Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 13-Nov-2019 | Report No: PIDISDSA25283
BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Project Name</th>
<th>Parent Project ID (if any)</th>
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<tbody>
<tr>
<td>Lesotho</td>
<td>P166936</td>
<td>Lesotho Renewable Energy &amp; Energy Access Project</td>
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<table>
<thead>
<tr>
<th>Region</th>
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<th>Estimated Board Date</th>
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<table>
<thead>
<tr>
<th>Financing Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
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<tr>
<td>Investment Project Financing</td>
<td>Ministry of Finance</td>
<td>Ministry of Energy and Meteorology</td>
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Proposed Development Objective(s)

The Project Development Objective is to increase access to electricity in rural and peri-urban areas of Lesotho.

Components

- Grid Extension to Peri-Urban Areas of Lesotho
- Rural Electrification by Mini-grids
- Technical Assistance and Implementation Support
- Contingent Emergency Response Component

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

<table>
<thead>
<tr>
<th>Total Project Cost</th>
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<td>52.90</td>
</tr>
<tr>
<td>of which IBRD/IDA</td>
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<td>Financing Gap</td>
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DETAILS

World Bank Group Financing

<table>
<thead>
<tr>
<th>International Development Association (IDA)</th>
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</table>
B. Introduction and Context

Country Context

1. **The Kingdom of Lesotho is a mountainous country in Southern Africa, with a unique geography as it is landlocked by South Africa.** Roughly 80 percent of Lesotho’s land is more than 1,800 meters above sea level; the average elevation is 2,161 m. Lesotho is a lower middle-income country with per capita gross national income of US$1,330. It is a small and largely rural country of about 2.1 million people, of which more than 99 percent are ethnic Basotho. 60 percent of Basotho live in the districts of Berea, Leribe, Maseru, and Mafeteng, in the arable lowlands. The remaining population lives in six districts that include the Senqu River Valley and comparatively more mountainous lands. Most people live in rural areas, but the share of the urban population has increased substantially, from 14 percent in 1990 to 27 percent in 2015. Population growth has slowed since the early 1990s, from two percent a year to slightly more than one percent. Lesotho diaspora living abroad totals approximately 135,000 people, mostly educated professionals and mining workers in South Africa.

2. **Lesotho has an open economy, traditionally centered on trade. Its main exports are textiles, water, and diamonds.** Lesotho’s economy has changed structurally in the last two decades; once based on remittances and agriculture, the country’s economic growth is now driven by value-added output in the service sectors, such as wholesale and retail trade, and in manufacturing sectors, such as textile manufacture and mining. Lesotho’s main trading partners are the United States and South Africa. Lesotho is also highly vulnerable to climate change and regularly experiences drought, floods, frosts, heavy snowfalls, strong winds, hailstorms, and tornadoes. These adverse conditions undermine the country’s

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1 GoL, “2016 Population and Housing Census Preliminary Results Report “, 2017
2 2014 Atlas GNI per capita
3 ACP Observatory of Migrations, IOM, 2014.
economic development and are expected to worsen as Lesotho becomes drier and hotter in the years to come.  

3. **Despite a track record of economic growth, Lesotho faces a triple challenge of poverty, inequality and joblessness.** Lesotho recorded continuous economic growth of 4 percent per capita over the past decade but showed slow progress in poverty reduction. It is estimated that 57.1 percent of the population lives below the basic needs poverty line of US$1.90 per day, and 84 percent are vulnerable to poverty. This level of poverty is very high for its income level: Lesotho ranks as the 13th poorest country in the world, while its gross national income (GNI) per capita ranks as the 30th poorest. Correspondingly, Lesotho’s poverty gap has increased over time. The poverty gap in Lesotho is the 9th highest in the world at 29.5 in FY2010/11, an increase from FY2002/03, and inequality as measured by the Gini coefficient increased from 0.51 to 0.53 between 2003 and 2010.

**Sectoral and Institutional Context**

4. **Electricity demand in Lesotho totals 155MW**; however, more than half of the demand is supplied from imports of electricity. Lesotho’s main source of power generation is the 72MW Muela hydropower plant managed by LHDA. This provides for 40 percent of the demand and the rest is supplied using imports from ESKOM (South Africa) and EDM (Mozambique) – based mostly on coal-based power generation. According to LEC’s projections, peak power demand is expected to grow to 204 MW by 2020 and 432 MW by 2030.

5. Lesotho is fortunate to have an abundance of renewable energy (RE) resources such as solar, wind, and hydropower, which has the potential to surpass its relatively modest energy needs. Wind potential exceeds 1000W/m² in certain pockets of the country, and global horizontal irradiation exceeds 5.3kWh/m² in most parts of the country. The Scaling-Up Renewable Energy in Low Income Countries (SREP) Investment Plan for Lesotho (P166936), prepared with the support of the World Bank and other donors, presents the total technical capacity as 2300MW, with annual energy generation potential of 5900GWh. Lesotho’s Energy Policy 2015 – 2025 recognizes that these resources can be transformational energy sources, especially in remote, hard-to-reach areas of the country like the highlands located in the east and central parts of the country mainly in the districts of Thaba-Tseka, Mokhotlong, Qacha’s Nek and Quthing.

6. Despite the significant RE potential, larger scale development and private sector investment have not yet materialized. The constraints limiting RE development in Lesotho include: regulatory and institutional, technical and capacity, and financial barriers, among others.

7. **Electricity access in Lesotho is low.** The national electricity access rates stand at 38% with 60 percent for urban and peri-urban households and 18 percent for rural households. Current access rates have been achieved largely due to the recent push by the government to accelerate electrification through an annual

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5 Ibid. and Government of the Kingdom of Lesotho (2014), National Social Protection Strategy
6 Own calculations based on PovcalNet. Data based on latest available year
7 2016 – 2017 Annual report – System Peak demand
8 As part of ESMAP’s initiative on Renewable Resource Mapping, biomass, small hydro, solar and wind potential in Lesotho was assessed.
9 The assessment excludes large hydro potential but includes: utility-scale solar and wind, small-scale hydro, waste-to-energy, solar microgrids, micro-hydro micro-grids, SHS, and micro-solar technologies.
budget for electrification and funding from the Universal Access Fund (ACF) managed by LEWA. The UAF collects roughly 18 million Maloti annually used to promote national electrification. The UAF is currently funding only on-grid electrification efforts mainly grid extensions to the existing LEC network. GoL sets annual electrification targets for LEC of 15,000 connections, which LEC has been successfully achieving by extending its grid. To date, LEC customer connections are at 235,000.

8. Rural electrification efforts involve a mix of sector institutions. LEC is responsible for rural electrification projects within its service territory (within 3.5 km from the existing distribution network). The Rural Electrification Unit (REU), established in 2004, is a project implementation unit under the DoE that coordinates and manages the implementation of off-grid and grid rural electrification projects outside the LEC service area. REU projects are also funded through the GoL allocation budget for electrification and the UAF managed by LEWA. Almost all those with access to electricity are grid connected. The majority of the country is mountainous with low population densities, making access to the grid very difficult hence the need for off-grid electrification efforts to complement on-grid electrification efforts.

9. With an access target of 75 percent by 2020, expanding access is at the heart of the Lesotho Energy Policy 2015 – 2025 and a major component of Vision 2020 and the NSDP. Without electricity, households rely on biomass, which is time-consuming\(^\text{10}\) and can lead to negative health outcomes. Electricity is viewed as a driver of socio-economic development in Lesotho; as such, the GoL – in 2017 - set an electrification target to bring electricity to 75 percent of households by 2020. Correspondingly, the Energy Policy vision is that “Energy shall be universally accessible and affordable in a sustainable manner, with minimal negative impact on the environment”, and the current policy framework is fundamentally aimed at supporting reliable and affordable energy access to improve the livelihoods of people in Lesotho. It is expected that this will be achieved through the creation of income generating activities that sustain and improve lives by facilitating the provision of affordable electricity services.

10. The proposed Project is aligned with GoL’s electrification agenda and will demonstrate the implementation of the Lesotho Energy Policy 2015 – 2025 by complementing ongoing efforts by other donors and stakeholders and supporting the provision of off-grid electricity services as well as grid electrification of economic zones to enhance job creation.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

11. The Project Development Objective is to increase access to electricity in rural and peri-urban areas of Lesotho.

Key Results

12. The table below present key results expected from the project.

\(^{10}\text{According to African Clean Energy’s 2015 survey of 2,652 rural households in Lesotho, households – mostly women and children - spent 31 hours per month travelling for fuel.}\)
<table>
<thead>
<tr>
<th>Indicator Name</th>
<th>CRI</th>
<th>Unit of Measure</th>
<th>Baseline</th>
<th>End Target</th>
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<tr>
<td>People provided with new or improved electricity service</td>
<td>X</td>
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<td>22,825</td>
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<tr>
<td>Industrial/Economic Zones connected to main grid</td>
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<td>Number</td>
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<td>6</td>
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</table>

**D. Project Description**

13. The Project has four components.

**Component 1: Grid extension to Peri-Urban Areas of Lesotho (IDA US$30 million)**

14. This component, to be implemented by LEC, will finance the design, procurement of materials and construction works required to electrify select industrial and commercial loads in peri-urban areas of Lesotho, as well as provide connections to residential customers nearby. This component will create roughly 6 new connections to large economic development zones (with the potential of providing electricity to 252 companies) along with approximately 1400 residential customers nearby.

15. The component will contribute towards construction of MV and LV distribution lines (33kV/11kV) as well as the upgrading of existing or construction of new substations. Grid connections to the selected areas will cater to agriculture productive use such as in Butha-Buthe, industrial loads such as in Mokhotlong and Berea, and electrification in the highlands such as Qacha’s Nek, which all have high potential for economic development.

16. The model envisioned is particularly viable for LEC, as the electrical corridors built under the project to connect large new customers will be also utilized by the utility to develop its low voltage network to underserved residential customers, accelerating the achievement of LEC’s and GoL’s electricity access expansion targets. Site identification will be conducted in consultation with LNDC (and will be aligned with LNDC’s Strategic Plan 2018-2022), DoE and LEC based on the potential for job creation and maximizing socio-economic development in the peri-urban and industrial parts of Lesotho. The final selection of the sites will be confirmed and validated by the geospatial electrification analysis based on a least cost approach.

17. This component will fund the connection of residential customers living within 600m of existing and proposed distribution transformers at each site, which according to LEC will range in cost from US$300 to US$1000 per connection. The number of connections realized will depend on the sites finally selected for development by DoE in collaboration with LEC and LNDC.

**Component 2: Rural Electrification by Mini-Grids (IDA US$ 10 million, SREP Loan US$ 8 million, SREP Grant US$ 2 million)**

18. This component will support the electrification of areas where electricity supply through mini-grids represents the least-cost option from a country perspective, as underpinned by the EMP and geospatial analysis.
19. **Sub-component 2A: Rehabilitation and Upgrading of LEC Mini-Grid at Semonkong (SREP Loan US$ 3.5 million, SREP Grant US$ 2 million)**. This component will fund the rehabilitation and upgrading of Semonkong, a hydro-based mini-grid with diesel as an alternative electricity supply source. Semonkong, located 113km from the heart of Maseru, is operated by LEC. However, due to technical challenges and low hydrology, the hydro turbine is currently inoperable and installed capacity (180 kW of hydro and 500kW of diesel) at the site does not meet the demand\(^\text{11}\) of its service area. Therefore, rehabilitation of the turbine, expansion of generating capacity by adding 1.5 MW of solar PV and 500kWh of storage, and the upgrading of the operational mechanisms for the simultaneous production of electricity by multiple supply sources is required and will be funded by the project. In addition, the expansion of the distribution network and connections to approximately 100 additional customers, both residential and commercial, as well as appropriate metering solutions for new and existing customers will also be funded through the project.

20. This demonstration project will provide greater understanding of electricity demand in remote areas, and also contribute to greater economic activity at the site, a frequently visited tourist hub and the future home of a large hospital and newly conceived elementary school. LEC will share with DoE all costs (capital and operating) as well as detailed consumption data of its customers served at the site.

21. Feasibility and engineering design studies as well as implementation support for LEC (for oversight of implementation of the environmental and safeguards instruments for the investments as well as the oversight of the health and safety aspects during construction) will be supported under this sub-component.

22. **Sub-component 2B: Mini-grid Deployment Under PPP Models (IDA US$ 10 million, SREP Loan US$ 4.5 million)**. This subcomponent will support the electrification of areas where electricity supply through mini-grids represents the least-cost option from a country perspective, as underpinned by geospatial analysis. This component will fund the deployment of several mini-grids using private sector-led business models and help create state-of-the art projects using mini-grids that will i) test various PPP business models for service delivery, iii) improve availability of mini-grid market information thereby attracting private sector participants, iv) offer technical support for due diligence and project implementation, and v) create customer awareness about different tiers of service offered by mini-grids.

23. Up to 38 mini-grid sites will be selected in agreement with the Department of Energy based on the high priority areas proposed by GoL (who identified 30 potential mini-grid sites\(^\text{12}\)) and geospatial analysis (which has identified 55 potential sites for development). Care will be taken to select sites with significant potential for economic development and job growth in diverse areas of the country, including the highlands. The mini-grids will service all households and community (education, health, agricultural resource) facilities in the specified service area. Commercial customers and other anchor loads will be encouraged to connect as well. Based on preliminary analysis, it is expected that roughly 4800 customers will be connected to mini-grids developed within this sub-component.

\(^{11}\) Current demand totals 500kW but doesn’t include suppressed demand and self-generation.

\(^{12}\) UNDP-GEF is funding pre-feasibility studies for RE-based mini-grids in twenty village communities spanning five of the Lesotho’s ten districts. Results of this study will inform the selection of mini-grid sites.
24. The technical focus will be on solar hybrid systems, i.e., solar generation with battery\textsuperscript{13} storage, and diesel back-up; mini-hydro\textsuperscript{14} may also be considered on a case by case basis given Lesotho’s extensive hydro potential throughout the country. The mini grids will be built to standards specified by LEWA (LEWA’s rural service standards or to Lesotho’s grid code standard in order to allow for integration to main grid in the future). Prepaid metering and smart meter systems will be required to mitigate revenue collection risk and enhance the bankability of the mini grid sub-projects.

25. The component will be implemented under a market-based approach whereby the private sector develops mini grids to deliver electricity services on a build-own-operate basis, with financial support offered through a single funding window: minimum subsidy tender. DoE will be responsible for providing payments to developers toward capital expenditures (CAPEX) through a clear and transparent process. For areas that private developers consider too risky although they are not conflict areas, DoE is considering fully public financed approaches, with private sector participation in constructing and operating of the mini grid. This could be incorporated as a separate tender under this sub-component depending on uptake of the minimum subsidy tender and private sector interest to enter these areas. The assessment of this approach will be completed during the first year of the project.

Component 3: Technical Assistance (SREP Grant US$ 2.9 million)

26. Given that the market is very nascent, the technical assistance component will play a critical role in upstream and downstream capacity building. More specifically the fund will be used to finance activities including but not limited to the following:
   i. Subcomponent 3A: Project implementation and coordination support (SREP Grant US$ 2.5 million).
   ii. Subcomponent 3B: Women’s Employment, Female Entrepreneurship, Consumer Education and Citizen Engagement, and Productive Uses of Energy (SREP Grant US$ 0.4 million).

Component 4: Contingent Emergency Response Component (CERC) (IDA US$ 0 million)

27. A Contingency Emergency Response Component (CERC) with zero allocation may be used to partially cover emergency response via implementation of key activities by the appropriate agencies to respond to the emergency. The CERC could also be used to channel additional funds should they become available as a result of an eligible emergency. For the Lesotho Energy sector, emergency conditions may arise subsequent to droughts, flooding or energy import shortage.

E. Implementation

Institutional and Implementation Arrangements

28. The project will be implemented over seven years under the Ministry of Energy and Meteorology (MEM). The MEM’s Department of Energy (DoE) will implement Components 2B, 3 and 4; LEC will implement

\textsuperscript{13} This approach is consistent with World Bank’s recent initiative to promote battery storage.

\textsuperscript{14} Sub-projects that trigger OP/BP 4.37 Safety of Dams will not be eligible for funding under this project. If proposed sub-projects trigger OP/BP 7.5 International Waterways and there is significant potential for economic development and job growth at the site, project re-structuring may ensue for those specific activities. It should be noted that OP/BP7.5 is already triggered for activities at Semonkong (project sub-component 2A). An exception to riparian notification will be requested given that there will be no impact on quality and quantity of water flow.
Components 1 and 2A. As such, it is expected that the Loan Agreement will be established with the MoF and MEM, with a portion of project funds managed by the DOE for the implementation of Components 2B, 3 and 4, and the other portion being allocated to LEC per a subsidiary project agreement enabling them to implement Components 1 and 2A; a separate sub-project account will be established for LEC’s management.

29. A single Project Implementation Unit (PIU) located at DoE will execute project activities, and have an overall Project Coordinator (senior official from the DoE) who will be responsible for overall coordination and oversight of the Project, and consolidation of the information related to Project implementation, including, (i) definition of areas to be electrified based on technical and policy development priorities; (ii) aggregating and consolidating information from implementing entities (DoE and LEC) and broader monitoring and evaluation; and (iii) independent verification of project implementation.

30. Under Component 2B, the PIU will be responsible for (i) land acquisition for the construction of mini-grid sites; (ii) implementation & monitoring of E&S instruments; (iii) preparation of tender documents and management of the procurement process for mini-grid developers; (iv) coordination with LEWA to provide license exemptions to successful mini-grid developers and to ensure compliance with technical service standards; and (v) monitoring mini-grid implementation to standard specifications. A transaction advisor will be hired to facilitate the preparation of the tender documents and to establish and implement the mini-grid procurement process. Under component 3, the PIU will be responsible for the provision of technical assistance and managing relevant consultancies, which include the development and execution of large-scale community awareness and citizen engagement campaign (through the engagement of Community Liaison Officer).

31. Within the PIU, LEC will be an implementing agency with autonomy to implement and provide oversight of relevant project components. This LEC Technical Unit will be composed of the LEC staff already implementing an AfDB funded project, and will be responsible for the implementation of grid extension (Component 1) and the rehabilitation and expansion of Semonkong (Component 2A). LEC’s extensive technical expertise in successfully implementing grid extension projects as well as donor-financed projects will allow LREEAP to capitalize on the experience accumulated to facilitate implementation and supervision of infrastructure investments of the proposed project.

32. LEC’s Technical Unit will have its own Project Supervisor and Engineer. It will also have a Procurement Specialist, FM Specialist, Environmental Specialist, Social Specialist, as well as an external specialist that will be tasked with the responsibility of providing technical and financial due diligence on the project and of evaluating proposals/applications under consideration.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

Peri-Urban and rural households, villages and towns.

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15 The Lesotho Urban Power Distribution Rehabilitation Project is a US$9.5 million loan from AfDB to LEC, approved since November 2016.
G. Environmental and Social Safeguards Specialists on the Team

Kisa Mfalila, Environmental Specialist  
Mantsebo Moipone Amelia Ndlovu, Social Specialist  
Ntaoleng Celestina Mochaba, Environmental Specialist

| SAFEGUARD POLICIES THAT MIGHT APPLY |
|------------------|------------------|
| **Safeguard Policies** | **Triggered?** | **Explanation (Optional)** |
| Environmental Assessment OP/BP 4.01 | Yes | The Project is classified as Category B as it will finance energy investments aimed at increasing electricity access (via grid extension and the deployment of mini-grids) and increasing renewable-energy based on off-grid electrification such as solar Photovoltaic (PV) or micro-hydro based mini-grids under Components 1 and 2. The impacts of the investments will largely be positive. Electrification of communities with no access to the grid will have significant impact on quality of life, including access to social services such as health care facilities and schools, and access to jobs. Investments in renewable energy will also have long-term positive impacts in reducing greenhouse gas emissions (GHG) by replacing the use of biomass and paraffin lamps at household level. However, during the construction phase of the project, temporary and site-specific negative environmental and social impacts are anticipated from site clearing activities, construction of access roads, distribution lines, PV arrays, temporary buildings and laydown areas, resulting in direct negative impacts on soil and water bodies and potential erosion of topsoil. These impacts are expected to be temporary with a relatively low intensity due to the limited environmental and social footprint of the sub-projects. Adverse impacts are anticipated to include health and safety, production of waste mainly from batteries and impacts on land and water resulting from earthmoving operations during the |
construction phase. Mitigation measures would include appropriate siting of sub-projects and safe disposal and or recycling of batteries. Component 3 will not finance physical investments but will finance technical assistance with no anticipated direct environmental and social impacts.

Physical civil works expected to be undertaken during project implementation that will result in environmental and social impacts including health and safety concerns for workers and surrounding communities, land acquisition - temporary or permanent physical displacement, including loss of assets and livelihoods, labour/worker influx and associated concerns such as risk of gender based violence (GBV)/sexual exploitation and abuse GBV/SEA, illicit behaviour, disease transmission, child exploitation. The project might also experience some social exclusion and likely negative impacts on disadvantaged and vulnerable groups, in particular due to potential exclusion from project benefits. The ESMPs will assess GBV risks. The ESMP findings and the Bank’s GBV Risk Assessment Tool will guide the detection of GBV risks and the consequent development of mitigation and management plans. Initial stakeholder consultations were undertaken during the preparation of the Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF). The consultation processes will be an on-going activity throughout the project cycle to ensure that stakeholders are fully engaged especially the vulnerable and disadvantaged groups.

Component 1 will fund grid extension to various economic development zones and industrial estates, including the design, procurement of materials (sub-stations, MV and LV infrastructure) and construction works. While the zones and industrial estates to which the grid will be extended are currently unknown, there is the potential for industrial estates to be associated facilities and the ESMF includes criteria for screening and assessing associated facilities, and also describes the due diligence required if an industrial estate is deemed associated.
Sub-component 2A will fund rehabilitation of the turbine at Semonkong and expansion of generating capacity by adding 1.5 MW of solar PV and 500kWh of storage, and the upgrading of the operational mechanisms for the simultaneous production of electricity by multiple supply sources. While the location of the turbine is known, it should be noted that the exact siting of the PV array and batteries, as well as the routing required for the extension of the distribution network to additional households is not known. Given the existence of a small weir at this site, generic dam safety measures, as appropriate, will be incorporated in the safeguards instrument for this subproject.

Sub-component 2B will fund the construction and operation of several renewable-energy based mini-grids. The specific sites to be development are yet to be determined.

Given the above – i.e. (i) the absence of feasibility studies and engineering designs; (ii) insufficient information on routing of proposed grid extension and the distribution network for connection of new customers; and (iii) lack of sufficient information on the exact locations of investments such as PV and battery array and sub-stations under Components 1 & 2A, - and since the locations of the investments under remaining project components have not yet been identified, an ESMF has been prepared for all project activities. The ESMF includes a mechanism for screening and classification of sub-projects to determine eligibility for financing and identify the appropriate sub-project safeguards instruments, which are generally expected to include ESMPs and RAP(s). The ESMF also includes institutional arrangements and roles and responsibilities for safeguards implementation, including differentiated requirements for each Implementing Entity, as well as processes and procedures for monitoring and reporting. Category A and high-risk type subprojects will be excluded, as well as any subprojects that trigger Bank safeguard policies not triggered under the project. The subproject instruments prepared pursuant to the ESMF, such as ESMPs and RAP(s), will be consulted and disclosed prior to
commencement of construction works during project implementation.

A detailed analysis of association will be carried out to determine the extent and relevance of the six economic development zones activities (in particular, establishment of industrial parks) to the design or performance of Components 1 and 2. The ESMF includes due diligence review procedures regarding any significant environmental and social impacts for developments deemed to be associated and/or ancillary facilities.

The Resettlement Policy Framework has been prepared to guide the PMU in avoidance, minimization and mitigation of any potential resettlement impacts associated to project activities. The Resettlement Policy Framework has been prepared to guide the preparation of Resettlement Action Plans.

<table>
<thead>
<tr>
<th>Performance Standards for Private Sector Activities OP/BP 4.03</th>
<th>No</th>
<th>The proposed Project will not apply World Bank Group Performance Standards.</th>
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</thead>
<tbody>
<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>Yes</td>
<td>The policy is triggered should a sub-project site be selected close to or within a natural habitat as defined by the policy. The ESMF provides guidance on screening to ensure subprojects are excluded that would be expected to adversely impact, alter or cause destruction of any protected, critical or sensitive natural habitats, especially wetlands. The ESMF also stipulates that any impact of other natural habitats such as rivers should be assessed and mitigation proposed in the respective subproject ESMP.</td>
</tr>
<tr>
<td>Forests OP/BP 4.36</td>
<td>No</td>
<td>The proposed Project will not support physical works located within forested areas or plantations and will not open up new forested areas. Any selected activity that will trigger the policy will be ineligible for financing under the Project. This has been clearly stated in the ESMF.</td>
</tr>
<tr>
<td>Pest Management OP 4.09</td>
<td>No</td>
<td>The proposed Project will not involve procurement of pesticides or fertilizers and does not have the potential to lead to increased use of pesticides or fertilizers. Any selected activity that will trigger the policy will be ineligible for financing under the Project. This has been clearly stated in the ESMF.</td>
</tr>
<tr>
<td>Activity</td>
<td>Triggered</td>
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<tr>
<td>----------------------------------------------</td>
<td>-----------</td>
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<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
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<td>Indigenous Peoples OP/BP 4.10</td>
<td>No</td>
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<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
<td>Yes</td>
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</tbody>
</table>

The ESMF includes measures for avoiding or mitigating any adverse impacts on physical cultural resources as well as providing Chance Find Procedures. The Chance Find Procedures would be an integral part of construction contracts.

The policy will not be triggered as there are no indigenous peoples in Lesotho.

Component 1 (Grid Extension to Peri-Urban Areas of Lesotho) and Component 2 (Rural Electrification by Mini-grids) may have limited land acquisition or subsequent loss of assets, income or restricted access to resources (whether related to private or communal resources) related to the construction of medium voltage grid extensions (including substations and MV/LV lines) as well as the construction of renewable energy-based mini-grids. Therefore, Involuntary Resettlement OP 4.12 is triggered to address any adverse impacts. The RPF guides the preparation and implementation of RAPs/ARAPs geared towards mitigating the direct social and economic impacts resulting from land acquisition in order to advance component 1 and 2 of construction activities, including activities undertaken by those economic zones and mini-grids that are critical for the design and performance of LREEAP. The RPF sets out the principles and objectives governing the preparation and implementation of RAPs/ARAPs (outlining social risks, impacts and mitigation measures) when the specific impact location(s) of components 1 and 2 subprojects activities are known. This RPF also guides the preparation and implementation of RAPs/ARAPs for activities financed by the six economic development zones and mini-grids activities, if it is determined that the design or performance of components 1 and 2 are dependent on one or all of these economic development zones and the mini-grids activities.

Since the exact location of civil works are not yet known, a Resettlement Policy Framework has been prepared, consulted and disclosed in-country and on the World Bank external website. All RAPs will be prepared in a consultative process and will be disclosed thereafter. The RAPs will need to be...
<table>
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<tr>
<th>Safety of Dams OP/BP 4.37</th>
<th>Yes</th>
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<tbody>
<tr>
<td><strong>The majority of rivers in Lesotho are classified as International Waterways originating in Lesotho and terminating in South Africa. The micro hydro at Semonkong to be rehabilitated under Sub-component 2A sits on Maletsunyane River, which feeds into Orange River and subsequently into South Africa. However, an exception for notification to riparian countries has been requested and approved by RVP since the project is proposed to rehabilitate an existing 180kW off-grid run-of-river mini-hydro and will not adversely change the quantity and quality of water flows to other riparian states. In addition, the ongoing scheme will not be adversely affected by the use of water downstream by the other riparian.</strong></td>
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<tr>
<td>Projects on International Waterways OP/BP 7.50</td>
<td>Yes</td>
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<td><strong>The Semonkong small hydro to be supported by the Project under Sub-component 2A is a 180 kW (0.18 MW) run-of-river system with an intake pipe to the powerhouse and a small weir (approximately 1.5 meters high). Once the river water passes through the turbines and electricity is generated, the water is returned to the river downstream of the powerhouse. Due to the size of the weir, limited reservoir and geography, there are limited to no anticipated risks to human populations downstream the Semonkong associated with potential failure of the weir. Generic dam safety measures, as appropriate, will be incorporated in the safeguards instrument for this subproject including visual inspection of the weir and an engineering evaluation of the intake and headrace.</strong></td>
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<td>disclosed prior to commencement of construction works during project implementation.</td>
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While the mini-grid sites under Sub-component 2b have yet to be selected (and thus the relevant generation type, including hydro and solar PV, has yet to be determined), any subproject that will trigger the policy will require project restructuring for the specific activities and be subject to due process, including riparian notification or exception to notification. The ESMF includes a negative list that will screen out any potential subprojects that triggers this policy under Components 1 and 2. This is clearly defined in the ESMF.

<table>
<thead>
<tr>
<th>Projects in Disputed Areas OP/BP 7.60</th>
<th>No</th>
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<tr>
<td></td>
<td>The project will not be located in any known disputed areas as defined in the policy.</td>
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### KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

#### A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The proposed project will finance interventions designed to support the GoL’s energy policy vision that "Energy shall be universally accessible and affordable in a sustainable manner, with minimal negative impact on the environment" through a comprehensive suite of investments for the expansion of access to modern and renewable energy services in peri-urban and rural areas of Lesotho. Access to electricity is a crucial part of building safer homes and communities and creating new economic opportunities. This project also promotes private sector led investments in off-grid electrification. Therefore, these electrification initiatives will create jobs and sustain general business activities in rural areas. Considering the generic environmental aspects of the project, the proposed activities and sub-projects are small scale and site specific with minimal environmental foot-print. These impacts are considered moderate and can be easily mitigated through implementation of applicable measures outlined in the ESMF for all project activities.

The project is expected to be developed in selected areas across the country. All project components have environmental aspects and impacts that will be dealt with through appropriate safeguard instruments. The salient physical characteristics are prominent in the grid-extension (Component 1) and construction and operation of mini-grids (Component 2) as these activities entail civil works with effects to natural habitats, such as rivers. Other aspects concern the management of residual waste from the solar PV systems at the end of their lifecycle. By nature of the proposed subprojects and activities, the project will not involve any large-scale activities with potentially irreversible environmental impacts. Overall, the project is expected to have positive environmental impacts through the promotion of renewable energy generation.

The interventions are not anticipated to have major social impacts. Due to the nature of the project activities, physical displacement or permanent relocation are not anticipated. Nonetheless, Component 1 (Grid Extension to Peri-Urban Areas of Lesotho) and Component 2 (Rural Electrification by Mini-grids) may have limited land acquisition or subsequent loss of communal assets or restricted access to resources (whether related to private or communal resources) related to the construction of medium voltage grid extensions (including substations and MV/LV lines) as...
well as the construction of renewable energy-based mini-grids. Therefore, Involuntary Resettlement OP 4.12 is triggered to address any adverse impacts. Since the exact location of the works is not yet known, a Resettlement Policy Framework (RPF) has been prepared, consulted on, and disclosed in-country and on the World Bank external site. The RPF will guide the preparation and implementation of site-specific Resettlement Action Plans once the exact impact location(s) are known. The RAP/ARAP preparation and implementation, compensation and resettlement assistance, implementation supervision, training, consultations, disclosures, communication and GRM operating costs for each sub-project will be covered by LEC and DoE. Each of these agencies will be responsible to finance RAP/ARAPs related to the sub-projects they will implement respectively. Each of these agencies will be required to deposit in separate accounts the amount allocated for their respective sub-projects. Constructions works will not commence on a sub-project location until compensation and resettlement assistances are paid to PAPs in full, promptly and before commencement of civil works at each impact location.

Implementation of activities under Component 1 (Grid Extension to Peri-Urban Areas of Lesotho) and Component 2 (Rural Electrification by Mini-grids) may require recruitment of external skilled labor to project sites, however, establishment of labor camps is not anticipated. While the project will not establish labor camp(s), contractor workers shall be required to sign a Code of Conduct (CoC). Workers will be sensitized on HIV/AIDS, STDs, and on the culture and value of the community in which they will be working. Lesotho has made considerable strides to attain gender equity and equality. While project related GBV risks are relatively remote, contextual risks associated with GBV should be kept under the radar. Eighty-six percent of women in Lesotho experienced some form of Violence Against Women (VAW) at least once in their lifetime, including partner and non-partner violence. Forty percent of men perpetrated VAW at least once in their lifetime. VAW is predominantly perpetrated within intimate relationships. Sixty-two percent of women experienced, while 37% of men perpetrated, intimate partner violence (IPV). As a precaution, management and mitigation in relation to gender based violence (GBV) will be assessed in the ESMPs. The ESMP findings and the Bank’s GBV Risk Assessment Tool will guide the detection of GBV risks and the consequent development of mitigation plans. In order to minimize labor influx into project sites, the PIU is recommended to used unskilled local labor. GBV/SEA and CoC related provision shall be incorporated into the bid document and the bill of quantities. Procurement documentation will also include prioritization of local labor hiring, to localize expected economic benefits and minimize the potential harm associated with foreign labor. The exception will be skilled workers and technical experts who cannot be found in the project location. In order to prevent and address the potential social risks related to the labor influx (sexual exploitation, gender-based violence (GBV), human trafficking, teenage pregnancies), codes of conduct on child protection and gender-based violence will be integrated in the bidding documents and in the contracts of all employees, contractors, and consultants engaged in the project; additionally, impacted communities will be educated on proper conduct and training will be provided on communicable diseases and GBV. Capacity building for the implementing entities (DoE and LEC) is critical to address and monitor these issues. There will be continuous awareness raising on sexual exploitation and GBV in project areas through community liaison officers.

Stakeholder engagement is very critical and informing PAPs about their rights and choices is key requirement of the World Bank’s Operational Policies and Lesotho regulations. Information about the project will be shared with the general public and stakeholders to enable meaningful contribution into project as well as to enhance the success of the project. The PIU will employ different communication channels such as public gatherings, public notices in community council/chief offices, place posters in strategic locations and many public places, local radio stations, newspapers using local language. It is therefore proposed that wherever possible, the project related grievances should be resolved through the existing community-based systems for grievance resolution and this will be established during the development of the ESIA.
It is likely that project-affected parties in the communities will include vulnerable/disadvantaged groups. It is inevitable that some groups of people will be negatively impacted by the project activities. The impacts will therefore need to be managed promptly to avoid unnecessary tensions and conflicts. The project will also give differentiated treatment to vulnerable PAPs. At this stage these groups have not yet been determined, however, they will be identified after the specific impact locations become known as more information on sub projects becomes available, therefore, special considerations will be made for these groups.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: N/A

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts. N/A

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

To manage potential environmental and social impacts of the proposed project, Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) for all project components have been prepared. These safeguard instruments have been disclosed both in-country and on the Bank external site prior to project appraisal. The instruments built on lessons learned from previous and ongoing energy projects in Lesotho in providing strategies to continuously improve the processes of identifying environmental and social impacts of planned activities, planning and implementing mitigation measures, monitoring and reporting. During the preparations of instruments, consultations with interested and affected parties were conducted to solicit their concerns and/or support and inform the project design.

The ESMF provides the necessary methods and procedures for screening and monitoring the implementation of mitigation measures. During project implementation, the ESMF will be used for guidance in the preparation of appropriate subproject specific mitigation and management plans including, Environmental and Social Management Plans (ESMPs) and Construction Environmental and Social Management Plans (CESMPs) and chance find procedures for physical cultural resources where applicable. Budgetary allocations for operational and maintenance costs of all the solar PV and mini-hydro installations shall be built into the project design to address the disposal of hazardous waste related to Solar PV accessories and batteries at the end of their lifecycle.

The World Bank Environmental, Health and Safety (EHS) Guidelines, for Electric Power Transmission and Distribution and applicable Lesotho laws shall be used to guide implementation of all related Environmental Health & Safety aspects of the project. The Semonkong run-of-river mini-hydropower scheme includes a small weir (approximately 1.5 meters high). However, it is expected that the ecological and social impacts of upgrading this site will be minimal.

The project will be implemented by two implementing entities i.e. the Department of Energy (DoE) and the Lesotho Electricity Company (LEC). A single Project Implementation Unit (PIU) located at (DoE) will execute project activities, and have an overall Project Coordinator who will be responsible for overall coordination and oversight of the Project, including monitoring of environmental and social compliance. Within the PIU, LEC will be an implementing agency with autonomy to implement and provide oversight of relevant project components. LEC’s project Technical Unit will be composed of the LEC staff already implementing an AfDB funded project, and will be responsible for the implementation of grid extension (Component 1) and the rehabilitation and expansion of Semonkong (Subcomponent 2A). The PIU, through the DoE Technical Unit, will implement Subcomponent 2B and Components 3 and 4.
The two implementing agencies have different safeguard capacities. Currently, LEC has safeguards capacity to oversee implementation of the ESMF and associated environmental and social requirements for their associated project components. It has an established environmental and social management unit with experience implementing environmental and social safeguard policies. However, there is need for LEC to recruit additional social and environmental safeguards specialists who will be fully dedicated to the project. On the other hand, the DoE has no capacity in implementing environmental safeguard policies as it does not have a dedicated, qualified and experienced Environmental and social Specialists. Therefore, the DoE will need extensive support in providing environmental management oversight to (i) determine the level and degree of environmental and social risks and impacts of sub-projects; (ii) prepare sub-project specific safeguards instruments; and (iii) ensure that appropriate mitigation measures are implemented, monitored and reported. The PIU to be established under the DoE will recruit dedicated, qualified and experienced Environmental and social Safeguard Specialists with an overall environmental and social safeguards coordination role to screen, prepare, implement, monitor and report on safeguards requirements of their project components.

Implementation of the Project will further be guided by ESMF, the RPF, and subsequent E&S planning instruments to be developed when impact location(s) is/are known, and will develop a detailed communications plan. Citizen engagement will be a key component and the PIU will oversee ongoing and meaningful consultation in communities. The project has prepared the RPF to address any issues which might arise from physical/economic displacement and or restriction of access under the Project and, when specificity of sites are known, RPF will guide the preparation of any Resettlement Action Plan (RAP). The site-specific ESMPs to be developed during project implementation will also identify potential social risks, impacts and take into consideration local people’s social concerns and opinions on the social dimension of the project, especially on the vulnerable groups of the society (such as the elderly, disabled, women, orphans and vulnerable children). The mitigation measures included in the ESMP will address the identified potential negative social impacts.

A key component for citizen engagement will be the engagement of local community and participation liaison officers (CPLOs). The CPLOs will engage with local stakeholders throughout the project life cycle ensuring that all consultations are inclusive and accessible (both in format and location) and through channels that are suitable in the local context, ensuring inclusion of vulnerable and disadvantaged groups. The Project will, therefore, establish a citizen’s feedback mechanism and grievance redress system which will be integrated into the already existing LEC customer feedback procedures (which includes LEC customer line) and DoE. A functional grievance redress mechanism (GRM) will be established for the project incorporating the use of existing local grievance redress processes available in the community and in the DoE/LEC for addressing disputes that may result from this project.

The two implementing agencies have different capacities to address social concerns. LEC has a compliance and public affairs unit responsible for social issues and have some experience implementing social and environmental good practices. Though, LEC has not implemented any World Bank funded project, it has prior experience implementing international donor-funded projects which have required land acquisition, compensation and stakeholder engagement. The DoE has no capacity in implementing social safeguard policies. Thus, the DoE will require extensive support and hand holding in implementing the World Bank’s safeguards policies and for meaningful stakeholder engagement and grievance redress mechanisms. Currently the DoE does not have any social officer. A dedicated Project Implementing Unit (PIU) to be be established will need a full-time social specialist to oversee implementation and monitoring of social safeguard policies. Further training on the World Bank Safeguard Policies will be provided to the specialist to ensure that Bank Safeguard Polices are properly applied and that the project activities are implemented and monitored in accordance with the applicable World Bank Safeguard Policies.
5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

In line with best practice including the Lesotho Environment Act of 2008 as well as OP 4.01 on Environmental Assessment and OP 4.12 on Involuntary Resettlement in preparing ESMF and RPF, respectively, consultations will be held with all relevant, interested and affected parties. An array of project stakeholders and beneficiaries at national, district and community levels (including project affected communities/persons, traditional authorities, local authorities (Councils and the chiefs), schools and local businesses have been identified and consulted during the development of the instruments. The concerns raised by the various stakeholders are reflected in the ESMF and RPF and strategies to address them incorporated therein. Disclosure of the ESMF and RPF has been done in-country and on the World Bank’s external website prior to project appraisal. In addition, Sesotho summaries of both documents will be disclosed in-country.

In addition to the Bank’s standard Grievance Redress Service (GRS), the project will set up a localized project level Grievance Redress Mechanism (GRM) building on both traditional conflict-resolution mechanisms as well as project-based steps to ensure affected communities and all stakeholders have an opportunity and means to raise their concerns or to provide suggestions regarding project-related activities. LEC already has a customer feedback mechanism and this will be improved on to ensure accessibility at project sites.

B. Disclosure Requirements

<table>
<thead>
<tr>
<th>Environmental Assessment/Audit/Management Plan/Other</th>
<th>Date of receipt by the Bank</th>
<th>Date of submission for disclosure</th>
<th>For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors</th>
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<td>06-Nov-2019</td>
<td>06-Nov-2019</td>
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"In country" Disclosure
Lesotho
06-Nov-2019

Comments

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<tr>
<th>Resettlement Action Plan/Framework/Policy Process</th>
<th>Date of receipt by the Bank</th>
<th>Date of submission for disclosure</th>
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<td>05-Nov-2019</td>
<td>06-Nov-2019</td>
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"In country" Disclosure
Lesotho
06-Nov-2019

Comments

### C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?
No

**OP/BP 4.04 - Natural Habitats**

Would the project result in any significant conversion or degradation of critical natural habitats?
No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?
Yes

**OP/BP 4.11 - Physical Cultural Resources**

Does the EA include adequate measures related to cultural property?
Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?
Yes

**OP/BP 4.12 - Involuntary Resettlement**

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?
Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?
Yes

**OP/BP 4.37 - Safety of Dams**

Have dam safety plans been prepared?
NA

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?
Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?
NA

OP 7.50 - Projects on International Waterways

Have the other riparians been notified of the project?
No

If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent?
Yes

Has the RVP approved such an exception?
Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?
Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?
Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?
Yes

Have costs related to safeguard policy measures been included in the project cost?
Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?
Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?
Yes

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**APPROVAL**

| Task Team Leader(s): | Frederic Verdol  
|                      | Rhonda Lenai Jordan Antoine |

| Approved By |

| Safeguards Advisor:  
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<tbody>
<tr>
<td>Nathalie S. Munzberg</td>
<td>12-Nov-2019</td>
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| Practice Manager/Manager:  
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<td>Janet K. Entwistle</td>
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