Ramu 2 Hydroelectric Power Project – Expression of Interest
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<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td>Alternating Current</td>
</tr>
<tr>
<td>Asset Entity</td>
<td>The entity which will own the Project and will be comprised of relevant PNG stakeholders including KCH, the relevant provincial governments and landowners.</td>
</tr>
<tr>
<td>BOOT</td>
<td>Build Own Operate Transfer</td>
</tr>
<tr>
<td>CEPA</td>
<td>Conservation and Environment Protection Authority</td>
</tr>
<tr>
<td>Capex</td>
<td>Capital expenditure</td>
</tr>
<tr>
<td>DC</td>
<td>Direct Current</td>
</tr>
<tr>
<td>Energy</td>
<td>A measure of the amount of electricity used over a period of time. Units used are gigawatt-hours (GWh), megawatt-hours (MWh) or kilowatt-hours (kWh) depending on the power and time scale involved.</td>
</tr>
<tr>
<td>EOI</td>
<td>Expression of Interest</td>
</tr>
<tr>
<td>EPC</td>
<td>Engineer, Procure, Construct</td>
</tr>
<tr>
<td>ESIA</td>
<td>Environmental &amp; Social Impact Assessment</td>
</tr>
<tr>
<td>ESMP</td>
<td>Environmental &amp; Social Management Plans</td>
</tr>
<tr>
<td>Evaluation Criteria</td>
<td>Standard measures established to evaluate the degree to which Proponents are able to meet expectations or objectives.</td>
</tr>
<tr>
<td>Generated Electricity</td>
<td>The total power generated as measured at the generator terminals.</td>
</tr>
<tr>
<td>Generating unit</td>
<td>A single power-producing unit consisting of a turbine, generator and related equipment. Often referred to as a unit.</td>
</tr>
<tr>
<td>Generator</td>
<td>A machine that converts mechanical energy into electrical energy.</td>
</tr>
<tr>
<td>HP</td>
<td>High Pressure</td>
</tr>
<tr>
<td>Hurdle Requirements</td>
<td>The requirements that must be met in order for an Expression of Interest to be evaluated.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hydroelectric Power</td>
<td>The generation of electricity from flowing water.</td>
</tr>
<tr>
<td>Hydropower</td>
<td>An abbreviation of Hydroelectric Power that shall carry the same definition.</td>
</tr>
<tr>
<td>HV</td>
<td>High Voltage</td>
</tr>
<tr>
<td>ICCC</td>
<td>Independent Consumer and Competition Commission</td>
</tr>
<tr>
<td>Installed capacity</td>
<td>The total of the capacities shown on the nameplates of the generating units in a power plant.</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>A collective term for physical and social services such as roads, power and water supplies, housing, health services, schools, technical and industrial support services, etc.</td>
</tr>
<tr>
<td>IPP</td>
<td>Independent Power Producer</td>
</tr>
<tr>
<td>KCH</td>
<td>Kumul Consolidated Holdings</td>
</tr>
<tr>
<td>Lead Time</td>
<td>The period required between deciding to build plant and the plant entering commercial service. It is the sum of planning and approvals, design, construction and commissioning periods.</td>
</tr>
<tr>
<td>LNG</td>
<td>Liquefied Natural Gas</td>
</tr>
<tr>
<td>Load (electrical)</td>
<td>The amount of electrical power drawn from a power line, generator, or other power source.</td>
</tr>
<tr>
<td>LP</td>
<td>Low Pressure</td>
</tr>
<tr>
<td>LV</td>
<td>Low Voltage</td>
</tr>
<tr>
<td>Majority State Owned</td>
<td>An entity in which the government holds greater than a 50% interest.</td>
</tr>
<tr>
<td>Enterprise</td>
<td></td>
</tr>
<tr>
<td>NPV</td>
<td>Net Present Value</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operation and Maintenance</td>
</tr>
<tr>
<td>Operating Co</td>
<td>An entity established by the Proponent to undertake the Project.</td>
</tr>
<tr>
<td>Opex</td>
<td>Operational expenditure</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
</tr>
<tr>
<td>Power</td>
<td>The time rate of transferring energy. Electrical power is measured in kilowatts (kW) or megawatts (MW) or gigawatts (GW). The term is also used in the electric power industry to mean capacity (power).</td>
</tr>
<tr>
<td>PPA</td>
<td>Power Purchase Agreement</td>
</tr>
<tr>
<td>PPL</td>
<td>PNG Power Ltd</td>
</tr>
<tr>
<td>Present Value</td>
<td>Dollar values that have been discounted to a common valuation date. (Money allocated to different time periods must be expressed in present value terms before it can be directly added or subtracted.)</td>
</tr>
<tr>
<td>Project</td>
<td>The design, construction, financing, operation and maintenance of the 180MW Ramu 2 hydroelectric project.</td>
</tr>
<tr>
<td>Proponent</td>
<td>The entity which responds to this EOI.</td>
</tr>
<tr>
<td>Rated output</td>
<td>The power output at which a unit is rated. Normally measured in megawatts (MW).</td>
</tr>
<tr>
<td>RFP</td>
<td>Request for Proposal</td>
</tr>
<tr>
<td>Switchyard</td>
<td>A concentration of electrical equipment which connects two or more electric circuits through switches selectively arranged in order to permit a circuit to be disconnected or to change the electric connection between the circuits. In a power station project, the switchyard is the point at which the energy generated by the project is connected to the transmission system.</td>
</tr>
<tr>
<td>Switchgear</td>
<td>The switches, breakers, and other devices used for opening or closing electrical circuits and connecting or disconnecting generators, transformers, and other equipment.</td>
</tr>
<tr>
<td>System (electric)</td>
<td>Electric power generation, transmission, distribution and other facilities operated as an integral unit.</td>
</tr>
<tr>
<td>Transformer</td>
<td>An electromagnetic device used to change the voltage of AC electricity.</td>
</tr>
<tr>
<td>Transmission</td>
<td>The transporting or conveyance of electric energy in bulk to a convenient point, where it is subdivided for delivery to the</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>distribution system</td>
<td>Also used as a generic term to indicate the conveyance of electric energy over any or all of the paths from source to the point of use.</td>
</tr>
<tr>
<td>Transmission lines</td>
<td>The wire or cable system used to conduct electric power at extra high voltages.</td>
</tr>
<tr>
<td>Turbine</td>
<td>A machine which converts the energy of steam or water to mechanical energy.</td>
</tr>
<tr>
<td>Turbine Plant</td>
<td>Equipment comprising the turbine generator and its ancillaries (oil systems, cooling systems, etc).</td>
</tr>
<tr>
<td>Turbo- generator</td>
<td>A mechanical device comprising a turbine driving an electrical generator. The turbine extracts energy from steam or water and converts it into rotary motion which is converted to electrical energy in the generator.</td>
</tr>
<tr>
<td>Voltage (circuit)</td>
<td>The electric potential difference between conductors and ground, usually expressed in volts (V) or kilovolts (kV).</td>
</tr>
</tbody>
</table>
1 Overview

Papua New Guinea (PNG) has an estimated population of 7.3 million, a land area of 463,000 square kilometres (km²), and a population density of about 16 people per km².

The development of the Ramu 2 Hydropower Project (the Project) is being pursued in the context of the ‘The PNG Development Strategic Plan 2010-2030’ which outlines the following priorities:

- increase household access to electricity from current 12% to 70% by 2030;
- provide a national grid to increase the reliability of electricity supply across the country;
- provide a secure, renewable energy base for the PNG development pathway;
- reduce energy costs through greater hydropower development; and
- support mining and industrial developments within the Eastern Highlands and Morobe Provinces.

In order to meet these goals, and to match the timing of a number of key mining off-takers, the Project is being developed under an accelerated procurement process. The required environmental approvals for the Project including the Environmental & Social Impact Assessment (ESIA) and development of Environmental & Social Management Plans (ESMP) are being developed by Kumul Consolidated Holdings (KCH) and its advisors in parallel to the procurement process to ensure financial close and mobilisation of the Proponent in Q1 2017.

Hydropower in PNG

Hydro-based generation plays a significant role in PNG’s energy mix. PNG has abundant, untapped hydropower resources with studies identifying potential sites ranging from micro to mega project scale with a combined total of at least 50,000MW. Only a fraction of this hydropower potential—less than 250MW—has been harnessed to date, yet more than 85 percent of the population lacks access to electricity, and power supply in the urban centres is insufficient to reliably meet demand.

PNG Power Limited has previously completed the construction of an 18MW Yonki Toe of Dam hydropower station and is nearing completion of the 75MW (nominally) Ramu 1 hydropower station refurbishment program. While these actions will help meet current demand in the region, the incremental load growth (currently projected at around 5 per cent per annum) is expected to surge on the back of an increased economic activities in the region brought about by the commissioning of the new Tidal Basin Port in Lae, and the wide-ranging effects of LNG exports on the economy. Current mining and industrial demand not met from grid supplied power in the Momase region alone is around 250MW and is set to increase.

The Project is the first of several hydropower opportunities in PNG. In the near term the other large-scale hydropower projects to be developed in PNG include:

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2 2014 – 2015 Hydro power contributed 37% to the PNG energy mix.


- 80MW Naoro Brown hydroelectric project
- 1800MW Karimui hydroelectric project.

## About the Project

The Project is a proposed 180MW hydroelectric power station on the Ramu River downstream of existing hydroelectric facilities. The Yonki Hydro Complex is located on the Ramu River in the eastern highlands province of Papua New Guinea, sited predominantly between elevations of about 460m and 1040m above sea level. The Yonki Hydro Complex currently consists of two hydro facilities fed from the Yonki dam and reservoir; the 75MW Ramu 1 power station and the 18MW Yonki Toe of Dam hydropower station.

The closest communities to the proposed location of the Ramu 2 power station are Yonki Township, approximately 12km to the south, and Kainantu town, approximately 20km to the southwest. The Highlands Highway runs within 10km of the site; linking the nearby ports of Lae about 130km to the east and Madang about 105km to the north. There is an airstrip at Gusap, 10km to the northwest of the site.

The Ramu regional distribution grid services the load centres of Lae and Madang in the Momase region; and Kainantu, Goroka, Kundiawa, Hagen, Tari, Mendi and Wabag in the Highlands region; an area with approximately 4 million inhabitants. Electricity demand presently exceeds available generation capacity resulting in frequent power outages in some centres.

In May 2013, KCH commissioned a detailed feasibility study of the Project. The study was successfully completed by Parsons Brinkerhoff in December 2014. This study confirmed the technical viability of the Project and determined that there was minimal technical risk associated with its construction. The study identified the preferred layout of the scheme and hence has identified its topographical footprint. The study also provided the preliminary dimensions and design of the project components. The relevant sections of the feasibility study will be provided as part of the Request for Proposal (RFP) stage of the transaction.

On Wednesday 9 December 2015, Minister for Public Enterprises and State Investments Hon. Ben Micah launched the Project in Kainantu. The launch was attended by local landholders and provincial governors in addition to the ambassadors for China, America, Korea and New Zealand and local businesses.
2.1 **Key stakeholders**

Key stakeholders have been identified below. Proponents are requested not to approach or contact any identified key stakeholders without the express written consent of KCH. KCH reserves the right to exclude Proponents from the EOI process should they attempt to contact or gain exclusivity arrangements from key stakeholders.

2.1.1 **Kumul Consolidated Holdings**

KCH is a 100 percent State-owned statutory corporation, formed by the PNG Government to exercise on behalf of the government, and for the benefit of the State, the trustee ownership of, overarching business management of, and provision of financial resources and services for, certain state assets, notably the corporatised entities known as the Majority State Owned Enterprises, and to act as trustee of other certain prescribed trusts. KCH is the new identity of the Independent Public Business Corporation of Papua New Guinea.

2.1.2 **PNG Power Ltd**

PPL is a fully integrated power authority responsible for generation, transmission, distribution and retailing of electricity throughout PNG and servicing individual electricity consumers. PPL services customers in urban centres throughout the country encompassing industrial, commercial, government and domestic sectors.

PPL is also undertaking a regulatory role on behalf of the Independent Consumer and Competition Commission (ICCC). These responsibilities include approving licenses for electrical contractors, providing certification for models of electrical equipment and appliances to be sold in the country and providing safety advisory services and checks for major installations.

2.1.3 **Conservation and Environment Protection Authority**

In February 2014, the PNG Parliament passed an Act to establish the Conservation and Environment Protection Authority (CEPA). CEPA replaced the Department of Environment and Conservation as the government agency responsible for administering the *Environment Act 2000* and *Environment (Prescribed Activities) Regulation 2002*.

2.1.4 **Provincial Governments**

The provincial governments mentioned below are those which the Project directly affects via construction on their respective lands. The Project is expected to affect landowner groups within three districts, the Kanantu and Obura Warenara districts of the Eastern Highlands and the Marham district of Morobe. It is intended each provincial government will form part of the asset entity to ensure project alignment.

2.1.4.1 **Eastern Highlands**

With a population of more than 430,000, the Eastern Highlands Province has the fourth highest population in the country after Southern Highlands, Morobe and Western Highlands Provinces. The population is distributed among the eight districts of the Province with the provincial capital being Goroka. Goroka is accessible by air and lies on the Highlands Highway. The Eastern Highlands is also supplied by electricity from the Ramu System.
2.1.4.2 Morobe

With a population of more than 600,000 Morobe Province is one of the most densely populated provinces in PNG. Lae is PNG’s second largest industrial city and the provincial capital of Morobe – Morobe province is linked to rest of PNG by air, sea and land transport, and telecommunications network. The Ramu transmission and distribution system provides electricity across the Province to major projects and some consumers. There is currently no connection between the Port Moresby Grid and the Ramu Grid.

2.1.5 Landowner groups

Land access and negotiations in PNG are largely a government process. To expedite this process, KCH and its advisors, Golder and Tanorama, have commenced the social mapping exercise and lease and land access negotiations. These negotiations and the terms of the lease and land access arrangements will be finalised over the course of the 2016 and will run in parallel to the procurement process outlined in this EOI.

The Asset Entity (described in paragraph 2.3.3 below) will be owned by landowner groups, the provinces and KCH. This ownership structure will help to align the interests of the key stakeholders.

2.1.6 Local industry

One of the key development goals of PNG is to encourage the participation of local industry in all aspects of the Project. Local industry participants which are relevant to this Project include:

- local banks and debt providers;
- local construction/contracting entities;
- providers of goods and services;
- security service providers;
- community group including local Chamber of Commerce; and
- Port of Lae.
2.2 Project location and arrangement

The location of the Project is shown on the map below.

*Figure 1: Ramu 2 Project location*

2.3 Project scope

The proposed scope of the Project includes a new 471,000m³ storage facility; three 60MW turbo-generators (nominally); 30km of new project access roads; a 7km underground headrace tunnel; power station; 12km of new 132kv transmission lines; and various other temporary works. An indicative general arrangement is provided below.
An indicative schematic of the Project battery limits is provided in Appendix E – Indicative Battery Limits and Scope. The battery limits indicate assets that will be operated by the Proponent after construction and those assets that will transfer to others after successful performance testing has been completed. The Proponent is responsible for the engineering, procurement and construction of the complete indicative scope detailed in Appendix E. This scope includes the management, required approvals and permits (to the extent not obtained by KCH), design, supply, construction, commissioning and testing.

2.3.1 Stakeholder engagement, agreements and requirements

Effective community engagement and stakeholder engagement and management including with local businesses, road users and the general public are critical to the success of the project. KCH places great importance on these key activities to ensure the Project is managed sensitively and generates positive community encouragement. KCH and the PNG Government are committed to supporting local industry participation and ensuring that local industry is provided with the opportunity to obtain work on local projects.

Golder Associates (Golder), in partnership with Tanorama PNG Ltd (Tanorama), has begun a programme of community consultation for the Project. This consultation programme is targeted at communities within and immediately adjacent to the Project footprint and at local level government administrations in the area surrounding the Project. Consultation topics include the ESIA process, the forward community engagement programme, the social mapping programme and land access requirements. Land access and negotiations in PNG are largely a government process. To expedite this process, KCH and its advisors, Golder and Tanorama, have commenced
the social mapping exercise and lease and land access negotiations. These negotiations and the terms of the lease and land access arrangements will be finalised over the course of 2016 and will run in parallel to the procurement process outlined in this EOI.

2.3.2 Reference Information


Department of Labour and Industrial Relations - [http://www.ned.gov.pg/](http://www.ned.gov.pg/)

Department of Labour and Industrial Relations work permits - [http://www.workpermits.gov.pg/](http://www.workpermits.gov.pg/)

Building the foundations for a long-term development partnership - [http://www.hks.harvard.edu/m-rcbg/CSRI/research/publications/PNGLNGreport.pdf](http://www.hks.harvard.edu/m-rcbg/CSRI/research/publications/PNGLNGreport.pdf)

2.3.3 Contractual framework

The Project will be structured as an Independent Power Project (IPP).

KCH is seeking to contract with a single Proponent (which may be a consortium), which will establish a special purpose vehicle shown as the “Operating Co” set out in the indicative project structure in Figure 2, to deliver the Project.

The structure will provide that the Project shall be owned by the entity shown as the “Asset Entity” in Figure 2, which will, in turn, be owned by the key PNG stakeholders including KCH, the relevant provincial governments and landowners. The selected Proponent will enter into the proposed project agreements with the Asset Entity to, amongst other things, design, construct, finance, operate and maintain the Project.

The Asset Entity will have the benefit of a long-term lease of the site on which the Project will be located. The Operating Co will enter into a power purchase agreement with PPL. The Asset Entity will grant the Operating Co the rights to operate the Project for the term of the PPA (which may be by way of a sub-lease or other agreement).

This structure is very similar to what has been adopted in other recent infrastructure transactions in PNG such as the management of the overseas container terminals in Motukea (Port Moresby) and Lae.

The concept of the IPP being responsible for financing and constructing the facility, which will be owned by the public sector with the IPP operating the facility for the term of the PPA, has been successfully implemented in other markets such as Turkey (where it is known as a “transfer of operating rights”). More recently a long-term lease structure has been extensively used throughout Australia for ports and electricity infrastructure. The structure is intended to give the IPP the same rights and obligations as would be the case with a BOOT structure. Under a BOOT structure, the IPP is required to transfer the facility at the end of the PPA term to the host government or offtaker for nil consideration. In the case of the Project, the Asset Entity will own the facility and the IPP will have the benefit of a long-term lease (or equivalent arrangement) from the Asset Entity which gives the IPP the right to use and operate the Project for the term of the PPA.
2.3.4 Project agreements

The project agreements will be developed during Stage 2 (the RFP stage). An indicative framework for the certain project agreements is provided below.

Implementation Agreement

The implementation agreement may contain provisions relating to the following:

- implementation of the Project including, if necessary, the grant of a concession to the selected Proponent to undertake the Project;
- obligations of the selected Proponent, including those relating to provision of development bonds, finance, construction, operation and maintenance;
- access arrangements and site risk;
- required approvals, authorisations and insurance and any Government concessions;
- the sub-lease (or equivalent arrangement) between the Asset Entity and the Operating Co; and
- usual clauses in documents for a project of this nature, including retention of ownership provisions.

Power Purchase Agreement

The PPA will follow the form used by PPL for other projects in PNG as adapted for the Project. It will cover aspects including:

- supply period (in years);
- commencement date;
- capacity;
• contract price (which may incorporate both a capacity payment and energy payment);
• metering;
• billing and payment;
• interconnection obligations and responsibilities;
• testing and commissioning regime;
• operating and maintenance obligations;
• force majeure;
• change in law;
• default and termination events;
• governing law (which will be the laws of PNG);
• dispute resolution; and
• usual lender protection provisions/direct agreement.

KCH will evaluate the need for a government guarantee of PPL’s obligations under the PPA or alternative credit support arrangements during the procurement process.
3 The Transaction and Selection Process

3.1 Overview of the transaction process

The transaction process consists of three phases:

- **Phase 1: EOI**
  - Phase 1 is the EOI stage and requires the preparation and submission of a response by suitably qualified and experienced Proponents with the capability, capacity and commitment to provide the services and deliver the works. Phase 1 will culminate with a shortlist of Proponents to participate in phase 2.

- **Phase 2: RFP**
  - Phase 2 commences with the release of an RFP to the shortlisted Proponents. The RFP will require the submission of a fully costed binding offer based on the requirements of the RFP. The RFP will include a package of draft documentation (including a PPA and implementation agreement). The RFP will include an interactive process to ensure shortlisted Proponents have the opportunity to clarify the requirements of the RFP. KCH will conduct workshops where shortlisted Proponents can discuss the development of their concepts and designs, and seek clarification of other aspects of the Project. Proponents will be required to provide mark-ups and commentary on the documentation package during Phase 2 and engage in interactive sessions with KCH and its advisers. Phase 2 will culminate with submissions of proposals and the selection of one preferred Proponent.

- **Financial Close**
  - Financial Close: KCH and its advisers will conclude negotiations with the preferred Proponent and reach financial close of the Project, including fulfilment of any conditions precedent.

The transaction process shall be consistent with and comply with the KCH Procurement Guideline provided for in Section 46B and 46E(3) of KCH Act 2002 (as amended) and the KCH Procurement and Tendering Procedure for State Owned Enterprises.
3.2 Transaction timing

The timetable for this EOI and the subsequent process is set out in Table 1 below. KCH reserves the right to amend this timetable and process as it sees fit.

Table 1: Transaction timing

<table>
<thead>
<tr>
<th>Activity</th>
<th>Preliminary Timeframe (All times are Australian Eastern Standard Time (AEST) unless otherwise noted)</th>
<th>Nature of Receipt / Lodgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOI document issued</td>
<td>Monday, 29 February 2016</td>
<td>Onehub access provided to Proponent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access requested via submission of Acknowledgement of Receipt to: <a href="mailto:Ramu2project@kch.com.pg">Ramu2project@kch.com.pg</a></td>
</tr>
<tr>
<td>Requests for Clarification (last date)</td>
<td>By 10:00am Monday, 21 March 2016</td>
<td>Via email: <a href="mailto:Ramu2project@kch.com.pg">Ramu2project@kch.com.pg</a></td>
</tr>
<tr>
<td>EOI closing date and time</td>
<td>10:00 am Monday, 28 March 2016</td>
<td>Response schedules via Onehub</td>
</tr>
<tr>
<td>Advise successful Proponents to progress to RFP</td>
<td>Monday, 25 April 2016</td>
<td>Letter from KCH</td>
</tr>
<tr>
<td>Interactive RFP and negotiation</td>
<td>25 April 2016 to 17 October 2016</td>
<td>To be advised</td>
</tr>
<tr>
<td>RFP evaluation, final negotiation and approvals</td>
<td>17 October 2016 to 19 December 2016</td>
<td>To be advised</td>
</tr>
<tr>
<td>Financial Close</td>
<td>December 2016- February 2017</td>
<td>To be advised</td>
</tr>
</tbody>
</table>

3.3 EOI submission

To respond to this EOI, Proponents are required to provide a written submission that addresses the Hurdle Requirements and the Evaluation Criteria as described below.
3.3.1 Hurdle Requirements and Evaluation Criteria

Proponents are to submit information addressing the criterion set out in Table 2 below. Proponents who do not meet the hurdle criteria under this EOI will be excluded from further consideration.

Table 2: Hurdle Requirements

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Responses required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule A</td>
<td></td>
</tr>
<tr>
<td>Hurdle Criteria</td>
<td>IPP experience in owning and/or responsibility for operating hydroelectric power project(s) of similar scale.</td>
</tr>
</tbody>
</table>

Responses satisfying the Hurdle Requirements will be evaluated against the stated Evaluation Criteria set out in Table 3 below.

Table 3: Evaluation Criteria and weighting

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Responses required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule B</td>
<td></td>
</tr>
<tr>
<td>Evaluation Criteria</td>
<td>30% Understanding and alignment with the proposed project, process, transaction structure, agreements and objectives</td>
</tr>
<tr>
<td></td>
<td>25% IPP experience, capability and capacity</td>
</tr>
<tr>
<td></td>
<td>20% Funding experience, capacity and strategy</td>
</tr>
<tr>
<td></td>
<td>15% Hydroelectric power design, procurement and construction experience, capability and capacity</td>
</tr>
<tr>
<td></td>
<td>10% Operations and maintenance experience, capability and capacity</td>
</tr>
</tbody>
</table>

Proponents should include in their Responses all of the information requested in the Response Schedules provided in Appendix A.

3.3.2 Acknowledgement of Receipt

Proponents shall acknowledge receipt (refer Appendix C – Part 1) of the EOI documents. The Acknowledgement of Receipt pro forma included in Appendix C shall be provided to:

Email: Ramu2project@kch.com.pg
Once Proponents have acknowledged receipt and confirmed intent to submit an EOI, KCH will provide access to a secure Onehub location (specific for each Proponent) for the upload of return schedules.

Appendix C additionally contains a Non-Disclosure Agreement (NDA) (Appendix C – Part 2) that will be required by KCH from Proponents prior to commencement of the RFP stage. Proponents are requested to have the NDA signed by an Authorised Representative and return to the project email address prior to, or within the submission of the EOI response:

Email: Ramu2project@kch.com.pg

### 3.3.3 EOI clarifications

Proponents must collate and document any questions or requests regarding this EOI using the “Request for Clarification” form in Appendix D. Questions or requests must be lodged to the following email address by no later than 10:00am on 21 March 2016 (Queensland, Australia time). KCH may, at its absolute discretion, respond or not respond to any question or request lodged after this time.

Email: Ramu2project@kch.com.pg

Proponents will subsequently be contacted to address or answer the questions/requests.

Unless confidentiality is specifically requested, and KCH agrees to the confidentiality request, all clarification questions or requests and the answers to them may be made known to all Proponents.

### 3.4 Selection panel and advisors

#### 3.4.1 Selection panel

A selection panel has been established to assess Responses during the selection process.

It is presently anticipated that the selection panel will comprise of:

- Parkop Kurua – Project Director (Energy) – KCH
  - Parkop Kurua is the Project Director, Energy at KCH responsible for overseeing energy projects in PNG. He is currently the Project Director for Ramu 2.

- Adam Aspinall – Principal – Advisian
  - Adam Aspinall is the power sector lead for Advisian APAC, part of the WorleyParsons Group. Adam has over 35 years’ experience in the power generation sector, with 25 years advising on the development of major power generation infrastructure.

- Simon Currie – Partner – Norton Rose Fulbright.
  - Simon Currie is global head of energy at the international law firm Norton Rose Fulbright. Simon has over 20 years’ experience advising governments, sponsors and

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3 Onehub is a secure cloud hosting service utilised for the purposes of safe document storage and transfer by KCH.
funders on the development of IPPs in over 40 countries including large scale hydropower projects.

Other than as provided for in Appendix B, the Proponent must not under any circumstance make contact or communicate with PNG Government Ministers, KCH officers or members of the Selection Panel in relation to this EOI or the transaction process generally. Any contact outside of the designated processes may lead to exclusion of the Proponent from further participation in the EOI and subsequent evaluation process.

In the event that one or more Selection Panel members become unavailable for any reason, KCH reserves the right to continue the selection process without that person or to appoint a replacement.

The Selection Panel members may seek and/or receive advice from one or more advisors.

The Selection Panel will follow the processes outlined in this EOI document and will rely on the combined judgement and experience of its members in arriving at its conclusions and recommendations.

3.4.2 Advisian

KCH has engaged Advisian to support the management of the transaction from market engagement through to financial close.

3.4.3 Golder and Tanorama

KCH has engaged Golder to undertake an ESIA and develop ESMP to comply with the requirements of the CEPA approval process under the PNG Environment Act (2000) and Environment (Prescribed Activities) Regulation 2002. The anticipation is that baseline studies will commence in March for a period of two to three months, with the ESIA delivered to CEPA around August.

Golder, in partnership with Tanorama, also have responsibility for obtaining all land access requirements and landowner management on behalf of KCH.

3.4.4 Norton Rose Fulbright

KCH has engaged Norton Rose Fulbright as its international legal advisers across each stage of this transaction.

4 Submission Requirements and Lodgement Details

4.1 Format of submission

The Response submission must:

- be clear and concise;
- provide the information as described in the Response Schedules;
• provide only information which is relevant and requested;
• word processing/printing requirements:
  – font no smaller than Arial 10;
  – single line spacing and minimum 6pt spacing between paragraphs; and
  – A4 paper.

KCH emphasises that Proponents should provide concise and specific responses to the evaluation criteria and not generic capability information.

Proponents should conform to the page limitations stated in the Response Schedules. (Note: Material in excess of this limit may, in KCH’s absolute discretion, not be read or taken into account in the evaluation. The page limit includes all diagrams, charts, pictures, graphics and the like).

Concise CVs for Key Personnel should be included as an appendix in addition to the page limit.

Proponents should not include corporate marketing brochures or similar material in the EOI.

4.2 Authority to sign

The Response must be signed on behalf of the respondent by persons authorised to represent each member of the Proponent. The members of the Proponent submitting the Response must be the same entity or entities that would enter into the Implementation Agreement, Power Purchase Agreements and other associated agreements.

4.3 Lodgement of response

The closing time and date for lodgement of Responses is:
• 10:00am (Port Moresby time) Monday, 28 March 2016.

Responses shall be submitted by the following method:
• Response Schedules via Onehub; and
• Response shall be a single word searchable pdf file.

The following information MUST be identified in the Response submission:

Table 4: Lodgement response identification

<table>
<thead>
<tr>
<th>Invitation title:</th>
<th>RAMU 2 Expression of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proponent Details:</td>
<td></td>
</tr>
<tr>
<td>Business Name:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Contact Person:</td>
<td></td>
</tr>
<tr>
<td>Telephone Number:</td>
<td></td>
</tr>
</tbody>
</table>
4.4 Late responses

A Response or additional non-solicited information submitted after the closing time and date referred to in Section 4.3 is a Late Response. A Late Response will be excluded from consideration unless KCH otherwise determines, in its absolute discretion and without having any obligation to do so, that it is appropriate for a Late Submission to be considered.

A Response received after the closing time and date will only be considered if the Proponent can satisfy KCH that the Response was lodged within a reasonable time to ensure delivery before the deadline for the closing of Responses, and the Proponent has taken all possible action to expedite delivery when notified of a late arrival.

4.5 Opening of Response submissions

There will not be a public opening of Responses.

5 Procedural Matters

Proponents are directed to Appendix B for information on procedural matters. Proponents must comply with all procedural matters.
Appendix A – Response Schedules
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3. **Schedule B – Evaluation Criteria** .............................................................................................. 3
   - 3.1 Understanding and alignment with the proposed project, process, transaction structure, agreements and objectives ............................................................................. 3
   - 3.2 IPP experience, capacity and capability .................................................................................. 3
   - 3.3 Hydroelectric power design, procurement and construction experience, capability and capacity ........................................................................................................ 5
   - 3.4 Operations and Maintenance experience, capability and capacity ...................................... 5
1. **Proponent Details**

1. A Proponent may be composed of a single member or a consortium of members.
2. A Response must be signed on behalf of a Proponent by those persons authorised to represent that Proponent.
3. Where a Proponent is composed of a consortium of members, a Response must:
   a. nominate one of the members as a lead for the purposes of the EOI and any subsequent process (Lead Proponent); and
   b. be signed by each of the members of that Proponent (Proponent member).

Each Proponent must provide details of each member forming part of that Proponent, including:

1. Name of Proponent.
2. Nature of Proponent members (e.g. listed company).
3. Proponent members’ company registration details and country of registration if registered.
4. Proponent’s proposed contracting entity, type of entity and country of registration.
5. For each member making up the Proponent:
   a. describe the legal identity(ies);
   b. describe the legal identities of any parent companies;
   c. provide a corporate organisation chart showing the relationships between legal identities;
   d. details of the financial position of each Proponent member and proposed parent backing, if relevant.
6. Each Proponent member is to provide a letter of support stating their role in the Proponent signed by an authorised representative of the Proponent member.
7. Detail of any current legal disputes pending or on foot with respect to each Proponent member.
2 Schedule A – Hurdle Requirements

2.1.1 IPP experience in owning and / or responsibility for operating hydroelectric power project(s) of similar scale

The Proponent must provide details of:

1. **At least one**, and up to three recent and relevant examples where the Proponent (or Lead Proponent where the Proponent is a consortium) has owned and/or operated a hydroelectric power project of similar scale (greater than 20MW turbo-generator units), nature, and complexity to the scope of works. Each such project must be structured as an Independent Power Project (IPP) or equivalent. Please note that projects which have been procured by a utility / host government on an EPC basis will not satisfy this requirement. The examples shall detail the success or otherwise of the project.

Proponents shall provide a referee for the nominated project(s).

The information provided will additionally be considered in the evaluation criteria identified in Section 3.

**NOTE: Limit – 3 A4 pages**
3 Schedule B – Evaluation Criteria

3.1 Understanding and alignment with the proposed project, process, transaction structure, agreements and objectives

The Proponent shall:

1. Identify issues/risks that it considers are the most significant on this Project. Describe why these have been identified as the most significant and outline the proposed approach and strategies for working with KCH to manage these issues.

2. Provide feedback on the proposed project risk allocation with supporting reasoning as to who is best placed to carry and manage risks and why. (EOI Appendix F)

3. Provide commentary on the proposed contractual framework to demonstrate an understanding of the proposed commercial structure and legal arrangements. Provide comment on enhancements or alternatives that satisfy the PNG Government’s objective of local ownership by the PNG Government, provincial governments and landowners, throughout the life of the Project and the IPP structure.

4. Provide commentary on the proposed scope and battery limits as it relates to proving Proponents appropriate control over the Project bearing in mind the proposed risk allocation. This includes implications for the transition from construction to operations and the accelerated environmental approvals process. Proponents may additionally identify preference for alternatives or include advice founded on previous experience. (EOI Appendix E)

5. Confirm and demonstrate by example or other method how the Proponent will meet the Transaction timeframe of 12 months to financial close.

NOTE: Limit – 12 A4 pages

3.2 IPP experience, capacity and capability

In addition to the responses provided in Section 2.1, the Proponent shall demonstrate the following:

3.2.1 Capacity and capability to deliver project

The Proponent shall:

1. outline the proposed commercial and contractual arrangements, including any Consortium structure between the Proponent and Proponent Members, using a summary diagram and supporting descriptions;

2. provide an overview of the proposed allocation of risk between Proponent Members as part of the commercial/contractual arrangements;

3. provide an outline of the proposed ownership of the Proponent entity (both intermediate and ultimate) and the proposed equity contributions; and

4. provide an indicative organisation chart that includes the people nominated for key positions, a brief description (maximum 1/3 page per person not included in the 6 page limit) of key personnel relevant experience and their availability for this project.
By responding to this EOI, Proponents give KCH permission to conduct reference checks of individual nominees as required. Individual referees are not requested as part of the EOI, however may be requested during the evaluation phase.

CVs for a **maximum of 12 persons nominated** are to be included as an Appendix to the Response. CVs **shall be no longer than 2 pages** in length (not included in page limit).

**NOTE: Limit – 10 A4 pages**

### 3.2.2 Funding experience, capacity and strategy

The Proponent shall:

1. Outline its experience and capacity to obtain project financing. Proponents are asked to respond to the following:
   a. capacity to provide or acquire equity funding;
   b. ability to attract debt funding; and
   c. bankability of the EPC contractor.

   The Proponent may provide in an appendix letters of support or demonstrable experience as examples (not included in page limit). The Proponent shall provide (to the extent available) the last three years of audited financial statements in an appendix for each Proponent member (not included in page limit).

2. Describe the strategy to raise the required debt and equity for the Project. Demonstrate in the response that the Proponent understands the process necessary to secure and provide required levels of private sector finance for the Project, including:
   a. developing a sustainable financing solution for the term of the PPA;
   b. commit or secure the equity required for the Project;
   c. raise the required level of debt for the Project. Describe potential sources for debt and expected key terms of debt. (e.g. debt to equity ratios, tenor, rate and approach to refinancing); and
   d. achieve competitive financing terms.

3. Describe the key debt and equity challenges and proposed solutions.

4. Describe why each Proponent member has the financial strength and capacity to accept the risks proposed to be allocated to them in a project of this scale.

5. Describe the nature and form of the performance support/security package to be provided by or in relation to each Proponent member and EPC contractor/subcontractor (e.g. parent company guarantees, expected level of performance bonds).

**NOTE: Limit – 8 A4 pages**
3.3 Hydroelectric power design, procurement and construction experience, capability and capacity

3.3.1 Design, procurement and construction experience in hydroelectric power stations of similar size

Proponents should demonstrate by example where the Proponent or its proposed EPC contractor has engineered, procured, constructed and commissioned similar contracts to this Project.

Where possible, respondents shall highlight experience in similar environments to PNG and/or similar run of the river projects where the Proponent or its proposed EPC contractor has built and operated a hydropower plant as part of a series of plants in the same river system in a remote location.

NOTE: Limit – 4 A4 pages

3.3.2 Capability and capacity to design and add value

The Proponent shall provide its proposed approach to optimising design, performance outcomes and possible innovation.

NOTE: Limit – 4A4 pages

3.3.3 Capability and capacity to construct

The Proponent shall provide its proposed approach for delivering the Project works and services including:

1. its approach to procurement/contracting, construction and mobilisation to achieve on time delivery including:
   a. construction and delivery methodology; and
   b. relevant systems, processes, tools, techniques and innovation; and
2. its approach to undertaking the works within the local region, including:
   a. logistics in PNG; and
   b. interfaces with third parties and the community.

NOTE: Limit – 6 A4 pages

3.4 Operations and Maintenance experience, capability and capacity

3.4.1 Experience operating and maintaining hydropower stations of similar size

Proponents should demonstrate by example where the Proponent or its proposed operations and maintenance contractor has operated and maintained similar facilities to this project. Proponents should also note where individuals nominated for this project have worked on these projects. Where possible, respondents shall highlight experience in similar environments to PNG and/or similar run of the river projects where the Proponent or its proposed operations and maintenance contractor has operated a hydropower plant as part of a series of plants in the same river system in a remote location.
3.4.2 Capability and capacity to operate and maintain

The Proponent should provide its proposed approach for delivering the operational works and services including:

1. its approach to minimise whole of life and future operating costs;
2. operations optimisation and reliability of supply;
3. asset management planning and maintenance;
4. the relevant systems, processes, tools and techniques intended to be used on the operations phase of the Project; and
5. its approach to undertaking the operations within the local region and how it will ensure local participation is maximised throughout the 25 years of operations.

NOTE: Limit – 2 A4 pages

NOTE: Limit – 4 A4 pages
Appendix B – Procedural Matters
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1 Procedural Matters

1.1 Validity of EOI submission and withdrawal

A Proponent must not withdraw or amend its Response within 90 days of the date for lodgement of the Response (except with the prior written consent of KCH in its absolute discretion). Nothing in this Section 1.1 limits the operation of Section 1.4 or is to be taken as imposing any obligation (contractual or otherwise) on KCH to receive or to consider any Response from any Proponent.

If a Proponent purports to withdraw from any phase of the selection process for any reason, then without prejudice to any other right or remedy that KCH may have, KCH may, in its absolute discretion, continue the process with another Proponent.

1.2 Confidentiality

This EOI and any other information in relation to the Project received by a Proponent verbally or in writing that is not publicly available (other than through a breach of the terms of this EOI or any other obligation of confidentiality owed to KCH), including the participation of a Proponent in the EOI phase, is confidential (Confidential Information).

Each Proponent must keep confidential the Confidential Information. Proponents must not issue, distribute, publish, copy, use or otherwise divulge the Confidential Information for any purpose other than the preparation of any Response (other than in accordance with a signed confidentiality agreement).

1.3 Costs borne by Proponent

Neither the Proponent nor any Proponent member shall have any claim of any kind against KCH or its advisors (whether in contract, in tort including negligence, in equity, at law, under statute or otherwise) arising from or in connection with:

1. any costs, expenses, losses or liabilities suffered or incurred by the Proponent in preparing and submitting a Response, including any amendments or requests for further information by KCH;

2. KCH exercising or failing to exercise, in its absolute discretion, any discretion, right or power it has under or in connection with this EOI, the Response or the project; or

3. any of the matters or things relevant to this EOI, the Response, or the Project in respect of which the Proponent must satisfy itself under this EOI.

1.4 KCH discretion

KCH may conduct the EOI phase and any selection process, including but not limited to the process for evaluation of Responses and selection of any Proponent, in such manner as it thinks fit and, without limitation, may at its absolute discretion (without any obligation to do so):

1. cancel the EOI or selection process at any time by notice in writing to Proponents;

2. provide to all Proponents or potential Proponents any further information provided to a particular Proponent or potential Proponent, including in response to queries regarding this EOI (in which case, KCH may provide to all Proponents that have obtained the EOI from KCH any further information provided to a particular Proponent);
3. refuse to consider any Response which;
   a. is lodged by any means other than in accordance with this EOI;
   b. is lodged after the date for lodgement;
   c. does not conform with this EOI in any respect;
   d. does not satisfy the Hurdle Requirements; or
   e. has been lodged by a Proponent who has not complied with this EOI;
4. decide at any time to:
   a. waive any irregularities in the EOI or in any Response;
   b. select any Proponent as a shortlisted Proponent in connection with all or any part of this
      EOI or the projects (whether or not they submitted an Response in compliance with this
      EOI);
   c. not proceed with all or any part of the EOI or the Project; or
   d. have any other person or persons (whether or not a Proponent who has submitted an
      Response) carry out all or any part of this EOI or the Project;
5. at any time, re-invite Responses from all or any of the Proponents who have submitted a
   Response, or from any other person (whether or not they submitted an Response);
6. at any time prior to the lodgement date, invite any other person to participate as a Proponent
   in the selection process;
7. at any time, prequalify, seek a submission from, shortlist or enter into negotiations with any
   one or more persons;
8. at any time, accept a substitution of, withdrawal of, or addition to any of the parties comprising
   a Proponent (including a shortlisted Proponent);
9. require Proponents to provide a bid bond (in an amount to be specified by KCH in its
   discretion) in order to participate in the RFP as a shortlisted Proponent;
10. at any time, vary the EOI or selection process (including the evaluation process) by notice in
    writing to Proponents; and / or
11. require that two or more Proponents combine to form a single Proponent and submit a
    Response or proposal as a single Proponent.

1.5 No offer

The terms set out in this Appendix B – Procedural Matters are binding on each Proponent and
Proponent member.

The EOI does not constitute, and will not form part of, any offer or invitation to make an offer, in
relation to the design, financing, construction, commissioning, testing, ownership, operation and
maintenance of the Project. Except to the extent expressly set out in the EOI, no obligations arise
from the EOI as between any Proponent, Proponent member and KCH or any of its officers,
employees or advisors.
1.6 **Obligations of KCH**

KCH has no obligations or liabilities to any Proponent or Proponent member in respect of the EOI, the EOI process or the evaluation or selection processes, and to the maximum extent permitted by law, any obligations and liabilities which may otherwise be implied or imposed on KCH under contract, in tort including negligence, in equity, at law, by statute or otherwise are excluded.

1.7 **Disclaimer**

KCH has prepared this EOI to provide interested parties with general information on the Project to assist you to decide whether or not to register your interest in the Project.

This EOI does not contain all the information that Proponents or advisors of Proponents would desire or require in reaching a decision as to any potential investment. Proponents should form their own views as to what information is relevant to such decisions, and make their own independent investigations in relation to information contained in this EOI or any additional information. In addition, KCH, its directors, officers, employees, consultants and advisors are not under any obligation to correct, update or revise this EOI or any written or oral communications transmitted to you in the course of evaluating the opportunity represented by the Project.

Without limitation to the matters set out in Section 1.4 of this Appendix B – Procedural Matters, KCH reserves the right, in its absolute discretion, at any stage and without notice, to terminate further participation in the process by any party, to change the structure, terms and conditions and timing of the tender process, to refuse entry to a particular party to the next stage of the process, to amend the information contained in this EOI and to terminate the tender process itself. Neither KCH nor its advisors shall have any responsibility or liability for any costs, expenses, other liabilities or implications incurred to and/or by any participants in the tender process and/or in relation to the EOI.

This EOI may include certain statements, estimates or projections with respect to the anticipated future performance of the economy of Papua New Guinea and other matters. Those statements, estimates or projections are based on assumptions about future events and actions that may not necessarily take place and are subject to significant uncertainties, many of which are outside the control of KCH. Those assumptions may or may not prove to be correct and no representation is made as to the accuracy of those statements, estimates or projections.

This disclaimer shall remain in full force and effect notwithstanding any project agreements or document that may be concluded in respect of the Project.

1.8 **Proponent's legal obligations**

Each Proponent and each Proponent member must, in preparing and lodging any Response, comply with all applicable laws, legal requirements and acceptable probity and procedural standards. Without limiting the application of this clause, the Proponent and each Proponent member must not:

1. collude with, accept any commission from, or offer any commission to any other Proponent or member of another Proponent;

2. disclose any part of its Response (or any draft thereof) to any other Proponent or member of a Proponent;
3. enter any contract, arrangement or understanding with any other Proponent or member of a Proponent or any trade, industry or other association with the effect that if that Proponent is shortlisted or enters into a contract, a benefit will be conferred on any other party;

4. enter any improper or anti-competitive contract, arrangement or understanding with any other person in connection with the EOI, the EOI process or the Project (including without limitation any conduct which may breach anti-bribery legislation in a jurisdiction in which KCH, a Proponent or a Proponent member operates) and in particular;
   a. no Proponent or Proponent member nor any of their respective directors, officers or employees, shall offer, promise, give, authorize, solicit, or accept any undue pecuniary or other advantage of any kind (implied that they will or might do any such thing at any time in the future) in any way connected with the Project and each of them shall take reasonable measures to prevent any of their subcontractors, agents, advisers or any other third parties from doing so.
   b. each Proponent and each Proponent member agree that, at all times, they will prohibit and take reasonable measures to ensure that their respective directors, officers or employees and any subcontractors, agents, advisers or other third parties, will prohibit the following practices at all times and in any form, in relation with a director, officer, or employee of a Party, whether these practices are engaged in directly or indirectly, including through third parties:
      i. Bribery, which includes the offering, promising, giving, authorizing, or accepting of any undue pecuniary or other advantage to, by or for any of the persons referred to above or for anyone else in order to obtain or retain business or other improper advantage, including but not limited to public or private procurement contract awards, regulatory permits and statutory approvals, taxation, customs; or,
      ii. Extortion, or solicitation which involves the demanding of a bribe, whether or not coupled with a threat if the demand is refused; or
      iii. Trading in Influence which involves the offering or solicitation of an undue advantage for the original instigator of the act or for any other person.
   c. each Proponent and each Proponent member shall promptly report to KCH and to the PNG Fraud and Anti-Corruption Office any request or demand which if complied with would amount to a breach of the principles set out above;

5. engage a prior employee of KCH, a consultant or a contractor to assist it with the preparation of a Response where that prior employee, consultant or contractor had been engaged by KCH or any other organisation in relation to this EOI or the Project; or

6. offer any incentives, gifts or other favours to any person who is in any way involved with, in a position to influence, or capable of providing technical or other advice to, those who are involved in any way with this EOI, the EOI process or the evaluation of the Responses.
1.9 **Changes to Proponent**

Where a Proponent has two or more members, the Proponent will be evaluated and shortlisted (where applicable) on the basis of the Proponent members identified in the Response.

The members proposed in the Proponent’s team must be the same members that will enter into the Project Agreement if selected unless otherwise agreed by Kumul.

If a Proponent changes its corporate structure after the closing time for submission of the EOI, that Proponent must immediately notify KCH of this change in writing. If KCH, in its absolute discretion, determines that this change is material, it reserves the right to re-evaluate the Response or to eliminate the Proponent from further participation in the EOI process. A Proponent should (as a minimum) notify KCH of any change to any of the following entities or individuals occurring after the closing time for submission of Responses:

1. any entity that proposes to take a direct equity interest in the Proponent or a Proponent member if the Proponent is shortlisted;
2. the ultimate parent entity of any entity that proposes to take a direct equity interest of the type mentioned in paragraph 1);
3. any other entity that is likely to be in a position to exercise control or influence (directly or indirectly) over the future management and operation of the Proponent or a Proponent member;
4. any director, secretary or chief executive of any entity falling within the above paragraphs and any proposed new directors, secretary or chief executive officer of the Proponent or a Proponent member;
5. any key project resources identified by the Proponent as providing a core capability to the Proponent; and
6. any EPC contractor, operator or funding provider.

1.10 **Decision to proceed**

KCH is not obliged to negotiate or enter into any contract with any Proponent or other person in connection with this EOI or the Project.

KCH is under no obligation to accept or progress the lowest or any Response.

Despite any other provision to the contrary in this EOI or any project agreement, KCH may discontinue the EOI process at any time at its sole and unfettered discretion.

1.11 **Acknowledgement and warranty by Proponent**

By submitting a Response (whether or not it complies in all respects with this EOI), the Proponent and each Proponent member:

1. accepts and agrees with the terms of this EOI;
2. warrants to KCH that the information contained in the EOI is accurate and complete in all respects as at the date on which it is submitted, and may be relied upon by KCH for all purposes; and
3. undertakes to promptly advise KCH of any changes in circumstances that may cause the information contained in its Response to be or become inaccurate or incomplete in any material respect.

### 1.12 Additional information and clarification

Notwithstanding any other requirements of this EOI, KCH may at any time after lodgement of Responses:

1. request a Proponent to submit additional information or clarifications (and the Proponent in question must promptly respond, in writing, to any such requests);
2. request a Proponent to attend one or more meetings to discuss the Proponent’s Response or to discuss issues associated with the selection process or any other aspect of the project (and the Proponent in question must attend any such meetings as requested); and
3. otherwise communicate with a Proponent to discuss the Proponent’s Response or to discuss issues associated with the selection process or any other aspect of the project (and the Proponent in question must participate in any such communications as requested).

Where a Proponent does not comply with the requirements of paragraph 1), 2) or 3) within the timeframe nominated by KCH, KCH may continue the evaluation processes on the basis of the available information.

### 1.13 Ownership of Responses

Subject to this Section 1.13, all Responses will become the property of KCH on submission to KCH and will not be returned to Proponents.

Any intellectual property right (including copyright) that may exist in a Response will remain the property of the Proponent. Any element of the Response considered to carry any intellectual property rights should be clearly identified by the Proponent. Where KCH, in its absolute discretion, determines that such elements are subject to such a right, KCH will treat that element as protected.

By submitting a Response (whether or not it complies with this EOI), the Proponent will be taken to have licensed KCH and each of its officers, employees, agents and advisors:

1. to use, copy, adapt, modify, disclose or do anything else necessary to, at KCH’s absolute discretion, all material (including material that contains any intellectual property rights of the Proponent or any Proponent member or other person) contained in a Response, for the purpose of evaluating and clarifying that Response; and
2. to share with any contractor, any ideas contained in a Response or otherwise generated by the Proponent that may be used to benefit the Project, except where a claim of an intellectual property right in respect of that idea has been notified by the Proponent under the previous paragraph of this section and accepted by KCH.

### 1.14 Addenda

KCH may, in its absolute discretion, issue addenda to this EOI (including to modify or clarify the EOI in any way or to respond to a Proponent’s query). Proponents must immediately acknowledge receipt of such addenda and such addenda will form part of this EOI.
1.15  Joint and several
If a Proponent to this EOI is comprised of more than one person or other entity, or a term is used in this EOI to refer to more than one person or other entity:
1. an obligation of those persons or entities is joint and several;
2. a right of those persons or entities is held by each of them severally; and
3. any other reference to that person or entity or term is a reference to each of those persons or entities separately, so that, for example, a representation or warranty is given by each of them separately.

1.16  Due diligence checks
The Proponent consents to KCH undertaking due diligence checks and investigations. Such due diligence may include, in respect of the Proponent and each Proponent member:
1. investigations into commercial structure, business and credit history;
2. prior contract compliance and performance;
3. any criminal records or pending charges;
4. interviews with any referees nominated or with other sources; and
5. research into any relevant activity that is or might reasonably be expected to be the subject of investigation.

1.17  Deed of confidentiality and disclaimer
Without limitation to any obligation of confidentiality owed to KCH (including as set out in this Appendix B – Procedural Matters), Proponents shall submit a duly executed confidentiality agreement in the form set out at Appendix C – Acknowledgement of Receipt to KCH as soon as practicable following receipt of this EOI. Proponents will not proceed through the EOI phase or selection process until such confidentiality agreement has been received by KCH.

1.18  Competition
KCH wishes to encourage all suitably qualified, experienced and interested Proponents to submit a Response to this EOI. KCH seeks to create a competitive environment that will attract the best talent and resources from across the industry to the work and provide the best value-for-money outcome for KCH.
Appendix C – Acknowledgement of Receipt
Item 1 – Acknowledgement of Receipt

EOI: Ramu 2 Hydroelectric Power Project

Issued: 1 March 2016
Email: Ramu2project@kch.com.pg

I/We acknowledge receipt of the EOI for the Ramu 2 Hydroelectric Project and agree to keep the contents of the EOI confidential and agree not to issue, distribute, publish, copy, use or otherwise divulge the contents of the EOI for any purpose other than the preparation of any response to Kumul Consolidated Holdings (KCH) (other than in accordance with a signed confidentiality agreement with KCH) and agree to the terms of the EOI including without limitation the terms set out in Appendix B – Procedural Matters.

I/ We will be submitting an EOI Yes / No* (*Please delete as applicable)

____________________________________   __________________________________
Signature             Position
____________________________________   ____________________________
Print Name             Date

On behalf of ________________________________
Name of tendering entity (if applicable)

If the proposed tendering entity is a consortium, please provide the name and contact details of your representative that will be the primary contact for this EOI.

EOI Contact Name: ________________________________ Phone: __________________________

Title: ________________________________ Email: ________________________________
Item 2 – Confidentiality Deed
Confidentiality Deed – Ramu II Hydropower Project

Parties

Kumul Consolidated Holdings

[Recipient]
Deed dated

Parties
Kumul Consolidated Holdings
of [#address#]
(KCH)

[#Proponent#]
of [#address#]
([#Recipient#])

Introduction

A KCH is conducting a process to request expressions of interest for the Project (EoI).

B KCH is willing to provide the Recipient with access to Confidential Information in connection with the Project subject to the preservation and protection of confidentiality in respect of the Confidential Information by the Recipient in accordance with the terms and conditions set out in this Deed.

It is agreed

1 Definitions and Interpretation

1.1 Definitions

In this Deed:

1. Deed means this document including any annexure or schedule to it.

2. Affiliate means any person that directly or indirectly owns or controls, that is directly or indirectly owned or controlled by, or that is under common ownership or control with, a specified person. For the purposes of this definition, control, controlled by, or under common control or controlling interest means possession (directly or indirectly) of the power to direct or cause the direction of the management or policies of any other person, whether through the ownership of voting interest, by contract, or otherwise.

3. Approved Person has the meaning set out in clause 2.3.

4. Approved Purpose means evaluating the Project, submission of an expression of interest in relation to the Project, submission of a proposal in relation to the Project (whether following any RfP issued by KCH or otherwise) and any associated or other communication between the Recipient and KCH.

5. Confidential Information means all information of every kind (whether electronic, written, oral or in any other form) concerning or in any way connected with the EoI, RfP, the Project or KCH, which has been or will be directly or indirectly disclosed in writing, orally or by any other means by KCH (or by any other person on behalf of KCH, including its Representatives) or is otherwise accessed through the
Recipient’s dealings or activities with KCH (or any person on behalf of KCH, including its Representatives).

(6) **Confidentiality Undertaking** means the document set out in Annexure A to this Deed.

(7) **EoI** has the meaning set out at item A of the Introduction.

(8) **Party** means a party to this Deed.

(9) **Project** means the design, construction, finance, operation and maintenance of the Ramu II hydroelectric power station located on the Ramu River, Eastern Highlands Province, Papua New Guinea and related lease arrangements.

(10) **Representative** includes, in respect of a party, any officer, director, partner, employee, agent, authorised representative, delegate, consultant, adviser or contractor.

(11) **RfP** means a request for proposals process conducted by KCH in relation to the Project.

1.2 **Interpretation**

In this Deed, unless the context otherwise requires:

(1) a reference to a person includes a reference to an individual, firm, company, corporation, body corporate, statutory body, body politic, trust, partnership, joint venture, association whether incorporated or unincorporated, or an authority as the case may be. If a Party consists of more than one person then unless otherwise specified in this document, any obligation of that Party shall be joint and several;

(2) a reference to a Party shall, where not otherwise repugnant, include a reference to his or its personal Representative, successors in title, administrators and assigns as the case may be;

(3) a reference to the singular includes a reference to the plural and vice versa;

(4) headings are for convenience only and do not affect interpretation;

(5) a reference to any legislation, statute, ordinance, code or other law or to any section or provision thereof includes all ordinances, by-laws, regulations, decrees, circulars, rules, rulings and directions and other statutory instruments issued thereunder and any modifications, consolidations, re-enactments, replacements and substitutions of any of them; and

(6) any agreement, warranty, representation or obligation which binds or benefits two or more persons under this Deed, binds or benefits those persons jointly and severally.

2 **The Recipient's Obligations**

2.1 **Approved Purpose**

The Recipient must only use the Confidential Information:

(1) for the Approved Purpose; or
(2) for any other purpose to which KCH has given its prior consent in writing.

2.2 Recipient’s general obligations

The Recipient must:

(1) maintain and take all steps necessary to maintain all Confidential Information in strictest confidence;

(2) ensure that proper and secure storage is provided for all Confidential Information while in the possession or under the control of the Recipient;

(3) take all precautions necessary to prevent accidental disclosure of the Confidential Information; and

(4) not disclose Confidential Information to any person other than an Approved Person and then only to the extent that they are reasonably required to receive and consider the Confidential Information in the course of (and solely for the purpose of) the Approved Purpose.

2.3 Disclosure to Approved Persons

The Recipient may disclose Confidential Information to a person who is a Representative of the Recipient (Approved Person) provided that:

(1) the disclosure of Confidential Information to the Approved Person is necessary for the Approved Purpose;

(2) the Recipient provides a copy of this Deed (including without limitation the Confidentiality Undertaking) that has been duly executed by the Recipient to the Approved Person in accordance with the terms of this Deed;

(3) before disclosure is made of or access allowed to the Confidential Information, the Recipient ensures that the Approved Person:

(a) is informed of the confidentiality obligations contained in this Deed and (without limiting paragraph 2.3(3)(c)) has agreed to be bound by the obligations contemplated of Representatives under this Deed;

(b) completes the details necessary to readily identify the Approved Person set out in the Confidentiality Undertaking; and

(c) has delivered to KCH a Confidentiality Undertaking duly executed by the relevant Approved Person.

2.4 Recipient responsible for Approved Persons

It is a condition of the Recipient’s right under clause 2.3 to disclose to an Approved Person, or allow access to an Approved Person to, any Confidential Information that the Recipient remains at all times responsible for ensuring that the confidentiality of the Confidential Information is preserved (including despite the terms of any Confidentiality Undertaking given by an Approved Person). The Recipient agrees to indemnify KCH for all loss incurred by KCH as a result of a breach by the Recipient or an Approved Person of this Deed or a Confidentiality Undertaking.
2.5 Breach of confidentiality

(1) The Recipient must promptly notify KCH as soon as it becomes aware of any breach or potential or suspected breach of the Recipient’s or Approved Person’s obligations under this Deed or a Confidentiality Undertaking.

(2) The Recipient must provide KCH with all reasonable assistance in connection with any action which KCH takes or requires to be taken in relation to a breach or suspected breach of this Deed.

3 Acknowledgements regarding Confidential Information

3.1 No reliance

KCH does not make or give any representation, guarantee or warranty, express or implied, that the Confidential Information is or will be complete or accurate or that it has been or will be audited or independently verified, or that reasonable care has been or will be taken by KCH or any other person in the compilation, preparation or furnishing of the Confidential Information.

3.2 Purpose of disclosure and use of information

The Recipient covenants and agrees that:

(1) the Recipient and its Representatives have and will rely entirely upon their own assessment and advice in relation to the RfP and in assuming all contractual statutory or other obligations in relation to the RfP and all other obligations and liabilities of whatsoever nature; and

(2) any reliance placed by the Recipient on the Confidential Information is wholly at the risk of the Recipient.

4 Return of Confidential Information

4.1 At the direction of KCH, the Recipient must immediately deliver up, or destroy, all the Confidential Information (and copies of the Confidential Information) in the possession or control of the Recipient or its Representative. The Recipient may retain one copy for record retention purposes as required by its policies or the laws and regulations to which it is subject.

5 Term

5.1 This Deed is taken to have come into force on the date of this Deed, and continues in force until 5 years after the date of this Deed.

6 Disclosure

6.1 Clause 2 does not impose obligations on the Recipient concerning Confidential Information which:

(1) is publicly available at the date of this Deed (other than Confidential Information that became publically available at any time prior to the date of this Deed as a
result of the actions or omissions of the Recipient), or which becomes publicly available without breach of this Deed after the date of this Deed;

(2) the Recipient obtained from a third party without breach by the third party of any obligation of confidence concerning that Confidential Information; or

(3) was already in the Recipient’s possession (as evidenced by written records) when provided by or on behalf of KCH,

6.2 Subject to compliance with the requirements of clause 6.3, this Deed does not apply to the disclosure of Confidential Information which the Recipient is obliged to disclose by:

(1) law;

(2) the rules of a recognised stock exchange on which the securities of the Recipient (or an Affiliate of the Recipient) are quoted; or

(3) court order,

to the person to whom it is disclosed.

6.3 Disclosure required by law

In the event that the Recipient or any other person to whom any Confidential Information is disclosed:

(1) is required by law or court order to disclose all or any part of the Confidential Information; or

(2) anticipates or has cause to anticipate that it may be so required,

the Recipient shall, and shall ensure such persons shall, as soon as possible:

(1) notify KCH in writing of such actual or anticipated requirements;

(2) take lawful measures available to oppose or restrict such disclosure, or to make disclosure on terms which shall preserve as far as possible the confidentiality of the Confidential Information; and

(3) take such steps as will permit KCH to have a reasonable opportunity to oppose or to restrict such disclosure by lawful means.

7 Governing law and dispute resolution

This Deed shall be governed by and construed in accordance with the laws of Papua New Guinea. The Parties submit to the non-exclusive jurisdiction of the courts of Papua New Guinea.

8 General

8.1 Assignment

The Recipient must not assign this Deed or any rights or obligations under this Deed without the prior consent in writing of KCH, which consent may be granted or withheld by KCH in its absolute discretion.
8.2 **No partnership, etc**

(1) This Deed does not create or evidence a partnership, joint venture or a fiduciary relationship or the relationship of principal and agent between the Parties.

(2) A Party does not have authority to act as agent or representative of or in any way to bind or commit the other Party to any obligation.

8.3 **Variation**

An amendment or variation to this Deed is not effective unless it is in writing and signed by the Parties.

8.4 **Entire understanding**

This Deed:

(1) is the entire agreement and understanding between the Parties on everything connected with the subject matter of this Deed; and

(2) supersedes any prior agreement or understanding on anything connected with that subject matter.

8.5 **Waiver**

(1) A Party’s failure or delay to exercise a power or right does not operate as a waiver of that power or right.

(2) The exercise of a power or right does not preclude either its exercise in the future or the exercise of any other power or right.

(3) A waiver is not effective unless it is in writing.

(4) Waiver of a power or right is effective only in respect of the specific instance to which it relates and for the specific purpose for which it is given.

8.6 **Costs and outlays**

Each Party must pay its own costs and outlays connected with the negotiation, preparation and execution of this Deed.

8.7 **Notices**

Any notice given under this Deed:

(1) must be in writing addressed to the intended recipient at either the address shown below or such other address as a Party may advise the other Parties in writing from time to time:

**Kumul Consolidated Holdings**

Address: 2nd and 3rd Floor
Harbour Side West
Stanley Esplanade
Port Moresby
P.O. Box 320
Port Moresby
Papua New Guinea

Attention: Parkop Kurua
The Recipient

Name: [#Company name#]
Company No. (if any): [#Company number#]
Address for notices: [#address#]
Attention: [#name#]

(2) must be signed by a person duly authorised by the sender;
(3) will be taken to have been given when delivered, received or left at the above address:

(a) if sent by post from within one country to an address in the same country, on the 2nd business day (at the address to which it is posted) after posting;
(b) if sent by post from within one country to an address outside of that first-mentioned country, on the 5th business day (at the address to which it is posted) after posting; or
(c) if sent by email before 5PM on a business day at the place of receipt, on the day it is sent and otherwise on the next business day at the place of receipt.

If delivery or receipt occurs on a day when business is not generally carried on in the place to which the notice is sent, or is later than 4 pm (local time), it will be taken to have been duly given at the commencement of business on the next day when business is generally carried on in that place.

8.7 Execution of counterparts

This Deed may be executed in any number of counterparts. Each counterpart is an original but the counterparts together are one and the same agreement.

Executed as a deed and delivered on the date shown on the first page.

Signed sealed and delivered for and on behalf of Kumul Consolidated Holdings by [#] in the presence of:

Signature of witness ___________________________ Signature of authorised representative ___________________________

Name of witness ___________________________ Name of authorised representative ___________________________

(Block Letters) (Block Letters)

Address of witness
Signed sealed and delivered for and on behalf of the [#Recipient#] by [#] in the presence of:

<table>
<thead>
<tr>
<th>Signature of witness</th>
<th>Signature of authorised representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of witness (BLOCK LETTERS)</td>
<td>Name of authorised representative (BLOCK LETTERS)</td>
</tr>
<tr>
<td>Address of witness</td>
<td></td>
</tr>
</tbody>
</table>


- Confidentiality Undertaking

Deed Poll

Date: [#]

By: [#Name#] of [#address#] (Second Recipient).

in favour of Kumul Consolidated Holdings (KCH).

Introduction

This Deed Poll is supplemental to the Confidentiality Deed dated [#] between KCH and the Recipient (Confidentiality Deed).

Operative part

(1) The Second Recipient confirms that it has been supplied with a copy of the Confidentiality Deed and covenants with all present parties to the Confidentiality Deed (whether original or by undertaking) (Parties) to observe, perform and be bound by the obligations of the Recipient under the Confidentiality Deed.

(2) Definitions in the Confidentiality Deed that are used and not defined in this Deed Poll apply to this Deed Poll and clause 1.1 of the Confidentiality Deed applies to this Deed Poll as if it were set out in full in this Deed Poll.

(3) This Deed Poll is governed by and construed with the laws of Papua New Guinea. The Second Recipient submits to the non-exclusive jurisdiction of the courts of Papua New Guinea.

(4) The Second Recipient’s address for services of notices under the Deed are:

Name: [#Company name#]
Company No. (if any): [#Company number#]
Address: [#address#]
Attention: [#name#]

Executed as a deed poll in [#]
Signed sealed and delivered for and on behalf of [#name of organisation#] by [#]
in the presence of:

-----------------------------------------------
Signature of witness                            Signature of authorised representative

-----------------------------------------------
Name of witness (BLOCK LETTERS)                Name of authorised representative (BLOCK LETTERS)

-----------------------------------------------
Address of witness


Appendix D – Request for Clarification
Request for Clarification

EOI Name: Ramu 2 Hydroelectric Power Project
Email: Ramu2project@kch.com.pg
Deadline for requests for clarification: By 10:00 am Monday, 21 March 2016

<table>
<thead>
<tr>
<th>Contact person</th>
<th>Name</th>
<th>Position title</th>
<th>Phone</th>
<th>Email address</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ref</th>
<th>Point of clarification</th>
<th>Reason for request</th>
<th>Confidential (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Confidentiality

Unless a Proponent specifically identifies a request for clarification as confidential, and Kumul Consolidated Holdings (KCH) agrees to treat it as confidential, KCH reserves the right to distribute requests for clarification and responses to other Proponents.

If KCH does not agree to treat a request for clarification as confidential, it will provide the Proponent with the opportunity to withdraw its request for clarification.
Appendix E – Indicative Battery Limits and Scope
1. **Indicative Scope**

Key elements of the scope include but are not limited to:

*Table 1: Infrastructure requirements*

<table>
<thead>
<tr>
<th>Weir and head works infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Weir structure</td>
</tr>
<tr>
<td>▪ Intake structure</td>
</tr>
<tr>
<td>▪ Temporary coffer dams (as required)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Waterways infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Low pressure headrace tunnel</td>
</tr>
<tr>
<td>▪ Access adits (as required)</td>
</tr>
<tr>
<td>▪ Pressure shaft</td>
</tr>
<tr>
<td>▪ Surge shaft</td>
</tr>
<tr>
<td>▪ High pressure headrace tunnel</td>
</tr>
<tr>
<td>▪ Powerhouse inlet manifold</td>
</tr>
<tr>
<td>▪ Tailrace</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power station infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Concrete substructure including, transformer fire walls and plinths and station sump</td>
</tr>
<tr>
<td>▪ Steelwork superstructure, including crane rails</td>
</tr>
<tr>
<td>▪ Building services and fit-outs for control/electrical areas, administration, ablutions and workshops</td>
</tr>
<tr>
<td>▪ Turbine inlet isolation valves</td>
</tr>
<tr>
<td>▪ 3 x pelton style turbines</td>
</tr>
<tr>
<td>▪ 3 x vertical shaft arrangement Generators</td>
</tr>
<tr>
<td>▪ Black start Generator</td>
</tr>
<tr>
<td>▪ Tail race stop logs</td>
</tr>
<tr>
<td>▪ 415V auxiliary power system</td>
</tr>
</tbody>
</table>
- Single overhead travelling crane
- Drainage and dewatering including an integrated sump in the powerhouse foundations
- Cooling water system
- Station compressed air supply

### Transmission infrastructure

- 3 x Main Transformers at Ramu 2 powerhouse
- 132kV connection of the Ramu 2 power house to the Ramu 2 switchyard
- Ramu 2 switchyard
- 132kV Transmission line to the Sing Sing switchyard. Construction and commissioning only. Asset will transfer to PPL at start of operations phase.
- Connection to the Sing Sing switchyard

### Control and Communication Systems

- Modern control system
- Communication systems (locally and externally)
- CCTV systems to meet operational requirements

### Roads infrastructure

- Northern Access Road (permanent road). Construction and commissioning only. Asset will transfer at start of operations phase.
- Southern Access Road (permanent road). Construction and commissioning only. Asset will transfer at start of operations phase.
- Surge shaft access road (permanent road). Construction and commissioning only. Asset will transfer at start of operations phase.
- Temporary construction access roads (as required)

### Miscellaneous infrastructure/services

- Construction accommodation village, and site offices (as required for construction)
- Concrete batching plants, material stockpiles, laydown areas (as required for construction)
- Temporary water and power (as required for construction)
- Site security and safety infrastructure
- Environmental monitoring infrastructure
- Sewage Handling and/or treatment plants
- Potable Water Supply, storage and reticulation
- Fueling Facilities
- Transportation and logistics to site and within the site
- Waste Management and disposal
2. Indicative Battery limits

The battery limits indicate the extent of the completed Ramu 2 Hydroelectric Project (the Project) and the interfaces with other parties. The section below list the battery limits, the relevant interfaces and any requirements associated with that battery limit.

Construct and operate Battery Limits

Construct and operate battery limits are provided in Table 2. (Operating assets that will be retained by the Developer after construction of the Project is complete for operations and maintenance).

Table 2: Construct and operate battery limits

<table>
<thead>
<tr>
<th>BL-1 – Ramu 2 Water Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interface(s)</strong></td>
</tr>
<tr>
<td><strong>Responsibilities</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Key Drawing(s)</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

BL-2 – Ramu 2 Weir Releases

| Interface(s) | Discharge back to Ramu River and downstream area affected by Weir releases. |
| **Responsibilities** | The Developer is responsible for ensuring that activities that impact on the Ramu 2 River are undertaken in accordance with the requirements of the environmental consent conditions. |
| | The Developer is responsible for all activities needed to obtain access to discharge back into the Ramu River. |
| | The Developer is responsible for management of downstream erosion control at weir toe. |
| | The Developer is responsible to ensure the Ramu 2 River releases, including any continuous environmental flows, are in accordance with |
environment consent conditions.

**Key Drawing(s)**
- 2158929A-0000-PBA-GE-DG-0121
- 2158929A-1000-MWH-CV-DG-0001

### BL-3 – Tailrace Discharge

**Interface(s)**
- Discharge back to the Ramu River including the Tailrace and downstream erosion and scour projection areas.

**Responsibilities**
- The Developer is responsible for ensuring that activities that impact on the Ramu 2 River are undertaken in accordance with the requirements of the environmental consent conditions.
- The Developer is responsible for all activities needed to obtain access to discharge back into the Ramu River.
- Management of downstream erosion control at Tailrace.
- The Developer is responsible to ensure the Ramu 2 River releases, including any continuous environmental flows, are in accordance with environment consent conditions.

**Key Drawing(s)**
- 2158929A-0000-PBA-GE-DG-0123

### BL-4 – Ramu 2 Switchyard connection

**Interface(s)**
- Connection of the Ramu 2 switchyard to the Sing Sing transmission line at a tie in point agreed with PPL.

**Responsibilities**
- The Developer is responsible for all activities to secure the connection agreement. The connection agreement will determine the connection requirements, exact location of tie-in points, and work around requirements during construction and responsibilities for connection.
- Construction and commissioning of the Ramu 2 switchyard and the Sing Sing transmission line will be the responsibility of the Respondent. The Sing Sing transmission line will transfer to PPL at the start of the operation phase of the Project.
- PPL will be responsible for the operation of the Sing Sing switchyard after transfer.
- The Developer will be responsible for the operation of the Ramu 2 switchyard as detailed in the Project Agreement.

**Key Drawing(s)**
- 2158929A-4200-PBA-GE-DG-001
### BL-5 – Telecommunication connections

**Interface(s)**
- The copper cable and fibre optic termination of the outgoing communication facilities located at the boundary of the Ramu 2 switchyard at a tie in point agreed with PPL.

**Responsibilities**
- The Developer is responsible to determine the telecommunication requirements, determine the suitable communication technology that will be utilised and to make all arrangements for any connections. Any construction requirements required for connection are to be organised by the Respondent.
- The Developer is responsible to adhere to all PPL communication requirements as specified under the connection agreement.

**Key Drawing(s)**
- N/A

### BL-6 – Land required for Construction and operation

**Interface(s)**
- Boundary of land required for the Ramu 2 operation and construction as defined by the Developer’s proposal.

**Responsibilities**
- The Developer shall nominate the extent of the permanent land required for operations and any temporary land access requirements for construction purposes.
- Kumul Consolidated Holdings (KCH) will make the necessary arrangements to secure the land access.
- The Developer must adhere to the conditions of the Land Access Agreement.
- The Developer will be responsible for security of the Ramu 2 site.

**Key Drawing(s)**
- N/A
Construct and transfer battery limits

Battery limits of the works to be engineered, procured and constructed by the Proponent then transferred to others after successful performance testing is complete are provided in Table 3.

Table 3: Construct and transfer battery limits

<table>
<thead>
<tr>
<th>Interface(s)</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL-C1 – Ramu 1 Transmission Line to Sing Sing Switchyard</td>
<td>• Connection of the existing Ramu 1 transmission line to the Sing Sing Switchyard at a tie in point agreed with PPL.</td>
</tr>
<tr>
<td>Responsibilities</td>
<td>• The Developer is responsible for all activities needed to obtain access to the existing PPL Ramu 1 line and to secure the connection agreement. The connection agreement will determine the connection requirements, exact location of tie-in points, and work around requirements during construction and responsibilities for connection.</td>
</tr>
<tr>
<td></td>
<td>• Construction, commissioning of the tie in and transmission line is the responsibility of the Respondent. The Sing Sing transmission line will transfer to PPL at the start of the operation phase of the Project.</td>
</tr>
<tr>
<td></td>
<td>• PPL will be responsible for the operation of the Ramu 2 to Sing Sing transmission line after transfer.</td>
</tr>
<tr>
<td>Key Drawing(s)</td>
<td>• 2158929A-4200-PBA-GE-DG-001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interface(s)</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL- C2 – Permanent Road Access to Ramu Highway</td>
<td>• Connection point of a Northern Access Road to the Ramu Highway.</td>
</tr>
<tr>
<td>Responsibilities</td>
<td>• The Developer is responsible to provide a Northern Access Road to provide permanent operational access to Powerhouse from the Ramu Highway.</td>
</tr>
<tr>
<td></td>
<td>• The Developer is responsible for all activities needed to obtain access to connect to the Ramu Highway.</td>
</tr>
<tr>
<td></td>
<td>• The Developer will ensure the connection to the Ramu Highway shall adhere to the minimum requirements of the National Roads Authority.</td>
</tr>
<tr>
<td>Key Drawing(s)</td>
<td>• 2158929A-5000-PBA-CV-DG-0001</td>
</tr>
</tbody>
</table>
### BL-C3 – Permanent Road Access to Highlands Highway

**Interface(s)**
- Connection point of a Southern Access Road to the Highlands Highway.

**Responsibilities**
- The Developer is responsible to provide a Southern Access Road to provide permanent operational access to Weir and Surge Shaft from the Highlands Highway.
- The Developer is responsible for all activities needed to obtain access to connect to the Highlands Highway.
- The Developer will ensure the connection to the Highlands Highway shall adhere to the minimum requirements of the National Roads Authority.

**Key Drawing(s)**
- 2158929A-5000-PBA-CV-DG-0001

### BL-C4 – Temporary Land Access Boundaries during construction

**Interface(s)**
- Temporary Boundary of the land access agreement for the Project as required by Respondent’s requirements.

**Responsibilities**
- The Developer shall nominate the extent of any temporary land access requirements for construction and commissioning purposes that are in addition to the requirements of the Permanent land requirements. This requirement needs to also outline the date for first access to the land and the duration for the land access requirement.
- The Developer land access requirements specific by the Respondent should include the selected corridor for the Ramu 2 to Sing Sing Transmission line and any corridors required for construction of access roads.
- KCH will make the necessary arrangements to secure the land access.
- The Developer must adhere to the conditions of the Land Access Agreement.
- The Developer will be responsible for security and associated security infrastructure of the temporary land access boundaries.

**Key Drawing(s)**
- N/A
Appendix F – Indicative Risk Allocation
## Ramu 2 Indicative Risk Allocation Matrix

This list is intended to give an indication of the key risks that will be contemplated and expanded upon during the Request for Proposals stage. This risk matrix does not address all risks in respect of the project or the agreed treatment of the risks.

<table>
<thead>
<tr>
<th>Risk</th>
<th>Treatment</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hydrology risk</td>
<td>It is anticipated that an operations protocol around the overall operation of Ramu River System, consisting of Yonki Toe of Dam Hydro power station, the existing Ramu 1 hydropower station and Ramu 2, will be put in place in order to regulate water flow and mitigate hydrology risk. It is expected that the PPA will contemplate both capacity and energy payments.</td>
<td>Shared</td>
</tr>
<tr>
<td>2. Offtaker risk</td>
<td>Capacity payments will be payable irrespective of system demand. Energy payments will be subject to dispatch requirements.</td>
<td>Shared</td>
</tr>
<tr>
<td>3. Currency risk</td>
<td>PPL/KCH preference is for the capacity and energy payments to be denominated in Kina.</td>
<td>Proponent</td>
</tr>
<tr>
<td>4. Geological risk</td>
<td>Geotechnical data and, if available, studies will be made available to the Proponent/EPC contractor.</td>
<td>Proponent</td>
</tr>
<tr>
<td>5. Industrial relations</td>
<td>Proponent responsible for industrial relations at site/suppliers. Force majeure may apply if issue is PNG wide.</td>
<td>Shared</td>
</tr>
<tr>
<td>6. Force Majeure</td>
<td>Usual force majeure provisions for IPP projects with Proponent to take out prudent levels of insurance. Natural events and political events will be treated separately.</td>
<td>Shared</td>
</tr>
<tr>
<td>7. Environmental compliance</td>
<td>KCH is advancing the approval process for the Project in order to obtain the necessary CEPA approvals in 2016. Proponent will be responsible for obtaining all other approvals and environmental compliance responsibility during construction and operation.</td>
<td>Shared</td>
</tr>
<tr>
<td>8. Change in law</td>
<td>Risk of additional cost or reduced revenue resulting from changes in law subject to minimum threshold.</td>
<td>PPL/KCH</td>
</tr>
</tbody>
</table>