

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

**Addendum No 03**

<b>Sr. No</b>	<b>Page No</b>	<b>Clause No</b>	<b>Original Clause</b>	<b>To be replaced by</b>
1	103	Part 2, Vol 1.2, Schedule I	Table 3, List of drawings – As part of tender documents.	Please refer Annexure I, Addendum 03
2	80	18.0, Schedule D, Vol 1.2, Part 2	Table: Required produced water characteristics	Please refer Annexure II, Addendum 03
3	4	1.0, Schedule A, Vol 1.2, Part 2	Table 1: Tentative coordinates for the location.	Please refer, Annexure III, Addendum 03
4	6	1.0, Schedule A, Vol 1.2, Part 2.	Annexure – III - Draft details of location for the Desalination plant	Please refer Annexure IV, Addendum 03
5	14	1.1.27, Schedule B, Vol 1.2, Part 2.	Design, develop and deploy a utility management system for collection of potable water from five sites, store in a common tank.	Design, develop and deploy a utility management system for collection of potable water from a maximum of five sites, store in a common tank, with a provision to store 48 Hours of produced water
6	13	1.1.13, Schedule B, Vol. 1.2, Part 2.	Provision for Demonstration for operation of the plant for (a) 8 Hrs (12) Hrs and (24 Hrs cycles	Provision for Demonstration for operation of the plant for (a) 6 Hrs (b) 8 Hrs (c) 12 Hrs and (d) 24 Hrs cycles. The plant has to operate for a minimum of 6 Hrs per day.
7	14	1.1.30, Schedule B, Volume 1.2, Part 2.	Proper lab arrangement at site to measure the quality of seawater intake, reject and the utility	Proper lab arrangement at site to measure the quality of seawater intake, reject and the utility along with provision of power required for operation of lab equipment, including pumps motors and other accessories for the performance of services under the scope of work to be met by the contractor.
8	4	2.0 (1) (2), Schedule B, Volume 1.2, Part 2	(1) Seawater intake facilities from the sea to the boundary wall of the individual contractors. (2) Collection of brine from the boundary wall of individual contractors and disposal of same to the sea	(1) Seawater intake facilities from the sea to the boundary wall of the individual contractors. Bidders should explore alternate technologies rather than conventional intake systems. (2) Collection of brine from the boundary wall of individual contractors and disposal of same to the sea. Bidders should explore alternate technologies rather than conventional brine reject mechanisms.

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

<b>Sr. No</b>	<b>Page No</b>	<b>Clause No</b>	<b>Original Clause</b>	<b>To be replaced by</b>
9	14	1.1.22, Schedule B, Vol 1.2, Part 2	Survey of site, identification of location, submission of feasibility report, submission of detailed engineering report on possible locations for intake of minimum 200000 litres per day of seawater intake systems for demonstration of energy efficient seawater intake system at tentative locations as described in Annexure III	Survey of site, identification of suitable method and location, submission of feasibility report, submission of detailed engineering report on possible locations for intake of minimum 200000 litres per day of seawater intake systems for demonstration of energy efficient seawater intake system at tentative locations as described in Annexure III and Annexure IV of Addendum 03.
10	14	1.1.24, Schedule B, Vol 1.2, Part 2	Survey of site, submission of feasibility report, submission of detail engineering report for brine management from the project energy efficient seawater desalination project at AA in DSIR	Survey of site, submission of feasibility report, submission of detail engineering report including all studies associated with seawater intake, brine management and operation of desalination plant for energy efficient seawater desalination process at AA in DSIR. Bidders should investigate alternate technologies other than conventional brine reject systems. The design of Brine reject management should suit High-Low tide phenomenon at DSIR and Low volume of brine reject from demonstration plants.
11	15	1.1.37, Schedule B, Volume 1.2, Part 2	The contractor should provide proper land levelling for the Part A scope of work, including approach roads at plot level. The approximate land requirement for each technology demonstration is 75x50m. Each plot has to be separated from the other through proper temporary boundary walls with minimum height of 1.5 m using barbered wires. Contractor to consider 5 plots for demonstration purpose. The approach roads do not have to be necessarily black top but should be mandatorily useful for transport of men and equipment during all seasons of the year. The contour level of site varies by 2 to 3 m. The sub soil water level at site varies from 1.5 to 3 m, below natural ground level. The site development works inside the	The contractor should provide proper land levelling for the Part A scope of work, including approach roads at plot level. The approximate land requirement for each technology demonstration is 75x50m. Each plot has to be separated from the other through proper temporary boundary walls with minimum height of 1.5 m using barbered wires. Contractor to consider 5 plots for demonstration purpose. The approach roads do not have to be necessarily black top but should be mandatorily useful for transport of men and equipment during all seasons of the year. This approach road should be constructed to match finished existing road level and finished plot level. The contour level of site varies by 2 to 3 m. The sub soil water level at site varies from 1.5 to 3 m, below natural ground level. The site development works inside the demonstration plots includes filling and compacting earth. The average filling for the demonstration plot works is 0.5m above the existing nearest road.

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

Sr. No	Page No	Clause No	Original Clause	To be replaced by
			demonstration plots includes filling and compacting earth. The average filling for the demonstration plot works is about 1.5 to 2 m.	
12	12	1.1.3, Schedule B, Vol 1.2, Part 2	Seawater intake systems, pre-treatment methods and reject mechanism including compatibility of brine disposal, if any inside the allotted plots. Provision for the intake and reject mechanism will be provided at the plot level. Individual contractor should make the provision for storage of seawater (intake), reject (brine) and produced water for a period of 48 hours of operation. The supply will include associated process equipment, high pressure & low-pressure pumps, pressure exchangers, electrical drives/motors/agitators, in-plant process piping & utility piping (service water to all chemical preparation tanks from the overhead water tanks, compressed air lines), fittings, valves, proper piping supports, process instruments, instrument receiver panels, PLC in required nos., PC based SCADA control system, mandatory spares etc.	Seawater intake systems, pre-treatment methods and reject management mechanism including compatibility of safe brine disposal, (if any) into the main brine reject line. Provision for the intake and reject mechanism will be provided at the plot level by Part B contractor. Individual contractor should make the provision for storage of seawater (intake), reject (brine) and produced water for a period of 48 hours of operation. The supply will include associated process equipment, high pressure & low-pressure pumps, pressure exchangers, electrical drives/motors/agitators, in-plant process piping & utility piping (service water to all chemical preparation tanks from the overhead water tanks, compressed air lines), fittings, valves, proper piping supports, process instruments, instrument receiver panels, PLC in required nos., PC based SCADA control system, mandatory spares etc.
13	14	1.1.26, Schedule B, Vol 1.2, Part 2	Design, develop, deploy and operate brine management mechanism for collection, storage and disposal of brine from five test sites to a common reject mechanism at least 2 kms downstream of the identified seawater intake location. The estimated total brine is minimum 100,000 LPD	Design, develop, deploy and operate brine management mechanism for collection, storage and disposal of brine from five test sites to a common reject mechanism at least 2 kms downstream of the identified seawater intake location. The estimated total brine is minimum 100,000 LPD. Bidders are encouraged to use innovative technologies for brine management to save time, decrease cost, increase overall efficiency and environmental neutral processes. The contractor should have a provision to store Brine for a period of 48 Hours.
14	11	Figure 1, RfQ cum	Figure 1: Tentative locations of the intake,	Please refer Annexure III and Annexure IV of Addendum 03

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

<b>Sr. No</b>	<b>Page No</b>	<b>Clause No</b>	<b>Original Clause</b>	<b>To be replaced by</b>
		RfP document	reject and the proposed experimental site	
15	18	2.2.6 (i) RfQ cum RfP document	(i) The Threshold Technical Capacity and Financial Capacity of all the Members of Joint Venture would be taken into account for satisfying the above conditions of eligibility. Further, Lead Member shall meet at least 75% requirements of Technical and Financial Capacity required as per Clause 2.2.2 and each of other JV members shall meet at least 25% requirement of Technical and Financial capacity as per Clause 2.2.2. For avoidance of doubt it is further clarified that the Joint Venture must collectively and individually satisfy the above qualification criteria.	(i) The Threshold Technical Capacity and Financial Capacity of all the Members of Joint Venture would be taken into account for satisfying the above conditions of eligibility. Further, <b>JV members shall jointly meet technical requirements and Lead member shall meet 100% Financial Capacity</b> required as per Clause 2.2.5 (B).
16	8	1.2.6 RfQ cum RfP document	Bids will be evaluated for the Project on the basis of the lowest cost required by a Bidder for implementing the Project (the "Bid Price") for scope of work as mentioned in part B. However, for Part A scope of work the project will be awarded on the innovativeness of the project and its contribution to an energy efficient, cost competitive and environmental friendly seawater desalination. The selection of projects under Part A will be done by a team of desalination experts who will review the technologies submitted by the individual bidders against the Key Performance Indicators (KPI's) mentioned in the tender document. The total time allowed for completion of construction	Bids will be evaluated for the project on the basis of acceptable technology and lowest cost required by a Bidder for implementing the Project (the "Bid Price") for scope of work as mentioned in part B. However, for Part A scope of work the project will be awarded on the innovativeness of the project and its contribution to an energy efficient, cost competitive and environmental friendly seawater desalination. The selection of projects under Part A and Part B will be done by a team of desalination experts who will review the technologies submitted by the individual bidders against the Key Performance Indicators (KPI's) mentioned in the tender document. The total time allowed for completion of construction under the Agreement (the "Construction Period") and the period during which the Contractor shall be liable for maintenance and rectification of any defect or deficiency in the Project after completion of the Construction Period (the "Defect Liability Period") shall be

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

Sr. No	Page No	Clause No	Original Clause	To be replaced by
			<p>under the Agreement (the “Construction Period”) and the period during which the Contractor shall be liable for maintenance and rectification of any defect or deficiency in the Project after completion of the Construction Period (the “Defect Liability Period”) shall be pre-determined, and are specified in the draft Agreement forming part of the Bidding Documents. In this RFP, the term “Lowest Bidder” for Part A scope of work shall mean the bidder who is quoting the merit of technology and novelty of the processes for energy efficient, environment friendly and cost competitive seawater desalination processes. However for Part B scope of work, “Lowest Bidder” mean the bidder who has quoted the lowest price for the complete scope of work as mentioned in Part B scope of work of this tender document.</p>	<p>pre-determined, and are specified in the draft Agreement forming part of the Bidding Documents. In this RFP, the term “Lowest Bidder” for Part A scope of work shall mean the bidder who is quoting the merit of technology and novelty of the processes for energy efficient, environment friendly and cost competitive seawater desalination processes. However for Part B scope of work, “Lowest Bidder” mean the bidder who has quoted the lowest price for the complete scope of work as mentioned in Part B scope of work of this tender document. The price bids will be compared on for acceptable technologies, on a case to case basis.</p>
17	14	1.1.25, Schedule B, Vol. 1.2, Part 2.	<p>Design, development and erect suitable facilities for supply, storage and distribution of uninterrupted maximum of 10,000 LPD (litres per day) seawater for a period of minimum period of 12 months from the nearest possible location from the site selected as shown in Annexure III . The estimated supply to each plot will be a maximum of 30,000 LPD. The contractor should have a provision to store the seawater intake per day for a period of 48 hours to avoid any breakdowns in supply</p>	<p>Design, development and erect suitable facilities for supply, storage and distribution of uninterrupted seawater to individual plots as part of Part A scope of work, for a period of minimum period of 12 months from the nearest possible location from the site selected as shown in Annexure III and Annexure IV of Addendum 03. The estimated supply to each plot will be a maximum of 30,000 LPD. The contractor should have a provision to store the seawater intake per day for a period of 48 hours to avoid any breakdowns in supply</p>
18	12	2.2.1, RfP cum RfQ	Eligibility of Bidders	Please refer Annexure V of Addendum 3

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

<b>Sr. No</b>	<b>Page No</b>	<b>Clause No</b>	<b>Original Clause</b>	<b>To be replaced by</b>
			document	
19	13	2.2.2 RfP cum RfQ document	Parameters for assessing the technical capabilities	Please refer Annexure VI of Addendum 3
20	15	2.2.3 RfP cum RfQ document	Evaluation & Assignment of scores	Please refer Annexure VII of Addendum 3
21	18	2.2.4 (e), RfP cum RfQ document	Profitability: The Bidder firm shall be profit (net) making firm and shall have made profit at least in three financial years out of the last five financial years prior to submitting the Bid. The Bidder should submit attested copies of auditor's report. In case of Joint Venture, the total profitability shall be the sum of the individual member.	<b>Deleted</b>
22	18	2.2.5 B (b) (ii) RfP cum RfQ document	The bidder (or any member of the JV) should be financially sound and should have not applied for Corporate Debt Restructuring (CDR) during last 5 (five) years.	The bidder (or any member of the JV) should be financially sound and should have not applied for Corporate Debt Restructuring (CDR) <b>at the time of the bid submission.</b>
23	19	2.2.9 ( c ) RfP cum RfQ document	Members of the Joint Venture shall nominate one member as the lead member (the "Lead Member"). Lead Member shall meet at least 75% requirement of Technical and Financial Capacity required as per Clause 2.2.2. The nomination(s) shall be supported by a Power of Attorney, as per the format at Appendix-III, signed by all the other Members of the Joint Venture;	Members of the Joint Venture shall nominate one member as the lead member (the "Lead Member"). The nomination(s) shall be supported by a Power of Attorney, as per the format at Appendix-III, signed by all the other Members of the Joint Venture;
24	21	2.2.13 (d) RfP cum RfQ document	in case the Bidder is a Joint Venture, each Member should substantially satisfy the bid requirements to the extent specified herein.	Deleted.
25	30	2.17.19 Rfp cum RfQ document	For Part B scope of work, once the technical bids are open, the responsive bids will be sent to a team of desalination	For Part B scope of work, once the technical bids are open, the responsive bids will be sent to a team of desalination experts. The financial bids of bidders whose technical bids

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

<b>Sr. No</b>	<b>Page No</b>	<b>Clause No</b>	<b>Original Clause</b>	<b>To be replaced by</b>
			experts. The financial bids of bidders whose technical bids are found eligible will be opened and the bid with L1 bid pricing will be sent to the DST for further scrutiny and analysis before finalizing.	are found eligible will be opened and the bid with L1 bid pricing will be sent to the DST for further scrutiny and analysis before finalizing. The price bids will be compared on for acceptable technologies, on a case to case basis.

**ATTACHMENTS:**

**Annexure 1: List of drawings - As part of the tender document**

<b>SI No.</b>	<b>Description</b>
1	Location map with drawings
2	Typical details of single desalination plot (Part A)
3	Typical desalination plot details
4	Layout plan of tentative pipe connections to individual plots (Part B)

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

5	Intake, reject and utilities drawings (Part B)
6	SCADA line diagram
7	Tentative flow chart – Desalination technologies
8	Road network drawings – Part B scope of work (CANCELLED)- Refer Drawing (3) Typical desalination plot details

**Annexure II: Required produced water characteristics**

<b>Parameter</b>	<b>Value</b>
Color	Not more than 5 Hazen units
PH	6.5-8.5
Turbidity	Less than 1 NTU
TDS	Less than 200 ppm



**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

Taste	Unobjectionable
Odor	Unobjectionable
Coliform organisms	Absent
Aluminum (As Al)	Less than 0.2
Free chlorides (After 30 Mins)	Not less than 0.4 mg/l
Appearance	Clear
Bacterial Standards (Total coliform & E-coli)	No Coliform for 100% sample taken

**Annexure III: The tentative coordinates for the location**

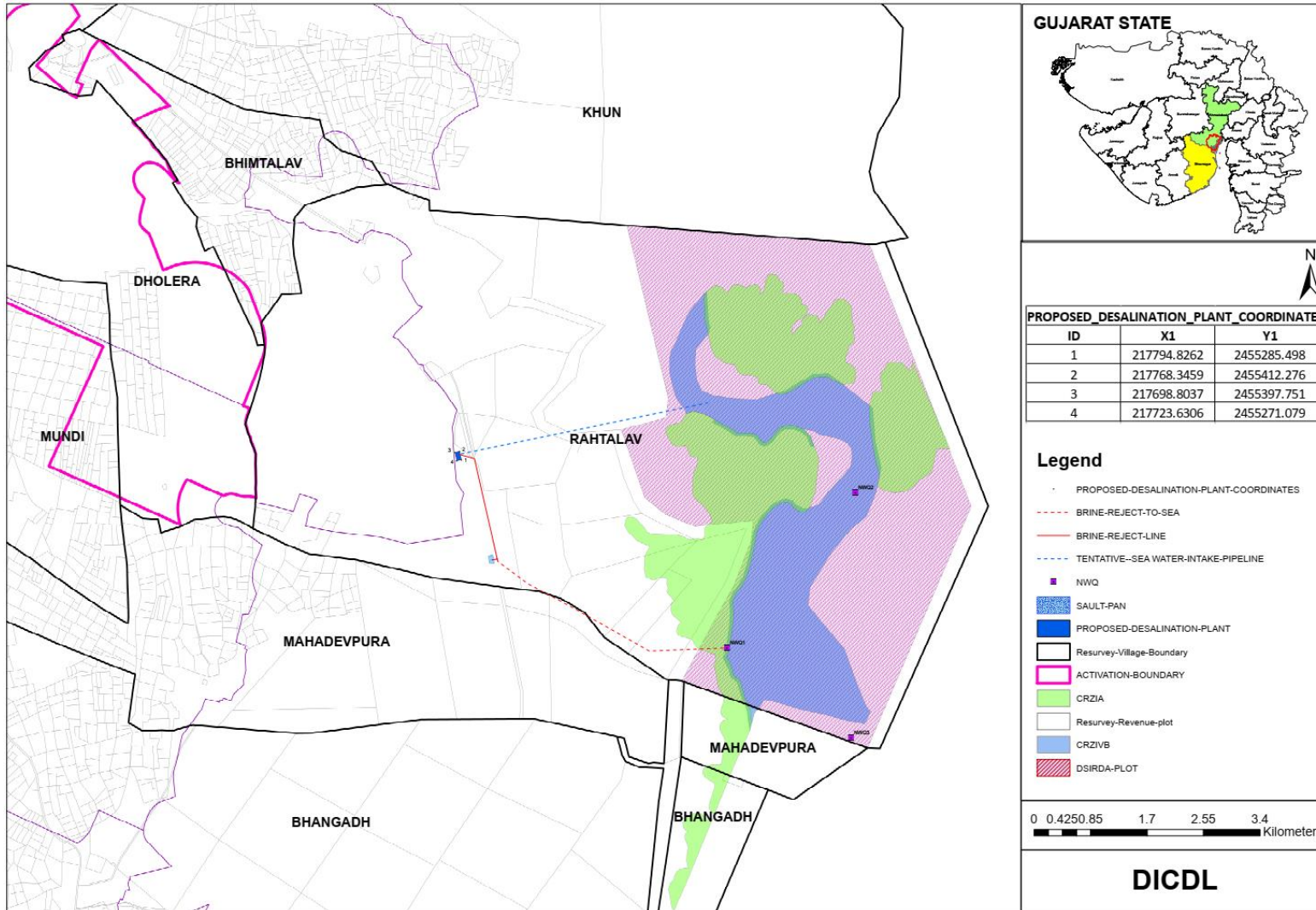
Sl. No.	Activity	Points	X-Co-ordinate	Y-Co-ordinate
1	Common Intake System		221920.63 93 E	2455805.81 59 N
2	Demonstration of technology	1	217699.61 m E	2455395.79 m N

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

Sl. No.	Activity	Points	X-Co-ordinate	Y-Co-ordinate
		2	217767.00 m E	2455413.00 m N
		3	217724.00 m E	2455269.00 m N
		4	217795.29 m E	2455287.51 m N
3	Common Reject System		221782.82 m E	2452425.02 m N
4	Tentative Salt pan		218238.1394 m E	2453794.3010 m N

**Annexure IV – Draft details of location for the desalination plant**

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**



**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

**Annexure V**

**Eligibility of Bidders**

<b><u>As per RFP</u></b>	<b><u>Amended</u></b>
<p>2.2.1 For determining the eligibility of Bidders for their qualification hereunder, the following shall apply for Part A</p> <p>(a) The bidder should have designed, fabricated and installed energy efficient, cost effective and environmentally friendly seawater desalination systems (one of at least 5,000 LPD capacity) and a minimum demonstrable R&amp;D experience of 5 years with various desalination technologies. AND</p> <p>(b) They should have participated in Government projects / National / International funded projects of which at least one is of a value not less than Rs. 2 crores, over the last 5 years.</p> <p>(c) OR</p> <p>(d) The bidder should have prior experience on integration of renewable energy resources as a primary or/and secondary source for power / heat source or both in industry applications.</p> <p>(e) The bidder should be able to prove through the operation and maintenance of the plant that the new technology suggested by the bidder is more efficient than existing technologies in terms of cost effectiveness, energy efficiency and environment friendliness.. For all the eligibility conditions the bidder should submit sufficient documents as proof of evidence.</p> <p>For determining the eligibility of Bidders for their qualification hereunder, the following shall apply for Part B.</p> <p>(f) The bidder should have designed, built and operated seawater intake</p>	<p>2.2.1 For determining the eligibility of Bidders for their qualification hereunder, the following shall apply for Part A</p> <p>(a) The bidder should have designed, fabricated and installed energy efficient, cost effective and environmentally friendly seawater/brackish desalination systems (one of at least 5,000 LPD capacity) and a minimum demonstrable R&amp;D experience of 10 years with various desalination technologies.</p> <p>(b) They should have participated in Government projects / National / International funded projects similar in nature which at least one is of a value not less than Rs. 2 crores, over the last 10 years.</p> <p>OR</p> <p>(b) The bidder should have prior experience on integration of renewable energy resources as a primary or/and secondary source for power / heat source or both in industry applications to a minimum capacity of 200 kW<sub>e</sub> or/and 600 kW<sub>thermal</sub> as a single installation.</p> <p>(c) The bidder should provide simulated outputs in their bid documents, as results to their technology. The simulation should be done with the same design parameters as in the bid submission. Alternatively, the results achieved through lab experiments / R&amp;D outcomes/ patents/ research outputs can also be submitted, for the same set of design parameters as in the bid documents. Minimum operation hours for the simulation/ lab experiments outcomes should be for a period of 8 hours in continuous</p>

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

<p>brine reject and produced water utility systems in large desalination projects of a minimum capacity of 2,00,000 LPD.</p> <p>(g) The bidder should have done prior approval procedures, for seawater intake, brine management mechanisms/ reject mechanisms in seawater desalination projects as per Government of India prevailing norms and conditions. The bidder should submit sufficient proof of evidence for all the eligibility conditions for Part B scope of work.</p>	<p>operation,</p> <p>For determining the eligibility of Bidders for their qualification hereunder, the following shall apply for Part B.</p> <p>(d) The bidder should have designed, built and operated intake, reject and produced water utility systems for large desalination/wastewater/effluent treatment projects with a minimum capacity of 2,00,000 LPD</p> <p>(e) The bidder should have done prior approval procedures, for seawater intake, brine management mechanisms/ reject mechanisms in seawater desalination projects as per Government of India prevailing norms and conditions. The bidder should submit sufficient proof of evidence for all the eligibility conditions for Part B scope of work.</p>
---	--

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

**Annexure VI**

**Parameters for assessing technical capabilities**

<b>I.</b>	<b>Specific Experience of the bidder/bidding consortium (Scope of work – Part A)</b>		<b>Max. (80 Marks )</b>
		Max. Marks	
A	Experience in preparation of detailed engineering report, supply, installation, commissioning of renewable energy integrated seawater desalination as a standalone unit or as a combined facility of power and sea water desalination in the last 10 years anywhere in India or abroad.	<b>40</b>	
	<b>OR</b>		
B	Experience in preparation of detailed engineering report, design consultancy, supply, installation, commissioning of seawater desalination facility either as a standalone unit or as a combined facility of power and sea water desalination in the last 10 years anywhere in India or abroad. The bidder should provide sufficient research done on energy efficient seawater desalination technologies to improve the efficiency of the system.	30	
	<b>OR</b>		
C	Experience in preparation of detailed engineering report, design consultancy, supply, installation, commissioning of renewable energy or conventional energy based brackish water desalination process in the last 10 years anywhere in India or abroad.	20	

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

D	Research and development activities undertaken for energy reduction, cost competitiveness and environmental impact reductions in seawater desalination technologies. Relevant documents to be provided through publications by the organization/ team members, patents for technology, award of research grant from Government / Non-Government organizations to the value of minimum 1 cr INR in last 10 years	<b>30</b>	
E	Detailing of the proposal in terms of flow diagram, process description, energy balance, water balance and importance of the proposal with respect to objective.	<b>10</b>	
		<b>Sub Total</b>	<b>80</b>
<b>II.</b>	<b>Domain Expertise and competence of the key staff for the Assignment</b>		<b>Max. 20 Marks</b>
A	Experience and exposure of the Team leader(s) or key personnel of the proposed assignment on energy efficient seawater / brackish water desalination processes	10	
B	Professional qualification of the Team leader(s) or key personnel of the proposed assignment	10	
<b>I.</b>	<b>Specific Experience of the bidder/bidding consortium (Scope of work – Part B</b>		<b>Max. (90 Marks )</b>
		Max. Marks	
A	Experience in preparation of detailed engineering report, design consultancy, consultancy during installation and commissioning of brackish/ seawater intake systems and efficient brine disposal mechanism into sea or alternate mechanisms for disposal allowed by Ministry of Environment Forest & Climate Change for CRZ region. The experience shall cover the study of appropriate location for intake and reject mechanism using prevalent guidelines set by the Government of India including norms	<b>40</b>	

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

	satisfying environmental rules and regulations of GoI		
B	Experience in erection, commissioning and operation maintenance (EPC & OM) of intake and reject system for seawater desalination/waste water/ effluent treatment plants of a minimum capacity of 200000 LPD. The O&M should be for a minimum of 3 years.	<b>40</b>	
C	Detailing of the proposal in terms of flow diagram, process description, energy balance, water balance and importance of the proposal with respect to objective.	<b>10</b>	
		Sub Total	
II.	<b>Domain Expertise and competence of the key staff for the Assignment</b>		<b>Max. 10 Marks</b>
A	Experience and exposure of the Team leader(s) or key personnel	10	



**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

**Annexure VII**

**Evaluation and assignment of scores**

<b>II</b>	<b>Specific Experience of the bidder/bidding consortium (Scope of work – Part A)</b>	
		<b>Assignment of score</b>
A	Experience in preparation of detailed project report/detailed feasibility reports and/or providing consultancy services along with design, installation and commissioning of sea water desalination facility integrated with renewable energy systems either as a standalone unit or as a combined facility of Power and sea water Desalination in the last 10 years anywhere in India or abroad.	10, 10 and 5 marks for each completed assignment where detailed engineering report has got into project execution (Maximum marks under section A, B and C will be 40, 30 and 20 respectively)
B	Experience in preparation of detailed project report/detailed feasibility reports or providing consultancy services along with design, installation & commissioning of sea water desalination facility either as a standalone unit or as a combined facility of Power and sea water Desalination in the last 10 years anywhere in India or abroad.	
C	Experience in preparation of detailed project report/Detailed Feasibility Reports or providing consultancy services along with design, installation & commissioning of renewable energy-based power generation using steam or process application for industrial use in large medium scale industries in the last 10 years anywhere in India or abroad.	
D	Research and development activities undertaken for energy reduction, cost competitiveness and environmental impact reductions in seawater desalination processes. Maximum marks will be 30.	<input type="checkbox"/> 5 marks for each published paper in reputed Scopus journals desalination process by the team members of the team members.

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

		<input type="checkbox"/> 7 marks each for any approved patents related to improvements in desalination processes and optimization.
E	Detailing of the proposal in terms of flow diagram, process description, energy balance, water balance and importance of the proposal with respect to objective. Maximum marks will be 10.	Full marks for detailed submission regarding energy, water balances, including detailing on the innovativeness in line with the objective of the proposal.
II.	<b>Domain Expertise and competence of the key staff for the Assignment</b>	
A	Experience and exposure of the Team leader(s) or key personnel of the proposed assignment to the relevant projects. Maximum marks will be 10.	<ul style="list-style-type: none"> <li>➤ 1 mark for every year of experience in relevant field in any funded project in Government / Non-Government projects (Max.5 Marks per person)</li> </ul>
B	Professional qualification of the Team leader(s) or key personnel of the proposed assignment (Team leader/ key personnel should be from the design team). Maximum marks will be 10.	<ul style="list-style-type: none"> <li>➤ PhD in relevant field – 3 marks</li> <li>➤ ME or MTech or equivalent in relevant field – 2 Marks</li> </ul>

**NAME OF WORK: Demonstration of Energy Efficient Seawater Desalination Technologies near Activation Area of Dholera Special Investment Region (DSIR)**

<b>I.</b>	<b>Specific Experience of the bidder/bidding consortium (Scope of work – Part B)</b>	
	<b>Assignment of score</b>	
A	Proven experience in site survey, preparation of detailed project report, engineering design and consultancy, environmental impact study and obtaining associated clearances for seawater intake and reject systems of desalination plants in India in the last 10 years	10 marks per project to a maximum of 20 marks  10 marks per project with a maximum of 30 marks
B	Experience in detail engineering, erection, procurement and construction of intake and reject mechanism for desalination/wastewater/effluent treatment plants in India during last 10 years with a minimum capacity of 2,00,000 LPD.	10 marks per project with maximum of 30 marks
C	Experience in operation and maintenance of intake and brine reject system for seawater / brackish desalination/ wastewater/ effluent plants of minimum capacity of 200000 LPD in India	
D	Submission of expected outputs through simulation with proper flow diagrams and calculations for expected outputs as per the scope of work in part B of the tender	10 marks for the relevant understanding of the scope of work and its interpretation through relevant submission of documents
E	Experience of the team members and the project leader in executing similar projects as in the scope of work, Part B of the tender document.	1 mark each for the relevant projects with a capping of 2 marks per person in the team. Maximum marks will be 10.