

# Second-Party Opinion

## WAPDA Green Bond Framework



### Evaluation Summary

Sustainalytics is of the opinion that the Green Bond Framework is credible and impactful and aligns to the four core components of the Green Bond Principles 2018. This assessment is based on the following:



**USE OF PROCEEDS** The eligible categories for the use of proceeds – Renewable Energy and Climate Change Adaptation – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7 and 13.



**PROJECT EVALUATION / SELECTION** WAPDA's internal process in evaluating and selecting projects is overseen by the Green Bond Committee (the "Committee"). The Committee is responsible for (i) confirming that the eligible projects are developed according to relevant environmental and social risk management regulations (ii) ensuring green projects are aligned with the eligibility criteria as specified in the Use of Proceeds (iii) reviewing and approving allocation and impact reports. This is in line with market practice.



**MANAGEMENT OF PROCEEDS** WAPDA's processes for management of proceeds are overseen by the Finance department. WAPDA will manage and track allocation of proceeds by establishing a register of eligible green projects. The Issuer intends to allocate an amount equal to the net proceeds raised by the Green Bond Issuance within two years from the date of issuance. Pending allocation, the amount equal to net proceeds will be held in cash deposits on a temporary basis or held in deposit accounts of commercial banks. This is in accordance with the relevant WAPDA internal policies. This is in line with market practice.



**REPORTING** WAPDA intends to report on allocation of proceeds on its website on an annual basis until full allocation. The allocation report is expected to include total amount of proceeds allocated to eligible green projects per category, noting instances where allocations could not be made as originally planned, the proportion of proceeds allocated to refinancing of existing eligible green projects, and unallocated proceeds. In addition, WAPDA is committed to reporting on relevant impact metrics. WAPDA intends to commission an external Compliance Review within one year of bond issuance and annually until full allocation. Sustainalytics views WAPDA's allocation and impact reporting as aligned with market practice.

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<b>Evaluation Date</b>	February 12, 2021
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<b>Issuer Location</b>	Lahore, Pakistan
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## Introduction

The Pakistan Water & Power Development Authority (“WAPDA”, or the “Issuer”) is an autonomous and statutory body under the administrative control of the government of Pakistan. WAPDA is responsible for the operation, maintenance, upgrade, and expansion of hydropower plants, large water reservoirs, and the construction of new power generation and water storage projects in the Indus Basin in Pakistan. Currently, WAPDA’s total installed hydropower capacity is 9,387 MW and represents 96% of Pakistan’s hydroelectric power generation capacity as of 30<sup>th</sup> June 2020.<sup>1</sup>

WAPDA has developed the Green Bond Framework (the “Framework”) under which it intends to issue a/multiple green bond(s) and use the proceeds to finance and/or refinance, in whole or in part, existing and/or future projects that provide a sustainable and low-carbon economy in Pakistan through the production and storage of hydropower energy. The Framework defines eligibility criteria in two areas:

1. Renewable Energy
2. Climate Change Adaptation

WAPDA engaged Sustainalytics to review the WAPDA Green Bond Framework, dated February 2021, and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP).<sup>2</sup> This Framework is published in a separate document.<sup>3</sup>

### Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent<sup>4</sup> opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2018, as administered by ICMA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.7.1, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of WAPDA’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. WAPDA representatives have confirmed (1) they understand it is the sole responsibility of WAPDA to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and WAPDA.

Sustainalytics’ Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics’ Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The

<sup>1</sup> WAPDA shared its key sustainability strategy and performance as of 2020.

<sup>2</sup> The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

<sup>3</sup> The WAPDA Green Bond Framework is available on WAPDA’s website at: <http://www.wapda.gov.pk>

<sup>4</sup> When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that WAPDA has made available to Sustainalytics for the purpose of this Second-Party Opinion.

## Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the WAPDA Green Bond Framework

Sustainalytics is of the opinion that the WAPDA Green Bond Framework is credible, impactful, and aligns to the four core components of the GBP. Sustainalytics highlights the following elements of WAPDA's Green Bond Framework:

- Use of Proceeds:
  - The eligible categories – Renewable Energy and Climate Change Adaptation – are aligned with those recognized by the GBP. Sustainalytics notes that the following projects will be financed in Pakistan.
  - Within the Renewable Energy category, WAPDA may finance or refinance the development, expansion or refurbishment of assets that generate hydropower or wind energy with a carbon emissions intensity of <100 gCO<sub>2</sub>e/kWh. For large hydropower projects (>25MW), WAPDA is committed to conducting an environmental and social impact assessment through third parties to identify any significant environmental or social risks attached prior to development or refurbishment. Sustainalytics positively notes the use of emission intensity thresholds for generation of renewable energy.
  - Under the Climate Change Adaptation category, WAPDA may finance or refinance technologies supporting flood control and prevention measures. Sustainalytics notes that a detailed study on vulnerability and adaptation measures using 100 years of historical data will be conducted to assess flood control systems prior to financing, in order to demonstrate sufficient evidence supporting these technologies. This meets market practice.
  - For refinancing of eligible projects, WAPDA will apply a look-back period of 36 months preceding the date of Green Bond issuance.
- Project Evaluation and Selection:
  - The project evaluation and selection process will be overseen by the Green Bond Committee (the "Committee") as established by WAPDA. The Green Bond Committee will be comprised of representatives such as Member Finance, General Manager Coordination and Monitoring, Deputy General Manager Finance (Power), Head Structured Finance Cell. The Committee is responsible for (i) confirming that the eligible green projects are developed in accordance with relevant environmental and social risk management regulations, and any applicable environmental and social risk management related requirements of financing institutions; (ii) ensuring eligible green projects are aligned with the eligibility criteria as specified in the Use of Proceeds section, and approving any proposed changes to the register of eligible green projects in the event that the projects no longer meet the eligibility criteria; (iii) reviewing and approving allocation and impact reports. The Member Finance department will have overall responsibility for the approval of allocations.
  - Based on the establishment of a Green Bond Committee with clear oversight on responsibilities, and an external review on eligibility compliance, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
  - WAPDA will manage and track allocation of proceeds by establishing a register of eligible green projects. The Issuer intends to allocate an amount equal to the net proceeds raised by the Green

Bond Issuance within two years from the date of issuance, which is aligned with market practice. This process will be managed by the WAPDA Finance Department. Pending full allocation, any balance of unallocated proceeds will be held in cash deposits on a temporary basis or held in deposit accounts of commercial banks. This is in accordance with the relevant WAPDA internal policies.

- Based on internal tracking system, allocation timeframe and disclosure on temporary allocation of proceeds, Sustainalytics considers this process to be in line with market practice.
- Reporting:
  - WAPDA has indicated a commitment to allocation and impact reporting within one year of issuance, and annually thereafter until the date of maturity of the Green Bond. WAPDA will provide allocation and impact report, subject to the availability of information, in an External Report that is made available publicly on the WAPDA website. The allocation report is expected to include total amount of proceeds allocated to eligible green projects per category, noting instances where allocations could not be made as originally planned, the proportion of proceeds allocated to refinancing of existing eligible green projects, and the balance of unallocated proceeds, if any. Additionally, WAPDA intends to report on impact metrics such as CO<sub>2</sub> emissions avoided (tCO<sub>2</sub>-e), where feasible, and a qualitative report (e.g. case study) that details the produced environmental and social benefits.
  - WAPDA intends to commission an external Compliance Review within one year of bond issuance and annually thereafter until full allocation of proceeds. The Compliance Review will ensure that bond proceeds have been allocated in accordance with the use of proceeds criteria specified in this framework.
  - Based on WAPDA's commitment to allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

#### Alignment with Green Bond Principles 2018

Sustainalytics has determined that the WAPDA Green Bond Framework aligns to the four core components of the GBP. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

## Section 2: Sustainability Strategy of WAPDA

#### Contribution of framework to WAPDA's sustainability strategy<sup>5</sup>

Under the administrative control of the government of Pakistan, WAPDA strives to support generating affordable and environmentally-friendly electricity to increase the country's capacity of hydropower generation while reducing the dependence on thermal power generation.<sup>6</sup> As of June 2020, WAPDA accounts for 96% of Pakistan's hydroelectric power generation capacity with total installed hydropower capacity amounted to 9,387 MW from 22 HPPs. To date, WAPDA has four major projects under construction, which will add approximately 8,870 MW of installed capacity (out of 9,359 MW of installed capacity which will be added on completion of all WAPDA's outstanding construction projects). These projects are expected to be completed from 2025 to 2029 while contributing to a twofold increase in WAPDA's current installed capacity.

In 2020, Hydroelectric power accounted for approximately 25% of Pakistan's total installed capacity.<sup>7</sup> Under the *Indicative Generation Capacity Expansion Plan (2018-2040)* of National Transmission and Dispatch Company (NTDC), hydroelectric power is expected to expand to around 33% and 50% of total installed capacity by 2025 and 2030 respectively.<sup>7</sup> As a facilitator of developing new hydropower projects in Pakistan, WAPDA plays a leading role in developing NTDC projects.<sup>7</sup> Projects will add the total installed hydropower capacity in its coverage area from approximately 9.8 GW in 2020 to approximately 28.9 GW in 2030 with an 11.4% of compound annual growth rate.<sup>7</sup>

Based on the above, Sustainalytics is of the opinion that the Green Bond Framework is aligned with the organization's overall sustainability strategy and initiatives, and will further WAPDA's action on its key environmental priorities.

<sup>5</sup> WAPDA shared its key sustainability strategy and performance as of 2020.

<sup>6</sup> WAPDA, "Annual Report 2018/2019", (2019), at: <http://www.wapda.gov.pk/index.php/investor-s-corner/annual-report>

<sup>7</sup> National Transmission and Dispatch Company (NTDC), "Indicative Generation Capacity Expansion Plan (2018-2040)", (2019), at: [https://www.nepra.org.pk/Admission%20Notices/2019/09-September/IGCEP%20Plan%20\(2018-40\).pdf](https://www.nepra.org.pk/Admission%20Notices/2019/09-September/IGCEP%20Plan%20(2018-40).pdf)

### Well-positioned to address common environmental and social risks associated with the projects

While Sustainalytics recognizes that the net proceeds from the bonds issued under the Framework will be directed towards eligible projects that are recognized by the GBP 2018 to have positive environmental impact, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects could include land use, biodiversity, occupational health and safety, and community relations issues associated with large-scale infrastructure development. Sustainalytics is of the opinion that WAPDA is able to manage and mitigate potential risks through implementation of the following procedures and policies:

- Being an autonomous body under the administrative control of the Pakistan Government, WAPDA is in compliance with the following:
  - (i) *Environmental Protection Act*<sup>8</sup> for the protection, rehabilitation, and improvement of the environment;
  - (ii) *National Environmental Quality Standards*,<sup>9</sup> guidelines to control pollution for emissions and liquid effluents;
  - (iii) *National Occupational Health and Safety Policy*,<sup>10</sup> ensuring safe and healthy working conditions for workers by eliminating or minimizing the risks arising from work.
- In regard to water sector development projects, WAPDA Environment Cell ("WEC") will conduct the Environmental Impact Assessment (EIA) and Initial Environmental Examination (IEE). Based on the EIA, WAPDA will implement the Environmental Management Plans required for the development project.<sup>11</sup> Additionally, WAPDA is committed to engaging a credible external party to conduct a social and environmental assessment.
- In regard to the flood control and prevention projects, WAPDA confirmed that a suitably qualified international party will conduct engineering and design studies considering hydrology and flooding data over 100 years.
- In regard to the local community resettlement issue, the Land Acquisition and Resettlement Division of WAPDA is in charge of facilitating the social safeguard implementation, planning and management, and stakeholder engagement.<sup>12</sup>
- WAPDA has adopted the practices from international standards for its health and safety and environmental codes of practice such as the World Bank's Environmental and Social Standards,<sup>13</sup> International Finance Corporation (IFC) performance standards<sup>14</sup> and the Equator Principles.<sup>15</sup>

Based on these policies, standards and assessments, Sustainalytics is of the opinion that WAPDA has implemented adequate measures and is well-positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

## Section 3: Impact of Use of Proceeds

The two use of proceeds categories are aligned with those recognized by the GBP. Sustainalytics has focused on the below where the impact is specifically relevant in the local context.

### Importance of facilitating the hydropower and wind power investments in Pakistan

With increasing energy demand and insufficient investments in infrastructure for energy generation, Pakistan has been challenged by a growing gap between power demand and local generation over the past decade.<sup>16</sup> At present, oil and natural gas account for around 36% of the primary energy supply in Pakistan.<sup>16</sup> Furthermore, due to lack of domestic capacity, unmet energy demand has been met by imported fossil fuels, resulting in the budgetary burden and weak energy security.<sup>16</sup> Despite the large portion of fossil fuels in its energy mix, Pakistan has strong potential for deploying hydro power,<sup>16</sup> particularly given the amount of water resources in

<sup>8</sup> The Gazette of Pakistan, "Pakistan Environmental Protection Act", (1997), at: <http://environment.gov.pk/images/webcontent/pepaact1997.pdf>

<sup>9</sup> Government of Pakistan, "Revised National Environmental Quality Standards", (1999), at: <https://www.elaw.org/system/files/RevisedNEQS.pdf>

<sup>10</sup> Government of Pakistan, "National Occupational Health and Safety Policy", (2018), at: <http://assp.org.pk/wp-content/uploads/2019/03/Draft-National-OHS-Policy.pdf>

<sup>11</sup> WAPDA, "Environmental Initiatives", at: <http://www.wapda.gov.pk/index.php/environmental-initiatives>

<sup>12</sup> WAPDA, "Annual Report 2018/2019", (2019), at: <http://www.wapda.gov.pk/index.php/investor-s-corner/annual-report>

<sup>13</sup> World Bank, "Environmental and Social Standards (ESS)", at: <https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards>

<sup>14</sup> IFC, "Performance Standards", at: [https://www.ifc.org/wps/wcm/connect/Topics\\_Ext\\_Content/IFC\\_External\\_Corporate\\_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards](https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards)

<sup>15</sup> Equator Principles, "Equator Principles", at: <https://equator-principles.com/about/>

<sup>16</sup> IRENA, "Renewables Readiness Assessment: Pakistan", (2018), at: [https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA\\_RRA\\_Pakistan\\_2018.pdf](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_RRA_Pakistan_2018.pdf)



the Indus Valley.<sup>17</sup> As such, hydropower is the majority of the main renewable sources in Pakistan, whereas the share of wind and solar PV's is gradually growing.<sup>18</sup> In order to achieve an optimal energy mix in the country considering the costs and GHG emissions, around 10,000 MW of thermal capacity are expected to be retired by 2035.<sup>19</sup> The gap of thermal capacity would be filled with hydropower and a combination of solar PV and wind energy by 2032. The government of Pakistan aims to achieve a share of 30% renewables for its electric power generation by 2030, from 4% in 2020, mainly through wind and solar power.<sup>20</sup> Additionally, the government of Pakistan aims to further scale up the hydropower to 30% within the same timeframe.<sup>21</sup> Under the *Indicative Generation Capacity Expansion Plan (2018-2040)*, National Transmission and Dispatch Company (NTDC) aims to expand hydroelectric power to around 33% and 50% of total installed capacity by 2025 and 2030 respectively.<sup>7</sup>

Given the high reliance on fossil-fuels and energy import dependency, Sustainalytics is of the opinion that WAPDA's financing of hydro and wind power projects can contribute to increasing the share of renewable sources and energy security in Pakistan, thereby contributing to the national renewable energy target.

### Importance of advancing the flood control and prevention systems in Pakistan

Pakistan is ranked the eighth country most affected by the climate change globally between 1998 and 2017, resulting in 10,248 deaths and 0.5% GDP loss.<sup>22,23</sup> The key climate change issues in Pakistan include increased monsoon variability, decreased capacity of water reservoirs leading to reduced hydropower during years of droughts, and extreme events including floods and droughts.<sup>24</sup> The Climate Change Vulnerability Index 2016 suggests that an increase in precipitation and rainfall patterns will occur during the summer season, leading to flash floods and flooding of rivers in Pakistan.<sup>22</sup> In 2020, for example, three days of monsoon rains caused approximately 90 deaths and damage to thousands of homes.<sup>25</sup> The government of Pakistan notes that the country has a high potential for adaptation, in particular, in advancing the flood infrastructure such as water reservoirs and water channels, which require around USD 7-14 bn (EUR 5.8-11.6) annually.<sup>22</sup>

WAPDA intends to finance expenditures related to flood control and prevention systems pursuant to the national climate change adaptation initiatives. Considering the importance of addressing adverse impacts of climate change in Pakistan, Sustainalytics is of the opinion that WAPDA's financing can contribute to flood risk management while supporting the government's climate change adaptation initiatives.

### Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The bonds issued under the Green Bond Framework advance the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Climate Change Adaptation	13. Climate action	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

<sup>17</sup> Iha, "Pakistan", (2017), at: <https://www.hydropower.org/country-profiles/pakistan>

<sup>18</sup> IEA, "Pakistan", (2021), at: <https://www.iea.org/countries/pakistan>

<sup>19</sup> World Bank/IBRD/IDA, "Pakistan Sustainable Energy Series: Variable Renewable Energy Integration and Planning Study", (2020), at: <http://documents1.worldbank.org/curated/en/884991601929294705/pdf/Variable-Renewable-Energy-Integration-and-Planning-Study.pdf>

<sup>20</sup> Reuters, "Pakistan pushes renewables - but coal expansion continues too", (2020), at: <https://www.reuters.com/article/us-pakistan-renewables-climatechange-trf-idUSKCN253311>

<sup>21</sup> Renewable Energy Magazine, "Pakistan to set 30 percent plus 30 percent Renewable Energy Target by 2030", (2019), at: <https://www.renewableenergymagazine.com/panorama/pakistan-to-set-30-percent-plus-30-20190403>

<sup>22</sup> Pakistan, "Pakistan's Intended Nationally Determined Contribution", (2016), at: <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Pakistan%20First/Pak-INDC.pdf>

<sup>23</sup> Tribune, "Pakistan – the 8th most affected country from climate change", (2018), at: <https://tribune.com.pk/story/1861497/10-pakistan-8th-affected-country-climate-change>

<sup>24</sup> UNDP/Climate Change Adaptation, "Pakistan", at: <https://www.adaptation-undp.org/explore/pakistan>

<sup>25</sup> The Guardian, "Pakistan floods: at least 90 killed in monsoon rains", article, (2020), at: <https://www.theguardian.com/world/2020/aug/26/pakistan-floods-at-least-90-killed-in-monsoon-rains>

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## Conclusion

WAPDA has developed the Green Bond Framework under which it will issue green bonds and the use of proceeds to finance the development, expansion and refurbishment of hydropower generation, and projects supporting water and energy storage. Sustainalytics considers that the projects funded by the green bond proceeds are expected to have positive environmental impact in the Indus basin region in Pakistan.

The Green Bond Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the Green Bond Framework is aligned with the overall sustainability strategy of WAPDA and that the green use of proceeds categories will contribute to the advancement of the UN Sustainable Development Goals 7 and 13. Additionally, Sustainalytics is of the opinion that WAPDA has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that WAPDA is well-positioned to issue green bonds and that the Green Bond Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2018.

## Appendix

### Appendix 1: Green Bond / Green Bond Programme - External Review Form

#### Section 1. Basic Information

<b>Issuer name:</b>	Pakistan Water & Power Development Authority (WAPDA)
<b>Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:</b>	WAPDA Green Bond Framework
<b>Review provider's name:</b>	Sustainalytics
<b>Completion date of this form:</b>	February 12, 2021
<b>Publication date of review publication:</b>	

#### Section 2. Review overview

##### SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds        | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting                                    |

##### ROLE(S) OF REVIEW PROVIDER

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification   | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):                       |  |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

##### EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Evaluation Summary above.



## Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

### 1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible categories for the use of proceeds – Renewable Energy and Climate Change Adaptation – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7 and 13.

#### Use of proceeds categories as per GBP:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Renewable energy  | <input type="checkbox"/> Energy efficiency   |
| <input type="checkbox"/> Pollution prevention and control   | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation  | <input type="checkbox"/> Clean transportation  |
| <input type="checkbox"/> Sustainable water and wastewater management  | <input checked="" type="checkbox"/> Climate change adaptation  |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes                            | <input type="checkbox"/> Green buildings   |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP | <input type="checkbox"/> Other <i>(please specify)</i> :   |

If applicable please specify the environmental taxonomy, if other than GBP:

### 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section *(if applicable)*:

WAPDA's internal process in evaluating and selecting projects is overseen by the Green Bond Committee (the "Committee"). The Committee is responsible for (i) confirming that the eligible projects are developed according to relevant environmental and social risk management regulations (ii) ensuring green projects are aligned with the eligibility criteria as specified in the Use of Proceeds (iii) reviewing and approving allocation and impact reports. This is in line with market practice.

#### Evaluation and selection

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives            | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories    |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |

- ☐ Summary criteria for project evaluation and selection publicly available
- ☐ Other (*please specify*):

#### Information on Responsibilities and Accountability

- ☒ Evaluation / Selection criteria subject to external advice or verification
- ☐ In-house assessment
- ☐ Other (*please specify*):

### 3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

WAPDA's processes for management of proceeds are overseen by the Finance department. WAPDA will manage and track allocation of proceeds by establishing a register of eligible green projects. The Issuer intends to allocate an amount equal to the net proceeds raised by the Green Bond Issuance within two years from the date of issuance. Pending allocation, the amount equal to net proceeds will be held in cash deposits on a temporary basis or held in deposit accounts of commercial banks. This is in accordance with the relevant WAPDA internal policies. This is in line with market practice.

#### Tracking of proceeds:

- ☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- ☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds
- ☐ Other (*please specify*):

#### Additional disclosure:

- ☐ Allocations to future investments only
- ☒ Allocations to both existing and future investments
- ☐ Allocation to individual disbursements
- ☒ Allocation to a portfolio of disbursements
- ☒ Disclosure of portfolio balance of unallocated proceeds
- ☐ Other (*please specify*):

### 4. REPORTING

Overall comment on section (*if applicable*):

WAPDA intends to report on allocation of proceeds on its website on an annual basis until full allocation. The allocation report is expected to include total amount of proceeds allocated to eligible green projects per category, noting instances where allocations could not be made as originally planned, the proportion of proceeds allocated to refinancing of existing eligible green projects, and unallocated proceeds. In addition, WAPDA is committed to reporting on relevant impact metrics. WAPDA intends to commission an external Compliance Review within one year of bond issuance and annually until full allocation. Sustainalytics views WAPDA's allocation and impact reporting as aligned with market practice.

**Use of proceeds reporting:**

- |  |  |
|--|--|
| <input type="checkbox"/> Project-by-project            | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other ( <i>please specify</i> ):        |

**Information reported:**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Allocated amounts     | <input type="checkbox"/> Green Bond financed share of total investment |
| <input type="checkbox"/> Other ( <i>please specify</i> ): |  |

**Frequency:**

- |  |                                      |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual       | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): |                                      |

**Impact reporting:**

- |  |  |
|--|--|
| <input type="checkbox"/> Project-by-project            | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (please specify):                 |

**Information reported (expected or ex-post):**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input type="checkbox"/> Energy Savings                         |
| <input type="checkbox"/> Decrease in water use              | <input type="checkbox"/> Other ESG indicators (please specify): |

**Frequency**

- |  |                                      |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual       | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): |                                      |

**Means of Disclosure**

- |   |  |
|---|--|
| <input type="checkbox"/> Information published in financial report  | <input type="checkbox"/> Information published in sustainability report                          |
| <input type="checkbox"/> Information published in ad hoc documents  | <input checked="" type="checkbox"/> Other (please specify): External report available on website |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): |  |

Where appropriate, please specify name and date of publication in the useful links section.

**USEFUL LINKS** (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

<http://www.wapda.gov.pk>

**SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE**

**Type(s) of Review provided:**

- |  |  |
|--|--|
| <input type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit                        | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):            |  |

**Review provider(s):**

**Date of publication:**

**ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP**

- i. **Second-Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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