporting on EMS is done through SEMIS database.

Lifetimes of measures

The obligation relates to a quantified improvement in aggregate primary energy consumption by obligated parties at annual increments. In meeting the target therefore, the lifetimes of individual measures do not form part of the compliance process.

The 13 adopted calculation methodologies do, however, include assumed lifetimes per measure.

Climatic variations

The number of Heating Degree Days (HDD) is considered in application of the target for building facilities and also where necessary in the adopted scaled savings methodologies.

Quality standards

Designated organisations implement the EMS in accordance with the Law on the Efficient Use of Energy, which does not have a requirement to be certified in accordance with ISO 50001 standards. Designated organisations are required to appoint energy managers whose

qualifications are prescribed in the *Rulebook on the way and program of training for Energy Manager, training fees, as well as on conditions, program and way of taking exam for Energy Manager* (“Official Gazette of the RS”, No. 12/15).

Products and services implemented in support of achieving the targets must be compliant with the legal standards for minimum energy performance set forth in current Serbian legislation, including for the public sector those contained in the *Rulebook on minimum criteria in terms of energy efficiency in the procedure for public procurement of goods* (“Official Gazette of RS”, No. 111/15).

Monitoring and verification protocols and how the independence of these from the obligated, participating or entrusted parties is ensured

Designated parties must report on achievement against the target on an annual basis in line with the format prescribed in the *Rulebook on the form of the annual report on achieving the goals of energy savings* (“Official Gazette of RS”, No. 32/16 and No. 65/18). By 2019 reporting was done by mail but since 2019 the reporting is also done through SEMIS database.

Energy Managers must pass the above-mentioned qualification process and be licensed by the MME. Detailed requirements for the appointment of Energy Managers by the EMS designated organisations are contained in Rulebooks No. 31/16, No. 98/16 and No. 82/17.

In accordance with the *Law on the Efficient Use of Energy*, EMS designated organization have to conduct periodical energy audits; however, the secondary legislation for energy audits is still pending because of the revision of the Law.

Audit protocols

EMS designated organisations are required to undertake an energy audit in line with the requirements of the *Law on the Efficient Use of Energy*:

- o For EMS designated organisations from production sector and sector of trade and services, at least once every five years, as stipulated by Article 18 of the *Law on the Efficient Use of Energy*.
- o For EMS designated organisations from public sector, except public companies, using public buildings with individual floor area over 500 m², at least once every ten years, as stipulated by Article 43 of the Law on the Efficient Use of Energy.

MME is in charge to conduct licensing process of Energy Auditors. Audits should be undertaken in compliance with an approach to be prescribed by secondary legislation (currently under development).

A2.2 IFI support for energy efficiency measures

General description

International financial institutions (IFIs), including the European Bank for Reconstruction and Development (EBRD), the World Bank and KfW, provide financial support to accelerate the uptake of energy efficient technologies via sovereign loans, grants and credit lines for on-lending by local financial institutions. This financial assistance is supported by technical assistance to build the market and raise awareness.

Participants

There are several credit lines provided by IFIs in Republic of Serbia tackling energy efficiency. Those are implemented as sovereign loans of Republic of Serbia or as loans provided through commercial banks. Projects are also financed by IPA funds and bilateral donors such as Swiss Confederation.

For credit lines, IFIs are responsible for defining the processes for project screening, ex-ante assessment of energy savings by independent consultants, and ex-post verification. Where employed, local financial institutions are responsible for provision of the loan agreement.

The MME is responsible for collecting necessary data from the IFIs and reporting on savings achieved.

Under the World Bank's (International Bank for Reconstruction and Development) Enhancing Infrastructure Efficiency and Sustainability programme – a sovereign loan to the Republic of Serbia - the implementing public authority is the Public Investment Management Office. MME is in charge to monitor project implementation, establish Project Steering Committee and approve Project Operation Manual.

Other projects are also in the preparation. Thus in 2020 it is expected that Republic of Serbia will sign agreements for two new loans, one with Council of European Development Bank (CEB) and the other one for rehabilitation of Military Medical Academy building with KfW, etc.

Target sectors

IFI support differs in its end-use target sectors. The World Bank Enhancing Infrastructure Efficiency and Sustainability programme and SECO project financed by State Secretariat for Economic Affairs of the Swiss Confederation are targeted at municipal level public buildings (including schools, health facilities and social protection facilities), CEB will focus on central governmental buildings and KfW on the largest hospital in Serbia. IFI credit lines collectively provide support to measures in the industrial, commercial and residential sectors.

Level of energy savings target to be achieved over period

The expected level of savings deriving from these measures are based on the results and calculations described in measures “HH1”, “PC1” and “I2” in the Third NEEAP of Republic of Serbia. The Third NEEAP estimated energy saving calculations include assumed financial contributions towards the described measures not only from IFIs but also from additional sources, including the Budget Fund for Energy Efficiency. This sub-section is focused solely on measures initiated using IFI support, while those pertaining to the Budget Fund are discussed in Section A2.3. Principal IFI initiatives are:

- o The World Bank sovereign loan under the Enhancing Infrastructure Efficiency and Sustainability programme. This allocates € 40 million for energy efficiency improvement activities across 234 public buildings, with roll-out expected across 2017-2019;
- o Since 2011, the Green for Growth Fund (GGF) - an initiative of multiple IFIs active in the area of energy efficiency, has signed credit facilities for energy efficiency with local banks totalling over € 40 million;
- o In 2017, the European Bank for Reconstruction and Development (EBRD) signed € 2.25 million of sub-loans for energy efficiency measures in the industrial and commercial sectors;
- o State Secretariat for Economic Affairs of the Swiss Confederation has donated € 7.4 million (leveraging a further € 1 million local contribution) through the SECO project towards the rehabilitation of 23 public buildings.

Based on figures from the Third NEEAP, excluding those assumed to be delivered via the Budget Fund (more details in sub-section A2.3) the cumulative effect over the relevant period is described in Table 8.

Table 8 Contribution of IFI financial support to Article 7 target (ktoe)

Measure (Third NEEAP references)	Year initiated	2017	2018	2019	2020	Total	% of target
IFI support (HH1 / PC1 / I2)	2017	12.93	12.93	12.93	12.93	51.72	16.3%
	2018		13.30	13.30	13.30	39.91	12.6%
	2019			12.99	12.99	25.97	8.2%
	2020				12.99	12.99	4.1%
Total						130.58	41.1%

Duration of the obligation period

There is no currently defined end date for the measure.

Eligible measure categories

Eligible measures include measures to improve buildings envelopes, refurbishments, measures to improve boiler and heating and cooling efficiency, solar collectors, and energy efficiency improvements in industrial processes.

Calculation methodology, including how additionality and materiality are to be determined and which methodologies and benchmarks are used for engineering estimates

For IFI credit lines, calculation methodologies are entrusted to accredited independent consultants contracted to undertake an assessment of energy savings. These may use a mixture of the deemed savings, scaled savings and measured savings approaches dependent on the specific measures being assessed.

For EBRD credit lines, additionality is assured through guidance on development of a baseline for calculating reference values. This includes consideration of technical progress, maturity in market supply, market penetration rates, costs, and automatic improvements from the roll-out of minimum energy performance standards in national law as equipment is replaced.

Materiality of the IFI contribution to implementation of the measure is also a condition of loan agreements.

Lifetimes of measures

Measure lifetimes are assessed at a project level. For the purposes of calculating the estimated contribution towards Article 7 targets, all measures are assumed to have a lifetime in excess of 4 years and thus the effect of a particular action is deemed not to expire prior to the end of the calculation period. This is considered realistic given the focus on building envelope, heating and cooling, and industrial processes.

Climatic variations

Climatic variations are considered as appropriate when project assessment report calculation methodologies are devised.

Quality standards

Each IFI stipulates its own minimum quality standards which in most cases exceed the legal minimum standards. In the case of EBRD all projects must comply with the EBRD's Environmental and Social Policy and Performance Requirements which include reference to the EU Best Available Techniques (BAT) Reference documents. Furthermore the EBRD's

Green Economy Financing Facility (GEFF) operates a “Technology Selector” which lists high-performing technologies pre-approved as eligible for support².

Monitoring and verification protocols and how the independence of these from the obligated, participating or entrusted parties is ensured

Under IFI processes, projects are verified by independent consultants. In the case of EBRD this includes completion of a standardised Verification Report which may be based on a site visit or desk-based documentation check depending on the project complexity and value.

Protocols for verification of savings

No additional verification is undertaken by the MME in addition to that described above directly by IFIs under their own verification procedures.

A2.3 Budget Fund for Energy Efficiency

General description

Since 2014, the MME has operated periodic public calls for tender to support the implementation of energy efficiency measures in the public sector (municipalities). The fund is allocated from the Budget of the Republic of Serbia. At the end of 2018 the Law on fees for using public goods (“Official Gazette of RS”, No. 95/18 and 49/19) has introduced an energy efficiency fee which is being collected since July 2019. While revenues drawn from this levy are not directly hypothecated for supporting the Budget Fund for Energy Efficiency, the application of the fee is expected to support the growth in the size of the funds to be allocated.

Three public calls for tender have been held to 2017:

- o **2014:** Approximately RSD 80 million (€ 0.7 million) distributed across 11 projects with an estimated energy saving of 0.24 ktoe/year;
- o **2016 Tender 1:** RSD 125 million (€ 1.1 million) distributed across 15 projects with an estimated energy saving of 0.39 ktoe/year; and
- o **2016 Tender 2 (awarded 2017):** RSD 25 million (€ 1.1 million) distributed across 15 projects with an estimated energy saving of 0.18 ktoe/year

The above monetary amounts were supplemented by contributions from the municipalities themselves (totalling approximately RSD 129 million or € 1.1 million) and the UNDP (RSD 56 million or € 0.5 million).

² For further information see <https://ebrdgeff.com/serbia/technologys/technology-selector-about/>

The budget for 2018 totals RSD 160 million with RSD 125 million being allocated through a new public call contracting 14 projects with estimated savings of 0.20 ktoe/year.

Following revision to the governing regulation in 2019 – “*Rulebook on conditions for allocation and use of funds of the Budget Fund for the improvement of energy efficiency of the Republic of Serbia and criteria for exemption from the obligation to perform an energy audit*” (Official Gazette of RS, No. 12/19), the scope of the funds has been expanded, with future public calls also enabled for the residential sector (building envelope and a voucher scheme for energy efficient appliances).

A total budget of RSD 510 million (€ 4.3 million) has been allocated for the Budget Fund in 2019 of which approximately two-thirds will be allocated for a new public call, with the remainder allocated to the previous contracts.

Participating parties

The MME is the implementing public authority responsible for drafting, administrating and evaluating the tender processes, as well as contracting and managing disbursements.

Supervision of works is provided in accordance with the Law on planning and construction. MRE can check the works in the field.

To date contracting parties have consisted solely of local self-governments units and/or city municipalities. However, the new regulation foresees implementation of public calls for the residential sector/buildings, with the participation of:

- Building owner’s associations for improvements to the building envelope and heating and cooling systems;
- Suppliers of energy efficient appliances for involvement in a voucher scheme in order to incentivize purchase of highly efficient appliances; and
- Suppliers of energy efficient appliances for the provision of subsidies (grants) for buyers of such appliances.

Level of energy savings target to be achieved over period

The public call for tender from 2014 is assumed to have been fully implemented as of the start of 1 January 2017 and thus no energy savings derived from this tender round are considered here.

Projects involved in the first tender round of 2016 were finalised in 2017, delivering an estimated 4.5 GWh of savings at a cost of RSD 28/kWh of annual savings (€ 0.23/kWh of annual savings). The second tender round of 2016 was authorised and contracted in 2017, delivering an estimated 2.1 GWh/annum of savings at a cost of RSD 39/kWh of annual savings (€ 0.33/kWh of annual savings), excluding the contribution from municipalities

The tender round of 2018 will deliver an estimated 2.3 GWh/annum of savings at a cost of RSD 54/kWh of annual savings (€ 0.46/kWh of annual savings).

The 2019 public call provided financing of RSD 325 million and the same cost per kWh of savings seen in 2018, would deliver an estimated 6.0 GWh/annum of savings. The same assumptions have been used for a further public call in 2020.

Translating savings into ktoe terms this yield the following cumulative savings estimates for energy savings over the period.

Table 9 Contribution of Budget Fund to Article 7 target (ktoe)

Measure (Third NEEAP references)	Year initiated	2017	2018	2019	2020	Total	% of target
Budget Fund for Energy Efficiency HH1/ PC1/ PC3/ PC4/ I2	2017	0.57	0.57	0.57	0.57	2.28	0.7%
	2018		0.20	0.20	0.20	0.59	0.2%
	2019			0.51	0.51	1.03	0.3%
	2020				0.51	0.51	0.2%
Total						4.42	1.4%

Target sectors

To date the Budget Fund has exclusively targeted the public sector, focusing on municipalities. However, with changes to the regulations made in 2019, it is possible that this will now be expanded to the households/residential sector.

Duration of the obligation period

There is no currently defined end date for the measure.

Eligible measure categories

The eligible measure categories are stipulated in each public call. The governing regulations note these may encompass:

For municipalities:

- o Improving the thermal performance of buildings;
- o Improving the efficiency of heating and cooling systems for buildings;
- o Modernisation of interior lighting systems;
- o Installation of solar hot water systems;

- o Modernisation of public lighting;
- o Production of energy efficiency studies, software solutions, or other technical support; and
- o Other measures to improve energy efficiency.

For Housing Associations:

- o Improving the thermal performance of buildings;
- o Improving the efficiency of heating and cooling systems for buildings; and
- o Other measures to improve energy efficiency.

For domestic appliances:

- o Domestic appliances with high energy efficiency (laundry and drying machine, dishwasher, electric ovens and stoves, refrigeration units, air conditioning units, etc.);
- o Energy-efficient heating devices (condensing gas boilers, etc.) and heating from renewable energy sources (solar collectors, heat pumps, etc.); and
- o Energy efficient ventilation systems.

Calculation methodology, including how additionality and materiality are to be determined and which methodologies and benchmarks are used for engineering estimates

Applications to the Budget Fund must be supplied with estimated planned savings with the calculation methodologies provided in the “*Rulebook on the manner and deadlines for submitting data necessary for monitoring the implementation of the Energy Efficiency Action Plan in the Republic of Serbia and the methodology for monitoring, checking and evaluating the effects of its implementation*” (Official Gazette of Republic of Serbia, No. 37/15) as described in Section A2.1. The savings are currently submitted in appropriate OPG Excell forms. Once Monitoring and Verification Platform (MVP) is operationalised, savings will be entered in electronic form.

Municipalities, benefiting from the Fund, which are designated as organisations of EMS must submit energy savings in the Energy Management System database (SEMIS). Their savings will be calculated within NEEAP 3 measure JK4 in the public and commercial sector. Savings of other Municipalities are shown within measure NEEAP 3 measure JK1. This will enable prevention of double-counting between these measures.

Lifetimes of measures

As per Section A2.1.

Climatic variations

As per Section A2.1.

Quality standards

As per Section A2..1

Monitoring and verification protocols and how the independence of these from the obligated, participating or entrusted parties is ensured

The MME is responsible for monitoring the Budget Fund. As for the Energy Management System obligation described in Section A2.1, verification of achieved savings is not yet fully developed, currently being restricted to sanity checking of submitted documents.

Audit protocols

As per Section A2.1

A3 Additional eligible policy measures

Aside from the three core policy measures identified in section A2 as contributing towards Serbia's Article 7 targets, three further ongoing and planned measures are included in Serbia's Third NEEAP, for which energy savings derived are considered eligible. As shown in Section A1.2, the core measures alone are projected to provide savings in excess of Serbia's target. Nevertheless, should activity under these measures fail to achieve expectations, it is considered that any shortfall may be met via savings achieved under one or more of these alternatives.

Further information regarding the basis of the calculation for energy savings from measure Public Lighting (PC3) and the Implementation of Regulation (EC) No 443/2009 on reduction of CO₂ emissions from new passenger cars (measure T1) are provided in Republic of Serbia's Third NEEAP. Estimated savings for the implementation of Eco-design regulations (measure H3) have been generated through a dedicated analysis undertaken as part of the EBRD's Regional Energy Efficiency Programme (REEP) Plus in support of this Notification. It is noted that while expected savings derived from this measure are expected to be modest within the timeframe of Republic of Serbia's obligation under the transposed version of Directive 2012/27/EU, they are expected to scale up significantly through the period 2020 to 2030.

Table 10 summarises the estimated aggregate savings to be achieved over the target period.

Table 10 Summary of additional eligible policy measures

Measure	Year initiated	2017	2018	2019	2020	Total	% of target
Public Lighting (PC3)	2017	1.05	1.05	1.05	1.05	4.20	1%
	2018		1.05	1.05	1.05	3.15	1%
	2019			-	-	-	-
	2020				-	-	-
Regulation on vehicle CO ₂ emissions (T1)	2017	9.33	9.33	9.33	9.33	37.33	12%
	2018		9.33	9.33	9.33	28.00	9%
	2019			9.33	9.33	18.67	6%
	2020				9.33	9.33	3%
Eco-design regulations (H3)	2017	-	-	-	-	-	-
	2018		-	-	-	-	-
	2019			-	-	-	-
	2020				5.60	5.60	1%