

**PROGRAM-FOR-RESULTS INFORMATION DOCUMENT (PID)  
CONCEPT STAGE**

Report No: PIDC0116940

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<b>Program Name</b>	Enhancing Infrastructure Efficiency and Sustainability
<b>Region</b>	Europe and Central Asia
<b>Country</b>	Serbia
<b>Sector</b>	Transport and Energy
<b>Lending Instrument</b>	Program for Results
<b>Program ID</b>	P163760
<i>{If Add. Fin.}</i> <b>Parent Program ID</b>	
<b>Borrower(s)</b>	Republic of Serbia
<b>Implementing Agency</b>	Public Enterprise Roads of Serbia (PEPS) and Public Investment Management Office (PIMO)
<b>Date PID Prepared</b>	15 May, 2017
<b>Estimated Date of Appraisal Completion</b>	30 June, 2017
<b>Estimated Date of Board Approval</b>	September 2017
<b>Concept Review Decision</b>	The Chair authorized the team to proceed with the detailed assessments to prepare this multisector <b>P4R operation</b> under the <b>Track 2</b> processing, with a loan amount of <b>US\$ 100 million</b> .
<b>Other Decision</b> <i>{Optional}</i>	

## I. Introduction and Context

### A. Country Context

1. The Republic of Serbia is an upper middle income country with a Gross National Income per capita of US\$5,540 and a population of 7.1 million. A difficult decade of conflict associated with the breakup of the Socialist Federal Republic of Yugoslavia and of economic mismanagement in the 1990s, was followed by transition and economic development from 2001. After average annual growth of 5.9 percent during the decade before the 2008 global financial crisis, economic growth stalled, reversing some of the progress made in earlier years. Average real growth dropped to zero as the economy experienced three recessions from 2009 to 2014. Public debt doubled to 76 percent of GDP between 2009 and 2015. At the same time, the stock of public guarantees, mainly to SOEs and public enterprises, rose from below 3 percent of GDP in 2008 to 7.2 percent at end-2015. Subsidies, high levels of public sector employment, inefficient human resource management and weaknesses in financial management all contributed to Serbia's fiscal challenges. As a result of the global financial crisis, poverty peaked at 15.1 percent in 2010 using the \$5/day poverty line (2005 PPP) but then declined to 14.5 percent in 2013. Serbia has seen an improvement on this indicator more recently. Based on the latest

projections, poverty is expected to have receded slightly to 13.6 percent in 2016, due to recent economic recovery and labor market improvements.

2. In 2014, the Government of Serbia (GoS) adopted an ambitious fiscal consolidation and structural reform program. The program is supported by a 36-month Standby Arrangement with the International Monetary Fund (IMF), approved in 2014. In the short term, the program focuses on the control of aggregate wage and pension expenditures, improvements in tax administration, and reductions in subsidies to state owned enterprises. The Government has also begun to address longer term structural problems in the administration of the public sector, focusing on public sector employment and restructuring to create opportunities for efficiency. As a result of these measures, in 2015 general government deficit in 2015 was 3.7 percent of GDP, down from 6.6 percent in 2014, and growth of 2.7 percent was projected for 2016. The unemployment rate which reached a peak of 24 percent in 2012 has declined with the annual unemployment rate falling to 15.2 percent in Q2 2016, as growth recovered.
3. Serbia has made progress in its integration with European and international structures and the prospect of EU Accession is providing an important impetus to reform. In November 2007, Serbia initialed a Stabilization and Association Agreement (SAA) with the EU and in 2012, the country was granted EU candidate status. Since the formal start of accession negotiations in 2014, progress is moving largely on its predicted trajectory. Serbia has set a self-declared objective of being ready for entering the EU in 2020.

### ***B. Sectoral (or multi-sectorial) and Institutional Context of the Program***

Infrastructure in Serbia remains largely outdated due to decades of under-maintenance and underinvestment. These aging infrastructure systems, including in the transport and building sectors, have resulted in substantial loss of economic productivity, reduced safety and often higher budgetary outlays. The Government recognizes this and has requested support from the World Bank to address enhanced maintenance systems in the roads sector, and renovations of public buildings. GoS identified closing critical infrastructure gaps and enhanced energy efficiency as strategic goals supporting the country's integration into the EU.

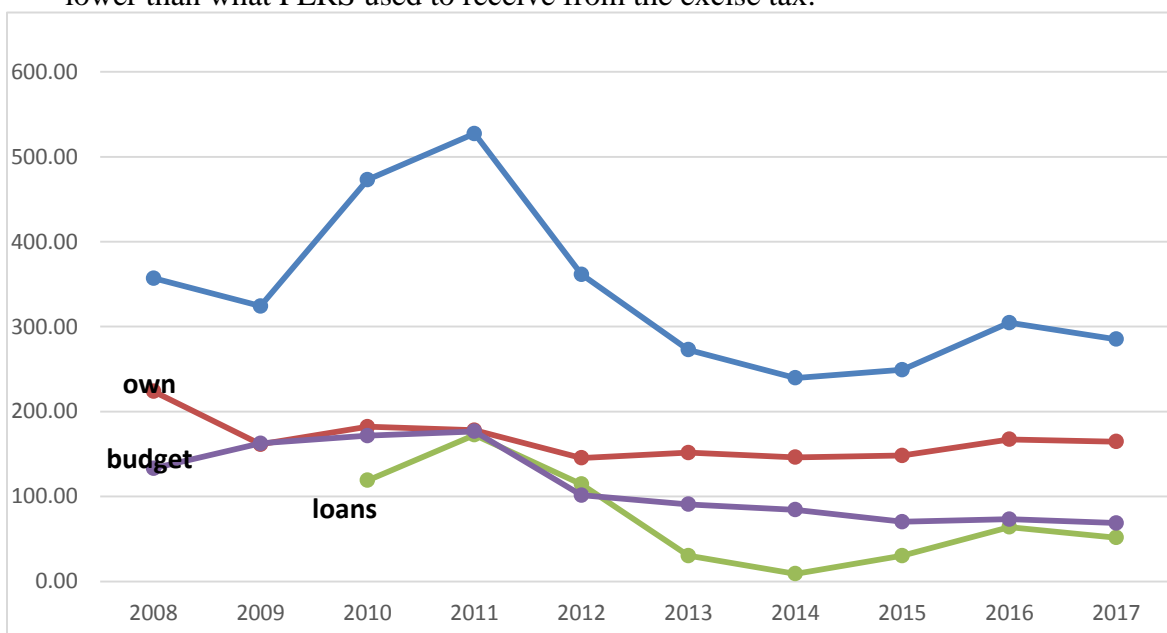
There are two main reasons why infrastructure quality is relevant for Serbia to join the EU; candidate states have to adopt measures to ensure free movement of goods and importance of better regional connectivity to attract investment. The World Bank has supported these infrastructure initiatives by investing widely on infrastructure such as road construction and management systems, and on energy sector reconstruction and rehabilitation. The sectoral split of this multi-sectoral operations is Transport 60 percent and Energy 40 percent. In order to continue to progress and fully achieve infrastructure sustainability, GoS must pursue improved efficiency in these two critical sectors.

#### **TRANSPORT- Roads**

4. ***Serbia is at the cross-roads of South East Europe and its road network could be a major contributor for economic growth.*** As per the 2016–2017 Global Competitiveness Report, out of 138 countries Serbia ranked 115<sup>th</sup> on the quality of roads. The road

network in Serbia represents a major asset for the country. It extends for about 38,600 kilometers in of which 15,500 kilometers are national roads and about 23,100 kilometers are local roads. The quality of the roads network in Serbia is poor. While limitations in financial resources and stability of financing are major reasons for the network condition, institutional arrangements for road management contribute to the unsatisfactory outcomes in the sector. The poor quality of roads manifests itself in high vehicle operating costs and inadequate road safety; and reduces Serbia’s overall trade competitiveness.

5. ***The Ministry of Construction, Transport and Infrastructure (MCTI) is responsible for policy; while the Public Enterprise “Roads of Serbia” (PERS) is responsible for construction, maintenance, operation and management of the national roads.*** The sectoral context is governed by several laws, the most important being the Law on Ministries from 2014 (amended in 2015 and 2016) and the Law on Public Roads (2013). According to the Law on Ministries, MCTI has overall responsibility for the sector.
6. ***PERS maintains and rehabilitates the National Road network (about 15,000 km) and highways (600 km).*** The main revenue source for these activities come from a closed tolling system on national highways. This is supplemented by discretionary financial support from the general budget and loans from IFIs (see Figure 1 below). Prior to 2012, PERS used to receive 20 percent of the excise tax on fuel and did not receive any additional budgetary support. The current discretionary budgetary support is however lower than what PERS used to receive from the excise tax.

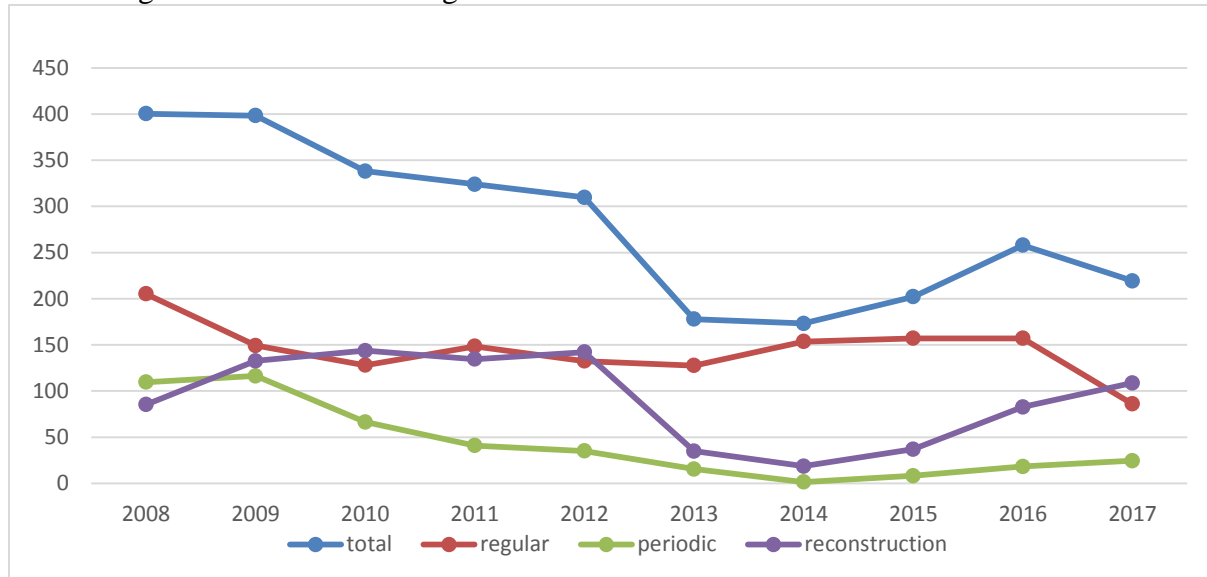


**Figure 1 Income of PERS\***

\*: Prior to 2012 income from budget was 20% of excise tax on fuel; starting 2012 the excise tax revenues were replaced by discretionary allocation from the GoS budget

7. ***PERS budget has been insufficient to meet the annual needs resulting in a large maintenance backlog.*** Maintenance expenditures are given in Figure 2 below. In 2008, the level of expenditures for maintenance were about €315 million, dropped to €194

million in 2010 and to €168 million in 2011. Expenditures for maintenance were reduced further and were stable in the past 3 years at the level of slightly more than €150 million. In 2008, the World Bank estimated that annual routine, periodic and backlog maintenance should be over €500 million. The maintenance funding shortfall is creating each year a larger maintenance backlog.



**Figure 2. Maintenance Expenditures (2008-2017)**

8. ***Improving the condition and reliability of the road network requires:*** (1) addressing the maintenance backlog which has resulted in massive needs for rehabilitation, (2) modernizing maintenance management and ensuring sufficient funds for preserving road assets, (3) strengthening the institutional arrangements for the road sector and (4) increasing the resilience of the road network. The World Bank is supporting the GoS in all four areas.
9. ***Rehabilitation:*** To address the maintenance backlog and improve the overall quality of the national road network, the Government embarked on an IFI-supported National Road Rehabilitation and Safety Program. The first phase of the program (the Road Rehabilitation and Safety Project, RRSP) is rehabilitating and enhancing the safety of about 1,125 kilometers of road sections with the financial support of several IFIs over the next five years at an estimated cost of €400 million, including IBRD financing of €73.8 million.
10. ***Strengthening the institutional arrangements:*** A reform plan prepared under the IBRD financed Corridor X Highway project identified areas for institutional reform. Several of the proposed recommendations have been implemented including the use of generally accepted asset management planning practices and modern road design standards. A few key ones remain. One of the critical actions for improving road sector management is a service level agreement between MCTI and PERS that defines the levels of service for the networks and the associated sources of funding for achieving these levels. The Bank is supporting the implementation of this agreement through the Development Policy Loan

series for Public Expenditure and Public Utilities.

11. ***Modernization of maintenance management is a clear priority for PERS.*** While the regional maintenance companies were privatized in the mid-2000s, no system for competitive bidding has been introduced for maintenance works. All of these companies still operate in the same “region” for which they were responsible before privatization through annual extensions of their contract. PERS’s contract model for road maintenance was developed in 1992 and is based on unit rates set by PERS.<sup>1</sup> With the exception of two pilot hybrid Performance Based Contracts financed under the Bank’s Transport Rehabilitation Project in the regions of Macva and Kolubara (about 1,200 km), competitive bidding for maintenance contracts is not being used.
12. ***In order to improve maintenance practice and increase efficiency of the sector, the GoS requested assistance of the EU and the Bank in further mainstreaming Performance Based Maintenance Contracts (PBMC) in Serbia.*** Following the successful implementation of the PBMC contracts in Macva and Kolubara, which resulted in financial savings of up to 40%, the Bank supported RRSP linked disbursements for road rehabilitation to progress in the implementation of PBMC in line with MCTI plans. In addition, the EU provided financing for preparation of PBMC for an additional 3000 kilometers of the national road network. The tender documentation has been completed in early 2017. The proposed project will build on the progress in maintenance management.
13. **Ongoing Bank Program.** World Bank investment lending projects, CXHP, and the RRSP, are complementing the government’s efforts to improve the quality of road infrastructure. While CXHP is building missing motorway links and support institutional modernization, RRSP, which is part of a large program of parallel and co-financing, comprising EUR 100 million each from the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), and the GoS.
14. **Bank program in preparation.** Following severe flooding in 2014, the World Bank is supporting GoS to mainstream climate resilience in the road sector by (a) Pilot-testing the road geo-hazard toolkit, which was developed with Bank support, the outcomes of which will provide structured vulnerability assessments across parts of the network financed by the CXHP and RRSP loans; and (b) Road network vulnerability analysis and investment planning with support of the Global Facility for Disaster Reduction and Recovery trust fund facility. In addition, the Bank is preparing the Trade and Transport Facilitation Project in support of the region’s economic integration.
15. **Other donors and bilateral partners active in road transport sector.** Several donors are active in road transport infrastructure improvements, most notably EU, EBRD and EIB. Both EBRD and EIB are financing the same programs, RRSP and CXHP. EU is providing TA support but also financing through the IPA window. In addition, bilateral financial support from, China and Azerbaijan are used for the construction of road infrastructure.

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<sup>1</sup> A unit rate contract is a contract where the employer decides on a bill of quantities, sets the unit rates and directs the contractor on maintenance needs and actions.

## ENERGY

16. The country's energy sector is characterized by a high share of coal use (over 50 percent) in the total primary energy supply; lignite-fired thermal power plants account for over 70 percent of the electricity generation. Under normal weather conditions, domestic power generation covers demand. Serbia is well interconnected with the SEE electricity market through 22 high voltage lines with 8 neighboring countries. Power demand is highly seasonal (i.e. higher consumption in winter months when electricity demand for heating purposes is high) and characterized by a large share of consumption by the residential sector (about 55 percent) due to the inefficient use of electricity for heating purposes.
17. Serbia remains an energy and carbon intensive country. While the energy intensity has declined by 19.2 percent since 2005, it is still four times higher than the EU-28 countries (486.1 vs. 120.4 kgoe/€1,000). Further, the energy consumption per capita is 38.4 percent lower than the EU-28 countries (4.27 vs. 5.91 MWh). Thus energy intensity would likely rise further as incomes increase. Serbia is also carbon intensive, with carbon intensity more than 2.5 times that of the EU-28 (0.46 kg CO<sub>2</sub>/US\$ 2010 PPP vs. 0.18).
18. Total final energy consumption was 8.2 Mtoe in 2015, down from its peak of 8.4 Mtoe in 2008. As shown in Table 1, the building sector dominates energy consumption, representing about 45 percent of final energy use. The industrial and transport sectors together represent about 53 percent. The industrial and transport sectors together represent about 53 percent. The remaining 2% is made of agriculture and forestry.

**Table 1. Energy consumption by sector in 2015 (ktoe)**

Sector	Energy consumption	Percentage
Industry	2,304.7	28.2
Transport	2,038.5	25.0
Residential	2,832.1	34.7
Service Sector (incl public)	839.6	10.3
Agriculture and Forestry	152.4	1.9
Total	8,167.2	100.0

19. To address the challenges related to its high energy and carbon intensity, the GoS has made energy efficiency a cornerstone of its energy strategy and strengthened it with the adoption in 2013 of the Law on Efficient Use of Energy, which is the legal basis for energy efficiency measures under its National Energy Efficiency Action Plan (NEEAP). In line with the obligations of the Energy Community to comply with the Directive 2012/27/EU on energy efficiency, the GoS adopted the 3<sup>rd</sup> NEEAP (2016-2018) with the target to reduce final energy consumption by 9 percent by 2018 (based on their 2008 baseline consumption levels). Serbia is also a signatory to the Paris Agreement and submitted their Nationally Determined Contribution (NDC), whereby the country declared a target of greenhouse gas (GHG) emission reduction by 9.8 percent by 2030 compared to 1990 emission levels.
20. The first NEEAP (covering 2010-2012) was able to achieve a midterm reduction of 102.3 ktoe (18.4 percent lower than the targeted 125.4 ktoe) and the second NEEAP (2013-2015) saw an accelerated implementation rate with 370 ktoe in savings, only 7 percent lower than the 2015 target. A majority of the savings have been in the buildings sector,

due to more efficient construction practices<sup>2</sup> and mandatory energy labelling of energy appliances since 2014. The low savings in the industrial and transport sector have been due in part to delays in regulation effectiveness (e.g., obligations for large industrial users to report energy use and savings plans), tax incentives (e.g., efficient vehicle tires), fleet modernization, lack of trained professional in public entities (at national and municipal levels) and low public awareness. Once the industrial obligations take effect in 2017 and new programs (e.g., energy management systems, mobility management) and regulations (e.g., combined heat and power standards) become operational, savings are expected to increase in order to help ensure Serbia is able to accelerate implementation progress to achieve the remaining 51 percent of its 2018 target.

**Table 2: Overview of planned and actual savings according to the NEEAPs (ktoe)**

Sector	1 <sup>st</sup> and 2 <sup>nd</sup> NEEAPs		2 <sup>nd</sup> and 3 <sup>rd</sup> NEEAPs		2018 Target
	2012 Target	2012 Actual	2015 Target	2015 Actual	
Buildings	23.5	19.5	138.7	226.9	274.9
Industry	56.6	74.6	155.6	56.6	266.8
Transport	45.3	8.2	103.2	86.5	210.7
Total	125.4	102.3	397.5	370.0	752.4

Source: *Third National Energy Efficiency Action Plan of the Republic of Serbia for the period 2016-2018*, November 2016.

21. Based on an earlier market assessment conducted by the World Bank in 2013, the total building stock in Serbia is estimated to be about 245 million m<sup>2</sup> of gross floor area (about 15,000 public buildings), of which about 12 percent represent public facilities.<sup>3</sup> Unfortunately, the quality and completeness of information on public buildings is variable, depending on the subsector. The report estimated that education buildings account for about 41 percent of the total public building area (~1,968 buildings, 11 million m<sup>2</sup>). Buildings in the health sector represent some 14 percent of public buildings (~1,641, 4 million m<sup>2</sup>) and administrative and other public buildings<sup>4</sup> make up the remaining 44 percent (~12 million m<sup>2</sup>). There is no official breakdown of central and municipal government buildings; however, MCTI estimates there are about 230 central government buildings. The report also estimated that cost-effective EE investments would require about €1.2 billion to renovate the full public building stock.<sup>5</sup>

22. **Several barriers for EE have prevented scale-up.** A number of policy, financial, institutional and informational impediments have prevented meaningful investment in energy efficiency in Serbian public buildings to date. These include:

<sup>2</sup> More than 1,800,000 m<sup>2</sup> of new building floor area per year are constructed in the household, public and commercial sectors.

<sup>3</sup> Available statistical data on the existing building stock is incomplete, particularly for the public and commercial sectors. These figures are based on a World Bank study *Options for the Implementation of an Energy Efficiency Program in the Public Buildings Sector in Serbia* (November 2013), relying on data from SORS, central government and public utilities, and on ENSI 2012, *Energy Efficiency in Buildings in the Contracting Parties of the Energy Community*, Study for the Energy Community, Draft Final Report 1.02.2012.

<sup>4</sup> These include: central and municipal government administrative buildings, libraries, museums, courts, prisons, sports halls, etc.

<sup>5</sup> Data on public buildings remains poor and there is often conflicting data. The PIMO Program document indicates some 5,500 buildings in the primary and secondary school system alone, comprising 5 million m<sup>2</sup>.

- (a) *Energy pricing.* Regulated energy prices in Serbia are not fully cost-reflective, making EE improvements less financially attractive. Despite tariff increases of 4.5 percent and 3.8 percent in 2015 and 2016 respectively, it is estimated that the gap between the regulated price for end-customers and market price is still about 20 percent.
- (b) *Financial barriers.* A lack of appropriate financing for the public buildings sector (central and municipal) is a key barrier to energy efficiency investments, despite largely attractive returns. Commercial banks are generally reluctant to lend to municipal and other public entities. Furthermore, investment potential is constrained because there are restrictions on public and municipal borrowings, there is poor creditworthiness or even lack of borrowing history, there is inability to collateralize loans and an unclear ownership of energy cost savings. Low technical capacity, a lack of standardized documents, small projects, etc. all lead to high transaction costs.
- (c) *Institutional and regulatory barriers.* The institutional and implementation mechanisms for energy efficiency remains weak. The Serbian Energy Efficiency Agency was abolished in 2012 with the key functions taken over by the Ministry of Mining and Energy (MME) Energy Efficiency Department, now with only four staff. There remains no complete database of buildings, no building code, no medium-term building strategy, and other areas with lack of regulatory coverage. The public sector also suffers from a range of procedural barriers, from budgeting to procurement, which tend to be rigid in nature and prevent many energy efficiency improvements from being made.
- (d) *Lack of credible data and skepticism of benefits.* The lack of proper building databases, energy consumption and baseline data, savings potential and general awareness collectively hamper interest and investment in energy efficiency. Potential project sponsors and public entities often lack the capacity to develop high quality, bankable energy efficiency investment proposals, are skeptical of the baseline energy consumption, or have lower baselines (i.e., comfort levels or internal heating below national norms).

**23. Past Bank support.** The previous World Bank-financed Serbia Energy Efficiency Project (2004-13) included the renovation of 82 public buildings. The Project was originally under the management of the Serbian Energy Efficiency Agency, which was abolished in 2012, and subsequently by MME's Energy Efficiency Department. While the project was largely considered a success, it was not able to achieve a significant scale (renovating less than 1 percent of the public building stock) and ultimately was not sustainable. Before the project's close, the World Bank team discussed options with the government to support a more sustainable, follow-on project but it was ultimately not approved by the Ministry of Finance.

**24. Other donors are also active in energy efficiency.** Several donors are active in the area of energy efficiency. However, only one has an ongoing investment program in the public buildings sector, KfW. Through the Ministry of Education, KfW has provided about €15 million to renovate about 30 schools, modeled after the previous World Bank project. KfW also has an extensive investment program to rehabilitate district heating networks in secondary Serbian cities. EBRD has an ongoing regional program (the



Western Balkans Sustainable Energy Financing Facility II, or WeBSEFF II) which has provided some past credit lines to Serbian banks to support on-lending to private and municipal borrowers for energy efficiency and renewable energy investments. The proposed activities are also fully complementary to ongoing technical assistance (TA) by a cadre of donors, notably GiZ (public building typology), IFC (support to Belgrade on district heating and setting-up an energy efficiency fund), and UNDP (municipal energy efficient procurement, energy management systems).

### ***C. Relationship to CAS/CPF***

25. The Country Partnership Framework (CPF) for the Period FY16-FY20 delineates the priority areas for WBG engagement in Serbia over the 5-year period. The framework is based on the analysis and findings from the Strategic Country Diagnostic (SCD) undertaken by the World Bank in 2015. Six foundational and high impact priority areas identified in the SCD are included in the CPF as areas for further engagement. Among the six areas, infrastructure is included. Better regional connectivity through infrastructure development is essential to boost investment and growth in Serbia. The WBG has been heavily engaged in infrastructure development, both through investment support to highway and national road construction, improvements in road and rail sector management systems and support to energy sector reconstruction and rehabilitation. Improved efficiency in spending and better quality maintenance of infrastructure will be pursued, as well as improved prioritization of public investments. Engagement in infrastructure development will be continued in close coordination with cooperation with other IFIs as well as with the EU.
26. The structure of the CPF defines two broad focus areas encompassing eleven CPF objectives. Focus Area 1: Economic governance and the role of the state provides the link to the proposed operation. Under this area, constraints to the effectiveness of economic governance are grouped: the size and management of the budget, the scope and capacity of the administration to implement reform and deliver services, the footprint of the government in the economy, and the performance of public utilities. The Program-for-Results instrument selected for this operation will support the improved delivery of public services in form of rehabilitation of public buildings and road maintenance.
27. Further, the cross-cutting theme of climate change and disaster risk mitigation is also present in the rationale of the operation. Climate risk mitigation and making the economy more climate resilient, is an increasingly important part of Serbia's development agenda. In the medium term, the operation will support this objective via an improvement of the energy intensity in the economy and thus less susceptible to energy supply risks, as well as improved structural integrity of public building infrastructure.
28. Convergence is strong between priority areas and the standards Serbia has to meet for joining the EU, including in terms of adherence to the 'Acquis Communautaire' in the policy areas of energy and transport. The priorities set out are also reflected in the National Economic Reform Strategy 2015. The economic reform program places, amongst other, strong emphasis on the more effective use of public resources, including

the reform of public service delivery systems, strengthening public financial management and public investment management.

#### ***D. Rationale for Bank Engagement and Choice of Financing Instrument***

29. A Program for Results (PforR) loan is proposed as a suitable instrument to support the GoS's program because: (i) it is an ongoing program implemented using national standards and systems, (ii) it has tangible and measurable results which are fully aligned with the country's energy savings and GHG emissions reduction targets and commercialization of maintenance practices; and (iii) the Bank can add value to improve the overall efficiency and effectiveness of program implementation.
30. Serbia has a well-defined roads maintenance program administered by PERS. There have been many EU and IFI interventions to address the fact that about half the national road network is in poor condition. A large factor contributing to this, is the deficiency in the routine maintenance efforts of PERS, due to both lack of adequate funding as well as lack of programmatic thinking. While the need is clearly defined, technical (Pilot project) work to mainstreaming PBMC has been undertaken under Transport Rehabilitation Project (TRP), the use of disbursement-linked indicators in RRSP to encourage the expansion of PMBC use, EU provided financing for the preparation of the PBMC for 3000 km of road network, efforts of the Bank are required to help the GOS to complete the last mile towards institutionalizing the PBMC. A P4R would help scale up and incentivize the establishment of PBMC as the preferred way of maintaining and preserving the roads of Serbia. The Bank has experience in implementing successful P4R in transport such as the Nepal bridge program and the Uruguay roads program as well as with the use of DLIs in many transport projects including in Serbia and Albania in the region.
31. Serbia has already developed a reasonably strong policy framework for energy efficiency, largely under its commitments to the Energy Community Treaty. This has included adopting a national energy efficiency action plan, establishing EE targets, transposition of key EU directives related to energy efficiency (Energy Labeling and Energy Performance in Buildings Directives) and enacting a series of related regulations and rulebooks. Given the tremendous needs for public building investments and limited scope offered by a traditional IPF, a PforR would have the best opportunity for scale, since this would be a national program. A PforR would give the flexibility to strengthen the development, implementation and monitoring capacity of the numerous implementing agencies (165 municipalities are eligible in the program) to carry out such relatively small investments (typically around €360,000 per building).
32. The Bank has substantial experience with implementing building retrofit programs in the ECA Region, including public buildings (e.g., Armenia, Belarus, Bosnia & Herzegovina, Bulgaria, FYR Macedonia, Kazakhstan, Montenegro, Poland), which can contribute to strengthening this Program and help address bottlenecks that are likely to arise during implementation. Bank participation in the program could also foster improved fiduciary

controls and monitoring to timely identify and address issues as well as distill lessons learned to improve the design of the program in subsequent phases. Capacity building for smaller municipalities could also be envisioned in order to improve implementation capacity to comply with national standards and procedures, technical oversight and fiduciary and safeguard aspects.

33. Public sector financing along with the Bank's financial support and involvement in these projects will incentivize and support more private sector involvement in the future. As transport and energy sector reforms are implemented, they will likely attract wider private participation in various forms. This project will support GoS to implement and modernize road maintenance practices, which could result in savings of over 20 percent compared to current practices. In addition, the improvement of the National Road Network under the RRSP and its maintenance under this project, complement the ongoing reform efforts under the Corridor X Highway Project that assess a user charge system that covers National Roads and could in turn be used to generate sufficient revenues to attract private sector financing in the road sector through securitization or/and management of sections of National Road network.

## **II. Program Development Objective and Results**

### ***A. Program Development Objective(s)***

The Program Development Objective *is to improve the management of public infrastructure on a sustainable basis through strengthened government capacity and systems to maintain the national road system and enhance energy efficiency and safety in selected public buildings.*

34. In particular, for the transport sector, the objective is to support the government's Transport program (2017 Budget Law allocation for roads/ 650/ in the amount of Euro 54.5 million). The Public Enterprise Roads of Serbia (PERS) budget item (651/2017) is in the amount of Euro 48.10 million, out of which Euro 46 million is dedicated towards maintenance. Maintenance in this context is defined as routine, periodic, minor repairs, limited resurfacing, limited reconstruction of drainage and pavement, that would be performed in the existing Right of Way, hence expropriation of land is not anticipated.

The goal of the Government is to implement full adoption of *Performance Based Maintenance Contracting (PBC) by 2019*. This transition from traditional maintenance to PBC will bring better planning, contracting and fiscal discipline in the Public Enterprise Roads of Serbia. This would improve use of public resources and the state of repair of the National Road Network in Serbia.

For the energy sector, the objective is to support the government's *Program for Reconstruction and Improvement of State-Owned Public Facilities* by improving energy

efficiency and safety in renovated public buildings, and strengthening the implementation capacity for the program.

## **B. Key Program Results**

35. Key Program results indicators would include:

- a) Adoption of a 3- year plan to maintain the national road system using Performance Based Maintenance Contracts (PBMC).
- b) Percentage of roads maintained using PBMC
- c) Implementation of the Service Level Agreement (SLA) between the Ministry of Construction, Transport and Infrastructure (MCTI) and the Public Enterprise Roads of Serbia (PERS)
- d) Energy Saved in Renovated Buildings
- e) Number of Buildings renovated that meet the fire/safety standards

## **III. Proposed Program-for-Results Operation Context**

### **A. PforR Program Boundary**

#### **Transport- Roads**

36. Government Program (Transport): The GOS road maintenance program is administered by PERS, and is funded by a mix of toll revenues and budgetary allocation. The amount of state support is captured as a budget line item in the national budget passed by the parliament.

**Table 3. Road Maintenance Budget 2015-2017 (in million Euros)**

Fund Source	2015 Actual	2016 Actual	2017 Actual	2018 Estimated	2019 Estimated
Pay Toll	122	133	85.5	140	145
Budget	45	42	46	22.5	22.5
Total	167	175	131.5	162.5	167.5

**Table 4. Proposed Road Maintenance Program 2017-2019 (in million Euros)**

	Government Program	Bank Support	Bank support %
Year 1: 2017	46	30	65.2%
Year 2: 2018	22.5	15	66.6%
Year 3: 2019	22.5	15	66.6%
Total	91	<b>60</b>	65.9%

**Table 5. Proposed Path towards Performance Based Maintenance Contracts in Serbia**

Year 1 <b>2017</b>	Traditional Maintenance + Tendering for PBMC	Existing Maintenance contracts (24 contractors) will be used to maintain the system, and in parallel tendering the PBMC contract for 3000 km of national system.
Year 2 <b>2018</b>	Transition Year Hybrid (Existing + PBMC)	In this Transition year, PERS will maintain 3,000 km using PBMC and the rest of about 12,000 km using the existing contracts. PERS will also prepare PBMC tender for the entire network.
Year 3 <b>2019</b>	Full PBMC Performance	The entire 15,000 km of Serbian Road network will be maintained using the PBMC.

It is to be noted that in Year 2 (Transition Year), the 3000 km maintained by PERS using PBMC will not cover the Motorways, as major sections of various motorways that are currently under construction, are expected to be completed by the end of 2018.

37. Institutional set-up: PERS is responsible for the overall maintenance, including the PBMC, and will lead the World Bank program implementation. Maintenance of the entire national road transport network is under the responsibility of the maintenance sector within PERS. The maintenance sector has 86 permanent employees, out of which 66 are field-based while remaining employees are in the main office in Belgrade. The sector works through 9 departments in Belgrade and the regions of Uzice, Nis, and Novi Sad. In addition to permanent employees, each regional maintenance subdivision contracts one or more supervision engineers as per contracts from 1992.

38. Disbursement linked indicators (DLIs), to be identified during project preparation, will serve as the basis for disbursements. Up to 30 percent of the loan is likely to be considered by the World Bank for an advanced payment and disbursement against DLIs met between Concept note and Project effectiveness. This would be discussed and agreed during the appraisal of the project.

## Energy

39. In recognition of the pressing need to rehabilitate the public building stock, the Government approved the *Program for Reconstruction and Improvement of State-Owned Public Facilities* (hereafter referred to as the “government program”) in April 2016, revised October 2016.<sup>6</sup> The government designated Public Investment Management Office (PIMO) to implement the government program.<sup>7</sup> The main aspects of the government program are summarized below:

- a. *Government program scope.* The government program is open-ended and covers all public social buildings (including education, healthcare and social protection facilities)

<sup>6</sup> Government Decree 05 No 351-3817/2016 dated 8 April 2016 and Government Decree 05 No 351-6944/2016 dated 11 October 2016.

<sup>7</sup> Decree No 95/15 ‘Establishing Public Investment Management Office’ provides the legal basis for PIMO; the office was created after the devastating floods in May 2014 to coordinate parts of the reconstruction effort.

in need of reconstruction in order to meet predefined criteria (see technical aspects below). Works covered under the program include improvements of the building envelope (roof, windows, doors and wall insulation), internal equipment (lighting, fuel switching such as coal/oil to pellets/wood chips, solar hot water heaters) as well as some non-EE measures (structural reinforcement, sanitary repairs, rewiring, painting, etc.). According to PIMO estimates, over 80 percent of the works to be undertaken would be categorized as EE improvement measures.

- b. *Eligibility and selection.* A call for proposals was issued by PIMO in May 2016 to all municipalities (local self-governments, LSGs) requesting them to provide a list of priority buildings for participation in the government program, based on criteria set by PIMO. These include state of building, economic justification, degree of urgency of repairs, number of facility users, and project implementation readiness. The criteria also seek to ensure fair distribution of resources throughout the country and give priority to underdeveloped municipalities.
  - c. *Technical aspects.* As required under current regulations, all buildings to be renovated must have an EE elaboration and technical design to meet basic building code parameters (e.g., fire safety, operational permits). They also need to achieve at least one energy performance class improvement (i.e., from Class F to Class E). The government program seeks to reach Class C for all buildings, except those for which it is uneconomic or other constraints to do so (e.g., restrictions on façade work due to cultural heritage preservation), in which case they are committed to achieving at least two classes higher than the baseline.
  - d. *Institutional set-up.* PIMO has been assigned to administer the government program for the rehabilitation of public social buildings. PIMO has established a working group, made up of key line ministries, to confirm eligibility of the list of selected buildings and to confirm none are receiving support from parallel investment projects (such as those under implementation by MME and the Ministry of Education with KfW).
  - e. *Implementation model.* The government program is decentralized in its implementation. All tasks related to design, procurement and supervision are the responsibility of LSGs. PIMO reviews and provides its ‘no objection’ at each stage and executes payment of renovation works contracts.
  - f. *Status.* To date, 234 buildings have been officially approved by the government for renovation under the government program, based on municipal priorities, satisfaction of the criteria set by PIMO, and review by the working group. About 25 are already under construction, 49 are in the works tendering phase and the rest are finalizing their designs. According to PIMO estimates, it will require about €85 million (including VAT) to renovate all 234 buildings.
  - g. *Financing.* There is no official budget for the government program as a whole. In 2017, PIMO was allocated about €7 million and instructed to continue assisting municipalities with the preparation of designs, as well as initiating tenders for works. However, the Office cannot enter into any new contractual commitments until it has available funding. Additional public funds, either from the public budget, the World Bank loan and possibly other IFIs (e.g., KfW), will make it possible for the government program to complete the 234 buildings.
40. It is proposed that the Bank provide a PforR loan to support the government’s full social public building rehabilitation program under PIMO. Based on the more than 1,500

buildings that have already been proposed, the government program could absorb significantly more resources; the Bank team estimates it may require more than €300 million to renovate all of them. Because the government program is open-ended, the exact scope and funding needs are not well-defined. Further, it appears that the government program has already committed its available budget. And, PIMO indicated plans to issue a second call for proposals in the coming months. Therefore, it will be critical for the Bank to seek more clarity on the expected scope of the government program so appropriate boundaries could be established on the Bank's Program if necessary.

41. Disbursement linked indicators (DLIs) would be identified and will serve as the basis for disbursements. DLIs for the Program could include among others: number of technical designs approved, number of buildings renovated and certified to meet a Class C level (or at least two classes higher than the baseline) and program/policy measures such as adoption of a detailed Operations Manual for the government program, government adoption of a medium-term national building strategy; adoption of an enhanced monitoring and evaluation (M&E) framework, etc. An advanced payment for up to 25 percent of the loan would also be considered by the World Bank. These would be discussed and agreed during by appraisal.

#### **IV. Preliminary Assessments<sup>8</sup>**

##### **Environmental Aspects**

42. **Transport sector** – maintenance and rehabilitation of roads is one of the key responsibilities of PERS, which has already accumulated significant experience in working with the Bank and other IFIs. PERS has in-house environmental sector within the Investment department, which is responsible for liaising with the various state institutions in obtaining environmental conditions and subsequent permits. However, for most of road rehabilitation works the national law prescribe no need for permits (nor conditions) in case of the already existing road sections. The potential environmental effects of the Program will be positive, and with no major negative impacts. Majority of potential negative effects will be temporary, limited to duration of works and minor in scale, providing the code of good construction practice is applied. Protection of cultural heritage and nature protected areas will be obtained through conditions prescribed by national authorities (Nature Protection Institute and/or Institute for Cultural Heritage Protection). The Program will not fund activities on construction on new roads, while minor changes in alignment due to adjustment of curves and minor widening of the roads will be undertaken within already existing “road corridor” that is already state owned. The Program will not include adding additional lines or substantial widening of the roads, which could have significant negative environmental impact.

43. **Energy Sector** – activities within the Program will be undertaken and implemented by

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<sup>8</sup> The preliminary assessment is based on: (i) available sector, topic and Program studies, (ii) Bank or other development partner's experience to date in the country, sector and/or Program; (iii) the task team members' experience and knowledge; and (iv) discussions held between the Government and the task team during project identification.

variety of stakeholders – among which are PIMO, municipalities and line ministries – with very different implementation capacities related to design, implementation and monitoring of the environmental aspects. Although the potential environmental impact of the single intervention under the Program may be assessed as small due to its size comparing to the overall Program, cumulative environmental impacts could be significant if there is no uniform planning and monitoring system in place. Currently, there is no systematic approach in dealing with the environmentally-related issues in the area of energy efficiency investments, as there is no single implementing (nor regulating) institution that could take over coordination of this task. The planning and implementation capacities in the smaller municipalities are rather limited, while some of the biggest ones have the environmental officers in their Urban Planning departments. However, their number and operational knowledge has to be evaluated for the purpose of the Program.

The team is planning to launch an environmental and social systems assessment (ESSA) immediately after finalization and approval of PCN and finalized before project appraisal. The ESSA will include, among others: (i) assessment of the environmental and social risks and benefits associated with transport and energy programs; (ii) description of the counterpart systems - policies, procedures and legal framework; (iii) assessment of the adequacy of the counterpart system; and (iv) assessment of the implementation experience of the program to examine the effectiveness of implementation of the systems in place. The ESSA also includes a screening tool for activities that are judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment, since these will be excluded from the Project.

Based on ESSA the team will propose specific counterpart actions to minimize or mitigate environmental risks and enhance program benefits; and to improve the counterpart systems to strengthen implementation capacity to achieve improvements in performance where necessary.

44. **Social:** The program will finance regional roads regular and periodic maintenance only activities under transport component and retrofitting of the public buildings mostly local government activities for achieving of energy efficiency activities

The counterpart for the transport component the PESR has vast experience in working with IFI including the World Bank and as well has experience in addressing social safeguards requirements i.e, involuntary resettlement. However, the current program will finance regular and periodic maintenance activities only and thus there will be no need for neither land take nor displacement. Activities such as reconstruction or construction of widening or extension of length of roads are excluded by the programs. The Bank team will further through ESSA will assess consultation practices with the local governments or individual users related to the sections being maintained and whether there is effective compliance and or road user satisfaction measurement and feedback activities by the PESR.

The counterparts for the energy component will be PIMO Public Investment Management Office (PIMO) and the envisaged activities are retrofitting of the public buildings only such as school, local clinics or social protection facilities. Energy efficiency retrofitting activities of the functioning public buildings whereby public services are provided will not cause impacts such as land take or displacement of the housing. The counterpart has a program with pre-selected of 234



facilities. The program will avoid financing in case part of the public building is used by the private users and because of the retrofitting activities the users need to be moved. If these cases exist than the program will exclude from the financing if because of the financing the users need to be moved. The PIMO does not have a track record of measuring of the beneficiaries neither carries social surveys for the services they provide through provision of finance for retrofitting of the buildings

The Environment and Social System Assessment, the social section will not assess implementation of land acquisition capacity of the institutions for the both components because the program will not finance investments that will have social impacts such as land take or displacement either economic or because of the land take. For the roads component the team is proposing to further assess the practices of the PERS to consult stakeholders such as local governments in which territories both regular and periodic maintenance is planned and the existence of practices/systems to carry on road user's satisfaction as well as road user complain possibilities. The bank would propose actions to establish/improve these aspects within the PESR as program counterpart. For the energy efficiency component, the ESSA will assess the capacity of the counterpart agency to work with the local governments as owners of the public institutions to document and carry one social surveys to measure user's satisfaction and assess the scale of beneficiaries disaggregated by gender.

## **I. Tentative financing**

Source:	(\$m.)
Borrower/Recipient	\$176,000,000
IBRD	\$100,000,000
IDA	
Others (specify)	
	Total \$276,000,000

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