PROGRESS INFORMATION DOCUMENT (PID)
APPRASUAL STAGE

Report No.: PIDA109953

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Second Water Sector Institutional Development Project (P151224)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>AFRICA</td>
</tr>
<tr>
<td>Country</td>
<td>Angola</td>
</tr>
<tr>
<td>Lending Instrument</td>
<td>Investment Project Financing</td>
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<td>Project ID</td>
<td>P151224</td>
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<td>Borrower(s)</td>
<td>Republic of Angola</td>
</tr>
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<td>Implementing Agency</td>
<td>Ministry of Energy and Water</td>
</tr>
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<td>Environmental Category</td>
<td>B-Partial Assessment</td>
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<td>Date PID Prepared/Updated</td>
<td>14-Feb-2017</td>
</tr>
<tr>
<td>Date PID Approved/Disclosed</td>
<td>29-Nov-2016, 16-Feb-2017</td>
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<tr>
<td>Estimated Date of Appraisal Completion</td>
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<tr>
<td>Estimated Date of Board Approval</td>
<td>10-Mar-2017</td>
</tr>
<tr>
<td>Appraisal Review Decision (from Decision Note)</td>
<td>The review did authorize the team to appraise and negotiate.</td>
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I. Project Context

Country Context

1. Angola has achieved remarkable growth after emerging from its 27-year civil war. Strong progress has been made in economic management and public finance, infrastructure development, and expansion of key services. Gross Domestic Product (GDP) grew at an average annual rate of 11 percent between 2002 and 2011. Sustained investment in the oil and gas sectors has yielded a steady stream of revenues that have been used to rehabilitate transport, energy, and social infrastructure. However, growth and its benefits have not been distributed equally, and there are wide disparities in income and wealth across the population and between regions.

2. The rapid economic growth seen in previous years is now slowing due to the decline in global oil prices and a stagnation in domestic oil production. Oil prices fell 32 percent from January to July 2016, but this drop reached as low as 73 percent on February 2016. The initial effects were felt on government revenues and external accounts. The 2016 government revenues are half the 2013 level, and the 2015 current account deficit was 8.5 percent of GDP, compared to a surplus of 6.7 percent in 2013. The initial government response to falling oil revenues was to cut expenditures and raise non-oil revenues to balance the budget in the medium term and to allow the currency to depreciate to reduce the current account deficit. As the cost of the adjustment was felt on a widespread basis, the government halted the adjustment process, opting to pursue exceptional measures, such as administrative restrictions to access foreign exchange. These restrictions substantially reduced the country's imports and domestic production, which is small and heavily
reliant on imported inputs. As a result, economic activity contracted even more, the wedge between
the official and the parallel exchange rate skyrocketed, and inflation reached 38.2 percent in August
2016. The budget deficit is expected to increase to 5.9 percent of GDP in 2016. Capital
expenditures, although expected to increase compared to 2015, are at a much lower level than in the
past.

3. As a result of the oil boom of the past decade and the subsequent strengthening of the
Angolan Kwanza, the cost of infrastructure development including local and foreign labor is
particularly high. The oil boom led to an extended period of rapidly rising incomes while deepening
reliance on imports. The Government was not able to insulate public income and expenditure from
crowding out of other tradable goods and services from abroad. As a result, the growth of the oil-
related parts of the economy resulted in a high and unsustainable level of unit labor costs relative to
peer countries. While the recent fall in oil prices and resulting investment and economic slowdown
has put pressure on the exchange rate and has increased inflation and unemployment, the net effect
on labor costs and the cost of infrastructure is still not clear. The GoA faces a serious challenge in
managing the economic downturn and the transition away from oil dependence.

4. While reasonable progress was made toward achievement of the Millennium Development
Goals (MDGs), Angola did not meet its MDG targets for water and sanitation in 2015. Despite the
positive progress made in poverty reduction, primary education, and gender equality since 2002,
progress in other key social indicators remains limited. For example, life expectancy at birth is only
about 51 years. Maternal mortality is 450 out of 100,000 births, which is the highest in Sub-Sahara
Africa. Malnutrition is also acute, with 30 percent of children under five years of age suffering from
stunting; 16 percent are under-weight. Furthermore, Angola ranks 148 out of 187 countries in the
2013 Human Development Index. Despite the relatively high GDP per capita (US$5,170 in 2013),
about 37 percent of the population still lives below the national poverty line and without access to
basic services, in particular water supply.

5. Rapid population growth, in particular in urban areas, imposes an additional challenge.
Angola’s population was estimated to be 24.3 million in 2014, with an average annual growth rate
of 3.3 percent. The urban population represents about 60 percent of the total population, with
annual growth of about 5 percent.

Sectoral and institutional Context

1. The state of water supply infrastructure was understandably poor following independence
from Portugal and the extended civil war. Lack of investment, rehabilitation, and service expansion
during this period, compounded by other effects of the war, resulted in low levels of access and
poor quality services. As of 2001, only 27 percent of the population had access to improved
drinking water sources. Access was somewhat better in urban areas, with 42 percent of the
population estimated to have access.

2. Since the end of the war, Angola has made progress towards increasing access to improved
water services through public investment, largely through the construction of stand posts into
previously unserved urban areas. Between 2006 and 2015, national access to improved drinking
water sources remained roughly static, at 49 percent of the population. In urban areas, however,
there was a significant increase in access to improved drinking water sources from 58 in 2006 to
75 percent in 2011 driven mainly by expansion of stand posts. However, access to water through
private household (yard-taps or internal plumbing) connections remains low, at 32 percent in urban areas. In addition, the figures for access in urban areas may be overstated, as peri-urban areas where density is often as high as or higher than formal urban areas, and where water is largely non-existent are not included in service estimates. Finally, there are wide disparities in access to improved water sources among urban areas, in particular in provincial capital cities. For example, in the cities included as part of the proposed project, access to an improved drinking water source ranges from 5 to 60 percent.

3. In addition to improving access, the Government has emphasized the institutional development of the water supply sector and has committed to establishing necessary policy and legal frameworks. Right after the end of the civil war the Water Law (2002) was enacted, mandating cost-recovery tariffs and professionalization of service delivery, and devolving the responsibility for service provision to provincial governments. In 2008, the Government approved Vision 2025, which includes goals for the water sector, including universal access to water supply in urban areas by 2025. Building on Vision 2025, the 2013-2017 National Development Plan and the 2013-2017 Energy and Water Sector Action Plan identified as a key priority the strengthening of urban water supply, in particular in provincial capitals, with special emphasis on expansion of water systems. With this aim, between 2013 and 2016 sixteen Provincial Water and Sanitation Utilities (PWSUs) were created as a first step towards independent service providers. In addition, there is an on-going process to introduce performance-based management contracts in a number of these utilities. Currently, 12 provincial capitals have prepared master plans to address physical and institutional requirements. However, the implementation of the policy and legal framework is still in process, in particular, measures to guarantee the harmonization of the investment program with policy and legal mandates.

4. Angola is rich in water resources, with 77 river basins, 43 hydrological basins, and important upstream positions in several international basins. However, water resource management infrastructure and capacity collapsed during the war; for example, 189 hydro meteorological stations existed in 1975; as of 2008, only a few were operating. Only a single river basin has a formally constituted administration. The National Strategic Plan for Water (2003) highlighted the need to identify and quantify water uses; identify water resources; and establish a water balance. With this objective, and with the support of WSIDP I, the GoA formally created the National Institute for Water Resources (INRH) in 2010. However, staffing and budgeting constraints have prevented INRH from becoming fully operational, and current operations rely largely on outside consultants. The INRH needs significant capacity strengthening before it can fulfill its mandate, collect and analyze relevant data for adequate water resource planning, and develop additional water basin plans.

5. The institutional development of the water supply sector similarly needs further strengthening, and clear separation of the policy, regulatory, and service delivery functions is needed to promote the sustainability of investments. As part of WSIDP 1, a regulatory office for water supply was established in 2016 within the national electricity regulator. Multiple PWSUs have been established, and additional ones are in the process of being established. For the recently created PWSUs, internal management strengthening is needed, along with support for improving their operational and financial performance.

6. The GoA has been supported in its efforts to rehabilitate water supply systems and expand
access to improved water sources by several bilateral agencies as well as the World Bank Group. China, in particular, has been key in providing financing for investments made under the GoA’s Public Investment Program (PIP), with approximately US$734 million over a period of 7 years. These PIP investments have primarily been in rehabilitation and reconstruction of water production and treatment, which were a key bottleneck to improving water services, in a number of provincial cities, as well in constructing boreholes and protected wells to serve public standposts in peri-urban areas in order to extend services to previously unserved areas. In addition, Brazil has provided limited credit for investments in Luanda, Lobito and Benguela, while AfDB approved a project in 2015 to finance capital investments in Sumbe and technical assistance for the established PWSUs in seven provinces. Finally, various European bilaterals have provided limited assistance in the form of technical assistances.

7. The World Bank Group’s assistance to the water sector in Angola began with the Emergency Multisector Recovery Projects I and II (P083333 and P095229), which supported the rehabilitation of water supply systems, and is ongoing with the first Water Sector Institutional Development Project (WSIDP I, P096360). WSIDP I, which was approved in July, 2008 for an amount of US$57 million equivalent, was intended to be a seven-year project of rehabilitation of water supply and water rehabilitation assets, new networks and household connections, and capacity building of national- and provincial-level agencies involved in water supply, capital investment, and water resource management, including to the nascent PWSUs. Additional Financing of US$120 million equivalent was approved in June, 2011, with all additional financing going toward the expansion of water supply networks and new household connections in nine selected provincial capitals. At that time, it was estimated that only six percent of water production capacity was being used, pointing to an urgent need to rehabilitate and expand networks and to install connections.

8. Since the approval of the WSIDP I Additional Financing, cost escalations and unexpected new costs of planned investments (for example, the preliminary designs available at the time of appraisal did not include a number of necessary works, while hydro meteorological stations that had expected to be rehabilitated turned out to require full replacement) increased the total cost of the project to nearly US$300 million. At the same time, an 11 percent depreciation of the SDR resulted in a US$25 million reduction in available funds. As a result, the project was restructured in April 2016. This restructuring reduced the number of PWSUs supported by the project (seven, instead of nine), the number of hydro meteorological stations (36, instead of 189), the number of Integrated Basin Management Plans (one, instead of two), and residential connections (110,000, instead of 132,000).

9. WSIDP I is scheduled to close June 30, 2019; its implementation has facilitated significant learning about the water sector in Angola and implementation challenges and has built a high degree of trust between the GoA and the Bank in the sector. The project has supported directly and indirectly the establishment of 16 PWSUs between 2013 and 2016, and performance-based management contracts for six of the PWSUs have recently begun, providing commercial, technical, and financial support. These three-year contracts will expire in 2019, at which point WSIDP II will continue to provide support. In addition, WSIDP I supported the establishment, in 2016, of a water office within the electricity regulator, which is now known as Regulatory Institute for Energy and Water Services (IRSEA), as well as the establishment of the National Water Resources Institute (INRH) in 2010. While INRH is partially operational, consultants are providing institutional strengthening to the agency and are assisting in the preparation of the Integrated River Basin
Development Plan for the Kwanza River and in the installation of 35 hydrometric stations supported by the project, while procurement of the water information management system has been completed. Most significantly, with respect to the rehabilitation of water supply systems, rehabilitation and expansion works are underway in Huambo, N’Dalatando, Malanje, Kuito, Uige, Lubango, and Luena.

10. Because of the starting point of all the water supply systems, significant capital investments and institutional development are both still needed, and are likely to continue to be needed over several decades. While the GoA has made investments in water production in many cities, systems are operating mostly well under capacity due to poor distribution systems. (For example, it was estimated in 2010 that only six percent of water production was being used in the cities targeted by WSIDP I; investments in the network are estimated to bring usage up to approximately 60 percent of treatment capacity.) Lack of meters throughout the production and distribution systems, including for most customer connections, make estimating system losses impossible, but most operators believe that unaccounted-for water (UFW) is at least 50 percent, split between technical and commercial losses. Most cities do not have billing systems in place (invoices may be estimated based on an assumed monthly consumption level, but bills are generally not provided to customers. In those few cities where there is a billing system in place, collection ratios are lower than 60 percent of the billing.

11. In addition to capital investment needs, all the PWSUs need to strengthen their commercial and operating capacity, both soft, human-resource capacity and system capacity, such as investment in financial management systems and billing software, operational reporting systems, etc. Information systems need to be put in place for management to be able to accurately track operations, costs, and revenues as a first step toward preparing proposals for tariff adjustments. Currently, available information indicates that only two of six PWSUs are able to cover their operating expenses from their estimated billed revenues (all other PWSUs do not cover their costs. Factoring in what is actually received from customers, however, none of the PWSUs are able to cover their costs. Operating deficits are currently covered by subsidies from the provincial governments, often provided in the form of in-kind materials and staff paid by the governor’s budget. These are likely to continue to be required for several years as information systems, cost accounting, and tariff adjustments are improved.

II. Proposed Development Objectives
The Project Development Objective is to strengthen the institutional capacity of selected water sector agencies and increase water service coverage in target cities.

III. Project Description
Component Name
Water Supply Institutional Strengthening and Capacity Development
Comments (optional)
This component aims to strengthen the institutional framework for the water and sanitation sector, as well as to build capacity at the recipient agencies at both national and provincial levels. The component will finance activities designed to support the PWSUs and the water office of the regulator for energy and water (IRSEA). The proposed activities under this component will support institutional strengthening and sustainability of the agencies responsible for policy setting, regulation, sector information, and the provision of water and sanitation services. The component
will provide goods, operational support, capacity building/training, and technical assistance to IRSEA and the PWSUs.

**Component Name**
Water Resource Management

**Comments (optional)**
This Component will support the strengthening of the institutional framework for water resource management, including continuing support and activities initiated under WSIDP I. Key activities will focus on: (a) strengthening and support to INRH and Regional INRH; (b) development of systems for water resource monitoring and management; (c) support for the development of new river basin plans, and (d) support for the preparation of a National Dam Safety Plan. This component will provide goods, works, operational support, capacity building/training, and technical assistance to INRH.

**Component Name**
Rehabilitation and Expansion of Water Supply Production and Distribution

**Comments (optional)**
1. This component is to support the PWSUs in the development of priority infrastructure to expand system capacity, to increase service coverage and quality, and to improve the operating efficiency of the production and distribution systems in target cities.

**Component Name**
Management and Engineering Support

**Comments (optional)**
1. This component provides goods, operational costs, engineering support, training and technical assistance for Project management, technical oversight, financial management, monitoring and evaluation, implementation of social and environmental safeguards, as well as other investments in the water sector, including: (a) the carrying out of engineering and other technical studies; (b) the design and supervision of works and performance contracts; and (c) support for community consultation and communication activities.

**IV. Financing (in USD Million)**

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**For Loans/Credits/Others**

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<td>FRANCE French Agency for Development</td>
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<td><strong>Total</strong></td>
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**V. Implementation**

1. Institutional and implementation arrangements will replicate the arrangements under WSIDP I, building upon the capacity built in the existing FCMU at DNA. The FCMU supports the implementation of other programs for the water sector (that is, PIP, AfDB, EU), and has proven implementation capacity; between 2011 and 2015 this unit procured and disbursed US$628 million for investments and activities in the sector.
2. Project management will be overseen by MINEA. Project implementation will rely on a dedicated FCMU for the World Bank/AFD project (FCMU-WB), which will report to the MINEA Project Director, and will be mainly staffed by local and international consultants. The FCMU-WB will manage all WSIDP II activities, including procurement, financial management and accounting for project funds, as well as coordination with other agencies and institutes involved in the project.

3. Project beneficiary agencies at the national level (INRH, IRSEA, and DNA) will be responsible for establishing the agencies’ priorities and for supporting the FCMU-WB throughout the procurement process related to each agency. Institutional support to the PWSUs, as well as all infrastructure investments under Component 3 in the target cities, will be closely coordinated by the respective PWSUs, the corresponding provincial government, and DNA. Beneficiary agencies shall provide periodic reports to the FCMU-WB on the progress of activities supported by the project for their respective components.

VI. Safeguard Policies (including public consultation)

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<th>Safeguard Policies Triggered by the Project</th>
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<td>Projects in Disputed Areas OP/BP 7.60</td>
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Comments (optional)
With respect to OP/BP 7.50, the activities to be financed under the project in cities located in international basins (i.e., Dundo and Luena) do not entail the construction of additional treatment capacity, nor the expansion of production facilities. Existing water treatment capacity will be utilized to supply areas that will receive network extensions under the project. For the foregoing reasons, it was determined that the project meets the criteria defined in paragraph 7 (a) of OP 7.50 and is eligible for an exception to notification requirements. That is the project: (a) will not adversely change the quality or quantity of water flows to the other riparian; and (b) will not be adversely affected by other riparians’ possible water use. A Memorandum for Exception to Notification Requirements under OP7.50, Project on International Waterways, was prepared for the project (dated Aug 20, 2015) and approved by the Bank’s Africa Regional Vice President.

VII. Contact point

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