



NSP-SPV Powercorp Plc Green Bond Framework

Final

26 October 2018

Project No.: 0460402

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Final



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EXECUTIVE SUMMARY

North South Power Company Limited (“NSP”) was established in 2012 to own and operate a diverse and growing portfolio of electricity generation businesses across Africa. To achieve its strategic business objectives, NSP is seeking to raise long term funding for its renewable energy initiatives. To this end, NSP-SPV Powercorp Plc (the “Issuer”) was incorporated in Nigeria in 2017 as a public limited company. The Issuer is wholly owned by NSP and the purpose of the vehicle /SPV is to issue bonds on behalf of NSP. While the issuer will be responsible to issue the bonds and satisfy all the obligation under this Green Bond Framework, NSP will be responsible for the management and the operation of the power business. NSP will provide necessary assistance to the Issuer in the satisfaction of the various obligation under this Green Bond Framework.

NSP envisions being the foremost power generating company in Africa. This will be achieved by leveraging technology, expertise and knowledge to provide energy and infrastructure solutions required by customers. NSP’s mission is to consistently generate reliable power in line with international best practices, driven by innovation and excellence.

NSP is committed to the world class standards of corporate governance. The company’s business practices have been strategically designed to propel the development of local communities through investments that have a positive social impact.

Climate change, and the associated political and social implications, is already presenting material risks and opportunities to business and industrial sectors. In response, governments are proposing and implementing legislation to mitigate greenhouse gas (GHG) emissions (e.g. carbon taxes, emission limits, carbon trading schemes etc.). To further support governments efforts, various financing vehicles are required to facilitate this low carbon transition. As such financing of climate related programmes has become one of the most critical avenues to ensure that governments and companies are able to mitigate and adapt to the changing climate. Understanding these risks and opportunities posed by a changing climate, The Issuer plans to issue a green bond, to refinance and finance the company’s investments in renewable energy. The green bond framework follows the Nigerian Federal Ministry of Environment’s (FMEnv’s) Nigerian Green Bond Guidelines (GBGs), Nigeria’s Securities and Exchange Commission (SEC) Draft Proposed Rule on Green Bonds, International Capital Market Association’s (ICMA’s) 2018 Green Bond Principles (GBP), as well as the draft Climate Bonds Initiative’s (CBI’s) Climate Bond Standard (CBS) Hydropower Sector Criteria.

Through NSP’s Shiroro plant operations, the company is able to generate power from a low carbon energy source and also reduce Nigeria’s overall grid emissions factor. The company’s activities and planned green bond issuance support both Nigeria’s international commitments to the United Nations Framework Convention on Climate Change (UNFCCC) through Intended Nationally Determined Contributions (INDC) as well as Global Goals for Sustainable Development (SDGs).

Green Bond proceeds will be used to refinance past eligible green projects (for the period 2013 to 2018) as well as finance future eligible green projects (for the period 2019 to 2053). These proceeds are intended to cover investments made by the company towards renewable energy, more specifically, hydropower generation and thereafter solar power generation, although the latter investment still needs to

undergo the necessary impact assessment process. NSP aims to use a rigorous process to determine green project selection and evaluation. This process involves Corporate Finance & Business Development together with the Technical & Commercial, the Environmental, Health & Safety as well as the Risk Management Departments. Proceeds from the Green Bond will be managed and allocated by NSP's Corporate Finance & Business Development Department and the Accounting Services Department. The Issuer shall make known to investors the intended types of temporary placement for the balance of unallocated proceeds. The issuer will make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation, and as necessary thereafter in the event of new developments. On an annual basis, at least until full allocation, The Issuer will provide within its Annual Report, and in at least two national dailies, specific impact results the portfolio.

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1. INTRODUCTION

1.1 Background to North South Power

North South Power (“NSP”) Company Limited was established in 2012 to own and operate a diverse and growing portfolio of electricity generation businesses across Africa. The company is currently advancing plans to commence construction of its 300 MW solar farm, which will enable it to continue to provide power to the Nigerian grid, whilst continuing to be an active player in Nigeria’s power sector through power generation from the existing Shiroro plant concession period (ending 2043).

NSP is conscious of the impact of its activities on the environment and communities and therefore aims to implement best known business practices and international standards. NSP is also aware of its role and contribution towards the mitigation of negative climate change effects, particularly in Nigeria. In the race to provide power across Africa, NSP is positioned to become a leader in providing clean and efficient energy to over 50 million customers over the next decade. Simply put, NSP’s objective is to light up Africa with sustainable and clean energy.

NSP envisions being the foremost power generating company in Africa. This will be achieved by leveraging technology, expertise and knowledge to provide energy and infrastructure solutions required by customers. NSP’s mission is to generate reliable power consistently in line with international best practices and driven by innovation and excellence.

The organization is focused on putting safety first, acting with integrity and honoring commitments. It is driven by the below-listed core values, clearly distinguishing the organization from its peers.

- Dignity of individual
- Teamwork
- Excellence in service delivery
- Managing the power plant for use in perpetuity.

Since commencement of its concession period in 2013, NSP has generated uninterrupted power. NSP has the following strategic focus areas:

- Optimise and de-risk Shiroro Power Plant;
- Development of 300MW Solar Power Project; and
- Acquisition of Gurara Hydro Power Plant

The Shiroro plant hosts Nigeria’s Supervisory Control and Data Acquisition System (SCADA), switchyard facilities (including a technical “step down” function for the enhanced distribution into the national grid), advanced control room, and modern training facilities.

To achieve its strategic business objectives, NSP is seeking to raise long term funding for its renewable energy initiatives. To this end, NSP-SPV Powercorp Plc (the “Issuer”) was incorporated in Nigeria in 2017 as a public limited company. The Issuer is wholly owned by NSP and the purpose of the vehicle /SPV is to issue bonds on behalf of NSP. While the issuer will be responsible to issue the bonds and satisfy all the obligation under this Green Bond Framework, NSP will be responsible for the management and the operation of the power business. NSP will provide necessary assistance to the Issuer in the satisfaction of the various obligation under this Green Bond Framework.

1.2 Climate change and green bonds

Climate change, and the associated political and social implications, is already presenting material risks and opportunities to business and industrial sectors. In response, governments are proposing and implementing legislation to mitigate greenhouse gas (GHG) emissions (e.g. carbon taxes, emission limits, carbon trading schemes etc.). To further support governments efforts, various financing vehicles are required to facilitate this low carbon transition. As such financing of climate related programmes has become one of the most critical avenues to ensure that governments and companies are able to mitigate and adapt to the changing climate. There has been a growth in impact investments, particularly the issuance of green bonds, where companies and governments finance or refinance projects or assets with positive environmental or climatic impacts, to contribute further towards the transition to a low carbon economy.

Understanding these risks and opportunities posed by a changing climate, North South Power plans to issue a green bond to refinance and finance the company's investments in renewable energy. This report represents the green bond framework for the bond issuance and has considered the Nigerian Federal Ministry of Environment's (FMEnv's) Nigerian Green Bond Guidelines (GBGs), Nigeria's Securities and Exchange Commission (SEC) Proposed Rule on Green Bonds, International Capital Market Association's (ICMA's) 2018 Green Bond Principles (GBP), as well as the draft Climate Bonds Initiative's (CBI's) Climate Bond Standard (CBS) Hydropower Sector Criteria.

1.3 Nigerian climate change commitments and the Sustainable Development Goals

The company's activities and planned green bond issuance in 2018 support both Nigeria's international commitments to the United Nations Framework Convention on Climate Change (UNFCCC) through Intended Nationally Determined Contributions (INDCs) as well as Global Goals for Sustainable Development (SDGs). Further details on these are provided below

1.3.1 Alignment with Nigeria's national strategic priorities

The Nigeria INDCs focus on the delivery of direct development benefits and sustainable growth of the economy. The INDCs promote sustainable development and delivering on government priorities. Key measures to allow this include driving energy efficiency and alternative energy programmes, as well as focusing on climate smart agriculture and reforestation.

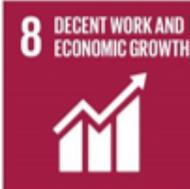
In the INDC, Nigeria has projected that GHG emissions will grow by about 114% by 2030 to around 900 million tCO_{2e}. Under a high growth scenario, with economic growth at 7%, this climbs to over one billion tCO_{2e}. As part of the COP21 Paris Agreement, Nigeria aims to unconditionally reduce emissions by 20% below business as usual (BAU) that is consistent with the current development trends and government policy priorities. Additionally, Nigeria can make a significant additional contribution with international support, in the form of finance and investment, technology and capacity building. Combined policies and measures can deliver in a cost-effective manner direct development benefits to the country and reduce emissions by 45% below BAU.

NSP's activities in renewable energy production have previously contributed to reducing GHG emissions for power generation and will continue to do so, supported by the issuance of the green bond.

1.3.2 Alignment with the SDGs

Recognising the importance of sustainable development and the transition to a low carbon economy, NSP values SDGs aimed to end poverty, protect the planet and ensure prosperity for all. As a company offering low carbon energy for Nigeria, NSP's activities are aligned with the following key SDGs (Figure 1.1):

Figure 1.1 SDGs aligned to NSP

 <p>7 AFFORDABLE AND CLEAN ENERGY</p> <p>On a global scale, hydropower is considered to be the second (only to wind) among renewables offering the lowest carbon emissions per kilowatt hour, as shown by the International Energy Agency (IEA).</p>	 <p>8 DECENT WORK AND ECONOMIC GROWTH</p> <p>NSP offers climate change resilient jobs with a work force of more than 300 aimed to improve resource efficiency and economic growth from environmental degradation.</p>	 <p>13 CLIMATE ACTION</p>
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> <p>NSP's mission as an organisation centres around consistently generating reliable power in line with international best practices, driven by innovation and excellence.</p>	 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> <p>Through renewable energy production, NSP contributes positively to reducing greenhouse gas emissions.</p>	<p>The dam acts as a flood control mechanism, providing potential adaptive capacity to downstream communities in a future where more extreme rainfall events are more likely.</p>

1.4 Framework overview

For the issuance of the green bond, a framework has been compiled in alignment with market practices and investors' expectations. This framework follows the Nigerian Federal Ministry of Environment's (FMEnv's) Nigerian Green Bond Guidelines (GBGs), Nigeria's Securities and Exchange Commission (SEC) Draft Proposed Rule on Green Bonds, International Capital Market Association's (ICMA's) 2018 Green Bond Principles (GBP), as well as the draft Climate Bonds Initiative's (CBI's) Climate Bond Standard (CBS) Hydropower Sector Criteria. The four pillars of the framework are:

- **Use of Proceeds (Section 2):** Provides information on how the proceeds of the bond will be used for projects with an environmental benefit (including other related and supporting expenditures, such as Research and Development (R&D));
- **Process for Project Evaluation and Selection (Section 3):** Provides information on the environmental sustainability objectives, processes on how projects fit within eligible green projects, as well as criteria and other process applied to identify and manage potential environmental and social risks.
- **Management of Proceeds (Section 4):** Summarises the systems in place to ensure that proceeds are channeled towards eligible projects.

- **Reporting (Section 5):** Reporting – provides a summary of the activities to be reported on, type of report as well as frequency of reporting.

Additionally, the following sections have been included for more information:

- **External Reviews (Section 6):** Summarises the external reviews to be undertaken on the green bond.

2. USE OF PROCEEDS

Green Bond proceeds will be used to refinance past eligible green projects (for the period 2013 to 2018) as well as future eligible green projects (for the period 2019 to 2053). These proceeds are intended to cover investments made by NSP towards renewable energy, more specifically, hydropower generation and thereafter solar power generation, although the latter investment still needs to undergo the necessary impact assessment process. All green projects will provide clear environmental benefits. These benefits will be assessed, and, where feasible, quantified by us.

3. PROCESS FOR PROJECT EVALUATION AND SELECTION

The following departments of NSP currently oversee the evaluation and selection of all projects and will continue to conduct such assessments for Eligible Green Projects:

1. Corporate Finance and Business Development;
2. Technical and Commercial;
3. Environmental, Health and Safety; and
4. Risk Management.

3.1 Environmental sustainability objectives

The Issuer is committed to the integration of environmental and social considerations in to its business activities as well as sustainable development. the issuer's Sustainability Management Plan serves as a foundation to its environmental sustainability objectives.

3.2 Issuer process for eligible green project evaluation and selection

At inception, the Technical and Commercial department is responsible for understanding the technical specification and feasibility of the project including determining how the project fits within the eligible project categories of the GBP, based on the technical specification of the project . The Environmental Department is responsible for conducting the required impact assessments (environmental, social and health) considering the technical specifications of the project and including whether the project's annual GHG emissions do not exceed the 100 gCO₂e/kWh threshold. These assessments also consider necessary mitigation and adaptation measures. The Risk Management Department is responsible for reviewing outputs from Technical and Commercial and the Environmental, Health and Safety, in order to determine the overall risk of the project. This assessment includes technical, financial and environmental risk assessments. Once Issuer has completed this initial cycle of reviews, a Project Feasibility Report is developed detailing assessment results and indicating whether the proposed project meets the specified eligibility criteria. The financial valuation and planning and business development processes then follow. These processes are championed by Corporate Finance and Business Development. The aforementioned steps are also highlighted in [Figure 3.1](#) below.

Figure 3.1 Project evaluation and selection process



The Issuer has an Environmental Policy as well as an Environmental and Social Management System in place. It has recognised the need to carry out its operation in the most environmentally sustainable manner and has therefore adopted a tri-ennial environmental auditing system in compliance with the statutory requirements.

Key objectives of the environmental audits (EAs) include:

- Assessing potential environmental risks emanating from power generation;
- Assessing the environmental performance and the level of regulatory compliance of the station;
- Recommending measures to improve environmental practices and also increase responsibility to stakeholders and the surrounding environment; and
- Identifying inadequacies in environmental management, occupational health and safety issues and quality compliance in the station.

The EAs also provide recommendations on issues such as policy, training, safety, water treatment, waste management etc. This process enables NSP to identify and assess risks at an early stage and effectively respond to them.

3.3 Eligibility criteria

The proceeds of the Green Bonds will be used to refinance and finance eligible green projects as defined below (“Eligible Green Projects”):

- Hydropower: investments in or expenditures for the acquisition, expansion, renovation, construction, development and installation of new and existing hydropower facilities in capacity of no more than 180 MW (per unit), with the annual emissions threshold not exceeding 100 g CO₂e/kWh.

Some examples include:

- Refinancing of acquisition and renovations to the facility including:
 - Tangible assets (e.g. properties, plant, equipment etc.)
 - Intangible assets (e.g. concession costs, plant alterations/overhauling, information technology software, etc.)
- Refinancing of scheduled overhaul of unit 4 and systems/controls upgrades including:
 - Procurement and maintenance (e.g. spare parts, machinery and equipment etc.)
- Financing operational expenses including:
 - Impact reports (e.g. environmental, health and safety)
 - Maintenance and repair (e.g. major maintenance required after 10 years)
- Financing other transaction costs

- Solar power: investments in or expenditures for the acquisition, expansion, renovation, construction, development and installation of new solar power facilities, that still need to undergo the necessary impact assessment processes.

3.4 Examples of eligible green projects

As an example of an Eligible Green Project, the Issuer has identified a project that exemplifies its objectives of maximising the potential yield and value of Nigeria's natural resources in a sustainable, responsible and efficient manner. This also aligns with Nigeria's INDC approved by President Muhammadu Buhari in 2015.

Proceeds of the Green Bond will not be used to finance or refinance projects that are not deemed to show a positive impact on the environment. These projects may include, but not limited to:

- Coal fired power generation; and
- Nuclear power generation.

4. MANAGEMENT OF PROCEEDS

Proceeds from the Green Bond will be managed and allocated by The Issuer's Corporate Finance and Business Development departments and the Accounting Services Department. The Issuer has established a platform that serves as a register to monitor and account for the Eligible Green Projects within the Enterprise Resource Planning (ERP) system.

The net proceeds of Green Bonds will be credited to a sub-account and attested to by a formal internal process linked to the Issuer's lending and investment operations for Green Projects. The Issuer will prepare quarterly reports (to be reviewed by the Board) which will contain information from the ERP system on how proceeds have been used for the period in question. The internal audit function will play an integral role in verifying the management and allocation of proceeds related to this green bond.

So long as the Green Bonds are outstanding, the balance of the tracked proceeds shall be periodically adjusted to match allocations to eligible Green Projects made during that period. In order to prevent the contamination of proceeds for unallocated funds, the Issuer intends to either:

- (i) Temporarily invest the funds in instruments that are cash, or cash equivalent, within a Treasury function; or
- (ii) Temporarily invest fund instruments that do not include greenhouse gas intensive projects which are inconsistent with the delivery of a low carbon and climate resilient economy; or
- (iii) Apply to temporarily reduce indebtedness of a revolving nature before being redrawn for investments or disbursements to Nominated Projects and Assets.

The Issuer shall make known to investors the intended types of temporary placement for the balance of unallocated proceeds which shall comply with both the Nigerian GBG and the ICMA's GBP.

The Issuer adheres to a high level of transparency and will be supplementing the management of proceeds with an auditor, or other third party, to verify the internal tracking method and the allocation of funds from the Green Bond proceeds, on an annual basis. These audits will be conducted both pre-payment and post-payment, and will be spearheaded by the internal audit function of The Issuer

In its annual reporting, The Issuer will disclose both the amount of proceeds allocated to Eligible Green Projects and the balance of unallocated proceeds.

5. REPORTING

5.1 Allocation reporting

The Issuer will keep readily-available and up-to-date information on the use of proceeds to be renewed annually until full allocation, and as necessary thereafter in the event of new developments.

This will include a list of the projects to which green bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated, and the remaining balance of unallocated proceeds at the end of the reporting period. The Accounting Services Department and the Corporate Finance and Business Development Department will facilitate this process.

Should The Issuer deem certain allocations to be confidential, these results will only be made available to the current investors of the Green Bond. Allocations will be reported at a book value and will be subject to annual external audits.

5.2 Impact Reporting

On an annual basis, at least until full allocation, The Issuer will prepare an impact report detailing measured and achieved impacts in relation to the environmental objectives of this bond issuance. The impact report will be shared with investors, published on a dedicated section of its website, and it shall address the following impact metrics:

- Annual GHG emissions mitigated (tCO₂e);
- Annual GHG emissions intensity (tCO₂e/kWh);
- Annual renewable energy generation (MWh);
- Capacity of renewable energy plant(s) constructed or rehabilitated (MW);
- Annual absolute (gross) GHG emissions from the plant (tCO₂e).

The results of the impact measurement will also be reported in two (2) daily newspapers within Nigeria.

The impact reporting process will be led by the Environmental, Health and Safety Department and calculations will be based international best practice guidelines and where there is a lack of same, will make use of company specific methods and factors.

6. EXTERNAL REVIEWS

6.1 Second party opinion

NSP has appointed TUV NORD CERT, a qualified external reviewer, to assess the alignment of the Green Bond Framework with the Nigerian GBG as well as the GBP.

6.2 Annual review

The Issuer will appoint an external consultant to assess annually the compliance, in all material respects, of the Eligible Green Projects with the respective eligibility criteria. This report will be issued once a year until the net proceeds are used in full or the maturity date of the green bond issue, whichever comes first.

Should The Issuer deem certain aspects confidential, these results will be made available only to the current investors of the Green Bond.

6.3 Annual verification by auditors

The Issuer will appoint an independent third-party financial auditors will issue an annual financial assurance report on the tracking of the funds raised from the Green Bond issuance to the allocation of such funds to Eligible Green Projects, as well as on the reconciliation of the amount of funds allocated to Eligible Projects. This report will be issued once a year until the net proceeds are used in full or the maturity date of the Green Bond issue, whichever comes first.

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