I. Project Context

Country Context

1. Bosnia and Herzegovina (BH) has accomplished significant economic growth since the 1995 Dayton Peace Accord and became a potential EU candidate country in 2003. The GDP per capita nearly quadrupled and poverty dropped from a level close to 20 percent to about 14 percent between 1998 and 2008. Despite this strong economic performance, the financial crisis in 2009 caused GDP to contract by 2.9 percent and the rebound of the BH economy has remained constrained since then. After two years of modest recovery in 2010-2011, the economy experienced a double-dip recession in 2012 with GDP contracting by an estimated 0.7 percent. As a result, growth in private consumption has remained modest, unemployment has increased, and private investment growth has been slow. Over the medium term, economic growth is projected to gradually increase from 0.5 percent in 2013 to 3.5 percent in 2015.

2. BH has a strongly decentralized governance structure. The constitutional structure includes a state level executive (Council of Ministers), and two largely autonomous entities – the Republika Srpska (RS) and the Federation of Bosnia and Herzegovina (FBH). The district of Brčko was added to the structure in 1999. Between the two entities, governance structures and budgetary
arrangements are starkly asymmetric. While the RS has a centralized governance structure and is subdivided only into municipalities, the FBH is subdivided into 10 cantons, each with its own executive, legislative, and judicial branches of government. Each canton is further subdivided into municipalities. While the country’s complex political system poses significant challenges in developing coherent sectoral policies and efficiently confronting emerging development priorities, the state and entity Governments have been pursuing a jointly authored development strategy that centers on macroeconomic stability and export led economic growth, employment and social cohesion, and sustainable development. The strategy’s overarching goal is EU accession.

**Sectoral and institutional Context**

3. The energy sector has recovered from war and the turmoil of the early 1990s, as demonstrated by strong growth in energy supply and demand. After a sharp contraction in total primary energy supply (TPES) during the 1990s, TPES has increased by 63 percent since 2000 to 7.1 Mtoe in 2011. During the same period, final energy consumption has grown by 48 percent, reaching 3.34 Mtoe in 2011, with the buildings sector recording one of the highest growth rates among all sectors. In 2011, buildings were the largest electricity consumers, accounting for about 60 percent of electricity use, and absorbed more than one quarter of total final energy consumption. The buildings sector is also the largest consumer of heat energy and about 12 percent of households are connected to district heating (DH) with the remaining heat demand being met through electricity, gas and wood biomass. According to a recent household survey, around 82 percent of households use wood biomass for at least a part of their space heating, cooking or water heating needs.

4. The economy is characterized by high energy and carbon emission intensity. Despite a 20 percent decrease in energy intensity since the 1990s, BH is still almost 40 percent more energy intensive than the average in the Western Balkan countries, and more than twice the average in EU countries. High levels of losses in energy transformation, dated infrastructure and technologies, poorly insulated buildings and the use of inefficient equipment are major factors contributing to the inefficient use of energy on both the supply and demand side. Moreover, distorted energy pricing, combined with a fragmented legislative and institutional framework create an insufficient environment to provide incentives for energy efficiency improvements. Mirroring the high energy intensity and heavy reliance on coal in the energy sector, CO2 emissions intensity is also comparatively high. BH emitted nine times more CO2 per US$ of GDP than the average in EU countries and 76 percent more than the average in the Western Balkan region.

5. As a result, there is significant potential for energy savings and carbon emission reductions through energy efficiency improvements. A 2010 World Bank study estimated the energy savings potential in BH to be highest in the buildings sector (20-60 percent), followed by industry (10-30 percent) and the transport sector (8 percent). Preliminary energy audits conducted in public facilities during project preparation confirmed that average energy use in public buildings can be reduced cost-efficiently by about 60 percent, assuming a given comfort level in the building (e.g., 20°C) before and after retrofitting. In total, the cost-effective energy savings potential in buildings is estimated at 5,113 GWh per year, including 274 GWh in healthcare and educational buildings. This would generate annual energy cost savings of around €280 million in the public and private sector – money that can create fiscal space for other development priorities and that can be used to cover additional household needs, respectively.

6. The Government of BH has recognized the importance of energy efficiency to support sustainable economic growth and move towards EU accession. As a member of the Energy Community Treaty, BH has developed a draft National Energy Efficiency Action Plan (NEEAP)
which includes an indicative energy savings target of 9 percent by 2018. Efficiency improvements in buildings are expected to contribute the most to achieve this target with an annual reduction in energy consumption of 1,900 GWh. To this end, residential buildings are expected to reduce their energy consumption by around 6.5 percent, while commercial and service sector buildings, including public buildings, are required to reduce energy use by almost 17 percent. As an important first step, the Government has initiated a number of critical actions to improve the legislative and regulatory framework in accordance with the obligations of the Energy Community Treaty. Specifically, the RS has adopted an Energy Efficiency Law, and the Government in the FBH has submitted a draft Law for adoption to the Parliament. Both entity Governments have also drafted and/or adopted some secondary legislation, regulations and rulebooks, including energy efficiency building codes for newbuildings, energy auditing regulations, building certification systems and equipment standards. Moreover, a number of training programs, capacity building activities and a few pilot projects in buildings, mostly with the support of international development partners, have been launched in both the FBH and RS.

7. The institutional arrangements in the area of energy efficiency reflect the decentralized governance structure in the country. At the state level, the Ministry of Foreign Trade and Economic Relations is responsible for the development of basic policy principles, as well as the coordination of energy efficiency activities related to the commitments under the Energy Community Treaty. At the entity levels, responsibilities are divided among several Ministries, including in particular the Ministries of Energy, as well as the Ministries for Physical Planning, with the latter being responsible for energy efficiency in the buildings sector. In addition, both entities are broadening the mandate of their existing Environmental Protection Funds to also cover promotion of energy efficiency and provide some limited financing support.

8. Despite important progress on the policy side, implementation progress to date has remained limited. According to a recent assessment by GIZ, the total achieved energy savings in BH in 2012 are estimated at 406 GWh, while the end target for 2018 is 3,464 GWh. Key challengers for achieving the end target include the prevalence of important market barriers that hamper scaling up of energy efficiency improvements in general, and more specifically in public buildings. These key barriers include the following:

(a) Distorted pricing and below cost-recovery tariffs: Regulated tariffs have registered only a very modest annual increase of 1.2 percent in 2006-2010 from 0.124 BAM/kWh to 0.13 BAM/kWh (or US$0.087/kWh to US$0.091/kWh). In particular, residential consumer tariffs are below cost-recovery levels and cross-subsidized by higher tariffs for large industrial consumers. In addition, the majority of residential and public consumers connected to the district heating system are billed for heating services based on regulated norms (square meters) rather than actual consumption. As a result, current energy pricing provides only limited incentives for energy efficiency investments and is a major factor in reducing their financial viability.

(b) Availability and accessibility of affordable financing: To implement the NEEAP targets in the buildings sector, estimated investment requirements amount to about €730 million (about US$1 billion). Mobilizing these funds will require both commercial and public financing. However, availability and accessibility of affordable financing for energy efficiency investments in buildings is limited by a number of factors, including: (i) limited number of creditworthy municipalities/households and borrowing capacity; (ii) lack of interest and familiarity by commercial banks in providing loans for energy efficiency investments, combined with generally high risk-aversion resulting in relatively high collateral requirements and interest rates; as a result, the estimated number of commercial banks offering energy efficiency loans to public and residential customers is limited to about four banks in BH; and (iii) public budgeting and financing regulations limiting access to commercial financing and retention of energy cost savings. In addition, high project
development and transaction costs, as well as low existing comfort levels may reduce the share of achievable energy cost savings. Preliminary energy audits conducted during project preparation confirmed that under-heating is particularly widespread in school buildings, resulting in longer payback periods in these buildings as the increase in comfort levels can absorb significant parts of the achieved energy savings.

(c) Underdeveloped energy efficiency service market: The market of energy service providers in BH is limited to less than 10 energy audit firms and one or two companies who have implemented energy savings performance contracts to date. While the depressed market for energy service providers represents an important challenge for scaling up energy efficiency improvements, it is also a sign for limited readily available technical capacities and lack of demand for energy efficiency services and goods.

(d) Fragmented legislative, regulatory and institutional framework: Despite considerable policy efforts in transposing the provisions of the relevant EU Directives, the legislative, regulatory and institutional framework for energy efficiency remains fragmented and piecemeal. In particular, adoption of the draft NEEAP has stalled, the FBH Energy Efficiency Law is not yet adopted, and both entities still need to develop, adopt and/or enforce a number of critical secondary laws and regulations. Lacking pieces include for instance building codes for major renovations, appliance labeling, regulations on energy savings performance contracts, and establishment of appropriate compliance and enforcement mechanisms. Multi-level institutional governance structures also increase costs of working across various stakeholders and challenge scaling up of implementation. In addition, there are a number of specific barriers for energy efficiency in the public sector, including: lack of regulations enabling energy efficient public procurement, rigid provisions regarding the ability of municipalities or public entities to retain energy cost savings for multiple budget years, inability to enter into multi-year contracts, and lack of regulation on energy savings performance contracting in public agencies. Different studies have shown that these issues can limit the ability of public agencies to amortize higher upfront costs for energy efficiency investments and make them favor least cost procurement practices rather than lower life-cycle cost options.

(e) Lack of information and awareness: A number of informational barriers challenge scaling up of efforts in energy efficiency throughout the public and private sector. These include for instance: lack of information, awareness and technical expertise, lack of reliable data on energy efficiency relevant indicators (e.g., building stock database), lack of awareness on financial and technical aspects of energy efficiency improvements, as well as behavioral inertia.

9. Tapping into the country’s vast energy savings potential and meeting the draft NEEP target of 9 percent by 2018 will require considerable scaling up of implementation efforts. This will need a multi-pronged approach, including further progress on policies and regulations with adequate enforcement mechanisms, market capacity building and information programs, as well as testing of more scalable financing and implementation models in order to tackle the multiple market barriers discussed above.

10. The proposed project will help to address some of the key barriers outlined above by: (i) providing implementation experience for energy efficiency investments and demonstrating related benefits; (ii) piloting new financing and implementation models that help to create scalable mechanisms and build market capacity; (iii) identifying solutions to address prevailing key barriers that are specific for the public sector through a comprehensive Issues and Options Study; (iv) providing on-the-job trainings to implement selected legislations/regulations on energy efficiency and strengthening implementation capacity through other trainings and technical assistance activities; (v) conducting communication/information campaigns on energy efficiency and supporting a database for public buildings to increase public awareness and improve systematic data collection on energy efficiency potentials; and (vi) supporting the development of entity-wide
financing mechanisms that are sustainable beyond the project’s lifetime and scalable in the future. These measures will help to address some of the key financial, informational, technical and capacity related barriers hampering scaling up of energy efficiency in the public sector. Activities supported under this project complement and will be closely coordinated with assistance provided by other partners, which primarily focus on developing the policy, legislative and regulatory framework and on supporting capacity building activities in BH.

II. Proposed Development Objectives
The project development objective is to demonstrate the benefits of energy efficiency in public sector buildings and support the development of scalable energy efficiency financing models.

III. Project Description
Component Name
Energy Efficiency Investments in Public Facilities
Comments (optional)

Component Name
Support for the Development of Scalable Financing Mechanisms and Capacity Building
Comments (optional)

Component Name
Project Management
Comments (optional)

IV. Financing (in USD Million)

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For Loans/Credits/Others

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V. Implementation
At the State level, the Ministry of Finance is responsible for negotiating the Financing Agreement with IDA, and transferring the proceeds of the IDA Credit to the entities through two Subsidiary Agreements. Given the decentralized governance structure in BH, project implementation will be based on two separate institutional and implementation arrangements at the entity level.

In both entities, the PIU established within the Ministries of Physical Planning is responsible for the preparation, coordination, management and implementation of the project. The project will be overseen by a PSC in each entity, composed of relevant Ministries. The key responsibilities of the PSCs are to provide strategic guidance on the overall project framework and to ensure inter-
ministerial coordination. Detailed arrangements, terms and responsibilities for implementation of individual subprojects will be regulated in Memorandums of Understanding (MoUs) or other equivalent arrangements acceptable to the Bank. In the RS, the MoU will be concluded between the Ministry of Physical Planning, the line Ministry, municipality and project beneficiary. In the FBH, the Ministry of Physical Planning may enter into MoUs with the project beneficiaries and the canton/municipality for investments in buildings that are under cantonal/municipal responsibility.

VI. Safeguard Policies (including public consultation)

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Comments (optional)

VII. Contact point

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