

Corrigendum 1

Responses to Public Queries on Call for Proposal to Design, Build, Own & Operate a Chilled Water Plant (with Option for an Integrated Power Plant) in Data Centre Park

1) General Queries

Reference	Query	IDA's Response
-	Can alternative proposals, such as having a different technical design or modified tariff, be submitted together with the main proposal, providing that all minimum criteria set out in Section 1.3 of Annex H is satisfied?	Only proposals that comply with the prescribed pricing framework will be evaluated (refer to Section 5.3). As IDA has not stipulated a technical solution, any technical solution which fulfils the technical requirements in Annex F - Design and Technical Specifications will be considered for evaluation.
-	Is this an official tender and is there any reason why it is launched on the IDA website and not on GeBiz?	Through the Call For Proposal, IDA is officially seeking proposals to select a Developer to undertake the Project. Selection of a Proposal shall serve as a notification to the successful Participant that this Proposal shall be considered for the Concession by the Principal Agency (refer to CFP Main Document Section 3 and Section 7.2). Thus this does not constitute a procurement exercise, which is typically managed through GeBIZ, the Government procurement platform provider.

2) Financial and Commercial Queries

Reference	Query	IDA's Response
-	With regards to the chilled water price ceiling of S\$0.18 per refrigeration ton, this seems rather low and is there some rationale behind your stated price ceiling?	<p>Participants' proposed first Quarter Period price ceiling (which should not exceed \$0.18/RTh) is only applicable for the first Quarter Period after the Commercial Operation Date. The price ceiling for subsequent Quarter Periods will be determined in accordance with the Price Ceiling Adjustment Formula (refer to Annex B - Payment Mechanism).</p> <p>Data centres' cost of producing chilled water in-house was used as a benchmark to determine the \$0.18/RTh.</p>
--	Is this price ceiling of S\$0.18/RT to be held constant for ten years as the base price ceiling for any new CWSA signed within the ten-year period?	<p>Participants' proposed first Quarter Period price ceiling (which should not exceed \$0.18/RTh) is only applicable for the first Quarter Period after the Commercial Operation Date. The price ceiling for subsequent Quarter Periods will be determined in accordance with the Price Ceiling Adjustment Formula (refer to Annex B - Payment Mechanism).</p> <p>Any new CWSA signed within the ten-year period (other than the first Quarter Period) will be subjected to the price ceiling at that point in time, as determined by the Price Ceiling Adjustment Formula, similarly for duration of one Quarter Period only. The price ceiling for subsequent Quarter Periods will also be determined by the Price Ceiling Adjustment Formula.</p>
-	Please provide the indicative land rental (on \$/GFA basis) for the Data Centres. Please also indicate the expected tenure of the DC building.	<p>Land rental for the DCs can be assumed to be the same as the indicative price provided in para 4.7 of the main CFP document. DCs will be expected to take up a 30-yr lease for the land, which is the standard for industrial use.</p>

Reference	Query	IDA's Response
CFP Main Document, Page 7, Section 2	Para 2 indicated that eight DC buildings yielding at least 70,000m ² to 105,000m ² of net rackable DC space. Please provide an indication of the number of storey and height of each DC building.	The land allocated for data centres has a plot ratio of 2.5 and height limit of 95 metres AMSL. Typical data centres in Singapore are 6 to 8 storeys high, with floor-to-ceiling height per storey of approximately 6 metres. Actual number of storeys and building height is at the discretion of the data centre players.
CFP Main Document, Page 10, Section 4.4	Please provide a sample lease document.	Sample lease document will be given by the Principal Agency to the selected Participant only.
CFP Main Document, Page 11, Section 4.5	This date will be at least 3Q of 2014. On the other hand, Demand Assumptions for 1st Contract Year in Annex D is starting from Jan 1st of 2014. Which is the correct information?	<p>Participants should assume demand assumptions are to apply from the Scheduled Commercial Operation Date. Referencing to Annex D- Tariff Proposal Section 1, and Annex F- Design and Technical Specifications Section 1.2, demand requirements of 5,000RT shall apply to the first year from the Scheduled Commercial Operation Date, 10,000RT from the second year and so on.</p> <p>Demand assumptions shall be used as a reference for evaluation purposes only. Actual demand is at the discretion of the data centre players.</p>
CFP Main Document, Page 11, Section 4.7 and Page 12, Section 4.8	Can Service Charge be adjusted based on finalised land rental rate? How much is the Service Charge?	Service charge is a form of cost recovery and has not been determined at present. This is a standard clause, should there be any cost recovery required for any services provided in the development. The Principal Agency will update the amount when available.

Reference	Query	IDA's Response
CFP Main Document, Page 13, Section 5.2(a)	<p>The Price Ceiling for the first Quarter Period shall not exceed \$0.18 per RTh (as defined in the Concession Agreement set out in Annex G).</p> <p>A) Is \$0.18 per RTh an all-in chilled water charge?</p> <p>B) Are there any other added pricing mechanism to add on to this \$0.18 per RTh like Installation Charges and Capacity Charges?</p>	<p>A) Participants are expected to propose the first Quarter Period price ceiling, which should not exceed \$0.18/RTh. The price ceiling at every Quarter Period should be an all-in chilled water price, including CAPEX cost recovery, fixed costs recovery, variable costs and margins.</p> <p>B) Apart from the price ceiling, of which subsequent Quarter Periods (other than the first Quarter Period) will be determined in accordance with the Price Ceiling Adjustment Formula (refer to Annex B - Payment Mechanism), there are no added pricing mechanisms like Installation Charges or Capacity Charges.</p>
CFP Main Document, Page 14, Section 5.2(b)	<p>Less than the "Declared Demand Load" may be a mistake. Is it meant to be "Minimum Load" instead?</p>	<p>The payment mechanism explained in the Call for Proposal documents are accurate. Refer to Annex B- Payment Mechanism for detailed explanations.</p>
Annex B, Page B-1, Section 1(a)	<p>Is "AL" the peak capacity of tenant?</p>	<p>"AL" is the actual usage of the Chilled Water Service by that Tenant in RT during the relevant billing month (as stated in Annex B- Payment Mechanism).</p>
Annex B, Page B-1, Section 1(b)	<p>Whenever the Actual Load is less than the Declared Demand Load(DDL), the Concession Company can charge nothing but the Minimum Load Charge. It should be based on Actual Load.</p>	<p>The payment mechanism explained in Annex B- Payment Mechanism is as intended.</p>
Annex B, Page B-2, Section 2	<p>In the case of a solution with a Power Plant, the fuel gas price is the most impactful component. It should be included in this formula.</p>	<p>The payment mechanism explained in Annex B- Payment Mechanism is as intended.</p>

Reference	Query	IDA's Response
Annex B, Page B-2, Section 2	What is the accurate definition of the Eff component? Does this component include a decrease in efficiency because of an aging degradation since Price Ceiling must be dropped every quarter?	<p>Eff is an efficiency factor, meant to reflect that as the Developer's business develops and demand requirement increases, efficiency of chilled water systems will increase as well.</p> <p>Participants' proposed first Quarter Period price ceiling, adjustment factors and efficiency factor should take into account all relevant commercial and technical considerations.</p>
Annex D, Page D-1, Section 1	Is the demand requirement constant within one year? If not, please indicate the demand curve within each year.	The demand is assumed to be constant within each year. Demand assumptions are to be used as a reference for evaluation purposes only.
Annex H, Page H-2, Section 1.3(e)	Does "Time to Restore" mean "Mean Time To Restore"?	"Time to Restore" refers to the Guaranteed Response Time of 4 hours from the time of commencement of any Outage (refer to Annex G- Concession Agreement).

3) Technical Queries

Reference	Query	IDA's Response
Annex F, Page 3	No Key Single Line Diagrams are attached.	Key Single Line Diagrams will be issued as a corrigendum.
Annex F, Page 8	<p>"All schematics, flow diagrams, configurations etc provide within the specifications shall be taken as for reference only." & "The information provided in the specifications is to be used for reference only."</p> <p>It is not clear what the technical requirements we have to fulfil are because all material and information are for reference only.</p> <p>Can you kindly advise and specify what the technical requirements we have to fulfil are so that we can put in an alternative technical solution for better efficiency system?</p>	<p>Participants' technical solution should fulfil the technical requirements in Annex F - Design and Technical Specifications, and will be evaluated based on the desired outcomes as specified in the Evaluation Criteria (refer to Annex H- Evaluation Process).</p>
Annex F, Page 13, Section 1.9	<p>Secondary Voltage of Substation is unknown. "Secondary Voltage" means the voltage of power supply to Chilled Water Plant.</p> <p>In CFP, the primary voltage of the common substation is shown as 66kV, but the supply voltage to Chilled Water Plant is not shown.</p> <p>(Power Grid (Primary) 66kV -> common substation -> Chilled water plant ? kV(Secondary))</p>	<p>Regarding what other voltage level is available if the Developer wants to get power supply from the grid for the chilled water plant, the power feeders mentioned in the CFP are for connecting data centre users only. Participants may approach SP PowerGrid Ltd for their chilled water plant connection application.</p>

Reference	Query	IDA's Response
Annex F, Annex 2, Page 26-27, Section 1.8.4(c) and 1.8.5	<p>Section 1.8.4(c) stated that ultrasonic inline type thermal energy meter shall be provided Accuracy within $\pm 0.5\%$ and shall comply with EN1434 requirement. Section 1.8.5 specified that flow meter for metering purpose shall be ultrasonic type with beam principle. In addition, page 27 specified that "electromagnetic flow meters are not acceptable".</p> <p>We would like to propose that electromagnetic flow meters be allowed as they are used in existing district cooling system in Singapore.</p>	<p>Ultrasonic type flow meter is preferred. However should other flow meters are proposed, the Participants shall demonstrate in the proposal that the proposed flow meters could meet the performance requirements.</p>
Annex F, Annex 3, Bore Hole No. 1	<p>Is the actual site elevation AMSL+5.55m?</p>	<p>For information on site levels, please refer to the topographical survey drawings which will be issued as corrigendum for information.</p>
Annex F, Annex 3, All Bore Holes (apart from Bore Hole No. 1)	<p>Please indicate elevation of each Bore Hole.</p>	<p>Information on the elevation of each borehole is not available. Please refer to the topographical survey drawings for further information on site levels.</p>
Annex F, Annex 4, DWG No. 2611239A-PLOT-S2-001	<p>What kind of relation does the numerical value of level have to AMSL? Does 105.92 mean AMSL+5.92m?</p>	<p>For information on site levels, please refer to the topographical survey drawings which will be issued as corrigendum for information.</p>

Reference	Query	IDA's Response
Annex F, Annex 4, DWG No. P1203/CS/C601 and DWG No. P1203/CS/C602	<p>The cross sectional drawings referred to drawing no. P1203/SP/C101 which is not included in the CFP document. Please provide.</p> <p>In addition, the space allowance of 100mm (Section B-B) and 150mm (Section E-E) between the pipes appears to be insufficient after allowance is made for thermal insulation and welding. The space provision may need to be enlarged.</p>	<p>Drawing P1203/SP/C101 is not applicable to this Call for Proposal.</p> <p>The space allowance of 100mm shown is indicative and the Participant shall advise the required allowance in consideration of requirements such as thermal insulation and welding in the submission.</p>