Balla Balla Infrastructure Project
Iron Ore Project – Expression of Interest

Project Overview:
BBI Group Pty Ltd (BBIG) is proposing a fully integrated port and rail system servicing mining operations in the Pilbara region of Western Australia the Balla Balla Infrastructure Project (BBI Project). An overview of the project is available at [www.bbib.icn.org.au](http://www.bbib.icn.org.au).

Package Title: Provision of LiDAR survey services
Reference: BBIGN-CTA-GE-EOI-0024

Package Description:
Provide Lidar survey services to cover the BBIG Port and other project related locations within the Pilbara.

The scope of work shall include, but not be limited to:
- Undertake LiDAR Aerial Data Acquisition survey services covering the Balla Balla Port and other project locations within the Pilbara.
- Installation of land survey targets as necessary.
- Processing of survey data and merging with previous surveys.
- All work must be completed in accordance with the applicable Australian standards by an experienced, reputable, and licensed land surveyor.

The below specification provides detail on the minimum requirements which must be met:

**Project/Performance Requirements - Survey Outputs**

- Vertical accuracy <50mm
- Horizontal accuracy <100mm
- Full metadata and flight information from capture so that error ratings can be reviewed and identified
- DEM of at least 50cm resolution
- Standard MGA projection for all supplied outputs

**Provision of LAS Point Cloud Files to include:**

- Project area coverage buffered by minimum of 50 pixels (or Ground Resolution Elements) to minimise edge effects
- Classified to LAS standards (ground and non-ground for Hydrology, all returns for detailed design)
- GPS time stamp
- MGA projection, metres units
- Info on pulse spacing
- Named with a file naming convention that is specified/explained in the metadata
- Details of any anomalies in the LAS cloud (excessive noise, elevation steps etc)
- Shapefile of low confidence areas (areas which may not meet the stated 95% confidence accuracy) to assist in analysis.

**Provision of DEM to include:**

- Hydrologically correct and bare earth DEMs in 50cm resolution
- Details of procedures used to perform any corrections
- Supply shapefiles of all features used for any break lines and enforcement of any correction
- DEM format to be in ESRI version 10.0 compatible format or plain ASCII raster file
<table>
<thead>
<tr>
<th><strong>Expression of Interest (EOI):</strong></th>
<th>Contractors are invited to express an interest in this scope of work by registering on the <a href="https://gateway.icn.org.au">ICN Gateway</a> online platform. Please ensure that your ICN Gateway company profile is up to date before registering your EOI.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EOI Closing Date:</strong></td>
<td>23rd August 2019</td>
</tr>
<tr>
<td><strong>Contact:</strong></td>
<td>Industry Capability Network of Western Australia. (+618) 9365 7490</td>
</tr>
<tr>
<td><strong>Project URL’s:</strong></td>
<td>For more information about BBI Group please refer to the company website <a href="http://www.bbig.com.au">www.bbig.com.au</a></td>
</tr>
<tr>
<td></td>
<td>For information on specific project opportunities please visit the ICN Gateway online platform at <a href="http://gateway.icn.org.au">gateway.icn.org.au</a></td>
</tr>
<tr>
<td><strong>Disclaimer:</strong></td>
<td>This package description and target award date is indicative only and subject to change. It is intended to provide only a brief outline of certain works that may be required for the proposed BBIP and should be read in conjunction with the BBIP description on the ICN Gateway.</td>
</tr>
</tbody>
</table>