

CHENNAI METRO RAIL LIMITED

**PRE – QUALIFICATION
FOR
POWER SUPPLY SYSTEM AND
OVERHEAD EQUIPMENT
DESIGN AND BUILD**

ADDENDUM

CHENNAI METRO RAIL PROJECT

PHASE 1

CONTRACT NO. AEP-01

March 2010

**ADDENDUM NO. 1 to PQ Document for Pre-Qualification of Tenderers for Power Supply System and OHE-Design and Build -
Contract No. AEP-01 of Chennai Metro Rail Project Phase-I**

1.It has been decided to modify the PQ Document in respect of a few of its clauses as tabulated below:

Date: 04.03.2010

| Sl.No | Reference | Orginal (Dated 11-01-2010) | As modified now |
|-------|--|---|--|
| 1 | Clause No. 8 of Invitation for Pre-qualification | <p>The Applicants shall meet the following minimum criteria in order to be pre-qualified:</p> <p>The average annual turnover for works as prime contractor (defined as billing for works in progress or completed) over the last 5 financial years (i.e. financial years whose ending dates are between October 1, 2004 and September 30, 2009) of USD 78 million or the equivalent thereof. Two percent (2%) compounded escalation per annum on USD terms will be allowed for the first 4 years of turnover values given for this requirement.</p> <p>Power Supply:</p> <p>(i) The Applicants shall have successful experience as prime contractors in the execution of Power Supply System design, erection, installation, testing and commissioning and complete integration of all Power Supply Systems and equipments in at least three projects of a comparable nature and complexity to the proposed metro rail project (Refer Para 3) in the last 10 years (between October 1,1999 and September 30, 2009) with at least one project having been executed in the last 5 years (ending between October 1, 2004 and September 30, 2009).</p> <p>(ii) Applicant shall have carried out design, construction, testing and commissioning of at least one 110kV/33kV or one 110 kV/25kV Receiving Substation, including civil works, in the preceding 5 years (ending between October 1, 2004 and September 30, 2009).</p> <p>(iii) Applicant shall have carried out design, construction, testing and commissioning of at least six 33kV/415V substations on one or several metro rail projects in the preceding 5 years (ending between October 1, 2004 and September 30, 2009).</p> <p>(iv) Applicant shall have carried out design, construction, testing and commissioning of SCADA, including Digital Protection Control System (DPCS), PLCs and ergonomic screen control panel designing, computing designing, on a minimum of 2 metro rail projects in the preceding 5 years (ending between October 1, 2004 and September 30, 2009).</p> <p>Overhead Equipment (OHE):</p> <p>(i) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 100 Km simple catenary with comparable features (as indicated in item 3 above) in the preceding 10 years (ending between October 1, 1999 to September 30, 2009).</p> | <p>The Applicants shall meet the following minimum criteria in order to be pre-qualified:</p> <p>The average annual turnover for works as prime contractor (defined as billing for works in progress or completed) over the last 5 financial years (i.e. financial years whose ending dates are between January 1, 2005 to December 31, 2009) of USD 78 million or the equivalent thereof. Two percent (2%) compounded escalation per annum on USD terms will be allowed for the first 4 years of turnover values given for this requirement.</p> <p>Power Supply:</p> <p>(i)The Applicants shall have successful experience as prime contractors in the execution of Power Supply System design, Erection, Installation, Testing and Commissioning and complete integration of all Power Supply Systems and equipments in at least three projects of a comparable nature and complexity to the proposed metro rail project (Refer Para 3 of Invitation Of Pre-qualification) in the last 10 years (ending between April 1, 2000 and March 31, 2010) with at least one project having been executed in the last 5 years (ending between April 1, 2005 and March 31, 2010). Projects of comparable nature and complexity for this purpose also include major power supply transmission and distribution projects including 110 kV and above voltage substations and 33 kV and above voltage cable laying works and 25kV railway traction works. In the absence of requisite deisgn experience for power supply systems with the applicant, the aplicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2. of ITA</p> <p>(ii)Applicant shall have carried out design, construction, testing and commissioning of at least one 110kV/33kV or one 110 kV/25kV or higher voltage Receiving Substation, including civil works, in the preceding 5 years (ending between April 1, 2005 and March 31, 2010). In the absence of requisite design experience with the applicant, the aplicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2 of ITA</p> <p>(iii)Applicant shall have carried out design, construction, testing and commissioning of at least six 33kV/415V substations on one or several metro rail projects or at least ten numbers of 33kV/415V substations for any other power utilities or at least 50% of each of the above in the preceding 5 years (ending between April 1, 2005 and March 31, 2010). In the absence of requisite design experience with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2. of ITA</p> <p>(iv) Applicant shall have carried out design, construction, testing and commissioning of SCADA, including Digital Protection Control System (DPCS), PLCs and ergonomic screen control panel designing, computing designing, on a minimum of 2 metro rail projects or design, construction, testing and commissioning of SCADA for major infrastructure projects (airport, seaport, power plants and grid substations) of not less than 3000 I/O points for remote operation in the preceding 5 years (ending between April 1, 2005 and March 31, 2010). In the absence of above mentioned requisite experience with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2. of ITA</p> <p>2b. Overhead Equipment (OHE):</p> <p>(i) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 100 Km simple catenary with comparable features (as indicated in item 3 above) in the preceding 10 years (ending between April 1, 2000 and March 31, 2010). In the absence of requisite design experience for OHE with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2.of ITA</p> |

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| | | (ii) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 5 Km Rigid Conductors (rigid catenaries) in the preceding 5 years (ending between October 1, 2004 and September 30, 2009). | (ii) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 5 Km Rigid Conductors (rigid catenaries) in the preceding 5 years (ending between April 1, 2005 and March 31, 2010). In the absence of above mentioned experience for rigid conductors with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2. of ITA |
| 2 | <u>Instruction to Applicants:</u> Clause 4.1 | 4.1 Pre-qualification will be based on meeting all the following minimum pass/fail criteria regarding the Applicant's general and particular experience, personnel and equipment capabilities, and financial position, as demonstrated by the Applicant's responses in the forms attached to the Letter of Application (specific requirements for joint ventures are given under paragraphs. 5.1 and 5.2 below). | 4.1 Pre-qualification will be based on meeting all the following minimum pass/fail criteria regarding the Applicant's general and particular experience, personnel and equipment capabilities, and financial position, as demonstrated by the Applicant's responses in the forms attached to the Letter of Application (specific requirements for joint ventures are given under paragraphs. 5.1 and 5.2 below). The employer reserves the right to waive minor deviations under clauses 4.4 and 4.5, if they do not affect the capability of an applicant to perform the contract. |
| 3 | <u>Instruction to Applicants:</u> Clause 4.2 | 4.2 Subcontracting. When standard proprietary equipment (essential for execution of the Contract) is required by the Applicant from specialist subcontractors and / or supplier, such subcontractors / suppliers and their inputs shall be described in Application Form 3. The design of the Power Supply System, for other than standard proprietary equipment, shall not be subcontracted. The Applicant shall attest that it/they will internally design the Power Supply System equipment except those for standard proprietary equipment. | 4.2 Subcontracting. When standard proprietary equipment (essential for execution of the Contract) is required by the Applicant from specialist subcontractors and / or supplier, such subcontractors / suppliers and their inputs shall be described in Application Form 3 and 3a. The following works may be subcontracted: - the design of the Power Supply and overhead equipment System, - the SCADA - the rigid conductors (rigid catenaries) works. The applicant shall propose maximum of 3 nominations for each subcontracted works with their credential for evaluation along with pre qualification submittal. If these subcontractor/s do not meet the criteria, the PQ bid will not be successful. The subcontractors inputs shall be described in Application Form 3 and 3a. The subcontractor shall meet all the prescribed qualifications required for the applicant for the specified item of subcontracted work. The subcontractors names proposed by applicant for its bid submission will have to be the same as the one proposed at the PQ stage. |
| 4 | <u>Instruction to Applicants:</u> Clause 4.3 | 4.3. General Experience. The Applicant shall meet the following minimum criteria: 1. The average annual turnover for works as prime contractor (defined as billing for works in progress or completed) over the last 5 financial years (i.e. financial years whose ending dates are between October 1, 2004 to September 30, 2009) of USD 78 million or the equivalent there of. Two percent (2%) escalation per annum on USD terms will be allowed for the first 4 years of turnover values given for this requirement. | 4.3. General Experience. The Applicant shall meet the following minimum criteria: 1. The average annual turnover for works as prime contractor (defined as billing for works in progress or completed) over the last 5 financial years (i.e. financial years whose ending dates are between January 1, 2005 to December 31, 2009) of USD 78 million or the equivalent there of. Two percent (2%) escalation per annum on USD terms will be allowed for the first 4 years of turnover values given for this requirement. |

2a. Power Supply:

(i)The Applicants shall have successful experience as prime contractors in the execution of Power Supply System design, Erection, Installation, Testing and Commissioning and complete integration of all Power Supply Systems and equipments in at least three projects of a comparable nature and complexity to the proposed metro rail project (Refer Para 1.3) in the last 10 years (ending between Oct 1, 1999 and Sept 30, 2009) with at least one project having been executed in the last 5 years (ending between October 1, 2004 and September 30, 2009).

(ii)Applicant shall have carried out design, construction, testing and commissioning of at least one 110kV/33kV or one 110 kV/25kV Receiving Substation, including civil works, in the preceding 5 years (ending between October 1, 2004 and September 30, 2009).

(iii)Applicant shall have carried out design, construction, testing and commissioning of at least six 33kV/415V substations on one or several metro rail projects in the preceding 5 years (ending between October 1, 2004 and September 30, 2009).

(iv)Applicant shall have carried out design, construction, testing and commissioning of SCADA, including Digital Protection Control System (DPCS), PLCs and ergonomic screen control panel designing, computing designing, on a minimum of 2 metro rail projects in the preceding 5 years (ending between October 1, 2004 and September 30, 2009).

2b. Overhead Equipment (OHE):

(i) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 100 Km simple catenary with comparable features (as indicated in item 3 above) in the preceding 10 years (ending between October 1, 1999 to September 30, 2009).

(ii) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 5 Km Rigid Conductors (rigid catenaries) in the preceding 5 years (ending between October 1, 2004 and September 30, 2009)

Applicants shall fill in Application Forms 1, 2, 2a (JV only), 2b (JV only), 3, 3a and 4.

Previous experience as part of a joint venture/ consortium will be considered either based on the certification by an employer of actual work done or as detailed out in the JV agreement (or in case both above details are not available, then in the ratio of financial participation).The pre-qualified applicants may be required to submit satisfactory performance certificates from their respective clients and to provide screen shots of its screen control panel during bidding stage. Where necessary, CMRL will make inquiries with the Applicant's clients.

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Projects of comparable nature and complexity for this purpose also include major power supply transmission and distribution projects including 110 kV and above voltage substations and 33 kV and above voltage cable laying works and 25kV railway traction works. In the absence of requisite design experience for power supply systems with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2.of ITA

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(iii)Applicant shall have carried out design, construction, testing and commissioning of at least six 33kV/415V substations on one or several metro rail projects or at least ten numbers of 33kV/415V substations for any other power utilities or at least 50% of each of the above in the preceding 5 years (ending between April 1, 2005 and March 31, 2010). In the absence of requisite design experience with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2. of ITA

(iv) Applicant shall have carried out design, construction, testing and commissioning of SCADA, including Digital Protection Control System (DPCS), PLCs and ergonomic screen control panel designing, computing designing, on a minimum of 2 metro rail projects or design, construction, testing and commissioning of SCADA for major infrastructure projects (airport, seaport, power plants and grid substations) of not less than 3000 I/O points for remote operation in the preceding 5 years (ending between April 1, 2005 and March 31, 2010). In the absence of above mentioned requisite experience with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2 of ITA.

2b. Overhead Equipment (OHE):

(i) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 100 Km simple catenary with comparable features (as indicated in item 3 above) in the preceding 10 years (ending between April 1, 2000 and March 31, 2010). In the absence of requisite design experience for OHE with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2 of ITA.

(ii) Applicant shall have carried out design, construction, testing and commissioning of a minimum of 5 Km Rigid Conductors (rigid catenaries) in the preceding 5 years (ending between April 1, 2005 and March 31, 2010). In the absence of above mentioned experience for rigid conductors with the applicant, the applicant may qualify by nominating one or more sub-contractors meeting the above requirements and consistent with para 4.2 of ITA.

Applicants shall fill in Application Forms 1, 2, 2a (JV only), 2b (JV only), 3, 3a and 4.

Previous experience as part of a joint venture/ consortium will be considered either based on the certification by an employer of actual work done or as detailed out in the JV agreement (or in case both above details are not available, then in the ratio of financial participation).The pre-qualified applicants may be required to submit satisfactory performance certificates from their respective clients and to provide screen shots of its screen control panel during bidding stage. Where necessary, CMRL will make inquiries with the Applicant's clients.

4 Instruction to Applicants:
Clause 4.4

4.4 Personnel Capabilities.

The Applicant must have suitably qualified personnel to fill the following positions. In Form 5, the Applicant will supply information on a prime candidate and on an alternate for each position; both people should meet the experience requirements specified below:

4.4 Personnel Capabilities.

The Applicant must have suitably qualified personnel to fill the following positions. In Form 5, the Applicant will supply information on a prime candidate and on an alternate for each position; both people should meet the experience requirements specified below:

| Position | Total Experience (years) | In Similar Projects (years) | As Manager of Similar Projects (years) |
|------------------------------|--------------------------|-----------------------------|--|
| Project Manager | 15 | 10 | 5 |
| Manager (Power Supply) | 10 | 7 | 3 |
| Manager (Overhead Equipment) | 10 | 7 | 3 |
| T&C Manager | 10 | 7 | 3 |
| QA Manager | 10 | 7 | 3 |

The Applicant will be considered to pass this criteria if the resumes of a prime candidate and an alternate are provided for each position and meet or exceed the minimum number of years experience as required above

| Position | Total Experience (Years) | In Similar Projects (years) | As Manager of Similar Projects (years) |
|------------------------------|--------------------------|-----------------------------|--|
| Project Manager | 15 | 10 | 5 |
| Test & Commissioning Manager | 10 | 7 | 3 |
| Quality Assurance Manager | 10 | 7 | 3 |

The Applicant will be considered to pass this criteria if the resumes of candidates are provided for each position and one of them per position meet or exceed the minimum number of years experience as required above. The similar experience for this purpose shall cover Power Supply in metro rail projects or projects of comparable nature and complexity as specified in clause 4.3

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| 5 | <u>Instruction to Applicants:</u> Clause 4.7 | 4.7 Profitability. The audited financial statements for the last five financial years (financial years whose ending dates are between October 1, 2004 and September 30, 2009) shall be submitted. Self certified financial statements for the last financial year will be accepted in case the audit has not been completed. But if prequalified, the firm would need to submit the audited statement as part of the bid. Where necessary, the Employer will make inquiries with the Applicant's bankers. |
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| 5 | <u>Instruction to Applicants:</u> Clause 4.7 | 4.7 Profitability. The audited financial statements for the last five financial years (financial years whose ending dates are between January 1, 2005 to December 31, 2009) shall be submitted. Self certified financial statements for the last financial year will be accepted in case the audit has not been completed. But if prequalified, the firm would need to submit the audited statement as part of the bid. Where necessary, the Employer will make inquiries with the Applicant's bankers. |
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| 6 | <u>Instruction to Applicants:</u> Clause 4.8 | 4.8 Litigation History. The Applicant must provide accurate information on any litigation or arbitration resulting from contracts completed or ongoing over the last 10 years. A consistent history of awards against the Applicant or any partner of a joint venture may result in rejection of the application for prequalification. |
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| 6 | <u>Instruction to Applicants:</u> Clause 4.8 | 4.8 Litigation History. The Applicant must provide accurate information on any litigation or arbitration pertaining to the power supply and overhead equipment system, and resulting from contracts completed or ongoing over the last 10 years. Business lines unrelated to the scope of work need not be submitted and will not be considered. A consistent history of awards against the Applicant or any partner of a joint venture may result in rejection of the application for prequalification. |
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| 7 | <u>Instruction to Applicants:</u> Clause 5.1 | 5.1 Joint Ventures/ Consortia must comply with the following requirements: (a) Following are the minimum qualification requirements: i) The lead partner shall meet not less than 40 percent of the qualifying criteria given in paragraphs 4.3.1, 4.3.2a and 4.6 above. ii) Each of the other partners shall meet individually not less than 25 percent of the qualifying criteria given in paragraphs 4.3.1, 4.3.2a or 4.3.2b, and 4.6 above. iii) The joint venture/consortium must collectively satisfy 100% of the criteria of paragraphs 4.3 through 4.6, for which purpose the vetted figures for each of the partners shall be added together to arrive at the joint venture's total capacity. Individual members must each satisfy the requirements of paragraphs 4.7, 4.8 and 4.9 above. Not more than one member of a JV/consortium can claim an identical previous works experience. |
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| 7 | <u>Instruction to Applicants:</u> Clause 5.1 | 5.1 Joint Ventures/ Consortia must comply with the following requirements: (a) Following are the minimum qualification requirements: i) The lead partner shall meet not less than 40 percent of the qualifying criteria given in paragraphs 4.3.1 and 4.6 above. ii) Each of the other partners shall meet individually not less than 25 percent of the qualifying criteria given in paragraphs 4.3.1 and 4.6 above. iii) The joint venture/consortium must collectively satisfy 100% of the criteria of paragraphs 4.3 through 4.6, for which purpose the vetted figures for each of the partners shall be added together to arrive at the joint venture's total capacity. Individual members each must satisfy the requirements of paragraphs 4.7, 4.8 and 4.9 above. Not more than one member of a JV/consortium can claim an identical previous works experience. iv) The lead partner shall have an experience as prime contractor, in the last five years (ending between April 1, 2005 to March 31,2010), in power supply system erection/installation/testing and commissioning and complete integration of all power supply system and equipment in at least one project of comparable nature and complexity to the proposed metro rail project (refer para 1.3 of ITA) or major power transmission and distribution projects including 110 kV and above voltage substations and 33 kV and above voltage cable laying works . |
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