

## DOCUMENT CONTROL

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## PMC DETAILS

<b>Approved by:</b>	Dr. P. Dharmabalan		
<b>Address:</b>	Chennai Perur 400 MLD Desalination Plant Project Office, B 13 <sup>th</sup> Floor, Puravankara Primus, No.236 Old Mahabalipuram Road, Thuraipakkam, Chennai 600 097, Tamil Nadu, India		
<b>Tel:</b>	+ 91 44 66973302, +91 95607 02631 & +61419765881		
<b>Email:</b>	P.Dharma@smec.com	<b>Website:</b>	<a href="http://www.smec.com">www.smec.com</a>

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# 1 EXECUTIVE SUMMARY

This Monthly Progress Report for September 2021 is submitted in accordance with the contractual requirements for Project Management Consultant ("PMC") services associated with the Chennai Perur 400 MLD Desalination Plant and allied works project being delivered for the Chennai Metropolitan Water Supply & Sewerage Board ("CMWSSB").

The document is structured to report on separately:

- Progress of the PMC (Consulting) Services
- Progress of the Project (the Works)

A summary of the key messages resulting during this period is provided in Table 1. Please peruse the full report for further details.

Table 1: Key Messages up to September 2021

Component	Key Message
PMC (Consulting) Services	<ul style="list-style-type: none"> <li>• Revised Monthly Progress Report (MPR 01) for January &amp; February 2020 submitted on 06.04.2020, 14.04.2020 and 26.05.2020</li> <li>• Revised Inception Report submitted on 04.04.2020 and 16.04.2020</li> <li>• Revised Design Criteria for CP4 components submitted on 16.04.2020</li> <li>• Monthly Progress Report (MPR 02) for March 2020 submitted on 17.04.2020 and 26.05.2020</li> <li>• Interim Report for the development of Concept Design for Chennai Perur 400MLD Desalination Plant for CP1 component was submitted on 23.04.2020 and 26.05.2020</li> <li>• Quarterly Progress Report (QPR 01) for January to March 2020 was submitted on 24.04.2020 and 22.05.2020</li> <li>• Monthly Progress Report (MPR 03) for April 2020 was submitted on 09.05.2020 and 22.05.2020</li> <li>• Draft Environmental Impact Assessment (EIA) Review Report for CP1 submitted on 26.05.2020</li> <li>• Monthly Progress Report (MPR 04) for May 2020 submitted on 11.06.2020</li> <li>• Responses to JICA's Comment and Revised Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB on 24.06.2020</li> <li>• Concept Design Report for 400 MLD Desalination Plant at Perur (CP1) submitted on 10.07.2020</li> <li>• Monthly Progress Report (MPR 05) for June 2020 submitted on 10.07.2020 and 13.07.2020</li> <li>• Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 components submitted on 02.07.2020 and 15.07.2020</li> <li>• Quarterly Progress Report (QPR 02) for April to June 2020 submitted on 15.07.2020</li> <li>• Responses to JICA 2<sup>nd</sup> Comment and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 17.08.2020</li> <li>• Monthly Progress Report (MPR 06) for July 2020 submitted on 10.08.2020</li> <li>• Bathymetry Survey fieldwork at Perur 400 MLD DSP has been completed on 28.08.2020.</li> <li>• Seawater Sample collection work has been carried out at the proposed 400MLD DSP at Perur and existing Nemmeli 100 DSP on 29.08.2020</li> <li>• Brine Diffusion Modelling Study was carried out in September 2020</li> <li>• Response to JICA 3<sup>rd</sup> comment and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 08.09.2020</li> <li>• Monthly Progress Report (MPR 07) for August 2020 submitted on 10.09.2020</li> </ul>

Component	Key Message
	<ul style="list-style-type: none"> <li>• Draft Environmental Impact Assessment (EIA) Review Report for CP1 and its Pumping Station (CP2-1) (Rev-1) submitted on 23.09.2020</li> <li>• Revised Prequalification document (RFQ) for CP1 on DBO basis as per JICA 4th comments submitted to CMWSSB on 23.09.2020</li> <li>• Topographical Survey drawing for Perur DSP site for CP1 component submitted to CMWSSB on 29.09.2020</li> <li>• JICA has given the concurrence for Prequalification document (RFQ) for CP1 on DBO basis to CMWSSB on 30.09.2020</li> <li>• Topographical Survey Drawings for Proposed UGT and Pumping Station (CP2-2) at Porur new WDS submitted on 09.10.2020</li> <li>• Monthly Progress Report (MPR 08) for September 2020 submitted on 09.10.2020</li> <li>• Final Prequalification document (RFQ) for CP1 on DBO basis was submitted to CMWSSB on 12.10.2020</li> <li>• Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published on the website and published in Newspaper on 14.10.2020.</li> <li>• Quarterly Progress Report (QPR 03) for July to September 2020 submitted on 15.10.2020</li> <li>• Prequalification (PQ) Application meeting for CP1 component on DBO basis held at CMWSSB on 29.10.2020</li> <li>• Reply to pre-bid queries of Application for Prequalification for CP1 component on DBO basis submitted on 04.11.2020</li> <li>• Monthly Progress Report (MPR 09) for October 2020 was submitted on 11.11.2020</li> <li>• Social Safeguard Review (Draft Report) submitted on 18.11.2020</li> <li>• The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 26.11.2020</li> <li>• 2<sup>nd</sup> reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 component on DBO basis submitted on 27.11.2020.</li> <li>• Draft layout plan for CWR and PS at Porur was discussed with CMWSSB staff. Finalisation of the layout plan is under progress.</li> <li>• Draft Request For Proposal (RFP) has been submitted to CMWSSB on 01.12.2020, 02.12.2020 and 24.12.2020 for review.</li> <li>• 3<sup>rd</sup> Reply to Pre-Bid Queries and Corrigendum-1 of Application for Prequalification for CP1 was submitted on 03.12.2020</li> <li>• The tender 2<sup>nd</sup> extension notice for receiving of PQ application of CP1, the due date has been further extended to 05.01.2021 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 06.12.2020</li> <li>• Bathymetry Survey Report for Perur Desalination Plant of CP 1 was submitted on 10.12.2020</li> <li>• Monthly Progress Report (MPR 10) for November 2020 was submitted on 10.12.2020</li> <li>• Corrigendum-2 for Prequalification (RFQ) documents for CP 1 was submitted on 14.12.2020</li> <li>• Revised Topographical Survey for 400 MLD DSP (CP1) and its Pumping Station (CP2-1) at Perur was submitted on 18.12.2020</li> <li>• Response to CMWSSB on 1<sup>st</sup> comments on Particular Condition of Part A in Part III of Draft RFP for CP1 component on DBO basis was submitted on 30.12.2020</li> <li>• Revised Topographical Drawing for Perur Desalination Plant (CP 1) and its Pumping station (CP2-1) was submitted on 04.01.2021</li> </ul>

Component	Key Message
	<ul style="list-style-type: none"> <li>Monthly Progress Report (MPR 11) for December 2020 (10 copies) was submitted on 08.01.2021</li> <li>Quarterly Progress report (QPR 04) for October to December 2020 (10 Copies) was submitted on 18.01.2021</li> <li>Brine Dispersion Model Report for Perur Desalination Plant (CP 1) was submitted on 18.01.2021</li> <li>Request for Proposal (RFP) document for CP 1 component on DBO Basis (Rev 1) was submitted on 21.01.2021</li> <li>Request for Proposal (RFP) document for CP 1 component on DBO Basis (Rev 2) was submitted on 25.01.2021</li> <li>Prequalification (PQ) Evaluation Report for CP 1 component on DBO Basis was submitted on 27.01.2021, and CMWSSB forwarded the report document to JICA for obtaining concurrence.</li> <li>Request for Proposal (RFP) document for CP 1 components on DBO Basis (Rev 3) was submitted on 27.01.2021, and CMWSSB forwarded the RFP document to JICA for obtaining concurrence.</li> <li>Monthly Progress Report (MPR 12) for January 2021 (10 copies) was submitted on 11.02.2021</li> <li>Financial Analysis Report was submitted on 12.02.2021</li> <li>Plot Plan, General Arrangement Drawings and P&amp;I Diagram of Proposed Pumping Station and Ground Level Reservoir at Porur (CP-2) was submitted on 19.02.2021</li> <li>Request for Proposal (RFP) document for CP 1 component on DBO Basis (Rev 3) was submitted on 19.02.2021</li> <li>Ward wise existing distribution network drawings of Area X- Kodambakkam for verification/authentication by Ward/ Depot Area Engineer was submitted on 23.02.2021</li> <li>Variation in WDS wise Demand Estimation for Chennai City Core Area was submitted on 23.02.2021</li> <li>Draft Scope of work for engagement of reputed Institutions for Continuous Coastal monitoring was submitted on 26.02.2021</li> <li>Updation of Existing Transmission System Planned to be linked to Proposed System at Velachery and Porur was submitted on 26.02.2021</li> <li>Electrical load list and Electrical Single Line Diagram for Proposed 240 MLD Porur Pumping Station has been submitted on 05.03.2021</li> <li>Monthly Progress Report (MPR 13) for February 2021 was submitted on 10.03.2021</li> <li>Draft Bidding Document (RFP) (Rev.4) for CP1 component on DBO basis and Reply to JICA's Comment have been submitted to CMWSSB on 10.03.2021 for review.</li> <li>Draft Bidding Document (Rev.5) for CP1 component on DBO basis and reply to JICA's comments have been submitted to CMWSSB on 16.03.2021 for review.</li> <li>Seawater Sample Analysis Report for Perur Desalination Plant (CP1) has been submitted on 18.03.2021</li> <li>Draft Bidding Document (Rev.6) for CP1 component on DBO basis have been submitted to CMWSSB on 30.03.2021.</li> <li>Monthly Progress Report (MPR 14) for March 2021 submitted on 09.04.2021</li> <li>Quarterly Progress Report (QPR 05) for January 2021 to March 2021 submitted on 15.04.2021</li> <li>Draft Bidding Document (Rev.7) for CP1 component on DBO basis and updated reply to JICA's comments have been submitted to CMWSSB on 19.04.2021.</li> <li>Concept Design Report (Final) for 400 MLD Desalination Plant at Perur for CP1 component was submitted to CMWSSB on 23.04.2021</li> </ul>



Component	Key Message
	<ul style="list-style-type: none"> <li>Ward wise existing distribution network drawings of Area XIII- Adyar for verification/authentication by Ward/ Depot Area Engineer was submitted on 26.04.2021</li> <li>CP2- Plot Area Required for Proposed 10 ML GLR and 240 MLD Pumping Station drawings at Porur was submitted on 30.04.2021</li> <li>Monthly Progress Report (MPR 15) for April 2021 (soft copy) was submitted on 10.05.2021</li> <li>Draft Bidding Document (RFP) (Rev.8) for CP1 component on DBO basis and updated reply to JICA's comments have been submitted to CMWSSB on 17.05.2021</li> <li>Monthly Progress Report (MPR 15) for April 2021 (hard copy) was submitted on 08.06.2021</li> <li>Monthly Progress Report (MPR 16) for May 2021 was submitted on 10.06.2021</li> <li>Action Taken Report/Reply to queries on the Concept Design Report for CP1 was submitted on 15.06.2021</li> <li>Draft Bidding Document (RFP) (Rev.8) [Hard Copy] for CP1 component on DBO basis and updated reply to JICA's comments have been submitted to CMWSSB on 24.06.2021</li> <li>Draft Bidding Document (RFP) (Rev.9) for CP1 component on DBO basis have been submitted to CMWSSB on 07.07.2021</li> <li>Updated responses to JICA's 4<sup>th</sup> comment received on 05.07.2021 for the Draft Bidding Document for the CP1 component have been submitted on 07.07.2021</li> <li>Monthly Progress Report (MPR 17) for June 2021 was submitted on 09.07.2021</li> <li>Ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area VI- Thiru. Vi. Ka Nagar &amp; Area IX- Teynampet for verification/authentication by Depot Area Engineers was submitted on 12.07.2021</li> <li>Ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area V- Royapuram &amp; Area VIII- Anna Nagar for verification/authentication by Depot Area Engineers was submitted on 14.07.2021</li> <li>Submission of Technical data for TNPCB Consent to Establish Application on 15.07.2021</li> <li>Quarterly Progress Report (QPR 06) for April 2021 to June 2021 was submitted on 15.07.2021</li> <li>Updated responses to JICA's 6<sup>th</sup> comment received on 13.07.2021 for the Draft Bidding Document for the CP1 component have been submitted on 16.07.2021</li> <li>Design Considerations for strengthening, replacing the existing network and providing a new network in the uncovered area of Chennai Core City was submitted on 19.07.2021</li> <li>Submission of updated existing distribution network drawings of Area X- Kodambakkam based on the inputs of Depot Area Engineers with Conditional Assessment details on 23.07.2021</li> <li>'No objection letter' was received from JICA for the Bidding document for CP1 component on 23.07.2021</li> <li>Final Bid Document (Rev.10) for CP1 component on DBO Basis submitted to CMWSSB on 30.07.2021</li> <li>Submission of Topographical Survey Drawing of Chennai Core City for the CP 4 component on 06.08.2021</li> <li>Submission of updated existing distribution network drawings of Area XIII- Adyar based on the inputs of Depot Area Engineer with Condition Assessment details on 06.08.2021</li> <li>Monthly Progress Report (MPR 18) for July 2021 was submitted on 10.08.2021</li> </ul>



Component	Key Message
	<ul style="list-style-type: none"> <li>Submission of ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area IV- Tondiarpet for verification/ authentication by Ward/ Depot Area Engineer (CMWSSB) on 12.08.2021</li> <li>Submission of updated bidding document for CP3-1 component to CMWSSB on 18.08.2021 (soft copy)</li> <li>Monthly Progress Report (MPR 19) for August 2021 was submitted on 09.09.2021</li> <li>Hydraulic Design for Proposed Water Distribution System for Area X (Kodambakkam) using Bentley's WaterGEMS for CP4 component was submitted (soft copy) to CMWSSB on 22.09.2021</li> </ul>
	<ul style="list-style-type: none"> <li>Monthly Progressive expenditure (at actuals, i.e. based on monthly bills passed till the end of September 2021) = <b>1,035,551.37 (USD)</b> and <b>66,967,482.00 (INR)</b></li> <li>In addition to the above, for SMEC India Pvt. Ltd., the Mobilisation advance payment in INR (5% of Contract value) was received on 19.05.2020 as against Advance Bank Guarantee.</li> <li>In addition to the above, For SMEC International Pty Ltd, the Mobilisation advance payment in USD (5% of Contract value) was received on 17.09.2020 as against Advance Bank Guarantee.</li> <li>In addition to the above, for TATA Consulting Engineers Ltd, the Mobilisation advance payment in INR (5% of Contract value) was received on 22.10.2020 as against Advance Bank Guarantee.</li> </ul>
	<ul style="list-style-type: none"> <li>Monthly Progressive expenditure (Projected based on man-month consumed and reimbursable items till the end of September 2021) = <b>1,791,303.38 (USD)</b> and <b>102,640,094.59 (INR)</b></li> </ul>
	<ul style="list-style-type: none"> <li>Activities generally progressing on schedule</li> <li>However, due to the COVID-19 second wave, there will be an overall delay of about 9 months for the selection and finalisation of the Contractor on a DBO basis for the CP1 component.</li> </ul>
	<ul style="list-style-type: none"> <li>The emerging COVID-19 virus outbreak is being monitored, and CMWSSB is to be informed of any impact on the mobilisation of PMC personnel. Due to the COVID-19 issues pandemic across the globe, the Government of Tamil Nadu announced and extended the partial lockdown period from 01.09.2021 to 30.09.2021 throughout Tamil Nadu.</li> </ul>
Project (the Works)	<ul style="list-style-type: none"> <li>No Project site work has been commenced</li> <li>Progressive expenditure = Nil</li> <li>No activities are scheduled to commence as of the end of September 2021</li> </ul>

Key items identified during this period for resolution with the CMWSSB include the following:

1. The impact of current water quality issues (i.e., white fibrous particles and associated elevated TOC and COD levels) being experienced at Nemmeli DSP on the selection of a preferred pre-treatment process arrangement being addressed during conceptual design.
2. Revision of the current concept for the site layout for the proposed reservoir and pumping station at the Porur Headworks site due to other works currently under construction for CMWSSB.
3. It is understood that the proposed Chennai Perur 400 MLD desalination plant site (85.51 acres) and common electrical substation site (4.91 acres), the land lease agreement was executed on 22.07.2021 between Nemmeli Arulmigu Alavandar Nayakar Trust (Under control of HR & CE Board) and CMWSSB for a period of about 30 years between 2016 to 2046.
4. The technical details required for obtaining the Consent To Establish (CTE) have been prepared and submitted to CMWSSB from 15.07.2021 to 16.09.2021. Consent To Establish (CTE) Draft

- online application was uploaded to the TNPCB (Tamil Nadu Pollution Control Board) website, and the action is in progress and to be taken up by CMWSSB.
5. CMWSSB has already formally written to Forest Department, citing the G.O. from GoTN for sharing the cost from Casuarina timber on 30% and 70% sharing to Forest Department and Nemmeli Arulmigu Alavandar Nayakar Trust (functioning under HR & CE Department, GoTN).
  6. Approval for the erection of offshore structure to be obtained from the Tamil Nadu Maritime Board.
  7. System hydraulic design for the clear water transmission main from Perur DSP to Porur Water Distribution Station water transmission system (pumping station and transmission pipeline) and proposed water allocation to Chennai Core City and expansion area is to be resolved following initial analysis by PMC.
  8. It is challenging to access the project site due to COVID-19 Pandemic issues spread across the globe. The Government of Tamil Nadu announced and extended the partial lockdown period from 01.09.2021 to 30.09.2021 throughout Tamil Nadu.
  9. Quick turn-round of requests with approvals received (Work From Home for four (4) Key International Experts till 30<sup>th</sup> November 2021 due to non-availability of international flights to India) and follow up on timeline is essential to undertake the acceleration of CP1 component and regular timeline schedule for CP2 to CP4 components. Some of the Non-key International / national staff are giving the intermittent input (as and when required) for project components due to constraints of movement that should be considered for payments as requested by PMC.
  10. The Non-availability of most of the pipeline inventory data specific to the CP4 package in the digital format [Scaled AutoCAD/ GIS files] and conversion of the available physical data into the required digital format. The required details have been obtained from CMWSSB during July 2021 onwards for carrying out the proposed water distribution system design for the CP4 component.
  11. The topographical survey work, including establishing benchmarks for the CP4 component, commenced on 19.03.2021 and field work has been completed on 15.07.2021 and submitted the drawings to CMWSSB on 06.08.2021.
  12. The geotechnical investigation work comprises Bore Hole, trial pit and Electrical Resistivity Test (ERT) at Porur 10 ML GLR and 240 MLD Pumping Station site and Perur 400 MLD Pumping Station site for the CP2 component, commenced on 23.06.2021, and completed on 03.07.2021. The geotechnical investigation report for the CP2 component was received on 20.08.2021 and in general discussion with Geotechnical Expert for finalisation of recommendation on the foundation of proposed structures at Perur and Porur.
  13. With the available designated key experts, it was not so easy task to work simultaneously on important activities, but you would appreciate that the staff worked continuously for the project. Considering the importance of the document and the ambitious timeline, PMC had mobilised additional staff like project coordinator, legal expert, etc., to meet the urgency and expectations of CMWSSB.
  14. Delay in finalisation of the re-organized ward wise population and water demand details for CP4 progress requirement.
  15. Delay in the authentication of the existing water distribution network drawings was submitted for Zone V and VI for model finalization.
  16. Delay in getting information relevant to bulk water consumers and problematic stretches of existing water distribution network.

## 2 ABBREVIATIONS & ACRONYMS

Abbreviation / Acronym	Meaning
BoQ	Bill of Quantity
CMWSSB	Chennai Metropolitan Water Supply and Sewerage Board
COD	Chemical Oxygen Demand
CP	Contract Package
CWR	Clear Water Reservoir
CtE	Consent to Establish
DI	Ductile Iron
DBO	Design-Build Operate
DMA	District Metered Area
DMS	Document Management System
DSP	Desalination Plant
GIS	Geographic Information System
GLR	Ground Level Reservoir
GoTN	Government of Tamil Nadu
HR & CE Board	Hindu Religious & Charitable Endowment Board
INR	Indian Rupees
JICA	Japan International Cooperation Agency
MLD	Million Litres per day
MPR	Monthly Progress Report
MS	Mild Steel
NJSEI	NJS Engineers India Pvt Ltd.
O&M	Operation & Maintenance
ODA	Official Development Assistance

Abbreviation / Acronym	Meaning
OHT	Overhead Tank
OJT	On-Job-Training
PMC	Project Management Consultant (Consortium)
PQ	Prequalification
PS	Pumping Station
QPR	Quarterly Progress Report
RFP	Request for Proposal
RFQ	Request for Qualification
SMEC	SMEC International Pty Ltd
SMEC (India)	SMEC India Pvt Ltd
TCE	TATA Consulting Engineers Ltd.
TNPCB	Tamil Nadu Pollution Control Board
TOC	Total Organic Carbon
UGT	Underground Tank
USD	United States Dollar
WDS	Water Distribution Station
WDZ	Water Distribution Zone

## 3 INTRODUCTION

### 3.1 This Progress Report

This is the Twentieth (20<sup>th</sup>) monthly progress report and covers activities of the Project Management Consultant (PMC services) and the Project (the Works) during **September 2021**.

### 3.2 PMC Services

The Consulting Services addressed by the series of Monthly Progress Report (“MPR”) to be delivered on this Project include design, preparation of bidding documents, tender evaluation, construction management and supervision for the proposed Chennai Perur 400 MLD Desalination Plant, its product water conveyance pipeline and all other allied works being carried out following with a Contract dated 09<sup>th</sup> January 2020 for Consulting Services between the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB or “the Client”) and Consortium members comprising of SMEC International Pty Ltd (SMEC), Australia as the Lead Member of the Consortium, NJS Engineers India Pvt. Ltd. (NJSEI), TATA Consulting Engineers Limited (TCE) and SMEC India Pvt. Ltd. (SMEC India) as Associate Consultants to the Consortium.

The Terms of Reference (ToR) for the Consulting Services provide for 1988 person-months of PMC services (National Local 1603 person-months, including support staff, and International, 385 person-months) in the following main categories. However, the details of all the team with their role and person-months are mentioned in **Annexure 1**.

Table 2: Estimated Resourcing for PMC Services

Category	Resourcing
Management and Coordination, International and Local	87 person-months
Design, International	245 person-months
Design, Local	377 person-months
Safety, Environmental and Others, Local	265 person-months
Construction Supervision, Local	294 person-months
Support Staffs	720 person-months
<b>TOTAL</b>	<b>1988 person-months</b>

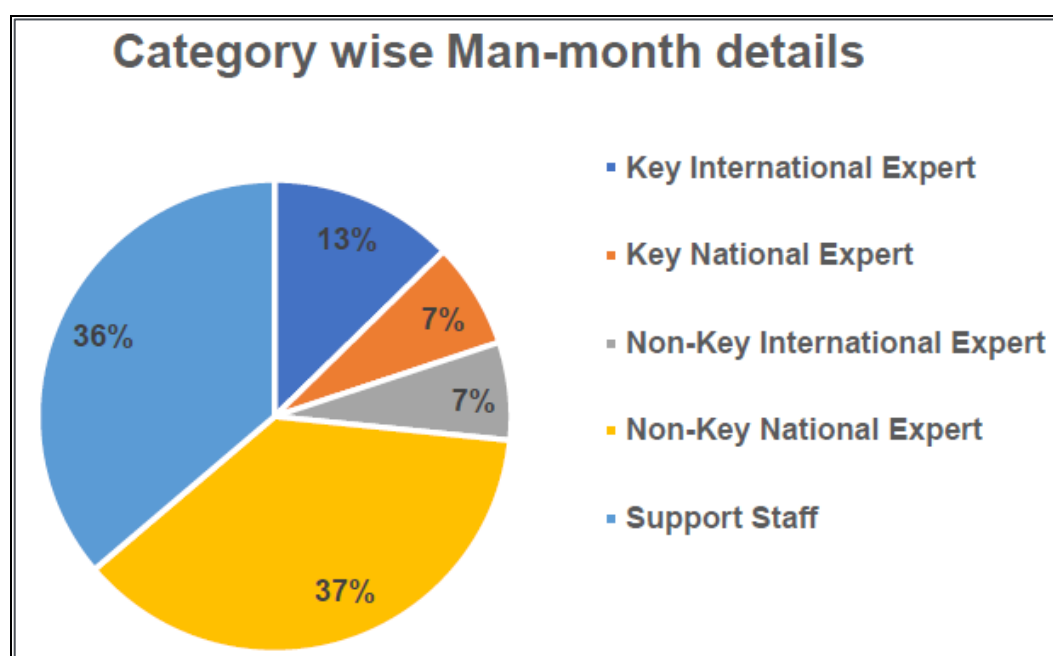
The Consulting Services are to be delivered in compliance with Guidelines for the Employment of Consultants under Japanese ODA Loans, April 2012.

The details of estimated resourcing for PMC Services are furnished in Table 3.

Table 3: Estimated Resourcing for PMC Services

Category	Man-months	Percentage
Key International Expert	252	13%
Key National Expert	144	7%
Non-Key International Expert	133	7%
Non-Key National Expert	739	37%
Support Staff	720	36%
<b>TOTAL</b>	<b>1988</b>	<b>100%</b>

The details of estimated resourcing for PMC Services are furnished in the following figure:



The summary of PMC staff mobilisation for the Consulting Services is furnished in below Table:

Name of the firm	Role of the Member	Number of Staff	Staff Mobilised till 30 September 2021		Balance Staff to be Mobilised from 01 October 2021	
			Number	Percentage	Number	Percentage
SMEC International Pty Ltd	Lead Member	7	7	100%	0	0%
TATA Consulting Engineers Pvt. Ltd.	Consortium Member	16	11	69%	5	31%
NJS Engineers India Pvt. Ltd.	Consortium Member	19	12	63%	7	37%
SMEC India Pvt. Ltd.	Consortium Member	16	12	75%	4	25%
<b>Total</b>		<b>58</b>	<b>42</b>		<b>16</b>	

The details of the Overall Man-month summary of Consortium Members for PMC Services are furnished in Table 4.

Table 4: Overall Man-month summary of Consortium Members for PMC Services

Name of the firm	Role of the Member	Contract Amount		Details of share	Allocated Man-month	Utilised Man-month till 30 September 2021		Balance Man-month from 01 October 2021	
		Foreign Currency (USD)	Local Currency (INR)	%	No.	No.	%	No.	%
SMEC International Pty Ltd	Lead Member	6,510,243	0	39.70	223	36	16%	187	84%
TATA Consulting Engineers Pvt. Ltd.	Consortium Member	324,480	258,500,000	24.20	576	85	15%	491	85%
NJS Engineers India Pvt. Ltd.	Consortium Member	1,235,600	159,580,000	21.30	614	94	15%	520	85%
SMEC India Pvt. Ltd.	Consortium Member	869,642	111,020,600	14.80	575	136	24%	439	76%
<b>Total</b>		<b>8,939,965</b>	<b>529,100,600</b>	<b>100.00</b>	<b>1,988</b>	<b>351</b>		<b>1,637</b>	

### 3.3 PMC Scope of Work

The major components within the Scope of Work for the overall Project are listed below:

- CP1 - 400 MLD Seawater Reverse Osmosis (SWRO) Desalination Plant at Perur
- CP2 - Pumping Stations & Reservoir at Perur and Porur
- CP3 - Product Water Conveyance Main for about 65Km length from Perur to Porur
- CP4 - Improvements to Existing Distribution System in the core area of Chennai City
- CP5 - Installation of external dedicated transmission line

Further details on the components of the Contract packages are summarised in **Annexure 2**.

The Consulting Services scope under each component (Contract Package) of the Project are as follows.

1. CP-1: Review of the current technical information, conducting supplementary natural condition surveys, preparation of conceptual design report with raw water assessment, review of marine works, assessment of operating conditions, process flow diagram, general layout review, water and mass balance and review of electrical, instrumentation and automation plans. Preparation of PQ and bid document with technical specifications, Minimum Functional Specification (MFS), Assistance in Bid evaluations and construction supervision activities.
2. CP-2: Review of technical information, conducting necessary topographical and geotechnical investigations, Hydraulic analysis of the transmission mains for finalising the pumps configurations, detail design of reservoir and pumping stations with all civil, electro-mechanical and instrumentation works, preparation of PQ (if necessary) and bid document with BoQ and technical specifications, Assistance in Bid evaluations and construction supervision activities.



3. CP-3: Construction supervision activities of the Product Water Conveyance Main from Perur to Porur.
4. CP-4: Review of technical information, collect and review of the topographical and pipe inventory data, preparation of hydraulic modelling and analysis of the existing water distribution network for improvement, the establishment of DMAs, preparation of the bid documents with BOQ and Construction supervision activities.
5. CP-5: Preparation of technical documents, monitor the progress of the construction activities (Necessary Technical Assistance by PMC).
6. All packages: Assist CMWSSB in environmental management and monitoring activities in all stages.

Also, the PMC will assist the CMWSSB in the development of organisational capability in several key areas, including the following:

- Asset Management
- Acceleration of installation of service connections and water meters
- Improvement of customer services and publication
- Improvement of business operation

For a more comprehensive description of PMC scope of services and related works, please refer to the Inception Report, Interim Report for the development of Concept Design for Chennai 400 MLD Desalination Plant at Perur for CP1 component, Draft Environmental Impact Assessment (EIA) Review Report for CP1 component (Rev.1), Revised Prequalification document (RFQ) for CP1 on DBO basis, Concept Design Report (Final) for Chennai 400 MLD Desalination Plant at Perur for CP1 component and Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 component, Social Safeguard Review (Draft) Report, Final Bid Document for CP1 component (Rev.10) on DBO basis, Financial Analysis Report, Quarterly Progress Reports, Monthly Progress Reports for the Project.

## 4 PROGRESS REPORT FOR PMC SERVICES

### 4.1 Achieved Activities – September 2021

The activities achieved during September 2021 are listed in Table 5.

Table 5: Achieved Activities – September 2021

Package	Achieved Activities
CP1	Task 1: Data and information collection commenced (JICA documents, DPRs, water quality data)
	Task 2: Review of technical information commenced (JICA documents, DPRs, water quality data)
	Task 3: Conducting Surveys and Investigations <ul style="list-style-type: none"> <li>Carried out the Topographical Surveys at Perur Desalination Plant from 19.08.2020 to 07.09.2020 and 01.12.2020 and 02.12.2020</li> <li>Topographical Survey revised drawing for 400MLD DSP (CP-1) and its Pumping Station (CP-2-1) at Perur was submitted on 18.12.2020</li> <li>Carried out the Bathymetry Survey fieldwork at Perur DSP site from 24.08.2020 to 28.08.2020</li> <li>Bathymetry Survey report for Perur Desalination Plant of CP1 was submitted to CMWSSB on 10.12.2020</li> <li>Carried out Seawater Sample Collection at Perur and Nemmeli DSP on 29.08.2020</li> <li>Carried out Seawater Sample Collection at Nemmeli DSP on 14.12.2020</li> <li>Carried out the Brine Diffusion Modelling study during September 2020</li> <li>Brine Dispersion Model Report for Perur Desalination Plant (CP1) was submitted on 18.01.2021</li> <li>Seawater Sample Analysis Report for Perur Desalination Plant (CP1) has been submitted on 18.03.2021.</li> </ul>
	Task 4: Concept Design of Perur Desalination Plant has been submitted with design calculations based on the available existing data <ul style="list-style-type: none"> <li>Interim report for the development of Concept Designs for Chennai Perur 400 MLD Desalination Plant for CP1 component was submitted to CMWSSB on 23.04.2020.</li> <li>Online Zoom Video conference call and discussion with CMWSSB officials on 30.04.2020 for the Interim Report for the development of Concept Design for Chennai Perur 400 MLD Desalination Plant for CP1 component.</li> <li>Online Zoom Video conference call and discussion with CE (O&amp;M)–II CMWSSB officials on 26.05.2020 for the progress of the consultancy work and technical discussion for CP1 to CP4 components.</li> <li>Prepared the proposed sludge treatment facility at Perur, RO Configuration – Conventional Design and RO Configuration – 3 Centre Design.</li> <li>Prepared and submitted the sludge treatment process design, detail notes on 3 Centre or Pressure Centre Design.</li> <li>Prepared and submitted the Mass Balance and Process Flow Diagram (Peak Flow and Normal Flow).</li> <li>Summary of Revised Design Raw Seawater Quality Parameters, Summary of Product Water Quality Parameters, SWRO Desalination plant layout was submitted to CMWSSB.</li> <li>Online Zoom Video conference call and discussion with Engineering Director (i/c) CMWSSB officials on 11.06.2020 for the progress of the consultancy work and technical discussion for CP1 to CP4 components.</li> <li>Prepared the Instrumentation Control Automation (ICA) Works including plant operation control system, Redundancy Levels of DCS system, Central Control Room System, Instrumentation Plan, Critical Control Points, etc.</li> <li>Prepared the Capital Cost Comparison of DPR, JICA, PMC.</li> </ul>

Package	Achieved Activities
	<ul style="list-style-type: none"> <li>▪ Operation &amp; Maintenance (O&amp;M) Cost, Minimum Functioning Specifications etc., was submitted to CMWSSB.</li> <li>▪ Online MS Teams meeting, discussion with Chief Engineer (Project-III) and SE(Desal) CMWSSB officials on 18.09.2020 for the progress of the consultancy work and technical discussion for CP1 to CP4 components.</li> <li>▪ The Cost Estimation for Civil Structures for Seawater intake pumping Station, offshore Civil structures, Security Watchtowers, Sludge Balancing tank, Sludge Thickener tank, Park and Landscape area etc., was submitted to CMWSSB.</li> </ul> <p>Task 5: Submission of Concept Design Report:</p> <ul style="list-style-type: none"> <li>▪ The Concept Design Report has been prepared based on the above activities, and this includes the review outcome of the existing technical documents and data, existing Desalination plants study and identified gaps in the process, proposed process description of all units of DSP and along with the recommendations, Block level Construction cost estimate and O&amp;M cost estimate, Gaps in the statutory approvals, process control philosophy, layout drawings, process flow diagrams etc.</li> <li>▪ Concept Design Report for Chennai 400 MLD Desalination Plant at Perur for CP1 component submitted on 10.07.2020.</li> <li>▪ Action Taken Report/clarification on the Draft Concept Design Report for CP1 submitted to CMWSSB on 05.08.2020 and 12.08.2020.</li> <li>▪ Preparation of Process Flow Diagram, critical control point review, Automation &amp; Control strategy (OCM) document etc.</li> <li>▪ Concept Design Report (Final) for 400 MLD Desalination Plant at Perur (CP1) was submitted to CMWSSB on 23.04.2021.</li> <li>▪ Online MS Teams Meeting Video conference call with Superintending Engineer (Desal) and CMWSSB officials for a general discussion on the Concept Design Report finalisation of the project cost and outfall length for CP1 component on 02.06.2021.</li> <li>▪ Action Taken Report/Reply to queries on the Concept Design Report for CP1 was submitted on 15.06.2021.</li> </ul> <p>Task 6: Preparation of Technical Specifications:</p> <ul style="list-style-type: none"> <li>▪ Prepared the Technical Specifications, including Civil works, Mechanical works, Instrumentation works etc.</li> <li>▪ Prepared the Automation and Control strategy, DCS Architectural plan, Instrumentation and Control MFS.</li> <li>▪ Prepared the MFS consolidated circulation, technical schedule data gathering, finalisation of technical schedule, billing system analysis etc.</li> </ul> <p>Task 7: Financial Analysis</p> <ul style="list-style-type: none"> <li>▪ Financial Analysis Report was submitted on 12.02.2021</li> </ul> <p>Task 8: Preparation of O&amp;M requirements for Bid Document</p> <ul style="list-style-type: none"> <li>▪ Prepared the O&amp;M requirements for Bid Document</li> </ul> <p>Task 9: Revised Request for Qualification (RFQ) document was prepared on the DBO basis and issued to the Client for review. After review, CMWSSB has sent the RFQ to JICA for concurrence. Comments received from JICA on PQ document on 05.06.2020.</p> <ul style="list-style-type: none"> <li>▪ Online Zoom Video conference call and discussion with CE (Project)-II, CE (O&amp;M)-II CMWSSB officials on 15.06.2020 for the responses on JICA comments and Prequalification document for CP1 on DBO basis.</li> <li>▪ Responses to JICA comment and Revised Prequalification document (RFQ) for CP1 on DBO basis was submitted to CMWSSB on 24.06.2020.</li> <li>▪ Online Microsoft Teams Meeting with Chief Development Operations (JICA) and CMWSSB officials on 03.07.2020 for a discussion on the responses for JICA's comment on the Prequalification document for CP1 on DBO basis.</li> </ul>

Package	Achieved Activities
	<p>After review, CMWSSB has sent the RFQ to JICA for concurrence and 2<sup>nd</sup> comment received from JICA on PQ document on 13.08.2020.</p> <ul style="list-style-type: none"> <li>Responses to JICA 2<sup>nd</sup> comment and Revised Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB on 17.08.2020.</li> </ul> <p>After review, CMWSSB has sent the RFQ to JICA for concurrence. 3<sup>rd</sup> comment received from JICA on PQ documents on 05.09.2020.</p> <ul style="list-style-type: none"> <li>Responses to JICA 3<sup>rd</sup> comment and Revised Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB on 08.09.2020.</li> </ul> <p>After review, CMWSSB has sent the RFQ to JICA for obtaining the concurrence and 4<sup>th</sup> comment received from JICA on PQ documents on 23.09.2020.</p> <ul style="list-style-type: none"> <li>Revised Prequalification document (RFQ) for CP1 on DBO basis as per JICA 4<sup>th</sup> comments submitted to CMWSSB on 23.09.2020.</li> </ul> <p>After review, JICA has given the final concurrence to CMWSSB regarding the Revised Prequalification document (RFQ) for CP1 on DBO basis on 30.09.2020.</p> <ul style="list-style-type: none"> <li>Final Prequalification document (RFQ) for CP1 on DBO basis was submitted to CMWSSB on 12.10.2020</li> <li>Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published on the website and published in the Newspaper on 14.10.2020.</li> <li>Prequalification (PQ) Application meeting for CP1 component on DBO basis held at CMWSSB on 29.10.2020</li> <li>Reply to pre-bid queries of Application for Prequalification for CP1 component on DBO basis was submitted on 04.11.2020</li> <li>The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 26.11.2020</li> <li>2<sup>nd</sup> reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 component on DBO basis submitted on 27.11.2020</li> <li>3<sup>rd</sup> reply to Pre-bid queries and Corrigendum-1 of Application for Prequalification for CP1 was submitted on 03.12.2020</li> <li>The tender 2<sup>nd</sup> extension notice for receiving of PQ application of CP1, the due date has been further extended to 05.01.2021 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 06.12.2020</li> <li>Corrigendum-2 for Prequalification documents for CP 1 was submitted on 14.12.2020</li> <li>Addendum-II for Prequalification (PQ) document was published by CMWSSB on 23.12.2020</li> <li>Instructions for Online Submission in Tamil Nadu Government e-procurement portal – Corrigendum II for Prequalification (PQ) document was published by CMWSSB on 23.12.2020</li> <li>Addendum III for Prequalification (PQ) document was published by CMWSSB on 31.12.2020</li> <li>Prequalification (PQ) Application for CP1 submission was held at CMWSSB on 05.01.2021 at 15:00 hours, and the opening was held at CMWSSB on 05.01.2021 at 15:30 hours</li> <li>Prequalification (PQ) Application for CP1 received from 4 Applicants on 05.01.2021</li> <li>Evaluation of Prequalification (PQ) Application for CP1 was carried out by PMC team from 06.01.2021 to 27.01.2021</li> <li>Evaluation Report for Prequalification (PQ) Application for CP1 was submitted to CMWSSB on 27.01.2021, and CMWSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining concurrence.</li> <li>CMWSSB has obtained the concurrence from JICA on the Report on the Evaluation of Prequalification (PQ) Application for CP1 on 11.02.2021.</li> </ul>

Package	Achieved Activities
	<p>Task 10: Preparation of Bidding Document</p> <p>Preparation of Request for Proposal [RFP] Document comprises of following volumes:</p> <ul style="list-style-type: none"> <li>▪ Part I (Bidding Procedures) of Draft Request For Proposal (RFP) for CP1</li> <li>▪ Part II – Employer's Requirements (5 Volumes)</li> <li>▪ Part III – Conditions of Contract and Contract Forms</li> <li>▪ Part IV – Price Schedule</li> </ul> <p>Draft Request For Proposal (RFP) for CP1 component on DBO basis have been submitted to CMWSSB on 01.12.2020, 02.12.2020 and 24.12.2020 for review.</p> <ul style="list-style-type: none"> <li>▪ Presentation on Part-II (Employer's Requirements) of Draft Request For Proposal (RFP) for CP1 component on DBO basis had been held at CMWSSB and MS Teams meeting on 15.12.2020</li> <li>▪ Presentation on Part-I (Bidding Procedures), Part III – Conditions of Contract and Contract Forms of Draft Request For Proposal (RFP) for CP1 component on DBO basis been held at CMWSSB and MS Teams meeting on 18.12.2020</li> <li>▪ Queries received from CMWSSB on Draft RFP for CP1 on DBO on 24.12.2020</li> <li>▪ Response to CMWSSB on 1<sup>st</sup> comment on Particular Condition of Part A in Part III of Draft RFP for CP1 component on DBO basis was submitted on 30.12.2020</li> <li>▪ Joint discussion for review of RFP document for CP1 held with CMWSSB officials from 06.01.2021 to 27.01.2021.</li> </ul> <p>Draft Request For Proposal (RFP) (Rev.1) for CP1 component on DBO basis have been submitted to CMWSSB on 21.01.2021 for review.</p> <p>Draft Request For Proposal (RFP) (Rev.2) for CP1 component on DBO basis have been submitted to CMWSSB on 25.01.2021 for review.</p> <p>Draft Request For Proposal (RFP) (Rev.3) for CP1 component on DBO basis have been submitted to CMWSSB on 27.01.2021 for review, and CMWSB forwarded the RFP document to JICA for obtaining concurrence.</p> <p>After review, JICA has provided the comments on Part-I and Part-III of the Draft RFP document for CP1 on 25.02.2021.</p> <p>Draft Bidding Document (Rev.4) for CP1 component on DBO basis and Reply to JICA's Comments have been submitted to CMWSSB on 10.03.2021 for review.</p> <p>Draft Bidding Document (Rev.5) for CP1 component on DBO basis and reply to JICA's comments have been submitted to CMWSSB on 16.03.2021 for review.</p> <ul style="list-style-type: none"> <li>▪ Meeting at 1<sup>st</sup> floor conference hall of CMWSSB and Online Microsoft Teams Meeting with Chief Engineer (Project-II) and Chief Engineer Project -III) and CMWSSB officials on 25.03.2021 for a discussion on the responses for JICA's comment on Bidding Document for CP1 component on DBO basis.</li> </ul> <p>Draft Bidding Document (Rev.6) for CP1 component on DBO basis have been submitted to CMWSSB on 30.03.2021.</p> <ul style="list-style-type: none"> <li>▪ Meeting at 1<sup>st</sup> floor conference hall of CMWSSB and Online Microsoft Teams Meeting with Chief Development Operations (JICA) and CMWSSB officials on 30.03.2021 for a discussion on the responses for JICA's comments on Bidding Documents for CP1 component on DBO basis.</li> </ul> <p>Draft Bidding Document (Rev.7) for CP1 component on DBO basis and updated reply to JICA's comments have been submitted to CMWSSB on 19.04.2021.</p> <p>Draft Bidding Document (Rev.8) for CP1 component on DBO basis and updated reply to JICA's comments have been submitted to CMWSSB on 17.05.2021</p>

Package	Achieved Activities
	<ul style="list-style-type: none"> <li>Meeting at 1<sup>st</sup> floor conference hall of CMWSSB and Online Microsoft Teams Meeting with Development Expert (JICA) and CMWSSB officials on 05.07.2021 for a discussion on the responses for JICA's comment on Bidding Document for CP1 component on DBO basis.</li> </ul> <p>Draft Bidding Document (RFP) (Rev.9) for CP1 component on DBO basis was submitted to CMWSSB on 07.07.2021</p> <p>Updated responses to JICA's 4<sup>th</sup> comment received on 05.07.2021 for the Draft Bidding Document for the CP1 component was submitted on 07.07.2021</p> <ul style="list-style-type: none"> <li>Meeting at 1<sup>st</sup> conference hall of CMWSSB and Online MS Teams Meeting Video conference call with Managing Director, CMWSSB and officials for a general discussion on the progress review and timeline for CP1 component on 12.07.2021.</li> </ul> <p>Updated responses to JICA's 6<sup>th</sup> comment received on 13.07.2021 for the Draft Bidding Document for the CP1 component was submitted on 16.07.2021</p> <ul style="list-style-type: none"> <li>No objection letter was received from JICA for the Bidding document for CP1 component on 23.07.2021</li> </ul> <p>Final Bid Document (Rev.10) for CP1 component on DBO basis was submitted to CMWSSB on 30.07.2021</p>
CP2	<p>Task 1: Data and information collection commenced</p> <ul style="list-style-type: none"> <li>Review of DPR on JICA documents, DPRs, Master Plan</li> <li>For CP2: Site visit to Porur, Mount-Poonamalle depot office for obtaining the details about Chembarambakkam 2000mm diameter pipeline and identify interconnected pipeline with valves opposite to Porur lake CMWSSB pumping station office.</li> <li>For CP2: Site visit to Porur, Mount-Poonamalle CMWSSB depot office for getting details from Porur existing WDS 1500mm diameter pipeline and identify interconnected pipeline with valve in Porur Samayapuram road junction.</li> </ul> <p>Task 2: Review of technical information commenced (checking of the hydraulic design of the transmission system based on the available data)</p> <ul style="list-style-type: none"> <li>Calculation of CWR Capacity at Perur</li> <li>Reviewed the beneficiary population from Perur to Porur, and the observation was submitted to CMWSSB for feedback.</li> <li>Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 components submitted on 15.07.2020.</li> </ul> <p>Task 3: Conducting Surveys and Investigations</p> <ul style="list-style-type: none"> <li>Carried out the Topographical Surveys at Porur new Water Distribution Station in October 2020</li> <li>Topographical survey drawings for Proposed Underground Tank (UGT) and Pump House at Porur new Water Distribution Station was submitted on 09.09.2020</li> <li>Topographical survey revised drawing for allocation of land for Proposed UGT and Pumping Station (CP2-2) at Porur WDS submitted on 11.11.2020</li> <li>Draft layout plan for CWR and PS at Porur was discussed with CMWSSB staff. Finalisation of the layout plan is under progress.</li> <li>Site Visit to Puzhal, Chembarambakkam WTP, Porur HW and other CMWSSB area./ Depot office to collect the various transmission main details. Please refer to Table 10 for details of site visits and data collection made.</li> <li>Specification for the geotechnical survey is under progress</li> <li>Site visit to Porur, Mount-Poonamalle depot office (CMWSSB) for obtaining the details about Chembarambakkam 2000mm diameter pipeline and identify</li> </ul>



Package	Achieved Activities
	<p>interconnected pipeline with valves opposite to Porur lake CMWSSB pumping station office.</p> <ul style="list-style-type: none"> <li>Site visit to Porur, Mount-Poonamalle depot office for getting details from Porur existing WDS 1500mm diameter pipeline and identify interconnected pipeline with valve in Porur Samayapuram road junction.</li> <li>CP-2, Site visit to Chembarambakkam WTP and to collect the pump details from AE (CMWSSB) and Plant maintenance Manager and to visit Chlorination building to study the safety measures adopted.</li> <li>Updation of Existing Transmission System Planned to be linked to Proposed System at Velachery and Porur was submitted on 26.02.2021.</li> <li>Data digitisation of Pallipattu WDS connecting transmission main from Alandur</li> <li>Data digitisation of Mylapore &amp; Nandanam connecting transmission main from Kotturpuram tapping point and support with design works applied extra flow in 530mld transmission main.</li> <li>Data digitisation of 2000mm transmission line from Saveetha college tapping point to end cap near Koyambedu Rohini theatre and support with design works.</li> <li>Site visit to Choolaimedu WDS and Area office VIII for getting details of valves in Choolaimedu bridge to link with 300 MLD transmission main from AEE (CMWSSB).</li> <li>Digitisation of 530MLD and 100 MLD existing system of transmission lines.</li> <li>Feeder main data verified in depot 177 to 179 with AE (CMWSSB).</li> <li>Work order issued to sub-consultancy for carrying out the Geotechnical Investigation work at Porur and Perur WDS site on 29<sup>th</sup> April 2021.</li> <li>The geotechnical investigation work comprises Bore Hole, trial pit and Electrical Resistivity Test (ERT) at Porur 10 ML GLR and 240 MLD Pumping Station site and Perur 400 MLD Pumping Station site, CP2 component, field work commenced on 23.06.2021 and completed on 03.07.2021. The Geotechnical Investigation Interim report for CP2-1 and CP2-2 was received on 20.07.2021, PMC observations communicated dated 23.07.2021, and the final report was received on 20.08.2021.</li> </ul> <p>Task 4: Detailed Design of the Reservoirs and Pumping Station</p> <ul style="list-style-type: none"> <li>Plot Plan, General Arrangement Drawings and P&amp;ID of Proposed Pumping Station &amp; Ground Level Reservoir at Porur (CP-2) was submitted on 19.02.2021</li> <li>Electrical load list and Electrical Single Line Diagram for Proposed 240 MLD Porur Pumping Station has been submitted on 05.03.2021</li> <li>CP2- Plot Area Required for Proposed 10 ML GLR and 240 MLD Pumping Station drawings at Porur was submitted on 30.04.2021.</li> <li>Provided the details of the difference in the cost estimate for 11 kVA and 3.3 kVA for the Pumping Station, indicating that 3.3 kVA is costlier than 11 kVA.</li> <li>Online MS Teams Meeting Video conference call with Engineering Director, CMWSSB and officials for a general discussion on the progress review for CP2 component on 10.06.2021.</li> <li>Meeting at 1<sup>st</sup> conference hall of CMWSSB, Online MS Teams Meeting Video conference call with Managing Director, CMWSSB and officials for a general discussion on the progress review for CP2 component on 12.07.2021.</li> </ul>
CP3	<ul style="list-style-type: none"> <li>Joint site visit with Chief Engineer (Project-III) and SE (Desal) CMWSSB officials along the proposed water transmission main alignment from Perur 400 MLD Desalination Plant to Porur new WDS site for about 65Km length for CP3 component on 31.07.2021.</li> <li>Reconnaissance survey and site visit along the proposed water transmission main alignment from Perur 400 MLD Desalination Plant to Porur new WDS site for about 65Km length for CP3 component on 09.08.2021 to 19.08.2021.</li> </ul>



Package	Achieved Activities
	<ul style="list-style-type: none"> <li>Coordination and assisting with CMWSSB officials for preparation of reply to JICA comment on CP3-1 bidding document and finalisation of bidding document for CP3-1 component from 12.08.2021 to 31.08.2021.</li> <li>Submission of updated bidding document for CP3-1 component to CMWSSB on 18.08.2021 (soft copy)</li> </ul>
CP4	<p>Task 1: Reconnaissance Survey, Data and information collection commenced (JICA documents, Master Plan- Area X and XIII on top priority for world bank funding purpose</p> <ul style="list-style-type: none"> <li>Visited CMWSSB office to collect the CP-4 GIS data and meeting with P&amp;D wing AEE and discussion with EE &amp; AEEs (Desal) CMWSSB.</li> <li>Visit Area X office – T. Nagar, discussions with Area Engineer (EE) and AEEs (CMWSSB) to discuss regarding the availability of Zone X distribution drawings</li> <li>Visit to KK Nagar Headworks- Area X. Discussions with depot engineers of 131 &amp; 137 for distribution network details</li> <li>Site Visit to Zone X and Data collection: Wards 128, 129, 131, 132, 137 to 140, 142)</li> <li>Site visit and data collection for Ward 105 to 109, 112, 117, 127, 130, 133 to 136, 141 from Deputy Area Engineer, Assistant Engineer (CMWSSB) from 02.11.2020 to 20.11.2020</li> <li>Site visit and pipeline data collection of Zone XIII: wards 170 to,175,179 and 181 during December 2020</li> <li>Site Visit, Data collection and modelling activities for CP4 components during January 2021</li> <li>Visit to Southern Headworks and Choolaimedu WDS to get the command area details under WDZ</li> <li>Visit to KK Nagar, Pallipattu and Nandanam WDZ to get the command area details under each WDZ</li> <li>Site Visit and Data collection of Zone XIII wards 176, 178 and 181 Pipeline network</li> <li>Visit to depots and collection of latest distribution network drawings of Administrative Zone IX (all the Depots except Depot 120,124,125 and 126)</li> <li>Vacant Land verification of Zone X wards 132,134,136 to 139 &amp; Zone XIII wards 170,171,173,175 to 177, 180 to 182</li> <li>Visited Area X and Area XIII all WDS locations for Existing Condition assessment of Civil Structural, Electrical, Mechanical &amp; Instrumentation System during September 2021</li> <li>Collected House service connection data for Area X &amp; Area XIII and Complaint Register for Area X during September 2021</li> </ul> <p>Task 2: Review and Analysis of Data</p> <ul style="list-style-type: none"> <li>Review of salient details and existing water distribution network drawings collected for CP4 components and identification of gaps in the available data</li> <li>Digitalisation of pipeline inventory data collected for wards 128, 132, 137 and 139</li> <li>Digitalisation of pipeline inventory data collected for wards 127,129,131,138,140, and 142 in November 2020</li> <li>Preparation of Water Distribution network modelling for a total of 33km (Ward 127) from 23.11.2020 to 30.11.2020</li> <li>Modelling activity of ward no. 127 for a length of 33km during Dec'2020</li> <li>Modelling activity of all wards of KK Nagar WDS, i.e., 128,129, 131,132,137 to 140, 142 of Zone X and 179 of Zone XIII in the month of December 2020</li> <li>Verification and correction/ updating of the WaterGEMS model (prepared based on pipeline inventory data collected from Depot Engineer) for wards 132,138 to 140 &amp; 142 of Zone X in Dec'2020 after discussions with respective Area/Depot Engineers</li> </ul>

Package	Achieved Activities
	<ul style="list-style-type: none"> <li>▪ Modelling activity of Zone XIII for a length of 282Km covering wards 171 to 174, 177, 179 and 182 in the month of Jan'2021</li> <li>▪ Modelling activity of Zone X for length of 88km covering wards 130,136 and 141 in the month of Jan'2021</li> <li>▪ Verification of modelled pipeline network of zone X wards 127, 128,131,136,137, 141 and 142 with respective area/ward engineers in the month of Jan 2021</li> <li>▪ Site visit to depot 127, 129, 130, 132 to 135 and 138 to 140 for getting details of priority to replacement &amp; strengthening of pipes and condition assessment locations of pipes from concerned Engineers of CMWSSB.</li> <li>▪ Area-XIII Adyar: Ward 171 distribution network 10km length, Ward 170 water distribution network 48km length and Ward 174 water distribution network of 29km length of modelling completed.</li> <li>▪ Land use map preparation of wards No. 122, 138 to 140, 142 and 170 to 182. Classification of land use and preparation of area sheet.</li> <li>▪ Digitisation &amp; modelling of zone X existing distribution system with present updation.</li> <li>▪ Submission of Ward wise existing water distribution network drawings of Area X- Kodambakkam for verification/authentication by Ward/ Depot Area Engineer.</li> <li>▪ Submission of WDS wise demand variation details of Chennai Core city considered in JICA/Master Plan report and projected based on ward wise population details received from CMWSSB.</li> <li>▪ Digitisation and modelling of zone 13 existing water distribution system with present updation.</li> <li>▪ Completion of the preparation of updated existing ward wise network drawings of Admin zone XIII</li> <li>▪ Ward-wise existing distribution network drawings of Area-XIII Adyar for verification/authentication by Depot Area Engineer was submitted on 26.04.2021</li> <li>▪ Conversion of available non-scale distribution drawings of Zone IX to scale with pipeline alignment</li> <li>▪ Modelling activity of 6 wards (109 to 112, 114 &amp; 115) of Zone IX for a length of 153km</li> <li>▪ Conversion of available non-scale distribution drawings of Zone V, VI and VIII to scale with pipeline alignment</li> <li>▪ Street line linking to the existing pipeline network for Zone VIII and IX</li> <li>▪ Completed the preparation of existing water distribution network drawings for all the core city zones except Zone -IV</li> <li>▪ Ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area VI- Thiru. Vi. Ka Nagar &amp; Area IX- Teynampet for verification/ authentication by Depot Area Engineers was submitted on 12.07.2021</li> <li>▪ Ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area V- Royapuram &amp; Area VIII- Anna Nagar for verification/ authentication by Depot Area Engineers was submitted on 14.07.2021</li> <li>▪ Design Considerations for strengthening, replacing the existing network, and providing a new network in the uncovered area of Chennai Core City was submitted on 19.07.2021</li> <li>▪ Submission of updated existing distribution network drawings of Area X- Kodambakkam based on the inputs of Depot Area Engineers with Conditional Assessment details on 23.07.2021</li> </ul>

Package	Achieved Activities
	<ul style="list-style-type: none"> <li>Submission of updated existing distribution network drawings of Area XIII- Adyar based on the inputs of Depot Area Engineers with Condition Assessment location details on 06.08.2021</li> <li>Submission of ward wise existing distribution network drawings with street and ward wise pipe summary details of Area IV- Tondiarpet for verification/ authentication by Ward/ Depot Area Engineers on 12.08.2021</li> </ul>
	<p>Task 3: Conducting Surveys and Investigations</p> <ul style="list-style-type: none"> <li>The topographical survey field work for the CP4 component commenced on 19.03.2021, and field work has been completed.</li> <li>Topographical Survey Drawing of Chennai Core City for the CP4 component was submitted on 06.08.2021</li> </ul>
	<p>Task 4: Detailed Design of the Improvement of the Existing Water Distribution System CP4</p> <ul style="list-style-type: none"> <li>Carried out the Modelling, adequacy check (Hydraulic Network Analysis) of the Existing Water Distribution System for 8 Depots 128,131, 132, 137,138,139, 140 and 142 KK Nagar WDS in Area X using Bentley WaterGems Software. Improvement proposals for the existing network by proposing new parallel riders and replacement of PVC/AC/PSC pipes</li> <li>Carried out the Modelling, adequacy check (Hydraulic Network Analysis) of the Existing Water Distribution System for Depot 136 and 141 of Southern Headworks WDS in Area X using Bentley WaterGems Software. Improvement proposals for an existing network by proposing new parallel riders and replacing PVC/AC/PSC pipes.</li> <li>Carried out the Modelling, adequacy check (Hydraulic Network Analysis) of the Existing Water Distribution System for 3 Depots 177, 178 and 179 of Velachery Old WDS in Area XIII using Bentley WaterGems Software. Improvement proposals for an existing network by proposing new parallel riders and replacement of PVC/AC/PSC pipes</li> <li>Online MS Teams Meeting Video conference call with Engineering Director, CMWSSB and officials for a general discussion on the progress review for CP4 component on 10.06.2021</li> <li>Carried out the adequacy check (Hydraulic Network Analysis) of the Existing Water Distribution System of all the wards of Zone X and XIII area for future demand and Draft designs with improvement details.</li> <li>Meeting at 1<sup>st</sup> conference hall of CMWSSB and Online MS Teams Meeting Video conference call with Managing Director, CMWSSB and officials for a general discussion on the progress review for CP4 component on 12.07.2021.</li> <li>Detailed Hydraulic design of modelling of proposed water distribution system using Bentley WaterGEMS software for depot no. 127 to 142 for the Zone-X (Kodambakkam) has been completed.</li> <li>Detailed Hydraulic design of modelling of proposed water distribution system using Bentley WaterGEMS software for Depot no.170 to 182 for the Admin Zone XIII (Adyar) has been completed</li> <li>Hydraulic Design for Proposed Water Distribution System for Area X (Kodambakkam) using Bentley's WaterGEMS for CP4 component was submitted (soft copy) to CMWSSB on 22.09.2021</li> </ul>
	<p>Task 5: Preparation and Submission of Draft Detailed Project Report</p> <ul style="list-style-type: none"> <li>Preparation of Draft Design Report for Area-X</li> </ul>

Package	Achieved Activities
	<ul style="list-style-type: none"> <li>Preliminary Cost Estimation has been completed for Area X and Area XIII during September 2021</li> </ul>
CP5	<ul style="list-style-type: none"> <li>Visit to Perur for common electrical substation for topographical survey work for CP5</li> <li>It is understood that the proposed common electrical substation site (4.91 acres), the land lease agreement was executed on 22.07.2021 between Nemmeli Arulmigu Alavandar Nayakar Trust (Under control of HR &amp; CE Board) and CMWSSB for a period of about 30 years between 2016 to 2046.</li> </ul>
General	<ul style="list-style-type: none"> <li>Monthly Progress Report (MPR 19) for August 2021 was submitted on 09.09.2021</li> </ul> <p>Draft Environmental Impact Assessment (EIA) Review Report for CP1 component submitted to CMWSSB on 26.05.2020</p> <ul style="list-style-type: none"> <li>Online Zoom Video conference call and discussion with SE (Desal) CMWSSB officials on 03.06.2020 for the Draft Environmental Impact Assessment (EIA) Review Report for CP1 component.</li> <li>Action Taken Report/clarification on the Draft Environmental Impact Assessment (EIA) Review Report for CP1 submitted to CMWSSB on 12.08.2020</li> </ul> <p>Draft Environmental Impact Assessment (EIA) Review Report for CP1 and CP2-1 components (Rev-1) submitted to CMWSSB on 23.09.2020</p> <ul style="list-style-type: none"> <li>Social Safeguard Review (Draft Report) submitted on 18.11.2020</li> <li>Draft Scope of work for Engagement of Reputed Institutions for continuous Coastal monitoring was submitted on 26.02.2021</li> <li>Draft report on Organisation Development and Capacity Building prepared and under review by PMC Team leader/Deputy team leader</li> <li>Coordination and assisting with officials for executing the land lease agreement between Nemmeli Arulmigu Alavandar Nayakar Trust (functioning under HR &amp; CE Department) and CMWSSB from 12.06.2021 to 22.07.2021.</li> <li>Technical data for TNPCB Consent to Establish (CTE) Application was submitted from 15.07.2021 to 16.09.2021</li> </ul> <p>Environmental and Social support activities commenced, including documentation review and approvals planning</p>

Note – task numbering listed in Table above corresponds to masterwork schedule (refer to **Annexure 4**)

## 4.2 Deliverables Status in September 2021

A listing of the full suite of project deliverables included under the Consulting Services and their current status or tentative completion date are listed in Table 6.

Table 6: Deliverables Status

Sl. No.	Report / Document	Tentative Date / Frequency / Status **
1	Inception Report	Inception Report submitted on 28.02.2020
		Observations on Inception Report received from CMWSSB on 30.03.2020
		Revised Inception Report submitted on 04.04.2020 and 16.04.2020
2	<b>For Design and Tender Assistance for CP1</b>	
	2.1 Conceptual Design Report	Interim report for development of Concept Designs for Perur 400 MLD Desalination Plant for CP1 submitted on 23.04.2020
		Concept Design Report for Chennai Perur 400 MLD Desalination Plant for CP1 submitted on 10.07.2020
		Bathymetry Survey report for Perur Desalination Plant of CP1 was submitted to CMWSSB on 10.12.2020
		Brine Dispersion Model Report for Perur Desalination Plant (CP 1) was submitted on 18.01.2021
		Financial Analysis Report was submitted to CMWSSB on 12.02.2021
		Seawater Sample Analysis Report for Perur Desalination Plant (CP1) has been submitted on 18.03.2021
		Concept Design Report (Final) for 400 MLD Desalination Plant at Perur (CP1) submitted on 23.04.2021
	2.2 PQ Document	Draft PQ document for CP1 component submitted on 24.02.2020
		Revised PQ document for CP1 has been submitted on 03.03.2020, 06.03.2020 for client review and sent to JICA for Concurrence for floating of the tender
		1 <sup>st</sup> comment received from JICA on PQ documents on 05.06.2020.
		Responses to JICA comments and Revised Prequalification document (RFQ) were submitted to CMWSSB on 24.06.2020
		2 <sup>nd</sup> comment received from JICA on PQ documents on 13.08.2020.
		Responses to JICA 2 <sup>nd</sup> comment and Revised Prequalification document (RFQ) on DBO basis were submitted to CMWSSB on 17.08.2020
		3 <sup>rd</sup> comment received from JICA on the PQ document on 05.09.2020.
		Responses to JICA 3 <sup>rd</sup> comment and Revised Prequalification document (RFQ) on DBO basis have been submitted to CMWSSB on 08.09.2020
		4 <sup>th</sup> comment was received from JICA on PQ documents on 23.09.2020.
		Revised Prequalification document (RFQ) as per JICA 4 <sup>th</sup> comments have been submitted to CMWSSB on 23.09.2020
		JICA has given the concurrence for Prequalification document (RFQ) for CP1 on DBO basis to CMWSSB on 30.09.2020

Sl. No.	Report / Document	Tentative Date / Frequency / Status **
		<p>Final Prequalification document (RFQ) for CP1 on DBO basis was submitted to CMWSSB on 12.10.2020</p> <p>Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published in the website and published in the Newspaper on 14.10.2020.</p> <p>Prequalification (PQ) Application meeting for CP1 component on DBO basis held at CMWSSB on 29.10.2020</p>
		<p>Reply to pre-bid queries of Application for Prequalification for CP1 component on DBO basis submitted on 04.11.2020</p> <p>The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, and the details have been published by CMWSSB in the website on 26.11.2020</p> <p>2<sup>nd</sup> reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 on DBO basis submitted on 27.11.2020</p> <p>3<sup>rd</sup> reply to Pre-Bid Queries and Corrigendum-1 of Application for Prequalification for CP1 submitted on 03.12.2020</p> <p>The tender 2<sup>nd</sup> extension notice for receiving of PQ application of CP1, the due date has been extended to 05.01.2021 instead of the original date, i.e. 01.12.2020, and the details have been published by CMWSSB in the website on 15.12.2020</p> <p>Corrigendum-2 for Prequalification document for CP1 submitted on 14.12.2020</p> <p>Notice Inviting Tender, Prequalification document for CP1 have been uploaded by CMWSSB, and the details have been published in www.tntenders.gov.in website on 23.12.2020</p> <p>Reply to Pre-bid queries 1<sup>st</sup> set, 2<sup>nd</sup> set, 3<sup>rd</sup> set, Addendum-II and Corrigendum-II for PQ document have been uploaded by CMWSSB, and the details have been published in www.tntenders.gov.in website on 24.12.2020</p> <p>Addendum-III for PQ document has been uploaded by CMWSSB, and the details have been published in www.tntenders.gov.in website on 31.12.2020</p> <ul style="list-style-type: none"> <li>Prequalification (PQ) Application for CP1 submission was held at CMWSSB on 05.01.2021 at 15:00 hours, and the opening was held at CMWSSB on 05.01.2021 at 15:30 hours</li> <li>Prequalification (PQ) Application for CP1 received from 4 Applicants on 05.01.2021</li> </ul>
	2.3 PQ Evaluation Report	<ul style="list-style-type: none"> <li>Evaluation of Prequalification (PQ) Application for CP1 was carried out by PMC team from 06.01.2021 to 27.01.2021</li> <li>Evaluation Report for Prequalification (PQ) Application for CP1 was submitted to CMWSSB on 27.01.2021, and CMWSSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining concurrence.</li> <li>CMWSSB has obtained the concurrence from JICA on the Report on the Evaluation of Prequalification (PQ) Applications for CP1 on 11.02.2021.</li> </ul>
	2.4 Bid (RFP) Document	<ul style="list-style-type: none"> <li>Draft Request For Proposal (RFP) for CP1 component on DBO basis have been submitted to CMWSSB on 01.12.2020, 02.12.2020 and 24.12.2020 for review.</li> </ul>



Sl. No.	Report / Document	Tentative Date / Frequency / Status **
		<ul style="list-style-type: none"> <li>Response to CMWSSB on 1<sup>st</sup> comment on Particular Condition of Part A in Part III of Draft RFP for CP1 component on DBO basis was submitted on 30.12.2020</li> <li>Draft Request For Proposal (RFP) (Rev.1) for CP1 component on DBO basis have been submitted to CMWSSB on 21.01.2021 for review.</li> <li>Draft Request For Proposal (RFP) (Rev.2) for CP1 component on DBO basis have been submitted to CMWSSB on 25.01.2021 for review.</li> <li>Draft Request For Proposal (RFP) (Rev.3) for CP1 component on DBO basis was submitted to CMWSSB on 27.01.2021 for review, and CMWSSB forwarded the RFP document to JICA for obtaining concurrence.</li> <li>Additional copy of Draft Request For Proposal (RFP) (Rev.3) for CP1 component on DBO basis was submitted to CMWSSB on 19.02.2021 for review.</li> <li>Received the comments from JICA on Draft RFP (Part-I &amp; III) document for CP1 on DBO basis on 25.02.2021.</li> <li>Draft Bidding Document (Rev.4) for CP1 component on DBO and reply to JICA's comment was submitted to CMWSSB on 10.03.2021 for review</li> <li>Draft Bidding Document (Rev.5) for CP1 on a DBO basis and reply to JICA's comment was submitted to CMWSSB on 16.03.2021 for review.</li> <li>Draft Bidding Document (RFP) (Rev.6) for CP1 component on DBO basis was submitted to CMWSSB on 30.03.2021.</li> <li>Draft Bidding Document (Rev.7) for CP1 component and updated reply to JICA's comment was submitted to CMWSSB on 19.04.2021.</li> <li>Draft Bidding Document (Rev.8) for CP1 component on DBO basis and updated reply to JICA's comment was submitted to CMWSSB on 17.05.2021</li> <li>Draft Bidding Document (Rev.8) for CP1 on DBO basis and updated reply to JICA's comment was submitted on 24.06.2021</li> <li>Draft Bidding Document (RFP) (Rev.9) for CP1 component on DBO basis was submitted to CMWSSB on 07.07.2021</li> <li>Updated responses to JICA's 4<sup>th</sup> comment received on 05.07.2021 for the Draft Bidding Document for the CP1 component was submitted on 07.07.2021</li> <li>Updated responses to JICA's 6<sup>th</sup> comment received on 13.07.2021 for the Draft Bidding Document for the CP1 component have been submitted on 16.07.2021</li> <li>Final Bid Document (Rev.10) for CP1 component on DBO Basis has been submitted to CMWSSB on 30.07.2021</li> </ul>
	2.5 Bid Evaluation Report (Technical)	June 2022 (October 2020, July 2021, November 2021, December 2021)
	2.6 Bid Evaluation Report (Financial)	July 2022 (Dec'2020, August 2021, January 2022, February 2022)



Sl. No.	Report / Document	Tentative Date / Frequency / Status **
3	<b>For Design and Tender Assistance for CP2</b>	
	3.1 Detailed Design Report and Drawings	<ul style="list-style-type: none"> <li>Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 component was submitted on 02.07.2020 (soft copy) and 15.07.2020 (hard copies)</li> <li>Plot Plan, General Arrangement Drawings and P&amp;ID of Proposed Pumping Station, Ground Level Reservoir at Porur (CP-2) was submitted on 19.02.2021</li> <li>Electrical load list and Single Line Diagram for Proposed 240 MLD Porur Pumping Station was submitted on 05.03.2021</li> <li>Plot Area required for Proposed 10ML GLR, 240 MLD Pumping Station drawings at Porur was submitted on 30.04.2021</li> </ul>
		End of December 2021 (June 2021, September 2021)
	3.2 PQ Document (if required)	April 2022 (October 2021, July 2021, November 2021)
	3.3 PQ Evaluation Report (if required)	July 2022 (November 2021, August 2021, December 2021)
	3.4 Bid Document (RFP)	July 2022 (December 2021, September 2021, January 2022)
	3.5 Bid Evaluation Report (Technical)	October 2022 (January 2022, December 2021, February 2022)
	3.6 Bid Evaluation Report (Financial)	November 2022 (May 2022, February 2022, June 2022)
4	<b>For Design and Tender Assistance for CP4</b>	
	4.1 Detailed Design Report and Drawings	<ul style="list-style-type: none"> <li>Ward-wise existing water distribution network drawings of Area X- Kodambakkam for verification/ authentication by Ward/ Depot Area Engineer was submitted on 23.02.2021</li> <li>Submission of WDS wise demand variation of Chennai Core city considered in JICA/Master Plan report and projected based on Wardwise population details received from CMWSSB</li> <li>Ward-wise existing distribution network drawings of Area XIII Adyar for verification/ authentication by the CMWSSB Depot Area Engineer was submitted on 26.04.2021</li> <li>Ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area VI- Thiru. Vi. Ka Nagar &amp; Area IX- Teynampet for verification/ authentication by Depot Area Engineers was submitted on 12.07.2021</li> <li>Ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area V- Royapuram &amp; Area VIII- Anna Nagar for verification/ authentication by Depot Area Engineers was submitted on 14.07.2021</li> <li>Topographical Survey Drawing of Chennai Core City for the CP4 Component was submitted on 06.08.2021</li> <li>Updated existing distribution network drawings of Area XIII-Adyar based on the inputs of Depot Area Engineers with Condition Assessment details was submitted on 06.08.2021</li> <li>Ward wise existing distribution network drawings with street &amp; ward wise pipe summary details of Area IV- Tondiarpet for</li> </ul>

Sl. No.	Report / Document	Tentative Date / Frequency / Status **
		verification/ authentication by Depot Area Engineers was submitted on 12.08.2021 <ul style="list-style-type: none"> <li>Hydraulic Design for Proposed Water Distribution System for Area X (Kodambakkam) using Bentley's WaterGEMS for CP4 component was submitted (soft copy) to CMWSSB on 22.09.2021</li> <li>December 2021 (Design &amp; Estimation for Area X &amp; XIII)</li> <li>March 2022 (Design &amp; Estimation for Area V &amp; VI)</li> <li>July 2022 (Design &amp; Estimation for Area IV, VIII and IX)</li> </ul>
	4.2 Bid Document(s)	June 2022 (April 2022)
	4.3 Bid Evaluation Report (Technical)	September 2022
	4.4 Bid Evaluation Report (Financial)	November 2022
5	<b>For Construction Supervision of CP 1</b>	
	5.1 Contractor's Design Review Report	Within 1 month after submission of the Contractor's design report
	5.2 Quality and Quantity Control Report	Every Month
	5.3 Final Inspection Report	At Appropriate timing
6	<b>For Construction Supervision of CP 2</b>	
	6.1 Quality and Quantity Control Report	Every Month
	6.2 Final Inspection Report	At Appropriate timing
7	<b>For Construction Supervision of CP 3-1 to CP 3-4</b>	
	7.1 Quality and Quantity Control Report	Every Month
	7.2 Final Inspection Report (CP 3-1, CP 3-2)	At Appropriate timing
	7.3 Final Inspection Report (CP 3-3, CP 3-4)	At Appropriate timing
8	<b>For Construction Supervision of CP 4</b>	
	8.1 Quality and Quantity Control Report	Every Month
	8.2 Final Inspection Report	At Appropriate timing
9	<b>Environmental and Social Safeguard</b>	
	9.1 EIA Review Report for CP 1	<ul style="list-style-type: none"> <li>Draft Environmental Impact Assessment (EIA) Review Report for CP1 component submitted to CMWSSB on 26.05.2020</li> </ul>

Sl. No.	Report / Document	Tentative Date / Frequency / Status **
		<ul style="list-style-type: none"> <li>▪ Draft Environmental Impact Assessment (EIA) Review Report for CP1 and CP2 components (Rev-1) have been submitted to CMWSSB on 23.09.2020</li> <li>▪ Social Safeguard Review (Draft Report) submitted on 18.11.2020</li> <li>▪ Draft Scope of work for Engagement of Reputed Institutions for continuous Coastal monitoring was submitted on 26.02.2021</li> <li>▪ Submission of Technical data for TNPCB Consent to Establish Application on 15.07.2021 to 16.09.2021</li> </ul>
	9.2 Environmental Monitoring Report	Every Month
10	<b>Progress Report and Project Completion Report</b>	
	10.1 Monthly Progress Report (MPR)	<ul style="list-style-type: none"> <li>▪ MPR 01 for Jan' &amp; Feb'2020 (2 copies) submitted on 10.03.2020 for review</li> <li>▪ Observations on MPR 01 were received from CMWSSB on 31.03.2020</li> <li>▪ Revised MPR 01 for Jan' &amp; Feb'2020 (soft copy) submitted on 14.04.2020</li> <li>▪ Revised MPR 01 for Jan' &amp; Feb'2020 (10 copies) submitted on 26.05.2020</li> <li>▪ MPR 02 for March 2020 (10 copies) submitted on 26.05.2020</li> <li>▪ MPR 03 for April 2020 (10 copies) submitted on 22.05.2020</li> <li>▪ MPR 04 for May 2020 (soft copy) submitted on 10.06.2020 and 10 copies submitted on 11.06.2020</li> <li>▪ MPR 05 for June 2020 (soft copy) submitted on 10.07.2020</li> <li>▪ MPR 05 for June 2020 (10 copies) submitted on 13.07.2020</li> <li>▪ MPR 06 for July 2020 (10 copies) submitted on 10.08.2020</li> <li>▪ MPR 07 for August 2020 (10 copies) submitted on 10.09.2020</li> <li>▪ MPR 08 for September 2020 (10 copies) submitted on 09.10.2020</li> <li>▪ MPR 09 for October 2020 (10 copies) submitted on 11.11.2020</li> <li>▪ MPR 10 for November 2020 (10 copies) submitted on 10.12.2020</li> <li>▪ MPR 11 for December 2020 (10 copies) submitted on 08.01.2021</li> <li>▪ MPR 12 for January 2021 (10 copies) submitted on 11.02.2021</li> <li>▪ MPR 13 for February 2021 (10 copies) submitted on 10.03.2021</li> <li>▪ MPR 14 for March 2021 (10 copies) submitted on 09.04.2021</li> <li>▪ MPR 15 for April 2021(soft copy) submitted on 10.05.2021 &amp; Hard copy (10 Copies) submitted on 08.06.2021</li> <li>▪ MPR 16 for May 2021 (10 Copies) submitted on 10.06.2021</li> </ul>

Sl. No.	Report / Document	Tentative Date / Frequency / Status **
		<ul style="list-style-type: none"> <li>MPR 17 for June 2021 (10 Copies) submitted on 09.07.2021</li> <li>MPR 18 for July 2021 (10 copies) submitted on 10.08.2021</li> <li>MPR 19 for August 2021 (10 copies) submitted on 09.09.2021</li> </ul>
	10.2 Quarterly Progress Report (QPR)	<ul style="list-style-type: none"> <li>QPR 01 for Jan' to March 2020 (soft copy) submitted on 24.04.2020</li> <li>QPR 01 for Jan' to March 2020 (10 copies) submitted on 26.05.2020</li> <li>QPR 02 for Apr' to June 2020 (10 copies) submitted on 15.07.2020</li> <li>Quarterly Progress Report (QPR 03) for July to Sep'2020 submitted on 15.10.2020</li> <li>Quarterly Progress Report (QPR 04) for October to Dec'2020 submitted on 18.01.2021</li> <li>Quarterly Progress Report (QPR 05) for January 2021 to March 2021 submitted on 15.04.2021</li> <li>Quarterly Progress Report (QPR 06) for April 2021 to June 2021 submitted on 15.07.2021</li> </ul>
	10.3 Project Completion Report (PCR)	Within 3 months after completion of the services

\*\* The tentative date of deliverables has been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

It is highlighted that the tentative dates listed in Table 6 are subject to assumptions on the actual date of issue of tender documents to the market by CMWSSB.

During the Online Zoom meeting Video conference call held on 30.04.2020, the international experts expressed their concern on the resumption of International flights to Chennai, and it may take longer duration due to the COVID-19 pandemic across the globe. Hence, PMC requested CMWSSB to allow the International Experts to work from home. In general, both parties (PIU and PMC team) noted that due to the current COVID-19 Pandemic situation, an overall 2-month delay in the floating of RFQ and, consequently, the RFP for CP1. Where these tender dates are delayed, there will be an associated delay with the completion of tender evaluation reports. PMC also requested to consider the effort of Non-key International / national staff (outside Chennai on intermittent input basis) working from home on the Project, due to COVID-19 pandemic across the globe. CMWSSB also informed that the PMC members stationed outside Chennai and outside India of this PMC Services work from their home offices at their respective countries until 31.08.2021.

During the Online MS Teams meeting, Project Manager indicated that due to COVID-19, some of the activities have been slipped out of the target date and requested CMWSSB to indicate the new target dates, if they have anything in their consideration. CMWSSB advised submitting the revised Schedule for review and consideration. PMC revised the timeline and the flow chart for the Bid Process Management for the selection of DBO Contractor for the CP1 component and submitted it to CMWSSB on 26 May 2021 for review and consideration. This is as per the minimum timeline required and JICA guidelines for various activities to be performed during the selection process. CMWSSB has provided the approval on 21 June 2021 from 01 June 2021 to 31 August 2021 regarding the Work from Home for International Experts not residing in Chennai due to the COVID-19 pandemic across the world international travel restrictions to India.

CMWSSB has provided the approval on 06 September 2021 from 01 September 2021 to 30 November 2021 regarding the Work from Home for four (4) International Experts not residing in Chennai due to the COVID-19 pandemic across the world international travel restrictions to India.

Any impacts on the timing of deliverables will be communicated to CMWSSB regularly.

### 4.3 Actual Progress versus Planned Progress – Upto September 2021

The Actual progress during the month up to September 2021 is with planned progress is furnished in Table 7.

Table 7: Actual Progress vs Planned Progress

Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
1	Draft PQ document for CP1	25.02.2020	24.02.2020	
2	Draft Inception Report	12.02.2020	28.02.2020	Delay has been due to more focus on CP1 PQ document preparation due to its priority as CMWSSB advise. Please Refer Minutes of Progress Review Meeting conducted by CE (O&M)-II, CMWSSB held on 14.02.2020 for the revised date, i.e. 28.02.2020, which has been conveyed to the Client. Accordingly, a submission has been made.
3	Revised PQ document for CP1	03.03.2020	03.03.2020	
		06.03.2020	06.03.2020	CMWSSB; PQ documents sent to JICA for concurrence
4	Draft Monthly Progress Report (MPR 01) for January 2020 & February 2020	10.03.2020	10.03.2020	
5	Revised Inception Report	04.04.2020	04.04.2020	
		16.04.2020	16.04.2020	
6	Revised Monthly Progress Report (MPR 01) for January 2020 & February 2020	06.04.2020	06.04.2020	
		14.04.2020	14.04.2020	
		26.05.2020	26.05.2020	Hard copies submitted
7	Monthly Progress Report (MPR 02) for March 2020	17.04.2020	17.04.2020	
		26.05.2020	26.05.2020	Hard copies submitted
8	Interim report for the development of Concept Designs for Chennai Perur 400 MLD Desalination Plant for CP1 component	23.04.2020	23.04.2020	soft copy submitted
		23.04.2020	26.05.2020	Hard copies submitted
9	Quarterly Progress Report (QPR 01) for January 2020 to March 2020	24.04.2020	24.04.2020	
		22.05.2020	22.05.2020	Hard copies submitted
10	Monthly Progress Report (MPR 03) for April 2020	10.05.2020	09.05.2020	
		10.05.2020	22.05.2020	Hard copies submitted
11	Draft Environmental Impact Assessment (EIA) Review Report for CP1 component	20.04.2020	24.05.2020 (soft copy)	Delay has happened for the Environmental data collection from CMWSSB (Due to COVID-19 pandemic issues across the globe and continuous lockdown in India). Accordingly, a submission has been made.

Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
		20.04.2020	26.05.2020	Hard copies submitted
12	Monthly Progress Report (MPR 04) for May 2020	10.06.2020	10.06.2020	Soft copy submitted
		10.06.2020	11.06.2020	Hard copies submitted
13	Revised PQ document for CP1	24.06.2020	24.06.2020	Responses to JICA 1 <sup>st</sup> comments and Revised Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB (Hard copies submitted)
14	Monthly Progress Report (MPR 05) for June 2020	10.07.2020	10.07.2020	
		10.07.2020	13.07.2020	Hard copies submitted
15	Concept Design Report for Chennai Perur 400MLD Desalination Plant for CP1 component	30.06.2020	10.07.2020	Delay due to the finalisation of the cost comparison of DPR, Study Report and PMC CAPEX, OPEX etc. (Due to COVID-19 pandemic issues across the globe and continuous lockdown in Chennai). Accordingly, a submission has been made.
16	Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 component	02.07.2020	02.07.2020	Soft copy submitted
		15.07.2020	15.07.2020	Hard copies submitted
17	Quarterly Progress Report (QPR 02) for April 2020 to June 2020	15.07.2020	15.07.2020	Hard copies submitted
18	Monthly Progress Report (MPR 06) for July 2020	10.08.2020	10.08.2020	Hard copies submitted
19	Revised PQ document for CP1	17.08.2020	17.08.2020	Responses to JICA 2 <sup>nd</sup> comment and Revised Prequalification document (RFQ) for CP1 on DBO basis (Hard copy submitted)
20	Revised PQ document for CP1	08.09.2020	08.09.2020	Responses to JICA 3 <sup>rd</sup> comment and Revised Prequalification document (RFQ) for CP1 on DBO basis (Hard copies submitted)
21	Monthly Progress Report (MPR 07) for August 2020	10.09.2020	10.09.2020	Hard copies submitted
22	Draft Environmental Impact Assessment (EIA) Review Report for CP1 and CP2-1 component (Rev-1)	23.09.2020	23.09.2020	Hard copies submitted
23	Revised PQ document for CP1	23.09.2020	23.09.2020	Revised Prequalification document (RFQ) for CP1 on DBO basis as per JICA 4 <sup>th</sup> comment submitted to CMWSSB (Hard copies submitted)



Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
24	Topographical Survey Drawings for Proposed UGT and Pumping Station (CP2-2) at Porur new WDS	09.10.2020	09.10.2020	Hard copy submitted
25	Monthly Progress Report (MPR 08) for September 2020	09.10.2020	09.10.2020	Hard copies submitted
26	Final Prequalification document (RFQ) for CP1	12.10.2020	12.10.2020	Hard copies submitted
27	Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published in the website and published in Newspaper	14.10.2020	14.10.2020	Published by CMWSSB
28	Quarterly Progress Report (QPR 03) for July to September 2020	15.10.2020	15.10.2020	Hard copies submitted
29	Prequalification (PQ) Application meeting for CP1 component held at CMWSSB	29.10.2020	29.10.2020	
30	Reply to pre-bid queries of Application for Prequalification for CP1 component on DBO basis	04.11.2020	04.11.2020	Hard copy submitted
31	Monthly Progress Report (MPR 09) for October 2020	10.11.2020	11.11.2020	Hard copies submitted
32	Social Safeguard Review (Draft Report)	18.11.2020	18.11.2020	Hard copies submitted
33	The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB on the website	26.11.2020	26.11.2020	Published by CMWSSB
34	2 <sup>nd</sup> reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 component on DBO basis	27.11.2020	27.11.2020	Hard copy submitted
35	Draft Request for Proposal (RFP) for CP1 component on DBO basis	01.12.2020	01.12.2020	Hard copy submitted
		02.12.2020	02.12.2020	Hard copy submitted
		24.12.2020	24.12.2020	Hard copy submitted
36	3 <sup>rd</sup> Reply to Pre-Bid Queries and Corrigendum-1 of	02.12.2020	03.12.2020	Hard copy submitted



Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
	Application for Prequalification for CP1			
37	Bathymetry Survey Report for Perur Desalination Plant (CP1)	09.12.2020	10.12.2020	Hard copy submitted
38	Monthly Progress Report (MPR 10) for November 2020	10.12.2020	10.12.2020	Hard copy submitted
39	Corrigendum-2 for Prequalification (RFQ) document for CP 1	11.12.2020	14.12.2020	Hard copy submitted
40	Revised Topographical Survey for 400MLD DSP (CP1) and its Pumping Station (CP2-1) at Perur	17.12.2020	18.12.2020	Hard copy submitted
41	Response to CMWSSB on 1 <sup>st</sup> comment on Particular Condition of Part A in Part III of Draft RFP for CP1 on DBO basis	30.12.2020	30.12.2020	Soft copy submitted to CMWSSB
42	Revised Topographical Survey Drawing for 400 MLD DSP (CP1) and its Pumping Station (CP2-1) at Perur	04.01.2021	04.01.2021	Hard copies submitted
43	MPR 11 for December 2020 (10 copies) submitted on 08.01.2021	10.01.2021	08.01.2021	Hard copies submitted
44	Quarterly Progress Report (QPR 04) for October to December 2020	18.01.2021	18.01.2021	Hard copies submitted
46	Report on Brine Dispersion Model for Perur Desalination Plant (CP1) has been submitted to CMWSSB	18.01.2021	18.01.2021	Hard copies submitted
47	Draft Request For Proposal (RFP) (Rev.1) for CP1 have been submitted to CMWSSB	21.01.2021	21.01.2021	Hard copy and soft copy submitted
48	Draft Request For Proposal (RFP) (Rev.2) for CP1 component have been submitted to CMWSSB	25.01.2021	25.01.2021	Hard copy and soft copy submitted
49	Draft Request For Proposal (RFP) (Rev.3) for CP1 was submitted for review and CMWSB forwarded the RFP document to JICA for obtaining concurrence.	Feb'2021	27.01.2021	Hard copy and soft copy submitted
50	Evaluation Report for Prequalification (PQ)	Feb'2021	27.01.2021	Hard copy submitted

Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
	Application for CP1 was submitted to CMWSSB and CMWSSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining concurrence.			
51	Monthly Progress Report (MPR 12) for January 2021	11.02.2021	11.02.2021	Hard copy submitted
52	Financial Analysis Report of CP 1	12.02.2021	12.02.2021	Hard copy submitted
53	Plot Plan, General Arrangement Drawings and P&ID of Proposed Pumping Station & Ground Level Reservoir at Porur(CP-2)	19.02.2021	19.02.2021	Hard copy submitted
54	Ward wise existing distribution drawings of Area X- Kodambakkam for verification/authentication by Ward/ Depot Area Engineers	In February 2021	23.02.2021	Hard copy submitted
55	Submission of WDS wise demand variation details of Chennai Core city considered in JICA/ Master Plan report and projected based on ward wise population details received from CMWSSB		23.02.2021	Hard copy submitted
56	Updation of Existing Transmission System Planned to be linked to Proposed System at Velachery and Porur		26.02.2021	Hard copy submitted
57	Electrical load list and Electrical Single Line Diagram for Proposed 240MLD Porur Pumping Station	05.03.2021	05.03.2021	Hard copy submitted
58	Monthly Progress Report (MPR 13) for Feb'2021	10.03.2021	10.03.2021	Hard copy submitted
59	Draft Bidding Document (Rev.4) for CP1 and reply to JICA's Comment	10.03.2021	10.03.2021	Hard copy submitted
60	Draft Bidding Document (Rev.5) for CP1 and reply to JICA's Comment	16.03.2021	16.03.2021	Hard copy submitted
61	Seawater Sample Analysis Report for Perur Desalination Plant (CP1)	18.03.2021	18.03.2021	Hard copy submitted
62	Draft Bidding Document (Rev.6) for CP1 component	30.03.2021	30.03.2021	Hard copy submitted

Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
63	Monthly Progress Report (MPR 14) for March 2021	10.04.2021	09.04.2021	Hard copy submitted
64	Quarterly Progress Report (QPR 05) for January to March 2021	15.04.2021	15.04.2021	Hard copy submitted
65	Draft Bidding Document (Rev.7) for CP1 and reply to JICA's Comment	19.04.2021	19.04.2021	Hard copy submitted
66	Concept Design Report (Final) for 400 MLD Desalination Plant at Perur	23.04.2021	23.04.2021	Soft copy submitted
67	Ward wise existing distribution network drawings of Area XIII- Adyar for verification/ authentication by Ward/ Depot Area Engineer	26.04.2021	26.04.2021	Hard copy submitted
68	Concept Design Report (Final) for 400 MLD Desalination Plant at Perur for CP1 component	26.04.2021	27.04.2021	Hard copy submitted
69	CP2- Plot Area required for Proposed 10 ML GLR and 240 MLD Pumping Station drawings at Porur	29.04.2021	30.04.2021	Hard copy submitted
70	Monthly Progress Report (MPR 15) for April 2021	10.05.2021	10.05.2021	Soft copy submitted
			08.06.2021	Hard copy submitted
71	Draft Bidding Document (Rev.8) for CP1 component on DBO basis and updated reply to JICA's comment	17.05.2021	17.05.2021	Soft copy submitted
72	Monthly Progress Report (MPR 16) for May 2021	10.06.2021	10.06.2021	Hard copy submitted
73	Draft Bidding Document (Rev.8) for CP1 component on DBO basis and updated reply to JICA's comment	24.06.2021	24.06.2021	Hard copy submitted
74	Draft Bidding Document (Rev.9) for CP1 component on DBO basis	01.07.2021	07.07.2021	Hard copy submitted
75	Updated responses to JICA's 4 <sup>th</sup> comment received on 05.07.2021 for the Draft Bidding Document for the CP1 component have been submitted on 07.07.2021	07.07.2021	07.07.2021	Hard copy submitted
76	Monthly Progress Report (MPR 17) for June 2021	09.07.2021	09.07.2021	Hard copy submitted

Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
77	Ward wise existing distribution network drawings with street & ward wise pipe summary details of Area VI- Thiru.Vi.Ka Nagar and Area IX- Teynampet for verification /authentication by Depot Area Engineers	13.07.2021	13.07.2021	Hard copy submitted
78	Ward wise existing distribution network drawings with street & ward wise pipe summary details of Area V- Royapuram & Area VIII- Anna Nagar for verification/authentication by Depot Area Engineers	14.07.2021	14.07.2021	Hard copy submitted
79	Quarterly Progress Report (QPR 06) for April 2021 to June 2021	15.07.2021	15.07.2021	Hard copy submitted
80	Updated responses to JICA's 6 <sup>th</sup> comment received on 13.07.2021 for Draft Bidding Document for CP1 component	16.07.2021	16.07.2021	Hard copy submitted
81	Final Bid Document (Rev.10) for CP1 component on DBO Basis	28.07.2021	30.07.2021	Hard copy submitted
82	Topographical Survey Drawing of Chennai Core City for the CP4 Component	06.08.2021	06.08.2021	Hard copy submitted
83	Updated existing water distribution network drawings of Area XIII- Adyar based on the inputs of Depot Area Engineer with Condition Assessment details	06.08.2021	06.08.2021	Hard copy submitted
84	Monthly Progress Report (MPR 18) for July 2021	10.08.2021	10.08.2021	Hard copy submitted
85	Ward wise existing distribution network drawings with street and ward wise pipe summary details of Area IV- Tondiarpet for verification/ authentication by Ward/ Depot Area Engineer	12.08.2021	12.08.2021	Hard copy submitted
86	Submission of updated bidding document for CP3-1 component	18.08.2021	18.08.2021	soft copy submitted

Sl.No.	Deliverable	Planned	Actual	Remarks/ reasons for the delay
87	Monthly Progress Report (MPR 19) for August 2021	09.09.2021	09.09.2021	Hard copy submitted
88	Submission of CP5 boundary drawing showing 4.91 acres of land at Nemmeli (Sulerikaadu)	14.09.2021	14.09.2021	Soft copy submitted
89	Submission of Hydraulic Design for Proposed Water Distribution System for Area X (Kodambakkam) using Bentley's WaterGEMS for CP4 component	22.09.2021	22.09.2021	Soft copy submitted

Also, as per the baseline schedule, the PMC is progressing with collecting and reviewing data and information to inform early activities planned on CP1, CP2, CP3, CP4 and CP5 components.

#### 4.4 Financial Progress Upto September 2021

The Contract Value for the PMC assignment is furnished in below Table 8.

Table 8: Contract Value for the PMC assignment

Sl. No.	Name of the Participant	Role of the Member	Ceiling Amount of each Firm	
			Foreign Currency (USD)	Local Currency (INR)
1	SMEC International Pty Ltd	Lead Member	6,510,243	Nil
2	TATA Consulting Engineers Ltd.	Consortium Member	324,480	258,500,000
3	NJS Engineers India Pvt. Ltd.	Consortium Member	1,235,600	159,580,000
4	SMEC India Pvt. Ltd.	Consortium Member	869,642	111,020,600
	<b>Total =</b>		<b>8,939,965</b>	<b>529,100,600</b>
	Contingencies @ 5%		446,998	26,455,030
	<b>Total with Contingencies (A)</b>		<b>9,386,963</b>	<b>555,555,630</b>
	Provisional sum (B)		25,000	20,000,000
	<b>Grand Total (A+B)</b>		<b>9,411,963</b>	<b>575,555,630</b>

The summary of the above fee breakdown for each firm of PMC Services is furnished in Table 9.

Table 9: Summary of the breakup details for each firm of PMC Services

Name of the Participant	Remuneration		Reimbursable		Total Amount	
	USD	INR	USD	INR	USD	INR
SMEC International Pty Ltd	6,390,243	-	120,000	-	6,510,243	-
TATA Consulting Engineers Ltd.	324,480	247,500,000	-	11,000,000	324,480	258,500,000
NJS Engineers India Pvt. Ltd.	1,205,600	147,980,000	30,000	11,600,000	1,235,600	159,580,000
SMEC India Pvt. Ltd.	869,642	72,324,600	-	38,696,000	869,642	111,020,600
<b>Total Amount</b>					<b>8,939,965</b>	<b>529,100,600</b>

Note: Above breakup covers remuneration and reimbursable and does not include contingencies and provisional sums.

As per PMC Contract Agreement, the Special Conditions of Contract, Clause 6.2 I (Page no. 41 and 42), states that the Contract price will be adjusted every 12<sup>th</sup> months (and, for the first time, with effect for the remuneration earned in the 13<sup>th</sup> calendar month after the date of the Contract) as per Consumer Price Index for Industrial Works (CPI-IW) Labour Bureau, Government of India for Local Currency and for Foreign Currency as per the Bureau of Labour Statistics US Department of Labour. The arrived index factor is listed below for the price adjustment has considered from the 13<sup>th</sup> calendar month (Feb'2021 onwards) for the remuneration and reimbursable items in the project:

- Foreign Currency (USD) : 1.02
- Local Currency (INR) : 1.03

The details of monthly invoice payment received / advice from CMWSSB for the PMC Services Contract at the end of September 2021 is furnished in Table 10.

Table 10: Details of monthly invoice payment received / advice from CMWSSB for PMC Services till September 2021

Name of the firm	Month	Monthly Invoice Amount recommended by CMWSSB		Date of receipt of payment
		USD	INR	
SMEC International Pty Ltd	Jan'2020 to June 2020	321,238.00		29.10.2020
	July 2020 to Nov'2020	188,793.74		15.03.2021
	December'2020 to January'2021	133,514.53		03.07.2021
SMEC India Pvt. Ltd.	Jan'2020 to June 2020		8,606,746.00	22.10.2020
	July'2020 to Nov'2020		6,665,393.00	09.03.2021
	Jan'2020 to Nov'2020	61,392.74		15.03.2021
	December'2020 to January'2021		2,896,887.00	24.05.2021
		33,087.45		06.07.2021
TATA Consulting Engineers Ltd.	February'2021 to May'2021		8,647,125.00	09.09.2021
	January'2020 to June 2020		6,323,037.00	22.10.2020
	July 2020 to Nov'2020		6,718,659.00	09.03.2021
	January 2020 to June'2020	10,998.00		31.03.2021
	December'2020 to January'2021		7,218,566.00	08.06.2021
	July 2020 to January'2021	12,475.87		15.07.2021
NJS Engineers India Pvt. Ltd.	February'2021 to May'2021		12,605,398.00	09.09.2021
	February' 2020 to June 2020	88,116.00		30.10.2020
	February' 2020 to June 2020		542,300.00	06.11.2020
	July'2020 to November'2020		3,218,591.00	09.03.2021
		132,868.76		23.03.2021 to 06.04.2021
TOTAL	December'2020 to January'2021		3,524,780.00	24.05.2021
		53,066.28		29.07.2021
		1,035,551.37	66,967,482.00	

A summary of financial progress (at actual based on the bill passed) for the PMC Services Contract at the end of September 2021 is included in Table 11.

Table 11: Financial Progress (Actual based on the bill passed) on PMC Services at the end of September 2021

Month	Monthly Expenditure	Cumulative Expenditure	% of Total Contract Value
January 2020 to June 2020 *	INR 15,472,083	INR 15,472,083	2.69%
	USD 409,354	USD 409,354	4.35%
July 2020 to November 2020 **	INR 16,602,643	INR 32,074,726	5.57%
	USD 394,053.24	USD 803,407.24	8.54%
December 2020 to January 2021	INR 13,140,326.00	INR 45,714,959.00	7.94%
	USD 232,144.13	USD 1,035,551.37	11.00%
February 2021 to May 2021	INR 21,252,523.00	<b>INR 66,967,482.00</b>	<b>11.64%</b>
	USD 0	<b>USD 1,035,551.37</b>	<b>11.00%</b>
June 2021	INR 0	INR 66,967,482.00	11.64%
	USD 0	USD 1,035,551.37	11.00%
July 2021	INR 0	INR 66,967,482.00	11.64%
	USD 0	USD 1,035,551.37	11.00%
August 2021	INR 0	INR 66,967,482.00	11.64%
	USD 0	USD 1,035,551.37	11.00%
September 2021	INR 0	INR 66,967,482.00	11.64%
	USD 0	USD 1,035,551.37	11.00%

\* In addition to the above, for SMEC India Pvt. Ltd., the Mobilisation advance payment (5% of Contract value) has been received on 19.05.2020 as against Advance Bank Guarantee.

\*\* In addition to the above, for SMEC International Pty Ltd, the Mobilisation advance payment (5% of Contract value) was received on 17.09.2020 as against Advance Bank Guarantee.

\*\* In addition to the above, for TATA Consulting Engineers Ltd., the Mobilisation advance payment in INR (5% of Contract value) was received on 22.10.2020 as against Advance Bank Guarantee.

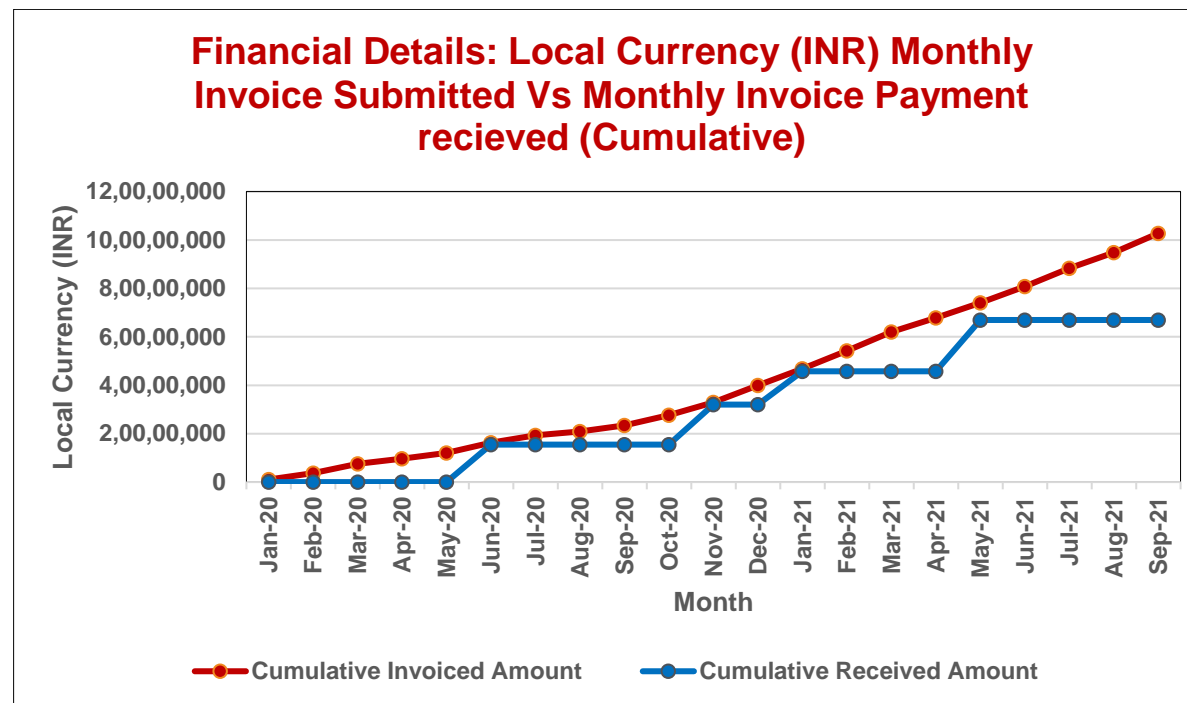
The summary of financial progress (projected based on man-month consumed and reimbursable items) for the PMC Services Contract at the end of September 2021 is included in Table 12. For further details, please refer to **Annexure 5**.



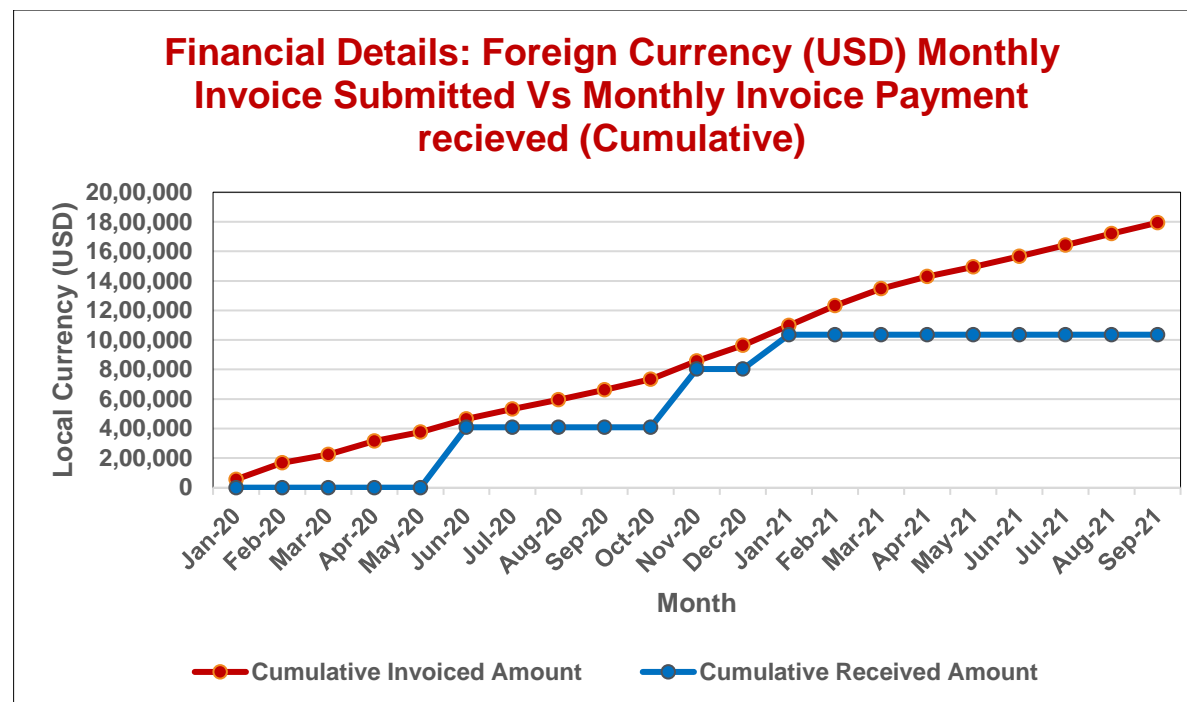
Table 12: Financial Progress (Projected based on man-month consumed and reimbursable items) on PMC Services at the end of September 2021

Month	Monthly Expenditure	Cumulative Expenditure	% of Total Contract Value
January 2020	INR 1,077,836	INR 1,077,836	0.18%
	USD 56,098	USD 56,098	0.60%
February 2020	INR 2,581,997	INR 3,659,833	0.62%
	USD 112,801	USD 168,899	1.79%
March 2020	INR 3,831,393	INR 7,491,226	1.30%
	USD 56,261	USD 225,159	2.39%
April 2020	INR 2,226,340	INR 9,717,566	1.69%
	USD 90,351	USD 315,518	3.35%
May 2020	INR 2,329,743	INR 1,20,47,309	2.09%
	USD 60,913	USD 376,431	4.00%
June 2020	INR 4,221,118	INR 16,268,427	2.83%
	USD 88,100	USD 464,532	4.94%
July 2020	INR 3,052,922	INR 18,536,918	3.22%
	USD 67,841	USD 532,374	5.66%
August 2020	INR 1,618,166	INR 20,114,190	3.49%
	USD 63,232	USD 595,604	6.33%
September 2020	INR 2,419,135	INR 22,503,011	3.91%
	USD 66,287	USD 661,889	7.03%
October 2020	INR 4,244,625	INR 26,747,636	4.65%
	USD 70,882	USD 732,772	7.79%
November 2020	INR 5,291,851	INR 32,162,512	5.59%
	USD 125,532	USD 858,303	9.12%
December 2020	INR 7,003,319	INR 38,865,821	6.75%
	USD 105,855	USD 964,134	10.24%
January 2021	INR 6,877,174	INR 45,737,995	7.95%
	USD 133,455	USD 1,097,043	11.66%
February 2021	INR 7,482,707	INR 53,520,701	9.30%
	USD 134,732	USD 1,231,775	13.09%
March 2021	INR 7,750,196	INR 61,210,898	10.64%
	USD 113,913	USD 1,345,687	14.30%
April 2021	INR 5,850,354	INR 67,061,252	11.65%
	USD 82,995	USD 1,428,686	15.18%
May 2021	INR 6,254,464.60	INR 73,115,465.99	12.70%
	USD 65,823.91	USD 1,492,844.74	15.86%
June 2021	INR 6,699,027.36	INR 80,716,890.71	14.02%
	USD 71,439.70	USD 1,569,729.67	16.68%
July 2021	INR 7,496,013.67	INR 88,248,595.29	15.33%
	USD 74,647.22	USD 1,644,460.69	17.47%
August 2021	INR 6,572,619.21	INR 94,679,481.23	16.45%
	USD 79,173.93	USD 1,717,908.54	18.25%
September 2021	INR 7,886,164.66	INR 102,640,094.59	17.83%
	USD 73,396.85	USD 1,791,303.38	19.03%

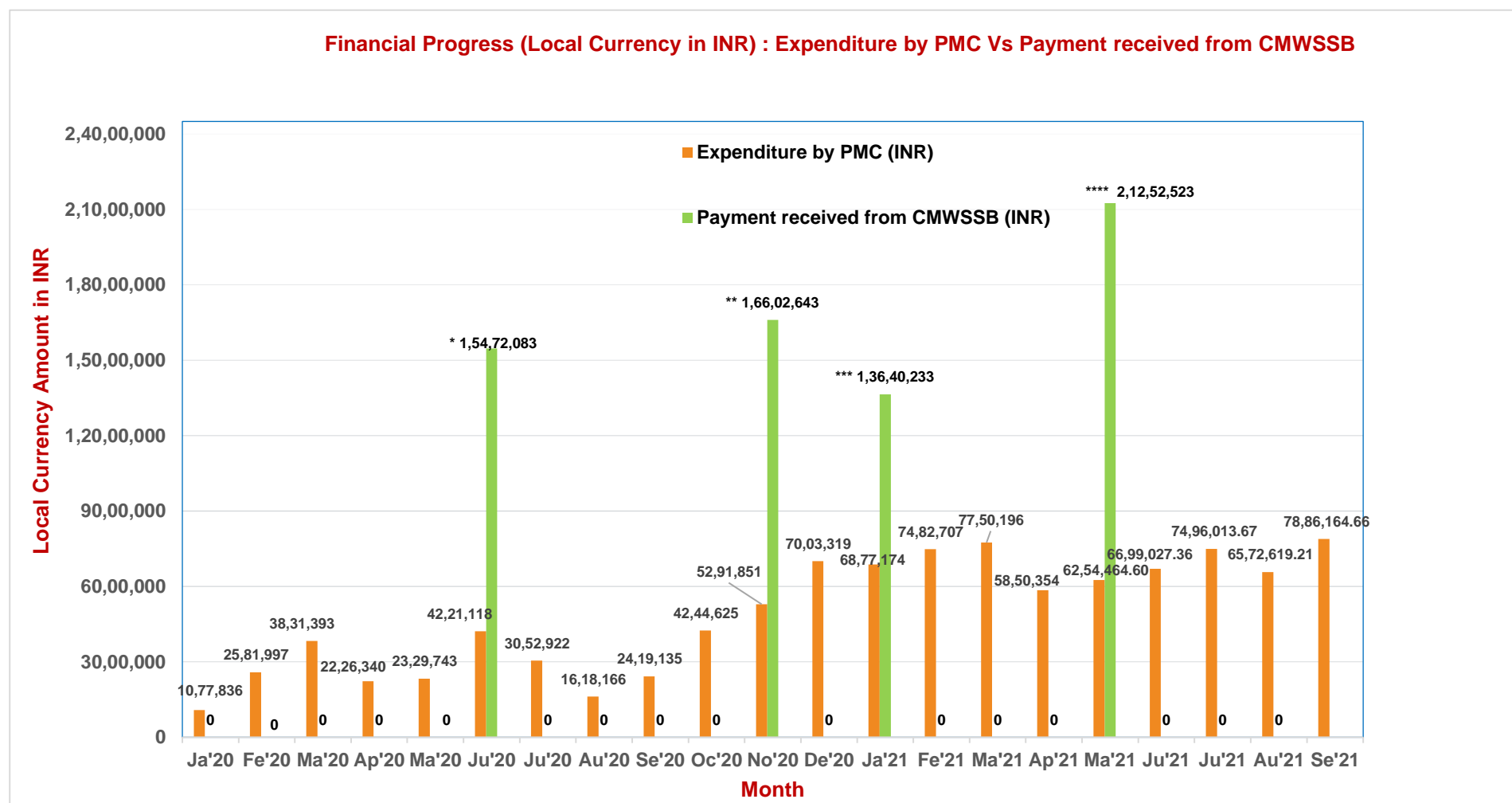
The Overall Summary of Financial Progress details (Local Currency in INR): Expenditure by PMC Vs Payment received (cumulative) from CMWSSB is furnished in below Figure.



The Overall Summary of Financial Progress details (Foreign Currency in USD): Expenditure by PMC Vs Payment received (cumulative) from CMWSSB is furnished in below Figure.



Financial Progress details (Local Currency in INR): Expenditure by PMC Vs Payment received from CMWSSB is furnished in Figure 1.



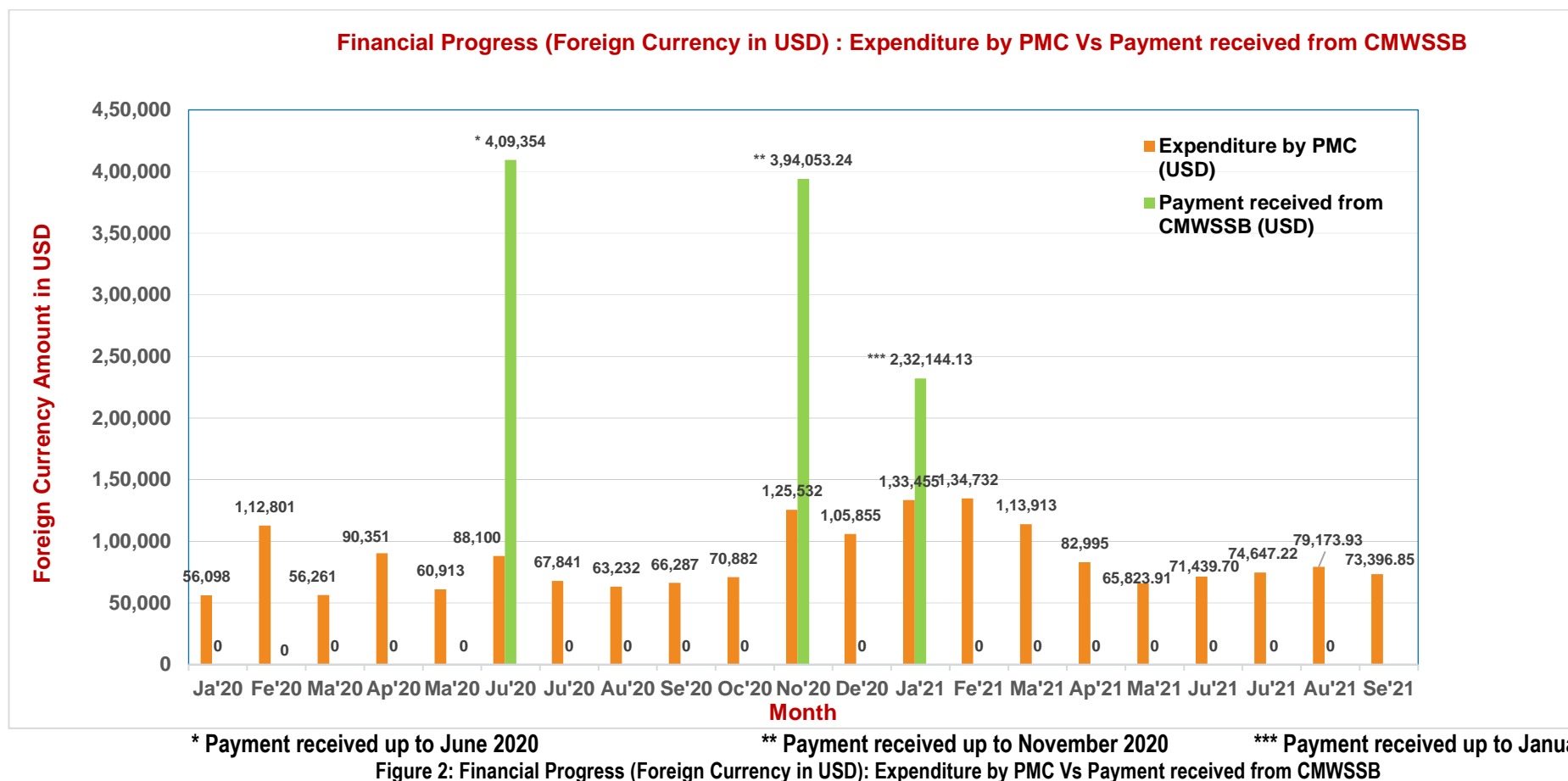
\* Payment received up to June 2020

\*\* Payment received up to November 2020

\*\*\* Payment received up to January 2021

Figure 1: Financial Progress (Local Currency in INR): Expenditure by PMC Vs Payment received from CMWSSB

Financial Progress (Foreign Currency in USD): Expenditure by PMC Vs Payment received from CMWSSB is furnished in Figure 2.



Financial actual from Jan'2020 to September'2021 and Financial Projection details for the Financial Year 2021-2022 (Local Currency in INR): Expenditure by PMC is furnished in Figure 3.

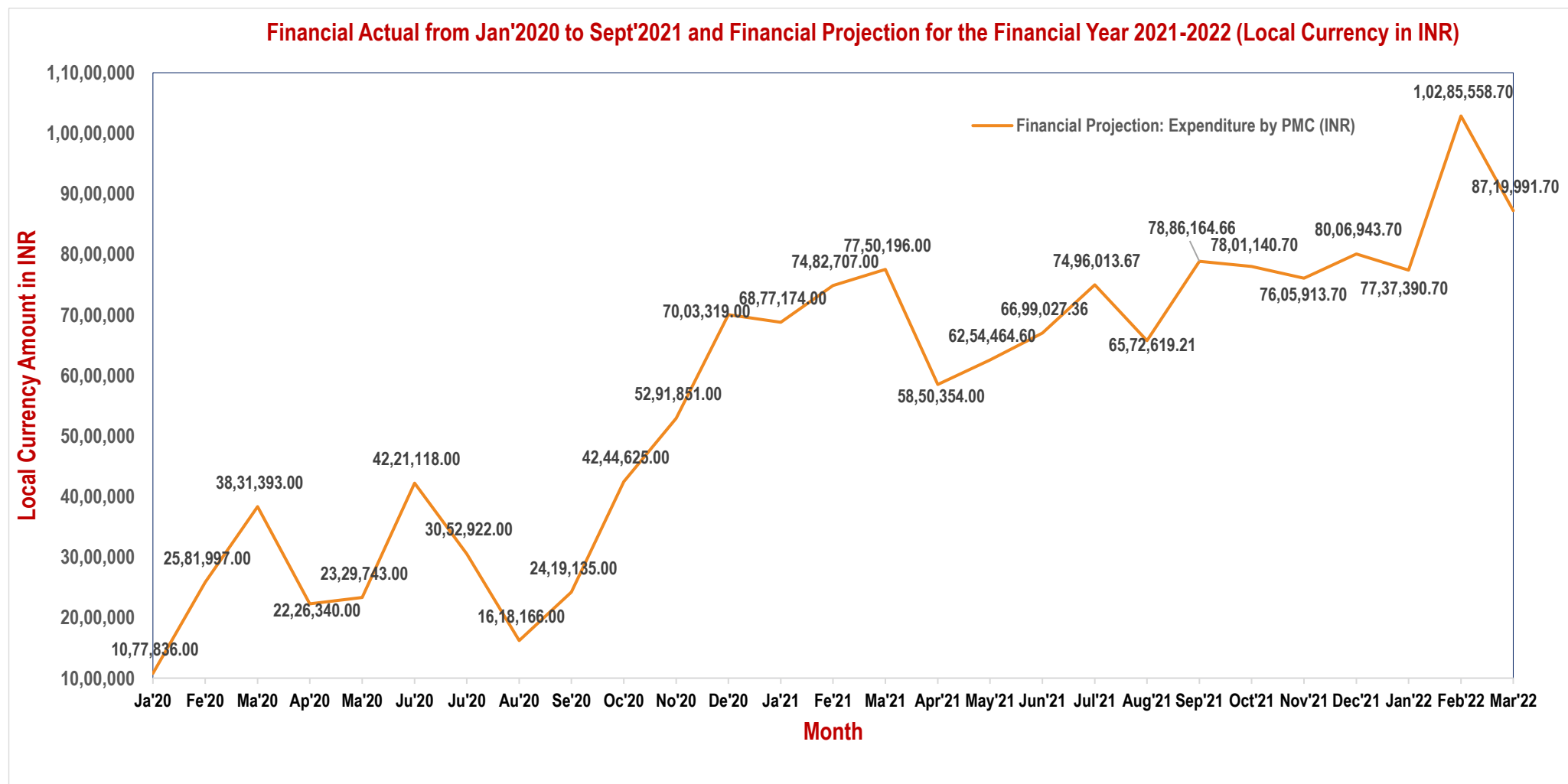


Figure 3: Financial Actual from Jan'2020 to September'2021 and Financial Projection for the Financial Year 2021-2022 (Local Currency in INR): Expenditure by PMC



Financial actual from January'2020 to Sep'2021 and Financial Projection's details for the Financial Year 2021-2022 (Foreign Currency in USD): Expenditure by PMC is furnished in Figure 4.

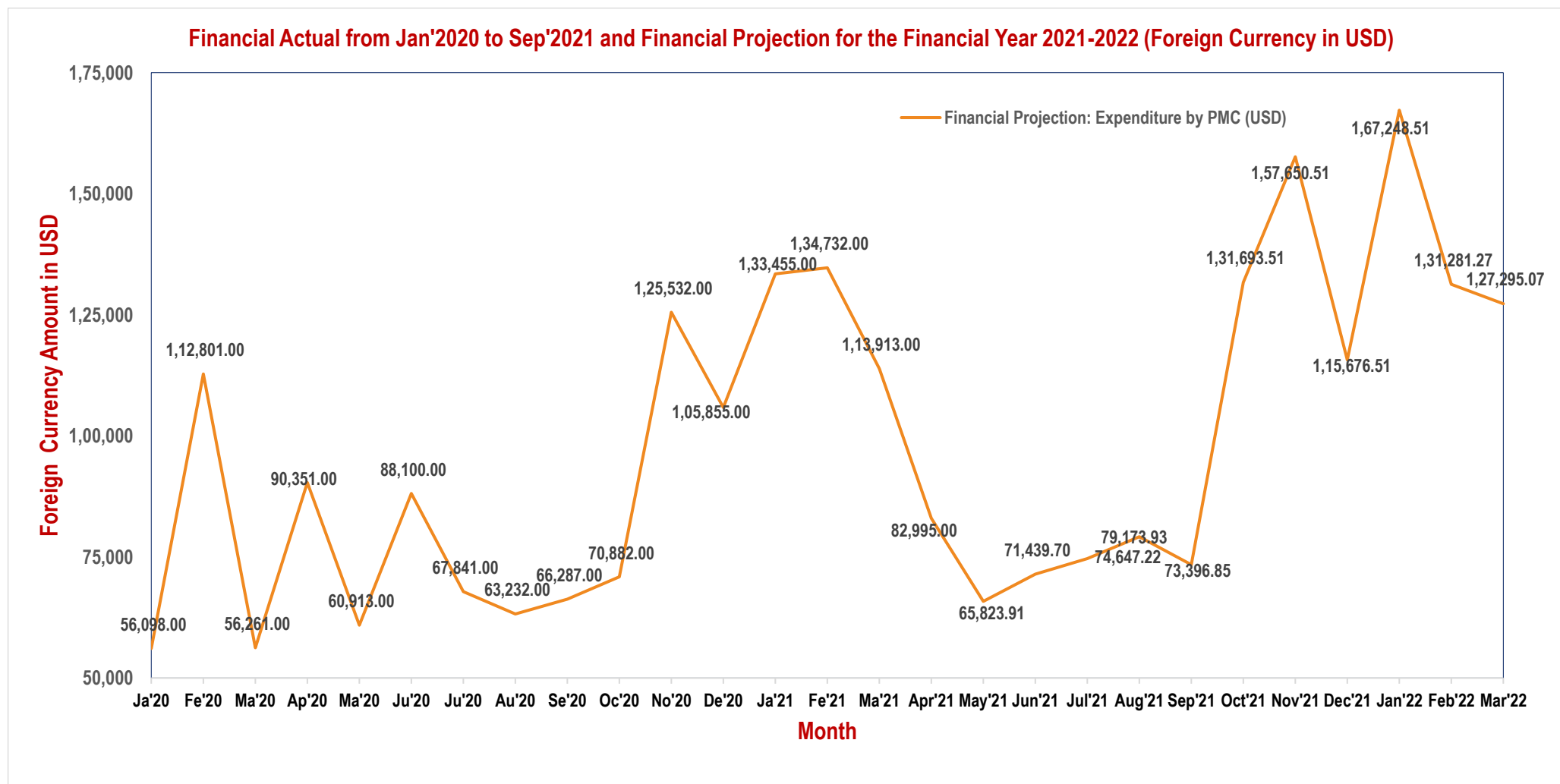


Figure 4: Financial actual from Jan'2020 to Sept'2021 and Financial Projection for the Financial Year 2021-2022 (Foreign Currency in USD): Expenditure by PMC

## 4.5 Staffing Inputs – September 2021

### 4.5.1 Mobilized Personnel

The following key Project resources were mobilised and commenced work on the Consulting Services:

Table 13: Mobilized Personnel (International / National)

Pro. Type	No.	Position / Role	Name of the staff	Category	Commenced Date	De-mobilisation date	Remobilisation date	Total months allocated	Total months mobilised so far (till September 2021 end)	Balance man-months available (October 2021 onwards)
IE	1	Project Manager (Team Leader)	Dr. P. Dharmabalan	I	14.02.2020	26.02.2020	07.04.2020	70	12.18	57.82
LE	1	Senior Civil Engineer	Mr. S. Siddappaswamy	N	27.01.2020	22.02.2020	01.04.2020	72	13.96	58.04
IE	2	Desalination Expert	Dr. Ghulam Mustafa	I	10.02.2020	22.02.2020	01.04.2020	29.50	14.88	14.62
		Additional Key Expert – International	Dr. Uday G. Kelkar	I	01.06.2020			2.50	1.63	0.87
IE	3	Water Supply Engineer	(Replaced for Mr Shane Farquharson)	I	20.01.2020	22.08.2021		23	2.04	20.96
IE	4	Civil and Structure Engineer (Desal)	Dr. D. Elanchezian	I	20.01.2020	04.04.2020 02.03.2021	15.10.2020	42	6.33	35.67
IE	5	Mechanical Engineer (Desal)	Mr. Michel Morillon	I	20.01.2020	08.02.2020 15.03.2020	23.02.2020 01.04.2020	15	4.22	10.78
IE	7	Electrical Engineer (Desal)	Mr. Guilbert Z Gonzales (Replaced for Mr. Sergio de Bastos Vilar Magalhaes Paulo)	I	07.12.2020			25	8.03	16.97
IE	9	Monitoring and Control Expert (Desal)	Mr. Afzal Abdul Latheef (Replaced for Mr. Manikandan Ganesh Shoranur)	I	19.11.2020			11	2.80	8.20

Pro. Type	No.	Position / Role	Name of the staff	Category	Commenced Date	De-mobilisation date	Remobilisation date	Total months allocated	Total months mobilised so far (till September 2021 end)	Balance man-months available (October 2021 onwards)
IE	11	Pipeline Engineer	Dr.Mohamed Abdelmoneim Sayed Ahmed Mohamed (Replaced for Mr. John Goullee)	I	01.08.2021			70	2.00	68.00
IE	12	Specification Specialist (Desal)	Mr Ganesh Venkataraman (Replaced for Mr. J. Shanmuganathan)	I	12.11.2020			4	2.79	1.21
IE	14	Financial Expert	Mr. Hemant Chadha	I	22.06.2020			3	2.31	0.69
IE	15	Contract Specialist (Desal) - International	Mr. Abdel Fattah Toukan (Replaced for Mr. Roderick Mackenzie)	I	20.01.2020	15.02.2020		9	4.83	4.17
IE	17	Environmental Specialist - International	Dr. Alok Kumar	I	24.02.2020	07.03.2020	25.04.2020	15	3.43	11.57
IE	19	Social Communication Specialist – International	Mr. Rajesh Mishra	I	05.10.2020			16	3.08	12.92
IE	20	Organisational Expert	Mr. Hyacinth Augusto Vaz	I	01.04.2021	01.06.2021		9	1.95	7.05
LE	2	Civil Engineer	Mr. Ramesh Senthil	N	20.01.2020			72	18.99	53.01
LE	3	Mechanical Engineer	Mr. Deb Kumar Kar (Replaced for Mr. Mayur Gupta / Mr. Surajit Debnath)	N	14.12.2020	23.03.2021		40	3.07	36.93
					06.09.2021					

Pro. Type	No.	Position / Role	Name of the staff	Category	Commenced Date	De-mobilisation date	Remobilisation date	Total months allocated	Total months mobilised so far (till September 2021 end)	Balance man-months available (October 2021 onwards)
LE	4	Electrical Engineer	Mr. Om Prakash Singh (Replaced for Mr. GVK Mohan)	N	07.12.2020			45	8.56	36.44
LE	5	Structural Engineer	Ms. J. Sudha	N	09.11.2020			28	9.38	18.62
LE	6	Architect	Replaced for Mrs. Kirti Alhad Sadarjoshi	N	09.11.2020			12	2.59	9.41
LE	7	Building Mechanical & Electrical Engineer	Mr. K. Senthil	N	11.01.2021			16	0.22	15.78
LE	8	Senior Pipeline Engineer	Mr. Nagesh Chinnam	N	04.02.2020			72	14.70	57.30
LE	9	Pipeline Engineer-1	Mr. K. Prabhat (Replaced for Mr. Rahul N Ramdhan / Mr. Chandra Shekhar Reddy Yedla)	N	25.02.2020	05.03.2020		60	4.66	55.34
					23.09.2020	29.01.2021				
					01.09.2021					
LE	10	Pipeline Engineer-2	Mr. P. Thangavel (Replaced for Mr. V. Tulasi Ram)	N	15.10.2020			60	10.75	49.25
LE	11	Hydraulic Modeller-1	Mr. P.M. Saravanan	N	25.02.2020	27.02.2020	23.03.2021	8	5.06	2.94
LE	16	Environmental Specialist - National	Mr. S.M. Karthikaeswaran	N	25.02.2020			30	16.63	13.37
LE	17	Social Communication Specialist – National	Mrs. R. Kanmani (Replaced for Dr. Rajshekar Reddy)	N	21.09.2020			72	11.69	60.31
LE	20	Quantity Surveyor-1	Mr. R. Muthurajan (Replaced for Mr. K.C. Vinod Chandra)	N	21.10.2020			50	10.97	39.03
LE	21	Quantity Surveyor-2	Mr.V.S. Rajasekar	N	21.09.2020			70	10.38	59.62

Pro. Type	No.	Position / Role	Name of the staff	Category	Commenced Date	De-mobilisation date	Remobilisation date	Total months allocated	Total months mobilised so far (till September 2021 end)	Balance man-months available (October 2021 onwards)
SS	1	Contract Management Specialist	Mr. Santosh Biswa	N	02.03.2020	23.09.2021		6	6.00	0.00
SS	2	Geotechnical Engineer	Mrs. P. Prashanthi	N	09.12.2020	31.03.2021		6	0.17	5.83
SS	3	Secretary	Mr. B. Ajithkumar	N	29.10.2020			70	10.43	59.57
SS	4	CAD Operator-1	Mr. G. Murali	N	25.02.2020	24.03.2020	01.05.2020	30	17.05	12.95
SS	5	CAD Operator-2	Ms. J. Nithya	N	04.12.2020			30	9.19	20.81
SS	6	CAD Operator-3	Mr. Vijay Kumar	N	31.12.2020			30	8.10	21.90
SS	7	GIS Operator	Mr. Suresh Mohan Dwivedi	N	07.10.2020	24.10.2020 24.03.2021	24.11.2020 08.04.2021	18	10.15	7.85
SS	8	MIS Specialist	Mr. Azeez Salahuddin Ahmed	N	15.09.2021			50	0.36	49.64
SS	9	VISA and Admin. Officer	Mr. A. Renu Kumar	N	20.01.2020			70	18.66	51.34
SS	10	Accountant	Mr. K. Manikandan	N	09.03.2020			70	16.86	53.14
SS	11	Office Keeper-1	Mr. P. Raja (Replaced for Mr. R. Jagan)	N	03.02.2020			70	19.51	50.49
SS	12	Office Keeper-2	Mr. T. Someswaran (Replaced for Mr.G.Arjun)	N	03.02.2020			70	19.56	50.44

IE: International Expert

LE: Local Expert

SS: Support Staff

I: International Expert

N: National Staff

A project office has been established in Chennai to accommodate PMC personnel and integrate PMC partners' resources into a united team. The permanent office is located at the Puravankara Primus building, Old Mahabalipuram Road, Okkiyampet, Thuraipakkam, Chennai 600 097. This office location is centrally positioned between the Client office and the Perur project site to balance short and long-term commitments.

Dr. D. Elanchezian (Civil and Structure Engineer (Desal)), Mrs. Prashanthi (Geotechnical Engineer), Mr. Shane Farquharson (Water Supply Engineer) and Mr. Santosh Biswa (Contract Management Specialist) have been permanently demobilised on 02.03.2021, 31.03.2021, 22.08.2021 and 23.09.2021, respectively from the Project. However, some intermittent or staged inputs were temporarily demobilised during the period due to COVID-19 pandemic issues.

After the COVID-19 pandemic issues were resolved and the end of the extended partial lockdown period in Tamil Nadu, India, several of these PMC team members are scheduled to return to Chennai for further input Project coming month of October 2021.

#### 4.5.2 Per-Diem Allowance

The following are the details of quantity for per-diem allowance for the staff of Consortium member of the Project on the Consulting Services is furnished in Table 14:

Table 14: Details of Quantity for Per-Diem Allowance for Staff

Sl. No.	Name of the firm	Category	Total Number of Days (As per Contract Agreement)	Total Number of Days (As per Allocation of Consortium)	Number of Days of Claim up to August 2021	Number of Days of Claim in September 2021	Cumulative Number of Days of Claim up to September 2021	Balance Number of Days for Claim
1	NJS Engineers India Pvt. Ltd.	International	2,250	1,440	12	0	12	1,428
2	SMEC India Pvt. Ltd.	International		810	460	77	537	273
		National	50	50	0	0	0	50
3	SMEC International Pty. Ltd.	<ul style="list-style-type: none"> <li>Per-diem allowance in INR for the Key International Experts will be claimed by SMEC India Pvt. Ltd. (International Category)</li> <li>Per-diem allowance in INR for the Non-Key International Experts will be claimed by SMEC India Pvt. Ltd. (International Category)</li> </ul>						
4	TATA Consulting Engineers Ltd.	Not applicable. Hence no claim will be made for the entire project duration						
	<b>TOTAL</b>		<b>2,300</b>	<b>2,300</b>	<b>472</b>	<b>77</b>	<b>549</b>	<b>1,751</b>

#### 4.5.3 Summary of Personnel Inputs for the Period

A summary of personnel inputs for the period (September 2021) is included in **Annexure 6**. Planned mobilisation of PMC personnel for the next three (3) months (up to December 2021) is presented in **Annexure 7**.

#### 4.5.4 Team Structure

A copy of the current PMC organisation chart is attached in **Annexure 8**.



#### 4.5.4.1 Change of Team Structure PMC's nominated key personnel for this Project

As of the end of September 2021, there are some changes to the PMC's nominated personnel for this Project; however, two support staff (Office Keeper-1 and Office Keeper-2) have been replaced with new personnel from July 2020 onwards. Dr. Uday G. Kelkar, NJSEI Pvt. Ltd., have been mobilised for the Project since June 2020, as an additional Key Expert (International) with 2.50 man-months (Intermittent) by adjusting with the input man-months of Dr. Ghulam Mustafa (Desalination Expert), International Key Expert with remuneration of USD 26225 per Man month has been accepted by CMWSSB and JICA. As per the CMWSSB letter dated 24.04.2020, it is informed that his input of 2.50 man-months is expected to spread over the entire project duration. His cost is to be met from the Desalination Expert's cost, and there is no change in a project approved budget for this PMC assignment.

Dr. D. Elanchezian (Civil and Structure Engineer (Desal)), Mrs. Prashanthi (Geotechnical Engineer), Mr. Shane Farquharson (Water Supply Engineer) and Mr. Santosh Biswa (Contract Management Specialist) have been permanently demobilised on 02.03.2021, 31.03.2021, 22.08.2021 and 23.09.2021, respectively, from the Project.

CMWSSB has provided the approval for the replacement of the following staff till September 2021 as listed in Table 15:

Table 15: Details of Replacement of PMC Staff till the end of September 2021

Sl. No.	Position	Original Staff as per Contract Agreement	Approved Staff by CMWSSB	Date of Approval
	<b>KEY - INTERNATIONAL</b>			
1	Electrical Engineer (International)	Mr. Sergio de Bastos Vilar Magalhaes Paulo	Mr. Guilbert Z. Gonzales	16.09.2020
2	Contract Specialist (Desal) – (International)	Mr. Roderick Mackenzie	Mr. Abdel Fattah Toukan	24.10.2020
3	Pipeline Engineer (International)	Mr. John Goullee	Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed	23.03.2021
	<b>NON KEY INTERNATIONAL</b>			
4	Monitoring & Control Expert (Desal)	Mr. Manikandan Ganesh Shoranur	Mr. Afzal Abdul Latheef	10.09.2020
5	Specification Specialist (Desal)	Mr. J. Shanmuganathan	Mr. Ganesh Venkataraman	10.11.2020
	<b>NON KEY – NATIONAL / LOCAL EXPERT</b>			
6	Mechanical Engineer	Mr. Surajit Debnath [Replacement 1- Mr. Mayur Gupta]	Mr. Deb Kumar Kar	31.08.2021
7	Electrical Engineer	Mr. G.V.K Mohan	Mr. Om Prakash Singh	10.09.2020
8	Structural Engineer	Mr. M.K. Vinod	Ms. J. Sudha	10.09.2020
9	Pipeline Engineer - 1	Mr. Chandra Shekhar Reddy Yedla [Replacement 1- Mr. Rahul N Ramdhan]	Mr. K. Prabhat	08.07.2021
10	Pipeline Engineer – 2	Mr. V. Tulasi Ram	Mr. P. Thangavel	10.09.2020
11	Social Communication Specialist	Dr. M. Rajsekhar Reddy	Mrs. R. Kanmani	10.09.2020
12	Quantity Surveyor-1	Mr. Vinod Chandra K.C	Mr. R. Muthurajan	10.09.2020
13	Architect	Mr. M. Kumar	Mrs. Kirti Alhad Sadarjoshi	24.10.2020

As per CMWSSB letter dated 10.09.2020, it is informed that the above experts are under the International and Local Expert category, i.e., Non-Key Experts (Sl.No.4, 7, 8 and 10 to 12), have been considered and approved for replacement.

As per CMWSSB letter dated 16.09.2020, it is informed that the above expert under the International Key Expert category (Sl.No.1) has been considered and approved for replacement.

As per CMWSSB letter dated 24.10.2020, it is informed that the above experts under the International and Local Expert category (Sl.No.2 & 13) have been considered and approved for replacement.

As per CMWSSB letter dated 10.11.2020, it is informed that the above expert under the International Expert category (Sl.No.5) have been considered and approved for replacement.

As per CMWSSB letter dated 23.03.2021, it is informed that the above expert under the International Expert category (Sl.No.3) has been considered and approved for replacement.

As per CMWSSB letter dated 08.07.2021, it is informed that the above expert under the Local Expert category (Sl.No.9) has been considered and approved for replacement.

As per CMWSSB letter dated 31.08.2021, it is informed that the above expert under the Local Expert category (Sl.No.6) has been considered and approved for replacement.

## 4.6 Meetings and Site Visits – September 2021

A summary of critical meetings and site visits completed during the period (September'2021) is furnished in Table 16.

Table 16: Meetings and Site Visits (September 2021)

Date	Meeting and Site Visit	Location	Attendees
01.09.2021	Online Meeting conducted by CMWSSB officials along with AECOM Consultant for a general discussion on the finalisation of Bidding Document for CP3-1 component	PMC office and Online Meeting Video Conference Call	CMWSSB officials, AECOM Consultant and PMC team member
01.09.2021	Meeting at O/o District Environmental Engineer, TNPCB, Maraimalai Nagar along with CMWSSB official for obtaining the Consent to Establish (CtE) for Construction of Desalination Plant at Perur for CP1 component	O/o District Environmental Engineer, TNPCB, Maraimalai Nagar	CMWSSB officials and PMC team member
03.09.2021	Joint site visit with SE (Desal) and CMWSSB officials along the proposed water transmission main alignment from Chennai Bypass to Porur new WDS site for CP3 component	Site visit from Chennai Bypass to Porur new WDS site	CMWSSB officials and PMC team members
02.09.2021 and 30.09.2021	Meeting at CMWSSB (Desal) office regarding the progress and status of hydraulic design of proposed water distribution system for Area X & XIII for CP4 component	CMWSSB (Desal) office	CMWSSB officials and PMC team members

Date	Meeting and Site Visit	Location	Attendees
03.09.2021	Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a general discussion on staff deployment, status and progress review of hydraulic design and drawings for CP4 component	PMC office and Online MS Teams Meeting Video Conference Call	PMC team members
08.09.2021	Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a general discussion on the finalisation of bid document for CP1 component	PMC office and Online MS Teams Meeting Video Conference Call	PMC team members
07.09.2021 to 09.09.2021	Joint site visit with Depot Engineer (Area-X and Area-XIII) CMWSSB officials along with PMC team members for the study of existing and proposed water distribution station for CP4 component	Area-X and Area-XIII of water distribution station	CMWSSB officials and PMC team members
09.09.2021	Meeting with Managing Director, Chief Engineer (Project-II & Project-III) and CMWSSB officials regarding the project status and Bid document for CP1 component	CMWSSB office	CMWSSB officials and PMC team members
14.09.2021	Meeting at CMWSSB (Desal) office regarding the technical details required for obtaining the Consent to Establish (CtE) from Tamil Nadu Pollution Control Board (TNPCB) for the proposed 400 MLD Desalination Plant at Perur site for CP1 component	CMWSSB office	CMWSSB officials and PMC team member
15.09.2021	Coordinated, assisted with CMWSSB (Desal) official and Contractor for the construction of RCC pillar post and temporary fencing for protection of the proposed 400 MLD Desalination Plant at Perur site for CP1 component	Perur Desalination Plant	CMWSSB officials and PMC team member
01.09.2021 to 16.09.2021	Coordinated and assisted with officials to obtain the Consent to Establish (CtE) from Tamil Nadu Pollution Control Board (TNPCB) for the proposed 400 MLD Desalination Plant at Perur site	PMC and CMWSSB office	CMWSSB officials and PMC team members
16.09.2021	Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a general discussion on the formation of JV members, pros and cons of current power supply and proposed power supply in the Bid Document for construction of Desalination Plant at Perur for CP1 component	PMC office and Online MS Teams Meeting Video Conference Call	PMC team members

Date	Meeting and Site Visit	Location	Attendees
16.09.2021	Meeting at PMC office conducted by Senior Civil Engineer (PMC) with PMC team members in Chennai for a general discussion on the finalisation of hydraulic design and proposed water distribution network drawings for Area X & XIII for CP4 component on	PMC office	PMC team members
22.09.2021	Discussion with CMWSSB officials regarding proposed Management Information System (MIS) work for the Chennai Desalination Project	CMWSSB office	CMWSSB officials and PMC team members
23.09.2021	Meeting with Chief Engineer (Project-III) CMWSSB officials regarding the pros and cons of current power supply and proposed power supply in the Bid Document for construction of Desalination Plant at Perur for CP1 component and progress status of CP4 component	CMWSSB office	CMWSSB officials and PMC team members
22.09.2021 and 24.09.2021	Meeting at PMC office regarding the basics and introduction about Bentley WaterGEMS software training to Assistant Executive Engineer (P&D) and Assistant Executive Engineer (Desal), CMWSSB officials of CP4 component	PMC office	CMWSSB officials and PMC team members
24.09.2021	Meeting at PMC office conducted by Project Coordinator (PMC) with PMC team members in Chennai for a general discussion on the Management Information System (MIS), selection of MIS software module and development	PMC office	PMC team members
27.09.2021	Joint site visit with EE (Desal) and CMWSSB officials along the proposed water transmission main alignment from lyppanthangal Bus Depot to Porur new WDS site for CP3 component	Site visit from lyppanthangal Bus Depot to Porur new WDS site	CMWSSB officials and PMC team members
01.09.2021 to 30.09.2021	Site visit and verification of vacant land identified along with CMWSSB officials for construction of proposed Overhead Tank (OHT), House Service Connection details for Area X & Area XIII for CP4 component	Area X & Area XIII of CMWSSB office	CMWSSB officials and PMC team members

The regular meetings/technical discussions have been conducted by PMC teams on the preparation and review of Instrumentation Control and Automation Works including plant operation control system, Instrumentation Plan, Project Implementation Schedule, Civil structural and architectural works, review of technical specification for Draft Request For Proposal (RFP) for CP1 component on DBO basis including Bidding Procedures, Employer's requirements (5 Volumes), Conditions of Contract and Contract Forms and Price Schedule. Preparation of Operation & Maintenance Cost, Minimum Functioning Specifications. Seawater Sample Analysis Report for Perur Desalination Plant (CP1) submitted 18.03.2021, Electrical load list and Electrical Single Line Diagram for Proposed 240 MLD Porur Pumping Station submitted on 05.03.2021.

Draft Bidding Document (Rev.0 to Rev.9) for CP1 on DBO basis have been submitted to CMWSSB on 01.12.2020, 21.01.2021, 25.01.2021, 27.01.2021, 10.03.2021, 16.03.2021, 30.03.2021, 19.04.2021, 17.05.2021 and 07.07.2021 for review. Prequalification (PQ) Application for CP1 submission was held at CMWSSB on 05.01.2021 at 15:00 hours, and the opening was held at CMWSSB on 05.01.2021 at 15:30 hours. Prequalification (PQ) Application for CP1 received from 4 Applicants on 05.01.2021. Evaluation of Prequalification (PQ) Application for CP1 was carried out by the PMC team from 06.01.2021 to 27.01.2021. Evaluation Report for Prequalification (PQ) Application for CP1 was submitted to CMWSSB on 27.01.2021, and CMWSSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining the concurrence on 27.01.2021. CMWSSB has obtained the concurrence from JICA on the Report on the Evaluation of Prequalification (PQ) Applications for CP1 on 11.02.2021. Financial Analysis Report was submitted on 12.02.2021. Received the comment from JICA on Draft RFP (Part-I & III) document for CP1 on DBO basis on 25.02.2021, and the reply to comment was submitted on 10.03.2021, 25.03.2021, 19.04.2021, 17.05.2021, 07.07.2021 and 15.07.2021. CMWSSB has obtained the 'No objection letter' was received from JICA on 23.07.2021 for the issue of the Bid Document for CP1 (RFP) shortlisted Bidder. Final Bid Document (Rev.10) for CP1 on a DBO basis was submitted to CMWSSB on 30.07.2021.

The hydraulic design for Proposed Water Distribution System for Area X (Kodambakkam) using Bentley's WaterGEMS for CP4 component was submitted (soft copy) to CMWSSB on 22.09.2021.

Also, regular interactions, discussions are held with CMWSSB officials and other Project aspects until September 2021. Where formal minutes have not been recorded, these meetings are not listed above.

## 4.7 Health & Safety – September 2021

There are no health and safety incidents to report for September 2021 associated with the activities of the PMC. However, the evolving international situation regarding the COVID-19 virus is a pandemic of concern to the PMC, as restricted travel movements may impact the mobilisation of international (and possibly national) staff. The PMC will keep CMWSSB officials informed of any developments that impact the delivery of the Consulting Services. CMWSSB has provided the approval on 06 September 2021 from 01 September 2021 to 30 November 2021 regarding the Work From Home for four (4) Key International Experts not residing in Chennai due to COVID-19 pandemic across the world and international travel restrictions to India. Also, it is requested that CMWSSB consider the approval of Non-key International, National and support staff for work from home inputs, if the COVID-19 virus Pandemic situation worsens and travel restrictions to sites are enforced for the PMC to maintain progress on activities. Almost all the PMC staff have already taken the first dose, and some have done both the dose of COVID-19 vaccination.

The details of the Insurance are listed in Table 17.

Table 17: Details of Insurance

Name of the Firm	Type of Insurance	Name of the Agency	Insurance Value	Period Insurance from	Period Insurance to
<b>SMEC International Pty. Ltd.</b>	Third-Party Motor Vehicle Liability Insurance Third-Party Liability Insurance	SBI General Insurance	INR 100 Million	10.01.2021	09.01.2022
	Professional Liability	Engineering Consultants Underwriters Ltd.	AUD 10 Million	30.06.2020	31.12.2021
	Employer's Liability and Worker Compensation Insurance	CHUBB Insurance Singapore limited	SGD 10 Million	01.01.2021	31.12.2021
	Insurance against Loss or Damage	Not Applicable	-	-	-
<b>SMEC India Pvt. Ltd.</b>	Third-Party Motor Vehicle Liability Insurance Third-Party Liability Insurance	SBI General Insurance	INR 100 Million	10.01.2021	09.01.2022
	Professional Liability	Bajaj Allianz General Insurance Company Ltd.	INR 1000 Million	08.07.2021	31.12.2021
	Employer's Liability and Worker Compensation Insurance	IFFCO TOKIO General Insurance Co. Ltd.	INR 640.84 Million	05.01.2021	04.01.2022
	Insurance against Loss or Damage	Bajaj Allianz General Insurance Company Ltd.	INR 6.91 Million	29.04.2021	28.04.2022
<b>NJS Engineers India Pvt. Ltd.</b>	Third-Party Motor Vehicle Liability Insurance	IFFCO TOKIO General Insurance Company Ltd.	INR 0.45 Million	27.08.2021	26.08.2022
	Professional Liability	New India Assurance Company Limited	INR 259 Million	20.04.2020	19.09.2027
	Employer's Liability and Worker Compensation Insurance	New India Assurance Company Limited	INR 20 Million	20.04.2021	19.04.2022
	Insurance against Loss or Damage	Not Applicable	-	-	-
<b>TATA Consulting Engineers Ltd.</b>	Third-Party Motor Vehicle Liability Insurance	National Insurance Company Ltd.	INR 0.52 Million	09.03.2021	08.03.2022
	Professional Liability	The New India Assurance Co. Ltd.	INR 1500 Million	03.10.2020	02.10.2021
	Employer's Liability and Worker Compensation Insurance	The New India Assurance Co. Ltd.	INR 13.97 Million	01.02.2021	31.01.2022
	Insurance against Loss or Damage	The New India Assurance Co. Ltd.	INR 1000 Million	03.10.2020	02.10.2021



## 4.8 Variations

### 4.8.1 Submitted/Approved

There are some variation requests submitted or approved during the project period.

- Dr.Uday G.Kelkar, NJSEI Pvt. Ltd., have been mobilised for the Project since June 2020, as an additional Key Expert (International) with 2.50 man-months (Intermittent) by adjusting with the input man-months of Dr.Ghulam Mustafa (Desalination Expert), International Key Expert with remuneration of USD 26225 per Man-month has been accepted by CMWSSB and JICA. As per CMWSSB letter dated 24.04.2020, it is informed that his input of 2.50 man-months is expected to spread over the entire project duration. His cost is to be met from the Desalination Expert's cost, and there is no change in the Project approved budget for this PMC assignment.

The following staff CVs have been submitted for the replacement of 3 nos. of Key Expert (International), 2 nos. Non-Key Expert (International) and 8 nos. of Non-Key National / Local Expert (Non-evaluation position) vide our correspondence letters communicated to CMWSSB. The following are the details of the approved staff by CMWSSB is furnished in Table 18

Table 18: Details of Approved / Replacement of PMC Staff till the end of September'2021 (Approved)

Sl. No.	Position	Original Staff as per Contract Agreement	Approved Staff by CMWSSB	Date of Approval
	<b>KEY – INTERNATIONAL EXPERT</b>			
1	Electrical Engineer (International)	Mr.Sergio de Bastos Vilar Magalhaes Paulo	Mr.Guilbert Z.Gonzales	16.09.2020
2	Contract Specialist (Desal) – International	Mr.Roderick Mackenzie	Mr.Abdel Fattah Toukan	24.10.2020
3	Pipeline Engineer (International)	Mr. John Goullee	Dr.Mohamed Abdelmoneim Sayed Ahmed Mohamed	23.03.2021
	<b>NON KEY INTERNATIONAL EXPERT</b>			
4	Monitoring & Control Expert (Desal)	Mr.Manikandan Ganesh Shoranur	Mr.Afzal Abdul Latheef	10.09.2020
5	Specification Specialist (Desal)	Mr.J.Shanmuganathan	Mr.Ganesh Venkataraman	10.11.2020
	<b>NON KEY – NATIONAL / LOCAL EXPERT</b>			
6	Mechanical Engineer	Mr. Surajit Debnath [Replacement 1- Mr. Mayur Gupta]	Mr. Deb Kumar Kar	31.08.2021
7	Electrical Engineer	Mr.G.V.K Mohan	Mr.Om Prakash Singh	10.09.2020
8	Structural Engineer	Mr.M.K.Vinod	Ms.J.Sudha	10.09.2020
9	Pipeline Engineer – 1	Mr.Chandra Shekhar Reddy Yedla [Replacement 1- Mr.Rahul N Ramdhan]	Mr.K.Prabhat	08.07.2021
10	Pipeline Engineer – 2	Mr.V.Tulasi Ram	Mr.P.Thangavel	10.09.2020
11	Social Communication Specialist	Dr.M.Rajsekhar Reddy	Mrs.R.Kanmani	10.09.2020
12	Quantity Surveyor-1	Mr.Vinod Chandra K.C	Mr.R.Muthurajan	10.09.2020
13	Architect	Mr.M.Kumar	Mrs.Kirti Alhad Sadarjoshi	24.10.2020

#### 4.8.2 Under Consideration

The following staff CV has been submitted for the replacement of 1 no. of Key International Expert.

Table 19: Details of CV replacement of PMC Staff to CMWSSB for approval (Under Consideration)

Sl. No.	Position	Original Staff as per Contract Agreement	Proposed Staff for replacement	Approval Status	Date of Submission
	<b>KEY – INTERNATIONAL EXPERT</b>				
1	Water Supply Engineer	Mr. Shane Farquharson	Mr. S. Srinivasarao	Under Review	16.08.2021

The Experience certificate and educational qualification of Mr. S. Srinivasarao, Water Supply Engineer A3 (International Key Expert) were submitted to CMWSSB on 25.08.2021. Also, the clarification on the CV and experience of Mr. S. Srinivasarao (Water Supply Engineer, Key International Expert No.3) were submitted to CMWSSB on 13.09.2021.

#### 4.9 Communication and Correspondence

There is no progress on activities to report for Project communications this period. However, the PMC does note the request of the CMWSSB to tighten up on Project communications and ensure that there is a “single voice” from the PMC during project discussions. Also, adherence to project communications protocols requires improved effort to ensure that correspondence is issued in the correct format and through agreed communication lines. The letters submitted to CMWSSB and letters received from CMWSSB and JICA for the Project are furnished in Table 20.

Table 20: Details of Correspondence for the Project

Sl. No.	Details of Correspondence letter	Letter Correspondence reference number, date	Date of submission / received
1.	Mobilisation of Mr. Deb Kumar Kar, Mechanical Engineer B3 (Non-Key / Local Expert)	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/408, dated 06.09.2021	06.09.2021
2.	Submission of details of Proposed OHT location for Area X & XIII for CP4 component	Email sent to CMWSSB on 06.09.2021	06.09.2021
3.	Submission of Invoice for August 2021 for SMEC International Pty Ltd in Foreign Currency (2 copies)	Ref: SMEC/CMWSSB / 5061185/409, dated 06.09.2021	09.09.2021
4.	Submission of Invoice for August 2021 for SMEC India Pvt. Ltd. in Local Currency (2 copies)	Ref: SMEC/CMWSSB / 5061185/410, dated 06.09.2021	09.09.2021
5.	Submission of Invoice for August 2021 for all Consortium Members (2 copies)	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/411 dated 09.09.2021	09.09.2021
6.	Submission of Monthly Progress Report (MPR 19) for August 2021 (10 copies)	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/412, dated 09.09.2021	09.09.2021
7.	Submission of reply to your letter for the clarification on the CV and experience of Mr. S. Srinivasarao (Water Supply Engineer, Key International Expert No.3)	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/413, dated 13.09.2021	13.09.2021
8.	Submission of payment receipt Acknowledgement for M/s. SMEC India Pvt. Ltd and M/s. TATA Consulting Engineers Ltd of INR payment (Local	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/414, dated 13.09.2021	13.09.2021

Sl. No.	Details of Correspondence letter	Letter Correspondence reference number, date	Date of submission / received
	Currency) from February 2021 to May 2021 and Variance Invoice 2021		
9.	Submission of CP5 boundary drawing showing 4.91 acres of land at Nemmeli (Sulerikaadu)	Email sent to CMWSSB on 14.09.2021	14.09.2021
10.	Mobilisation of Mr. Azeez Salahuddin Ahmed, MIS Specialist (Support Staff)	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/415, dated 15.09.2021	15.09.2021
11.	Clarification for air travel expenses claimed in respect of Mr. Suresh Mohan Dwivedi (GIS Operator)	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/416, dated 21.09.2021	21.09.2021
12.	Demobilisation of Mr. Santosh Biswa, Contract management Specialist (Support Staff)	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/415, dated 21.09.2021	21.09.2021
13.	Submission of updated Project Data Sheet for Area-X & XIII for CP4 component	Email sent to CMWSSB on 23.09.2021	23.09.2021
14.	Submission of drawing pertaining to alternate route transmission main alignment from Iyppanthangal bus depot to Porur new WDS site for CP3 component	Email sent to CMWSSB on 27.09.2021	27.09.2021
15.	Reply to CMWSSB's email regarding the daily attendance and daily work progress report requested	Ref: SSNT PMC 400MLD /CMWSSB / 5061185/417, dated 28.09.2021	28.09.2021
16.	Replacement of Mechanical Engineer-1 (Non-Key/Local Expert) Approval	Ref: CMWSSB/SE(Desal)/ 400 MLD Plant/PMC-048/ 2021, dated 31.08.2021	01.09.2021
17.	Permission intimation of Work from home for International Experts Extension till 30 November 2021	Ref: CMWSSB/SE(Desal)/ 400 MLD Plant/PMC-049/ 2021, dated 31.08.2021	01.09.2021
18.	Work from home Extension approval for the International Experts	Ref: CMWSSB/SE(Desal)/ 400 MLD Plant/PMC-050/ 2021, dated 06.09.2021	06.09.2021
19.	Clarification requested for Replacement of Water Supply Engineer (International Expert No.3) Mr. S. Srinivasarao	Ref: CMWSSB/SE(Desal)/ 400 MLD Plant/PMC-050/ 2021, dated 09.09.2021	09.09.2021
20.	Email received from CMWSSB regarding the daily status of work - Improvement of Existing Water Distribution Networks (CP4) – Update requested	Email received from CMWSSB on 13.09.2021	13.09.2021
21.	Email received from CMWSSB regarding the Daily attendance, and daily work progress report Requested	Email received from CMWSSB on 17.09.2021	17.09.2021
22.	Email received from CMWSSB regarding NJS Engineers Pvt. Ltd. Invoice for the month of February 2021 to May 2021 - Clarification requested by audit wing	Email received from CMWSSB on 20.09.2021	20.09.2021

The PMC team is maintaining the Document Management System (DMS) for the Project.

## 5 PROGRESS OUTLOOK FOR PMC SERVICES

### 5.1 Activities Planned for Next Month

A summary of planned (key) activities for October 2021 is provided in Table 21.

Table 21: Planned Activities until October 2021 (PMC activities)

Contract Package	Activities (Planning for next months)
CP1	Task 10: Bidding Document / Request for Proposal (RFP) – Final document submission of the following during October 2021 <ul style="list-style-type: none"> <li>Part I – Bidding Procedures</li> <li>Part II – Employers Requirements (5 Volumes)</li> <li>Part III – Conditions of Contract and Contract Forms</li> <li>Part IV – Price Schedule</li> </ul> Issue of Bidding Document to the shortlisted bidders during the end of October 2021
CP2	Task 3: Conducting Surveys and Investigations <ul style="list-style-type: none"> <li>Preparation, review, and submission of Geotechnical Investigation Report (carried out at Perur and Porur new WDS site) to CMWSSB</li> </ul> Task 4: Detailed Design of the Reservoirs and Pumping Stations <ul style="list-style-type: none"> <li>Preparation and submission of Draft Design Report and Drawings of the reservoirs and pumping stations</li> </ul>
CP3	Task 1: Design reviews – undertake the review of design and bid document deliverables (by others), if prioritised by CMWSSB <ul style="list-style-type: none"> <li>Hydraulic analysis of the product water transmission main for final determination of the pump head and countermeasure for water hammer.</li> <li>Received the product water pipeline transmission design, and we will review the final design to arrive at the pumping head required at Perur pumping station.</li> </ul> Task 2: Review of draft CP3-1 to CP3-4 bidding documents (prepared by CMWSSB) and the issue of comments (if any)
CP4	Task 1: Reconnaissance Survey, Data and information collection – a collection of existing pipeline condition and complaint and maintenance logbook information from Area V and VI                     Task2: Conducting Surveys and Investigations <ul style="list-style-type: none"> <li>Obtaining the confirmed CMWSSB's vacant land for constructing the proposed Overhead Tank (OHT) at Area X and XIII for the proposed water distribution system based on the DMA approach.</li> </ul> Task 3: Finalization of reorganized ward wise population details with bulk water consumers for new hydraulic zones establishment in Area V and VI <ul style="list-style-type: none"> <li>Finalization of existing distribution network with authentication from CMWSSB for finalizing of the models of the existing network in Area V and VI</li> <li>Detail design and improvement of the water distribution network of Area XIII</li> </ul> Task 4: Detailed Design of the Improvement of the Existing Water Distribution System CP4 component <ul style="list-style-type: none"> <li>GIS development – progressive development of the GIS database for existing water distribution asset inventory, including design of attribute data structure</li> <li>Creation of District Metered Areas (DMAs) for Area V and VI for proposed water distribution system</li> <li>Carrying out the hydraulic design and modelling of the proposed water distribution system for Area XIII</li> </ul>

Contract Package	Activities (Planning for next months)
	<ul style="list-style-type: none"> <li>Design and Improvement of Storage reservoirs: Carrying out the structural design for construction of proposed Overhead Tanks in Area X and Area XIII</li> </ul>
	<p>Task 5: Preparation and Submission of Draft Detailed Project Report</p> <ul style="list-style-type: none"> <li>Preparation of Detailed Hydraulic Design Report, Drawings and Cost Estimates for Area X &amp; XIII</li> <li>Preparation of Environmental and Social Review Report (Draft) for the Area XIII in the core city on the basis of the initial site visit and review of the data, websites and documents. Area XIII are given priority in the preparation and submission of the social review report.</li> </ul>
CP5	No planned activities during this period
General	<ul style="list-style-type: none"> <li>Preparation and submission of Monthly Progress Report</li> <li>Preparation and submission of Quarterly Progress Report</li> </ul> <p>External Approvals Register – confirm status and timing for all Project approvals and permits pre-requisite to delivering the Works and assemble in project-specific Register</p> <p>Project Updated EIA review report – complete review of the Project EIA review report and environmental commitments and brief package Lead on specific requirements relevant to each package</p> <ul style="list-style-type: none"> <li>Attending the Stakeholder Consultation meeting with CMWSSB and World Bank team for allocation of funding pattern for Zone X and Zone XIII for CP4 component</li> <li>Coordination and assisting with officials to obtain the Consent to Establish (CtE) from Tamil Nadu Pollution Control Board (TNPCB) for the proposed 400 MLD Desalination Plant at Perur site.</li> <li>Finalization and submission of Draft report on Organisation Development and Capacity Building</li> </ul> <p>Land acquisition/access status review – review and Report on the status of all land acquisition and access requirements for all Project sites/routes and develop an action plan to close gaps.</p>

## 5.2 Managing Progress Risks

A summary of potential progress risks (PMC activities) and proposed measures to mitigate/control these risks are provided in Table 22.

Table 22: Managing Progress Risks (PMC activities)

Contract Package	Risk	Control measure	Status
All	COVID-19 virus Pandemic restricts travel movements of PMC personnel and prevents mobilisation of key personnel	Agreement with CMWSSB for selected activities/tasks to be completed remotely (not Chennai based) to avoid any delays to progress	●
All	JICA concerns with the rate of progress and achieved activities to date	PMC has prepared an updated work schedule to compress the timeline for CP1 activities and shorten the duration to tendering this package. Scheduling for other packages is also being reviewed to seek the opportunity to shorten project duration.	●
CP1	JICA concerns with the rate of progress and achieved activities to date	<ul style="list-style-type: none"> <li>Issue of Bidding Document to Shortlisted Bidders for CP1</li> <li>Coordination with officials for the Consent to Establish (CtE) to be obtained by CMWSSB from TNPCB</li> </ul>	●
CP2	<b>Porur Headworks / WDS:</b> The site designated for the construction of reservoir and pumping station at Porur is taken for other projects, and the construction of 6 MLD TTRO Plant is under progress. This will call for a change in the proposed reservoir and pumping station layout plan in the nearby area.	CMWSSB will provide details of existing assets on the Porur Headworks / WDS site as a priority to allow the PMC to review the site layout concept urgently. CMWSSB has confirmed and allotted the land to construct the proposed UGT and Pumping Station at Porur new WDS site. Allocation of 400 MLD of treated water: CMWSSB has been requested to provide the quantities allocated en route to Porur from Perur to review the pumping head requirement.	●
CP4	Lack of available digital data on the existing water distribution network (in AutoCAD drawing format) to develop an asset database and hydraulic model results in slower progress than estimated.	PMC to coordinate with internal CMWSSB (PIU) team looking at GIS development and will apply additional CAD/GIS resources if required for the digitisation of hard-copy network plans	●
	Confirmation of proposed Overhead Tank (OHT) site for water distribution system in Area X & XIII	PMC to coordinate with CMWSSB officials for obtaining the confirmation of proposed Overhead Tank (OHT) site for water distribution system in Area X & XIII	●

Legend: Risk being managed (●); Risk managed with further action (●); Risk not effectively managed (●)



## 6 PROGRESS REPORT FOR PROJECT (THE WORKS)

At the time of preparing this Monthly Progress Report for September 2021, the Project works are yet to commence, and no contracts have been awarded. Comments made below reflect this current status. It is expected in subsequent months that a more specific reporting format will be issued once works commence.

### 6.1 Achieved Activities – September 2021

There are no achieved activities (Works) to report.

### 6.2 Actual Progress versus Planned Progress – September 2021

The Project works are not scheduled to commence until later in October 2022 (CP1 and CP3-1 to CP3-4 components). Other contract packages may start even later during October 2022 and beyond. There is no comparison of planned versus actual progress to report.

### 6.3 Financial Progress in September 2021

There is no financial progress to be reported for the Project.

### 6.4 Health & Safety – September 2021

There are no health and safety matters to report.

### 6.5 Environmental and Regulatory Compliance

There are no regulatory and compliance matters to be reported for the Project during the September 2021 period. We note that before this period, the CMWSSB had been awarded CRZ clearance for the Project. The Environmental and Regulatory Compliance status is furnished in the following Table 23:

Table 23: Details of Environmental and Regulatory Compliance

Sl.No.	Clearances Required	Status
1	Coastal Regulation Zone Clearance (CRZ) from Ministry of Environment and Forests (MoEF)	Obtained on 25 October 2018
2	Enter upon permission for the DSP site (85.51 acres) for the CP1 component	Land lease agreement was executed at O/o Sub-registrar, Thiruporur on 22.07.2021 between CMWSSB and M/s. Arulmigu Alavandar Nayak Trust
3	Consent to Establish (CTE) from Tamil Nadu Pollution Control Board (TNPCB)	To be obtained before commencement of work by CMWSSB. TNPCB Draft online application was prepared, and the submission is under progress by CMWSSB
4	Approval for the erection of offshore structure from Tamil Nadu Maritime Board (TNMB)	To be obtained before commencement of work by CMWSSB
5	Enter upon permission for the proposed common electrical substation site for CP5 component (4.91 acres)	Land lease agreement was executed at O/o Sub-registrar, Thiruporur on 22.07.2021 between CMWSSB and M/s. Arulmigu Alavandar Nayak Trust
6	CRZ clearance for electrical substation site for CP5	To be obtained before commencement of work by CMWSSB.
7	Possession of land for the proposed Porur Pumping station (CP2) at survey no: 148-2	To be obtained before commencement of work by CMWSSB.
8	Consent to Establish (CTE) from Tamil Nadu Pollution Control Board (TNPCB) for the proposed Porur Pumping station (CP2-2)	To be obtained before commencement of work by CMWSSB.
9	CRZ clearance for pipeline crossing Salt pan area and Buckingham canal for CP3 component	To be obtained before commencement of work by CMWSSB.



## 6.6 Communication and Correspondence

Leading up to the appointment of the PMC, CMWSSB has engaged with relevant authorities and external stakeholders regarding the Project. A key stakeholder involved in progress to date is the Japan International Cooperation Agency (“JICA”), who will act on behalf of the Government of Japan to issue an Official Development Assistance (ODA) loan for the Project under Loan ID-P267. Since the appointment of the PMC, limited Project communications with external stakeholders have transpired. A Project Communication Plan is required.

## 6.7 Variations

### 6.7.1 Scope of Work

Nil.

### 6.7.2 Schedule

Nil.

### 6.7.3 Budget

Nil.

## 7 PROGRESS OUTLOOK FOR PROJECT (THE WORKS)

### 7.1 Activities Planned Next Month

No progress on construction activity is expected for the coming month of October 2021 as the works have not been tendered for any of the Contract Packages to date.

### 7.2 Managing Progress Risks

A summary of potential Project progress risks and proposed measures to mitigate/control these risks is provided in Table 24.

Table 24: Managing Progress Risks (Project)

Contract Package	Risk	Control measure	Status
All	Approvals and permits for project execution are not in place when needed resulting in delays to construction	PMC to prepare a register that lists all approvals and permits required for project execution across each of the Contract Packages for tracking purposes	●

Legend: Risk being managed (●); Risk managed with further action (●); Risk not effectively managed (●)

## 8 ANNEXURES

The following annexures are included with this Monthly Progress Report:

- Annexure 1 – List of Experts with Name, Role and Man-months
- Annexure 2 – Project Scope
- Annexure 3 – Overall Work Schedule
- Annexure 4 – Work Schedule – Task Breakdown (Contract Package-wise)
- Annexure 5 – Projected Financial Progress Based on Man-months consumed Vs Actual Progress (Bill Passed)
- Annexure 6 – Personnel Inputs Summary
- Annexure 7 – Team Deployment Schedule for Next months
- Annexure 8 – PMC Organisational Chart

## Annexure 1 List of Experts with Name, Role and Man-months

Sl. No.	Name of the Expert (International/ National Local)	Role/ Position	Staff Month (SM)
<b>KEY EXPERT – INTERNATIONAL</b>			
1	Dr.P.Dharmabalan	Project Manager- International Expert	70
2a	Dr.Ghulam Mustafa	Desalination Expert- International Expert	29.50
2b	Dr.Uday G.Kelkar	Additional Key Expert – International Expert	2.50
3	(Replaced for Mr.Shane Farquharson)	Water Supply Engineer – International Expert	23
4	Mr.Michel Morillon	Mechanical Engineer (Desal)- International Expert	15
5	Mr.Guilbert Z Gonzales (Replaced for Sergio de Bastos Vilar Magalhaes Paulo)	Electrical Engineer (Desal)- International Expert	25
6	Dr.Mohamed Abdelmoneim Sayed Ahmed Mohamed (Replaced for Mr.John Goullee)	Pipeline Engineer-International Expert	70
7	Mr.Abdel Fattah Toukan (Replaced for Mr.Roderick Mackenzie)	Contract Specialist (Desal) – International Expert	9
8	Mr. Tharloak S Bhatt	Contract Specialist (Distribution) - International Expert	8
<b>KEY EXPERT – NATIONAL</b>			
9	Mr.S.Siddappaswamy	Senior Civil Engineer	72
10	Mr.Nagesh Chinnam	Senior Pipeline Engineer	72
	<b>Sub Total</b>		<b>396</b>
<b>NON KEY EXPERT – INTERNATIONAL</b>			
1	Dr.D.Elanchezian	Civil and Structure Engineer (Desal)	42
2	Mr.Madhawa Delpachitra	Mechanical Engineer (Distribution)	4
3	Mr.Manfred Kurt (Meisner)	Electrical Engineer (Distribution)	4
4	Mr.Afzal Abdul Latheef (Replaced for Manikandan Ganesh Shoranur)	Monitoring and Control Expert (Desal)	11
5	Mr. Ashish Gosain	Monitoring and Control Expert (Distribution)	12
6	Mr. Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan)	Specification Specialist (Desal)	4
7	Mr.Manish Chintamani Sane	Specification Specialist (Distribution)	3
8	Mr.Hemant Chadha	Financial Expert	3
9	Dr.Alok Kumar	Environmental Specialist	15
10	Mr.Santhosh Kumar	Commissioning Engineer	10
11	Mr.Rajesh Mishra	Social Communication Specialist	16
12	Mr. Hyacinth Augusto Vaz	Organisational Expert	9
	<b>Sub Total</b>		<b>133</b>
<b>NON KEY EXPERT – NATIONAL</b>			
1	Mr.Ramesh Senthil	Civil Engineer	72

Sl. No.	Name of the Expert (International/ National Local)	Role/ Position	Staff Month (SM)
2	Mr. Deb Kumar Kar (Replaced for Mr. Mayur Gupta / Mr. Surajit Debnath)	Mechanical Engineer	40
3	Mr. Om Prakash Singh (Replaced for Mr. G.V.K. Mohan)	Electrical Engineer	45
4	Ms. J. Sudha (Replaced for Mr. Vinod MK)	Structural Engineer	28
5	Mrs. Kirti Alhad Sadarjoshi (Replaced for Kumar M)	Architect	12
6	Mr. K. Senthil	Building Mechanical and Electrical Engineer	16
7	Mr. K. Prabhat (Replaced for Mr. Rahul N Ramdhan / Mr. Chandra Shekhar Reddy Yedla)	Pipeline Engineer 1	60
8	Mr. P. Thangavel (Replaced for Mr. V. Tulasi Ram)	Pipeline Engineer 2	60
9	Mr. Hema Kumar. S	Pipeline Engineer 3	50
10	Mr. P. M. Saravanan	Hydraulic Modeler – 1	8
11	Mrs. V. Nandhini	Hydraulic Modeler – 2	8
12	Mr. Naisa Sreenivasulu Reddy	Construction Planner Cost Estimator	4
13	Mr. S. Sreenivasula Reddy	Specification Specialist	4
14	Mr. S. M. Karthikaeswaran	Environmental Specialist	30
14	Mrs. R. Kanmani (Replaced for Dr. M. Rajsekhar Reddy)	Social Communication Specialist	72
15	Mr. Najas Thattakatte Abdulkareem	Safety and Health Expert-1	40
16	Mr. Prasanth Balan	Safety and Health Expert-2	70
17	Mr. R. Muthurajan (Replaced for Mr. Vinod Chandra K.C)	Quantity Surveyor 1	50
18	Mr. V. S. Rajasekar	Quantity Surveyor 2	70
	<b>Sub Total</b>		<b>739</b>
<b>SUPPORTING STAFF</b>			
1	Mr. B. Ajithkumar	Secretary	70
2	Mr. G. Murali	CAD Operator-1	30
3	Ms. J. Nithya	CAD Operator-2	30
4	Mr. Vijay Kumar	CAD Operator-3	30
5	Mr. Suresh Mohan Dwivedi	GIS Operator	18
6	TBN	Inspectors (4 Nos.)	200
7	(Replaced for Mrs. P. Prashanthi)	Geotechnical Engineer	6
8	Mr. Azeez Salahuddin Ahmed	MIS Specialist	50
9	Mr. Santosh Biswa	Contract Management Specialist	6
10	Mr. A. Renu Kumar	Visa and Admin. Officer	70
11	Mr. K. Manikandan	Accountant	70
12	Mr. P. Raja (Replaced for Mr. R. Jagan)	Office Keeper-1	70
13	Mr. T. Someswaran (Replaced for Mr. G. Arjun)	Office Keeper-2	70
	<b>Sub Total</b>		<b>720</b>
	<b>Total</b>		<b>1988</b>

## Annexure 2 Project Scope

Sl. No.	Component	Construction Items
CP1	Construction of the Perur DSP (400 MLD)	<ul style="list-style-type: none"> <li>Seawater intake facilities</li> <li>Pre-treatment facility</li> <li>Seawater desalination facilities by Reverse Osmosis (RO) technology</li> <li>Post-treatment facility for remineralisation and disinfection</li> <li>Potable water storage</li> <li>Effluent discharge pipelines</li> <li>Pre-treatment and wastewater treatment facility</li> <li>All other buildings and structures necessary for the seawater desalination plant</li> <li>Perur electrical sub-station (80 MVA capacity).</li> <li>Perur UGT Product water tanks of Capacity 36 ML (4 compartments of each 9 ML)</li> <li>Proposed to construct a potable water tank of 10 ML capacity instead of 9 ML capacity</li> </ul>
CP2	Construction of Pumping Station and Reservoirs	<ul style="list-style-type: none"> <li>Construction of 400 MLD Pumphouse and pump facility at Perur DSP</li> <li>Porur GLR of Capacity of 10 ML</li> <li>Construction of 240 MLD Pumphouse and pump facility at Porur Water Distribution Station</li> </ul>
CP3	Construction of product water transmission system	<ul style="list-style-type: none"> <li>Product water transmission main (DN 1000, 1600, 1800 and 2000mm, 65 km, MS or DI pipe)</li> </ul>
CP4	Improvement of the existing distribution system in Chennai Core City	<ul style="list-style-type: none"> <li>Replacement of the existing distribution pipes (DN100-450 mm, 375km, DI pipe)</li> <li>Installation of supplementary distribution pipes to strengthen the capacity of the existing distribution networks (D150-700mm, 101km, DI pipe)</li> <li>Installation of new water distribution pipes in un-covered streets in Core city (DN100-150 mm, 258km, DI pipe)</li> <li>Reinforcement of the storage capacity of Under Ground Tank (UGT) and Elevated Storage Tanks (ESRs)</li> <li>Installation of service connections and water meters</li> <li>Setup of District Metered Area (DMA)</li> </ul>
CP5	Installation of external power transmission line	<ul style="list-style-type: none"> <li>Construction of 230/110 kV transmission lines to achieve dedicated power feed to the existing Nemmeli DSP, Nemmeli Expansion DSP and the proposed Perur DSP</li> </ul>

## Annexure 3 Overall Work Plan



## Annexure 4 Work Schedule (Contract Package-wise)

## Annexure 5 Projected Financial Progress Based on Man-months consumed Vs Actual Progress (Bill Passed)

## Annexure 6 Personnel Inputs Summary

### PERSONNEL INPUT SUMMARY FOR SEPTEMBER 2021

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
1	<ul style="list-style-type: none"> <li>Due to COVID-19 Pandemic issues globally, the Government of Tamil Nadu announced the extended partial lockdown period from 01.09.2021 to 30.09.2021 throughout Tamil Nadu and 4 Key International Experts (outside Chennai) are allowed to work on the Project as Work From Home option.</li> <li>Mobilisation of Mr. K. Prabhat, Pipeline Engineer-1 in Chennai on 01.09.2021</li> <li>Online Meeting conducted by CMWSSB officials along with AECOM Consultant for a general discussion on the finalisation of Bidding Document for CP3-1 component on 01.09.2021</li> </ul>	Mr. Santosh Biswa (Contract Management Specialist)	Preparation of updated reply to JICA queries on Bidding Document for CP3-1 component
2	<ul style="list-style-type: none"> <li>Meeting at O/o District Environmental Engineer, TNPCB, Maraimalai Nagar along with CMWSSB official for obtaining the Consent to Establish (CtE) for Construction of Desalination Plant at Perur for CP1 component on 01.09.2021</li> </ul>	Mr. R. Senthil (Civil Engineer)	
3	<ul style="list-style-type: none"> <li>Meeting at CMWSSB (Desal) office regarding the technical details required for obtaining the Consent to Establish (CtE) from Tamil Nadu Pollution Control Board (TNPCB) for the proposed 400 MLD Desalination Plant at Perur site for CP1 component on 14.09.2021</li> </ul>	Mr. S.M. Karthikaeswaran (Environmental Specialist)	Technical data for obtaining the Consent to Establish (CtE) from TNPCB for proposed desalination plant, the details submitted to CMWSSB official (soft copy) on 16.09.2021
4	<ul style="list-style-type: none"> <li>Coordinated and assisted with officials to obtain the Consent to Establish (CtE) from Tamil Nadu Pollution Control Board (TNPCB) for the proposed 400 MLD Desalination Plant at Perur site.</li> <li>Preparation of technical data for obtaining the Consent to Establish (CtE) from Tamil Nadu Pollution Control Board (TNPCB) for proposed 400 MLD Desalination Plant at Perur site from 01.09.2021 to 16.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Siddappaswamy (Senior Civil Engineer); Dr. Ghulam Mustafa (Desalination Expert); Mr. Guilbert Z Gonzales (Electrical Engineer, Desal); Mr. R. Senthil (Civil Engineer); Dr. Alok Kumar (Environmental Specialist); Mr. S.M. Karthikaeswaran (Environmental Specialist); Mr. R. Muthurajan (Quantity Surveyor-1)	

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
5	<ul style="list-style-type: none"> <li>Joint site visit with SE (Desal) and CMWSSB officials along the proposed water transmission main alignment from Chennai Bypass to Porur new WDS site for CP3 component on 03.09.2021</li> </ul>	Mr. S. Siddappaswamy (Sr. Civil Engineer); Mr. V.S. Rajasekar (Quantity Surveyor-2)	Finalisation of proposed water transmission main alignment for CP3 component
6	<ul style="list-style-type: none"> <li>Joint site visit with EE (Desal) and CMWSSB officials along the proposed water transmission main alignment from lyppanthangal Bus Depot to Porur new WDS site for CP3 component on 27.09.2021</li> </ul>	Mr. S. Siddappaswamy (Sr. Civil Engineer)	Submission of drawing for alternate route alignment from lyppanthangal bus depot to Porur new WDS site for CP3 component
7	<ul style="list-style-type: none"> <li>Meeting at CMWSSB (Desal) office regarding the progress and status of hydraulic design of proposed water distribution system for Area X &amp; XIII for CP4 component on 02.09.2021 and 30.09.2021</li> </ul>	Mr. S. Siddappaswamy (Sr. Civil Engineer); Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed, Pipeline Engineer; Mr. Nagesh Chinnam (Senior Pipeline Engineer)	Preparation of Draft Design Report for Area-X and Area-XIII for CP4 component
8	<ul style="list-style-type: none"> <li>Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a general discussion on staff deployment, status and progress review of hydraulic design and drawings for CP4 component on 03.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Srinivasarao (Project Coordinator); Mr. R. Senthil (Civil Engineer)	
9	<ul style="list-style-type: none"> <li>Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a general discussion on the issues/concerns, status and progress of work with PMC team members in Chennai towards CP4 component on 03.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Srinivasarao (Project Coordinator); Mr. S. Siddappaswamy (Sr. Civil Engineer); Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed, Pipeline Engineer; Mr. Nagesh Chinnam (Senior Pipeline Engineer); Mr. R. Senthil (Civil Engineer); Mr. PM. Saravanan (Hydraulic Modeller-1); Mr. P. Thangavel (Pipeline Engineer-2); Mr. S.M. Karthikaeswaran (Environmental Specialist); Mrs. R. Kanmani (Social Com. Specialist)	

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
10	<ul style="list-style-type: none"> <li>Mobilisation of Mr. Deb Kumar Kar, Mechanical Engineer in Chennai, on 06.09.2021</li> <li>Joint site visit with Depot Engineer (Area-X and Area-XIII) CMWSSB officials along with PMC team members for the study of existing and proposed water distribution station for CP4 component from 07.09.2021 to 09.09.2021</li> </ul>	Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed, Pipeline Engineer; Mr. Guilbert Z Gonzales (Electrical Engineer, Desal); Ms. J. Sudha (Structural Engineer); Mr. Deb Kumar Kar (Mechanical Engineer); Mr. Om Prakash Singh (Electrical Engineer); Mr. K. Prabhat (Pipeline Engineer-1); Mr. S.M. Karthikaeswaran (Environmental Specialist); Mr. Rajesh Mishra (Social Communication Specialist); Mr. R. Muthurajan (Quantity Surveyor-1)	
11	<ul style="list-style-type: none"> <li>Preparation of Monthly Progress Report (MPR 19) for August 2021 from 01.09.2021 to 09.09.2021.</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Siddappaswamy (Sr. Civil Engineer) Mr. Nagesh Chinnam (Senior Pipeline Engineer); Mr. R. Senthil (Civil Engineer); Mr. S.M. Karthikaeswaran (Environmental Specialist); Mr. B. Ajithkumar (Secretary)	MPR 19 for August 2021 was submitted to CMWSSB on 09.09.2021
12	<ul style="list-style-type: none"> <li>Coordination, assisted with CMWSSB (Desal) official and Contractor for the construction of RCC pillar post and fencing for protection of the proposed 400 MLD Desalination Plant at Perur site for CP1 component on 15.09.2021</li> </ul>	Mr. R. Muthurajan (Quantity Surveyor-1)	Coordination and assisting with CMWSSB (Desal) official and Contractor for CP1 component
13	<ul style="list-style-type: none"> <li>Meeting with Managing Director, Chief Engineer (Project-II &amp; Project-III) and CMWSSB officials regarding the project status and Bid document for CP1 component on 09.09.2021</li> </ul>	Mr. S. Srinivasarao (Project Coordinator)	
14	<ul style="list-style-type: none"> <li>Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a general discussion on the formation of JV members, pros and cons of current power supply and proposed power supply in the Bid Document for construction of Desalination Plant at Perur for CP1 component on 16.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Srinivasarao (Project Coordinator); Mr. S. Siddappaswamy (Sr. Civil Engineer); Mr. R. Senthil (Civil Engineer); Mr. Santosh Biswa (Contract Management Specialist)	Review of Final Bid Document for CP1 component

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
15	<ul style="list-style-type: none"> <li>Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a general discussion on the finalisation of bid document for CP1 component on 08.09.2021</li> <li>Preparation and review of Bidding Document (Part I, II, III &amp; IV) for CP1 component on DBO basis from 01.09.2021 to 17.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Srinivasarao (Project Coordinator); Mr. S. Siddappaswamy (Sr. Civil Engineer); Dr. Ghulam Mustafa (Desalination Expert); Mr. Guilbert Z Gonzales (Electrical Engineer, Desal); Mr. R. Senthil (Civil Engineer); Mr. Santosh Biswa (Contract Management Specialist)	
16	<ul style="list-style-type: none"> <li>Meeting with Chief Engineer (Project-III) CMWSSB officials regarding the pros and cons of current power supply and proposed power supply in the Bid Document for construction of Desalination Plant at Perur for CP1 component and progress status of CP4 component on 23.09.2021.</li> <li>Demobilisation of Santosh Biswa, Contract Management Specialist on 23.09.2021</li> </ul>	Mr. S. Srinivasarao (Project Coordinator); Mr. S. Siddappaswamy (Senior Civil Engineer); Mr. Santosh Biswa (Contract Management Specialist)	
17	<ul style="list-style-type: none"> <li>Meeting at PMC office conducted by Senior Civil Engineer (PMC) with PMC team members in Chennai for a general discussion on the finalisation of hydraulic design and proposed water distribution network drawings for Area X &amp; XIII for CP4 component on 16.09.2021</li> </ul>	Mr. S. Siddappaswamy (Senior Civil Engineer); Mr. Nagesh Chinnam (Senior Pipeline Engineer); Mr. R. Senthil (Civil Engineer)	
18	<ul style="list-style-type: none"> <li>Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a general discussion on the issues/ concerns, status and progress of work towards CP4 component on 17.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Srinivasarao (Project Coordinator); Mr. S. Siddappaswamy (Sr. Civil Engineer); Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Pipeline Engineer, International Expert); Mr. Nagesh Chinnam (Senior Pipeline Engineer); Mr. R. Senthil (Civil Engineer); Ms. J. Sudha (Structural Engineer); Mr. Om Prakash Singh (Electrical Engineer); Mr. P. Thangavel (Pipeline Engineer-2); Mr. PM. Saravanan (Hydraulic Modeller-1); Mr. R. Muthurajan (Quantity Surveyor-1); Mr. VS. Rajasekar (Quantity Surveyor-2); Mr. Vijay Kumar (CAD Operator-3)	Preparation of Hydraulic Design, Drawings and Cost Estimate for Area-X & XIII for CP4 component

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
19	<ul style="list-style-type: none"> <li>Meeting at PMC office regarding the basics and introduction about Bentley WaterGEMS software training to Assistant Executive Engineer (P&amp;D) and Assistant Executive Engineer (Desal), CMWSSB officials of CP4 component on 22.09.2021 and 24.09.2021</li> </ul>	Mr. S. Siddappaswamy (Senior Civil Engineer); Mr. Nagesh Chinnam (Senior Pipeline Engineer); Mr. R. Senthil (Civil Engineer)	
20	<ul style="list-style-type: none"> <li>Mobilisation of Mr. Azeez Salahuddin Ahmed, MIS Specialist, on 15.09.2021</li> <li>Discussion with CMWSSB officials regarding proposed Management Information System (MIS) work for the Chennai Perur 400 MLD Desalination Project on 22.09.2021</li> <li>Study, understand the project requirement and carrying out the Management Information System (MIS) proposed work for software development module for Chennai Desalination Project from 15.09.2021 to 24.09.2021</li> </ul>	Mr. S. Siddappaswamy (Senior Civil Engineer); Mr. Azeez Salahuddin Ahmed (MIS Specialist)	Advising the CMWSSB team for planning and procurement of MIS software
21	<ul style="list-style-type: none"> <li>Meeting at PMC office conducted by Project Coordinator (PMC) with PMC team members in Chennai for a general discussion on the Management Information System (MIS), selection of MIS software module and development on 24.09.2021</li> </ul>	Mr. S. Srinivasarao (Project Coordinator); Mr. R. Senthil (Civil Engineer); Mr. Azeez Salahuddin Ahmed (MIS Specialist)	
22	<ul style="list-style-type: none"> <li>Meeting at PMC office conducted by Project Coordinator (PMC) with team members in Chennai for a general discussion on the social issues during construction, communication strategy and traffic management plan etc., towards CP4 component on 24.09.2021.</li> </ul>	Mr. S. Srinivasarao (Project Coordinator); Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Pipeline Engineer, International Expert); Mr. R. Senthil (Civil Engineer); Mr. Rajesh Mishra (Social Communication Specialist); Mrs. R. Kanmani (Social Communication Specialist)	Preparation of Draft Design Report for Area-X and Area-XIII for CP4 component



Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
23	<ul style="list-style-type: none"> <li>Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a general discussion with PMC team members on the issues/concerns, status and progress of Design and Estimate for Area X and Area XIII towards CP4 component on 24.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Siddappaswamy (Senior Civil Engineer); Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Pipeline Engineer, International Expert); Mr. Nagesh Chinnam (Senior Pipeline Engineer); Mr. R. Senthil (Civil Engineer); Ms. J. Sudha (Structural Engineer); Mr. Deb Kumar Kar (Mechanical Engineer); Mr. Om Prakash Singh (Electrical Engineer); Mr. S.M. Karthikaeswaran (Environmental Specialist); Mr. Rajesh Mishra (Social Communication Specialist); Mr. R. Muthurajan (Quantity Surveyor-1); Mr. V.S. Rajasekar (Quantity Surveyor-2); Mr. S. Murali (CAD Operator-1); Mr. Vijay Kumar (CAD Operator-3) Mr. Suresh Mohan Dwivedi (GIS Operator);	
24	<ul style="list-style-type: none"> <li>Preparation of Instrumentation &amp; Control (I&amp;C) Automation Philosophy works for CP2 component from 01.09.2021 and 17.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Siddappaswamy (Senior Civil Engineer); Mr. Guilbert Z Gonzales (Electrical Engineer, Desal); Mr. Afzal Abdul Latheef (Monitoring & Control Expert, Desal); Mr. Om Prakash Singh (Electrical Engineer); Mr. S.M. Karthikaeswaran (Environmental Specialist); Mr.S. Murali (CAD Operator-1)	Preparation of Draft Design Report, Estimation and Drawings for CP2 component
25	<ul style="list-style-type: none"> <li>Coordination with sub-consultant for finalisation of geotechnical investigation work carried out at Porur 10 ML GLR and 240 MLD Pumping Station site and Perur 400 MLD Pumping Station site for CP2 component from 23.06.2021 to 27.09.2021.</li> <li>Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) for the finalisation of recommendation towards Geotechnical Investigation work carried out at Perur and Porur for CP2 component on 27.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Srinivasarao (Project Coordinator); Mr. S. Siddappaswamy (Senior Civil Engineer); Mr. R. Senthil (Civil Engineer); Ms. J. Sudha (Structural Engineer)	

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
26	<ul style="list-style-type: none"> <li>Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) for a general discussion on the issues /concerns, status and progress of Design and Estimate for Area X and Area XIII towards CP4 component on 28.09.2021</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Siddappaswamy (Senior Civil Engineer); Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Pipeline Engineer, International Expert)	
27	<ul style="list-style-type: none"> <li>Site visit and verification of vacant land identified along with CMWSSB officials to construct proposed Overhead Tank (OHT), House Service Connection details for Area X &amp; Area XIII for CP4 component from 01.09.2021 to 30.09.2021.</li> <li>Preparation of hydraulic design of modelling of proposed water distribution system using Bentley WaterGEMS software for depot no. 127 to 142 for Area X (Kodambakkam) has been carried out from 01.09.2021 to 30.09.2021.</li> <li>Preparation of hydraulic design of the proposed water distribution system modelling using Bentley WaterGEMS software for Depot no.170 to 182 in Area XIII (Adyar) has been carried out from 01.09.2021 to 30.09.2021.</li> <li>Preparation of Structural Design of Proposed Overhead Tank of various capacities in Area X &amp; XIII for CP4 component.</li> <li>Study and report preparation of Mechanical and Electrical works of Water Distribution Station in Area X &amp; XIII for CP4 component.</li> </ul>	Dr. P. Dharmabalan (Project Manager, International Expert); Mr. S. Siddappaswamy (Senior Civil Engineer); Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Pipeline Engineer, International Expert); Mr. Guilbert Z Gonzales (Electrical Engineer, Desal); Mr. Nagesh Chinnam (Senior Pipeline Engineer); Mr. R. Senthil (Civil Engineer); Ms. J. Sudha (Structural Engineer); Mr. Deb Kumar Kar (Mechanical Engineer); Mr. Om Prakash Singh (Electrical Engineer); Mr. PM. Saravanan (Hydraulic Modeller-1); Mr. K. Prabhat (Pipeline Engineer-1); Mr. P. Thangavel (Pipeline Engineer-2); Mr. S.M. Karthikaeswaran (Environmental Specialist); Mr. Rajesh Mishra (Social Communication Specialist); Mrs. R. Kanmani (Social Communication Specialist); Mr. R. Muthurajan (Quantity Surveyor-1); Mr. V.S. Rajasekar (Quantity Surveyor-2); Mr. Suresh Mohan Dwivedi (GIS Operator); Mr. G. Murali (CAD Operator-1); Ms. J. Nithya (CAD Operator-2); Mr. Vijay Kumar (CAD Operator-3)	Submission of Hydraulic Design, Distribution Network Drawings and Cost Estimate for Area X for CP4 component (soft copy) submitted to CMWSSB on 22.09.2021.  Preparation of Hydraulic Design, Distribution Network Drawings and Cost Estimate for Area XIII for CP4 component.  Preparation of Draft Design Report for Area-X for CP4 component
28	<ul style="list-style-type: none"> <li>Preparation of Environment Assessment and Social Safeguard Report for Area-X and XIII for Draft Design Report for CP4 component from 01.09.2021 to 30.09.2021.</li> </ul>	Dr. Alok Kumar (Environmental Specialist) Mr. S.M. Karthikaeswaran (Environmental Specialist); Mr. Rajesh Mishra (Social Communication Specialist); Mrs. R. Kanmani (Social Communication Specialist)	Preparation of Environment and Social Safeguard Report for Area-X and XIII for Draft Design Report for CP4 component.

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
29	<ul style="list-style-type: none"> <li>Carried out the Office Administration and Maintenance work, preparation and submission of monthly invoice, monthly invoice payment follow up with CMWSSB, TDS payment follow up with Consortium members, maintaining Document Management System (DMS) for submission of correspondence letters, related documents and deliverables etc. for the project.</li> </ul>	Mr. B. Ajithkumar (Secretary); Mr. A. Renukumar (VISA and Admin Officer); Mr. K. Manikandan (Accountant); Mr. P. Raja (Office Keeper-1); Mr. T. Someswaran (Office Keeper-2)	General

## Annexure 7 Team Deployment Schedule for Next months

## Annexure 8 PMC Organisation Chart

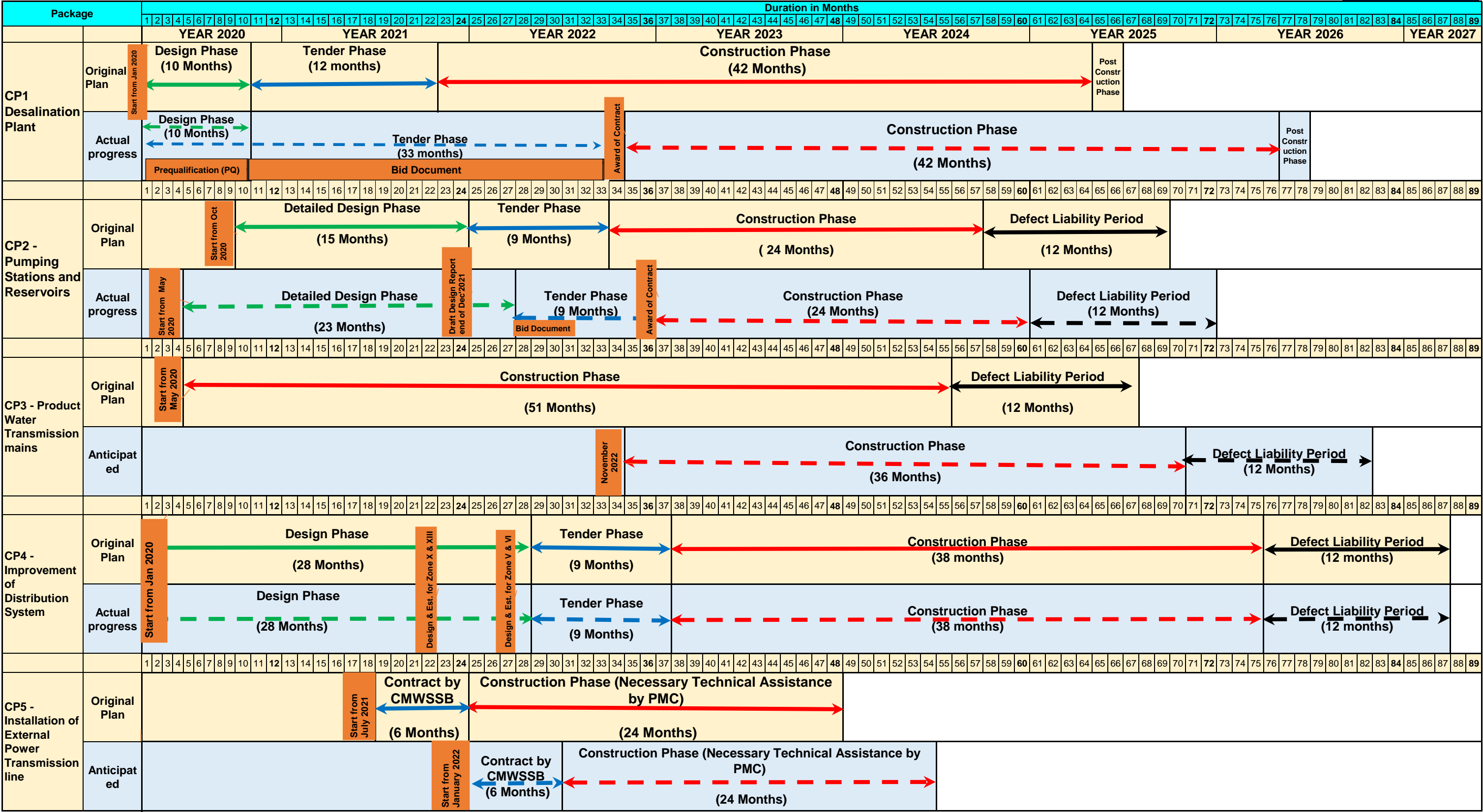
The CHENNAI 400 MLD DESALINATION PLANT is a Project being delivered by the Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB) with the assistance of an Official Development Assistance (ODA) loan from the Japan International Cooperation Agency (JICA).

The Project Management Consultant (PMC) for the Chennai 400 MLD Desalination Plant project is a consortium led by SMEC International Pty Ltd in partnership with TATA Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSEI) and SMEC India Pvt Ltd.



ANNEXURE 3 OVERALL WORK PLAN FOR PROJECT MANAGEMENT CONSULTANCY FOR CHENNAI PERUR 400 MLD DESALINATION PROJECT AND ALLIED WORKS

UPDATED ON 30.09.2021



Note : The above timelines are subject to bid evaluation, approval, award of contract and signing of agreement

- Note : 1. The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.
2. CMWSSB has forwarded the PQ document to JICA on March 2020 & August 2020 for concurrence. JICA has given concurrence on the PQ documents for CP1 to CMWSSB for floating of Notice Inviting Tender (NIT) on 30th September 2020
3. CMWSSB has received 4 Prequalification (PQ) Applications on 05.01.2021. The PQ evaluation report have been submitted to CMWSSB on 27.01.2021 and JICA has provided the approval during Feb'2021
4. The reply to JICA comment on Bidding Document was submitted to CMWSSB and accordingly JICA has provided 'No objection letter' to CMWSSB on 23.07.2021 for issue of RFP to the shortlisted bidder.

Legend:

Design Phase

Tender Phase

Construction Phase

Defect Liability Period

Important Date:

CP1:

CP2:

CP4:

a. Issue of RFP to Shortlisted applicant : 20.10.2021

b. Pre-bid Meeting for RFP: 10.11.2021

c. Technical Bid & Financial Bid Submission : 16.02.2022

Submission of Draft Detailed Design Report : November 2021

Submission of Final Design and Cost estimation for Area X & III: October 2021



## Annexure 4 Work Schedule (Contract Package-wise)

WORK SCHEDULE - CP1																																																																																								
Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.																																																																																								
Activity	Task	Activities and tasks	Duration in Months	Project Duration in Months																																																																																				
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78							
				YEAR 2020												YEAR 2021												YEAR 2022												YEAR 2023												YEAR 2024												YEAR 2025												YEAR 2026												
		Work Plan		Design and Bid document preparation (10 Months)												Bid process management and selection of contractor (24 Months)																								Construction and Commissioning of Desalination Plant (42 Months)																																																Post Const. (2M)
4.5.1		Team Mobilization and Kick Off meeting	1																																																																																					
4.5.2		Inception Report: (Output-1)	1																																																																																					
		Work Plan for Perur Desalination Plant (CP1)																																																																																						
4.5.3		Design Works of CP1	9																																																																																					
	Task 1	Data and Information Collection	2																																																																																					
	Task 2	Review the Technical Information	2																																																																																					
	Task 3	Conducting Surveys and Investigations	2																																																																																					
	Task 4	Concept Design of Perur DSP	5																																																																																					
	Task 5	Preparation & Submission of Concept Design Report	1																																																																																					
	Task 6	Preparation of Technical Specifications	2																																																																																					
	Task 7	Financial Analysis	2																																																																																					
	Task 8	Preparation of O&M Requirements for Bid Document	2																																																																																					
4.5.4		Bid Document Preparation for Perur DSP (CP1)																																																																																						
	Task 9	Preparation of PreQualification [PQ] Document																																																																																						
	Task 10	Preparation of Bidding Document																																																																																						
4.5.5a		Tendering Assistance for PQ																																																																																						
	Task 11	Prebid Meeting, Clarifications & Issue of Addendums etc. for PQ																																																																																						
	Task 12	Submission of PQ Evaluation Report																																																																																						
4.5.5b		Tendering Assistance for RFP	12																																																																																					
		Issue of RFP to the shortlisted bidders																																																																																						
		Prebid Meeting																																																																																						
		Reply to Pre-bid queries																																																																																						
		Approval of Pre-bid queries from CMWSSB and JICA																																																																																						
		Submission of Technical Bid and Financial Bid by the bidders																																																																																						
		Evaluation of Technical Bid																																																																																						
	Task 13	Submission of Bid Evaluation Report - Technical																																																																																						
		Approval of Technical Bid Evaluation Report from CMWSSB and JICA																																																																																						
		Financial Bid Opening																																																																																						

## Annexure 4 Work Schedule (Contract Package-wise)








[illegible]

## Annexure 4 Work Schedule (Contract Package-wise)

[illegible]

**Note : 1. The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.**

2. \* During Video Conference call Zoom meeting held on 30.04.2020 with CMWSSB and PMC noted that due to the current COVID-19 Pandemic situation across the globe, overall 2 months delay in floating the RfQ and consequently the RfP for CP1.
3. CMWSSB has forwarded the PQ document to JICA on March 2020 & August 2020 for concurrence
4. Pre-bid Prequalification Application meeting held at CMWSSB and also through Online Webex meeting on 29.10.2020
5. CMWSSB has extended the tender 2nd extension notice to 05.01.2021 instead of original date of submission of PQ application 02.12.2020
6. CMWSSB has received 4 Prequalification (PQ) Applications on 05.01.2021. The PQ evaluation report have been submitted to CMWSSB on 27.01.2021 and JICA has provided the approval during Feb'2021
7. The RFP document was submitted to CMWSSB on 27.01.2021 and CMWSSB have forwarded the RFP document to JICA for obtaining the concurrence. JICA has provided the comments on Part-I & Part-III of Draft Bidding Document for CP1 on 25.02.2021.
8. The reply to JICA comment on Bidding Document have been submitted to CMWSSB on 18.03.2021, 25.03.2021 and forwarded to JICA for obtaining the concurrence.
9. Meeting held at CMWSSB and Online Microsoft Teams Meeting between PMC, JICA and CMWSSB on 30.03.2021 and 05.07.2021 for a discussion on the responses to JICA comment on Bidding Document.
10. The reply to JICA comment on Bidding Document was submitted to CMWSSB and accordingly JICA has provided 'No objection letter' to CMWSSB on 23.07.2021 for issue of RFP to the shortlisted bidders.

Legend:	
	Main Activities [Full Time]
	Main Activities [Intermittent Time]
	Tasks Under Main Activities [Full Time]
	Tasks Under Main Activities [Intermittent Time]
	Sub Tasks Under Tasks
	Reports
	Client's Role

WORK SCHEDULE - CP2

**Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.**








Activity	Task	Activities and tasks	Project Duration in Months																																																																								
			Duration in Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
				YEAR 2020						YEAR 2021						YEAR 2022						YEAR 2023						YEAR 2024						YEAR 2025																																									
		Work Plan			Design and Bid document preparation (23 Months)																		Bid process management and selection of contractor (9 Months)						Construction and Commissioning (24 Months)												Defect Liability Period (12 Months)																																		
		Balance Team Mobilization by Commencement Date	1	Start of CP2																																																																							
		Work Plan for Construction of Storage Reservoirs & Pumping Stations (CP2)																																																																									
4.5.8		Design Works of CP2	15																																																																								
	Task 1	Data and Information Collection	1																																																																								
	Task 2	Review the Technical Information	1																																																																								
	Task 3	Conducting Surveys and Investigations	1.50																																																																								
	Task 4	Detailed Design of the Reservoirs and Pumping Stations	8																																																																								
	Task 5	Preparation & Submission of Draft Detailed Design Report	3																																																																								
	Task 6	Preparation & Submission of Final Detailed Design Report	2																																																																								
4.5.9		Bid Documents Preparation for CP2	2																																																																								
	Task 7	Preparation of Request for PreQualification [RFQ] Document (If required)	1																																																																								
	Task 8	Preparation of Request for Proposal [RFP] / Bidding Document	1																																																																								
4.5.10		Tendering Assistance	9																																																																								
	Task 8	Prebid Meetings, Clarifications & Issue of Addendums etc.	8																																																																								
	Task 9	Submission of PQ Evaluation Report (if required)	1																																																																								
	Task 10	Submission of Bid Evaluation Report - Technical	1																																																																								
	Task 11	Submission of Bid Evaluation Report - Financial	1																																																																								
4.5.14		Construction Supervision for CP2	24																																																																								
	Task 12	Phase-I: Pre-construction activities	2																																																																								
	12.1	Review of QAP & Construction Methodologies for Various Works	2																																																																								

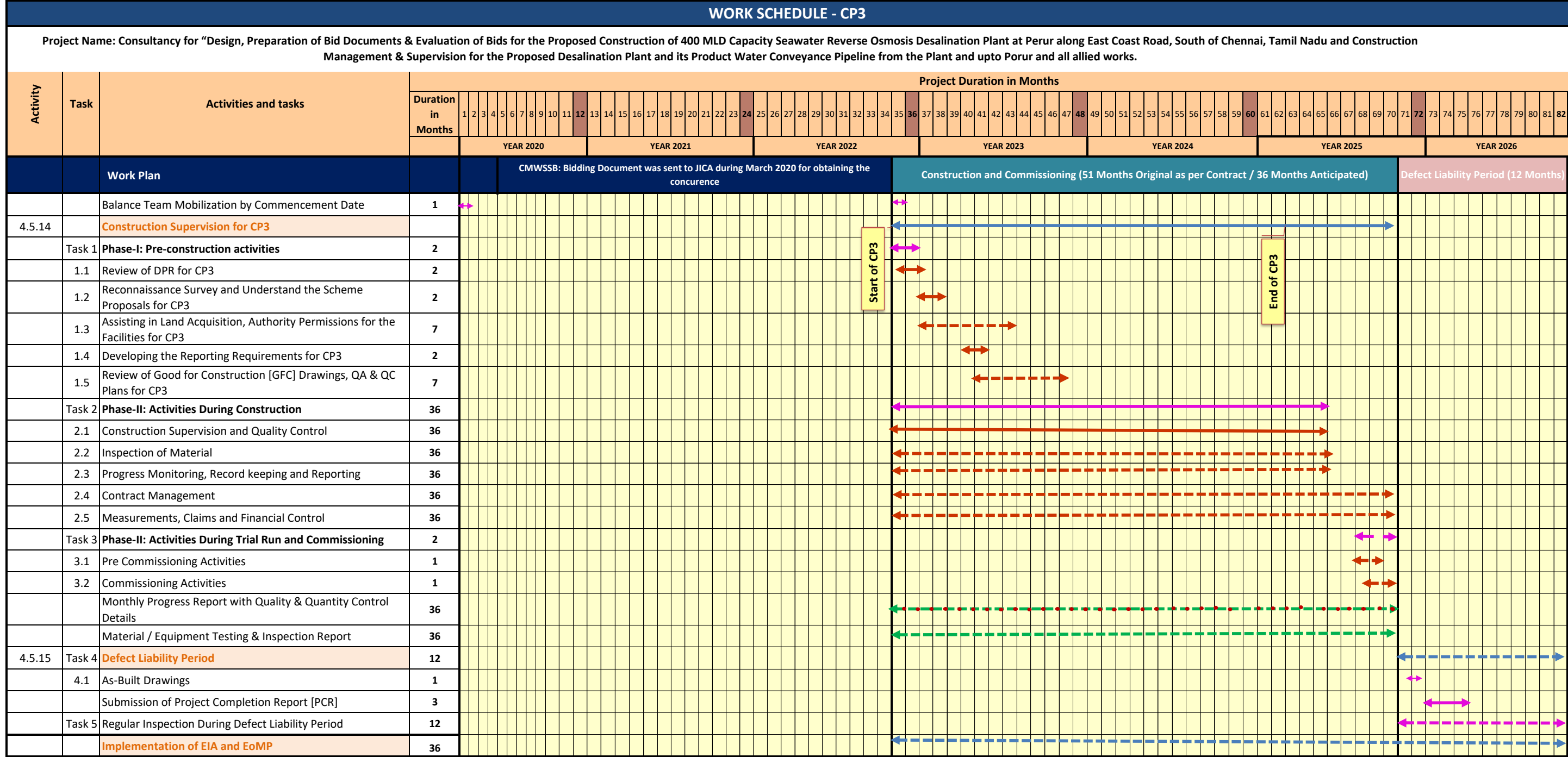
WORK SCHEDULE - CP2

**Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.**



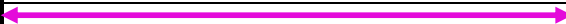

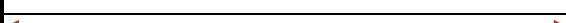


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**Note : The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.**

Legend:	
	Main Activities [Full Time]
	Main Activities [Intermittent Time]
	Tasks Under Main Activities [Full Time]
	Tasks Under Main Activities [Intermittent Time]
	Sub Tasks Under Tasks
	Reports
	Client's Role



Note : The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

Legend:	
	Main Activities [Full Time]
	Main Activities [Intermittent Time]
	Tasks Under Main Activities [Full Time]
	Tasks Under Main Activities [Intermittent Time]
	Sub Tasks Under Tasks
	Reports
	Client's Role

WORK SCHEDULE - CP4																																																																																										
Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.																																																																																										
Activity	Task	Activities and tasks	Duration in Month	Project Duration in Months																																																																																						
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
				YEAR 2020												YEAR 2021												YEAR 2022												YEAR 2023												YEAR 2024												YEAR 2025												YEAR 2026												YEAR 2027		
		Work Plan		Design and Bid document preparation (28 Months)																								Bid process management and selection of contractor (9 Months)				Construction and Commissioning (38 Months)																																						Defect Liability Period (12 Months)																				
		Balance Team Mobilization by Commencement Date	1																																																																																							
		Work Plan for Improvement of Existing Water Distribution System (CP4)																																																																																								
4.5.11		Design Works of CP4	27																																																																																							
	Task 1	Reconnaissance Survey, Data and Information Collection	2																																																																																							
	Task 2	Review and Analysis of Data	2																																																																																							
	Task 3	Conducting Surveys and Investigations	3																																																																																							
	Task 4	Detailed Design of the Improvement of the Existing Water Distribution System CP4	18																																																																																							
	4.1	Upgradation of Existing network in GIS	12																																																																																							
	4.2	Creation of District Metered Areas (DMAs)	8																																																																																							
	4.3	Hydraulic Design and Modelling of distribution system	8																																																																																							
	4.4	Plan to Improve the Existing Network	6																																																																																							
	4.5	Design and Improvement of Storage reservoirs	6																																																																																							
	4.6	Design and providing metered service connections	6																																																																																							
	4.7	Design the SCADA system	6																																																																																							
	Task 5	Preparation and Submission of Draft Detailed Project Report	2																																																																																							
	5.1	Preparation and Submission of Final Detailed Project Report																																																																																								
	Task 6	Assisting in procurement of Software to CMWSSB	2																																																																																							
	Task 7	Preparation of Technical Specifications	3																																																																																							
	Task 8	BoQ Preparation	2																																																																																							
	Task 9	Bid Documents Preparation for CP4	2																																																																																							
4.5.13		Tendering Assistance	9																																																																																							
	Task 10	Prebid Meetings, Clarifications & Issue of Addendums etc.	8																																																																																							
	Task 11	Submission of Draft Bid Evaluation Report	1																																																																																							
	Task 12	Submission of Final Bid Evaluation Report - Technical	1																																																																																							
	Task 13	Submission of Bid Evaluation Report - Financial Evaluation	1																																																																																							

**Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.**



## WORK SCHEDULE - CP4








**Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.**

Activity	Task	Activities and tasks	Duration in Month	Project Duration in Months																																																																																						
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
4.5.15		Construction Supervision for CP4	38																																																																																							
	Task 20	Phase-I: Pre-construction activities	2																																																																																							
	20.1	Review of QAP & Construction Methodologies for Various Works	2																																																																																							
	Task 21	Phase-II: Activities During Construction	34																																																																																							
	21.1	Construction Supervision and Quality Control	34																																																																																							
	21.2	Inspection of Material	34																																																																																							
	21.3	Progress Monitoring, Record keeping and Reporting	34																																																																																							
	21.4	Contract Management	34																																																																																							
	21.5	Measurements, Claims and Financial Control	34																																																																																							
	Task 22	Phase-II: Activities During Trial Run and Commissioning	2																																																																																							
	22.1	Pre Commissioning Activities	1																																																																																							
	22.2	Commissioning Activities	1																																																																																							
		Monthly Progress Report with Quality & Quantity Control Details	38																																																																																							
		Material / Equipment Testing & Inspection Report	38																																																																																							
4.5.7	Task 23	Defect Liability Period	12																																																																																							
	23.1	As-Built Drawings	1																																																																																							
	23.2	Submission of Project Completion Report [PCR]	3																																																																																							
	Task 24	Regular Inspection During Defect Liability Period	12																																																																																							
		Implementation of EIA and EoMP	73																																																																																							

WORK SCHEDULE - CP5									
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**Note :** The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

Legends	
	Main Activities [Full Time]
	Main Activities [Intermittent Time]
	Tasks Under Main Activities [Full Time]
	Tasks Under Main Activities [Intermittent Time]
	Sub Tasks Under Tasks
	Reports
	Client's Role

ANNEXURE 5 PROJECTED FINANCIAL PROGRESS BASED ON MAN MONTHS CONSUMED Vs ACTUAL PROGRESS (BILLS PASSED) TILL SEPTEMBER 2021

CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD (CHENNAI PERUR 400MLD DESALINATION PLANT & ALLIED WORKS PROJECT)

REMUNERATION AND REIMBURSABLE COSTS (Indian Rupees & US Dollars)

DATE : 30.09.2021

PERIOD : Projected till September 2021

Sl. No.	Name of the Staff	Position	Office	Allocated Person Months / Quantity	Monthly Remuneratio n / Rate (at fixed rate) (From Jan'2020 to Jan'2021)	Allocated Amount (as per Contract)	Price Escalation Factor as per SCC Clause 6.2(c) (2nd year)	Revised Monthly Remuneratio n / Rate (at fixed rate) (From Feb'2021 to Jan'2022)	Utilised Quantity (From Jan'2020 to Jan'2021)	Estimated Quantity (From Feb'2021 to Jan'2022)	Unutilised Quanity (From Feb'2022 to end of the project)	Revised Allocated Amount (as per Price Escalation)	Total Person months/ quantity Spent for the Month (From Jan'2020 to Jan'2021)	Total Person months/ quantity Spent for the Month (From Feb'2021 upto last Month Aug'2021)	Total Person months/ quantity Spent upto last Month Aug'2021 (From Jan'2020 to Aug'2021)	Person Months/ Quantit y Spent for current month (Sep' 2021)	Total Person Months/ quantity spent upto current month (August 2021) (From Jan'2020 to Sep'2021)	Balance Carried over	Total Amount Booked as on last Month (Jan'2020 to August'2021)	Amount Booked for this Invoice (September 2021)	Total Booked upto this Invoice	Balance Amount
	SMEC INTERNATIONAL PTY LTD																					
I	REMUNERATION (in US Dollar)																					
	Key International Expert																					
1	Dr. Pararajasegram Dharmabalan	Project Manager	Field	70	37,500.00	26,25,000.00	1.02	38,250.00	6.61	12.00	51.39	26,34,000.00	6.61	4.94	11.55	0.63	12.18	57.82	4,36,864.77	24,097.50	4,60,962.27	21,73,037.73
2	Mr. Shane Farquharson	Water Supply Engineer	Field	23	25,360.00	5,83,280.00	1.02	25,867.20	2.04	12.00	8.96	5,89,366.40	2.04	0	2.04	0.00	2.04	20.96	51,734.40	0	51,734.40	5,37,632.00
3	Mr. Michel Morillon	Mechanical Engineer (Desal)	Field	15	44,000.00	6,60,000.00	1.02	44,880.00	4.22	5.00	5.78	6,64,400.00	4.22	0	4.22	0.00	4.22	10.78	1,85,680.00	0	1,85,680.00	4,78,720.00
4	Mr. Guilbert Z Gonzales (Replaced for Mr.Sergio de Bastos Vilar Magalhaes Paulo)	Electrical Engineer (Desal)	Field	25	13,132.00	3,28,300.00	1.02	13,394.64	0.31	12.00	12.69	3,31,451.68	0.31	6.72	7.03	1.00	8.03	16.97	94,082.90	13,394.64	1,07,477.54	2,23,974.14
5	Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Replaced for Mr.John Goullee)	Pipeline Engineer	Field	70	22,602.00	15,82,140.00	1.02	23,054.04	0.00	12.00	58.00	15,87,564.48	0	1.00	1.00	1.00	2.00	68.00	23,054.04	23,054.04	46,108.08	15,41,456.40
6	Mr. Abdel Toukan (Replaced for Mr.Roderick Mackenzie)	Contract Specialist (Desal)	Field	9	44,407.00	3,99,663.00	1.02	45,295.14	3.11	5.89	0.00	4,04,894.14	3.11	1.72	4.83	0.00	4.83	4.17	2,16,136.94	0	2,16,136.94	1,88,757.20
	Non-Key - International Expert																					
7	Mr. Afzal Abdul Latheef (Replaced for Mr.Manikandan Ganesh Shoranur)	Monitoring and Control Expert (Desal)	Field	11	19,260.00	2,11,860.00	1.02	19,645.20	1.89	2.00	7.11	2,12,630.40	1.89	0.91	2.80	0.00	2.80	8.20	54,224.95	0	54,224.95	1,58,405.45
	Sub Total 1 in USD			223		63,90,243.00			18.18	60.89	143.93	64,24,307.10	18.18	15.29	33.47	2.63	36.10	186.90	10,61,778.01	60,546.18	11,22,324.19	53,01,982.91
II	REIMBURSABLES (in US Dollar)																					
II	DUTY TRAVEL TO SITE																					
1	International Air Travel																					
	Professional Staff	Trip		40	3,000.00	1,20,000.00	1.02	3,060.00	6	6	28	1,20,360.00	6.00	0.50	6.50	0.00	6.50	33.50	19,530.00	0.00	19,530.00	1,00,830.00
	Sub Total 2 in USD					1,20,000.00						1,20,360.00							19,530.00	0.00	19,530.00	1,00,830.00
	GROSS INVOICE OF SMEC INTERNATIONAL PTY LTD					65,10,243.00						65,44,667.10							10,81,308.01	60,546.18	11,41,854.19	54,02,812.91
	Deduction of Mobilisation Advance		Advance Amount = USD 325,512			3,25,512.00						3,25,512.00			No. of months = 77		9th Month of deduction		33,819.43	4,227.43	38,046.86	2,87,465.14
	INVOICE OF SMEC INTERNATIONAL PTY LTD (USD)					61,84,731.00						62,19,155.10							10,47,488.58	56,318.75	11,03,807.33	51,15,347.77

Sl. No.	Name of the Staff	Position	Office	Allocated Person Months / Quantity	Monthly Remuneratio n / Rate (at fixed rate) (From Jan'2020 to Jan'2021)	Allocated Amount (as per Contract)	Price Escalation Factor as per SCC Clause 6.2(c) (2nd year)	Revised Monthly Remuneratio n / Rate (at fixed rate) (From Feb'2021 to Jan'2022)	Utilised Quantity (From Jan'2020 to Jan'2021)	Estimated Quanity (From Feb'2021 to Jan'2022)	Unutilised Quanity (From Feb'2022 to end of the project)	Revised Allocated Amount (as per Price Escalation)	Total Person months/ quantity Spent for the Month (From Jan'2020 to Jan'2021)	Total Person months/ quantity Spent for the Month (From Feb'2021 upto last Month Aug'2021)	Total Person months/ quantity Spent upto last Month Aug'2021 (From Jan'2020 to Aug'2021)	Person Months/ Quantit y Spent for current month (Sep' 2021)	Total Person Months/ quantity spent upto current month (August 2021) (From Jan'2020 to Sep'2021)	Balance Carried over	Total Amount Booked as on last Month (Jan'2020 to August'2021)	Amount Booked for this Invoice (September 2021)	Total Booked upto this Invoice	Balance Amount
	<b>SMEC INDIA PVT. LTD.</b>																					
	<b>REMUNERATION (in US Dollar)</b>																					
	<b>Non-Key International Expert</b>																					
1	Dr. D. Elanchezian	Civil and Structure Engineer (Desal)	Field	42	10,895.00	4,57,590.00	1.02	11,112.90	5.43	3.00	36.57	4,90,928.70	5.43	0.90	6.33	0	6.33	35.67	69,161.46	0	69,161.46	4,21,767.24
2	Mr. Ashish Gosain	Monitoring and Control Expert (Distribution)	Field	12	7,704.00	92,448.00	1.02	7,858.08	0.00	0.00	12.00	92,448.00	0	0	0	0	0	12	0	0	0	92,448.00
3	Mr. Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan)	Specification Specialist (Desal)	Field	4	7,264.00	29,056.00	1.02	7,409.28	1.81	2.19	0.00	29,374.16	1.81	0.98	2.79	0	2.79	1.21	20,422.41	0	20,422.41	8,951.76
4	Mr. Hemant Chadha	Financial Expert	Field	3	12,106.00	36,318.00	1.02	12,348.12	1.59	1.41	0.00	36,659.39	1.59	0.72	2.31	0	2.31	0.69	28,139.19	0	28,139.19	8,520.20
5	Mr. Santhosh Kumar	Commissioning Engineer	Field	10	10,015.00	1,00,150.00	1.02	10,215.30	0.00	0.00	10.00	1,00,150.00	0	0	0	0	0	10	0	0	0	1,00,150.00
6	Mr. Rajesh Mishra	Social Communication Specialist	Field	16	9,630.00	1,54,080.00	1.02	9,822.60	0.82	3.00	12.18	1,54,657.80	0.82	1.67	2.49	0.59	3.08	12.92	24,282.48	5,795.33	30,077.82	1,24,579.98
	<b>Sub Total 3 in USD</b>			<b>87</b>		<b>8,69,642.00</b>			<b>9.65</b>	<b>9.60</b>	<b>70.75</b>	<b>9,04,218.05</b>	<b>9.65</b>	<b>4.27</b>	<b>13.92</b>	<b>0.59</b>	<b>14.51</b>	<b>72.49</b>	<b>1,42,005.53</b>	<b>5,795.33</b>	<b>1,47,800.87</b>	<b>7,56,417.18</b>
	<b>INVOICE OF SMEC INDIA PVT. LTD. (USD)</b>					<b>8,69,642.00</b>						<b>9,04,218.05</b>							<b>1,42,005.53</b>	<b>5,795.33</b>	<b>1,47,800.87</b>	<b>7,56,417.18</b>

Sl. No.	Name of the Staff	Position	Office	Allocated Person Months / Quantity	Monthly Remuneration / Rate (at fixed rate) (From Jan'2020 to Jan'2021)	Allocated Amount (as per Contract)	Price Escalation Factor as per SCC Clause 6.2(c) (2nd year)	Revised Monthly Remuneration / Rate (at fixed rate) (From Feb'2021 to Jan'2022)	Utilised Quantity (From Jan'2020 to Jan'2021)	Estimated Quantity (From Feb'2021 to Jan'2022)	Unutilised Quantity (From Feb'2022 to end of the project)	Revised Allocated Amount (as per Price Escalation)	Total Person months/ quantity Spent for the Month (From Jan'2020 to Jan'2021)	Total Person months/ quantity Spent for the Month (From Feb'2021 upto last Month Aug'2021)	Total Person months/ quantity Spent upto last Month Aug'2021 (From Jan'2020 to Aug'2021)	Person Months/ Quantity Spent for current month (Sep' 2021)	Total Person Months/ quantity spent upto current month (August 2021) (From Jan'2020 to Sep'2021)	Balance Carried over	Total Amount Booked as on last Month (Jan'2020 to August'2021)	Amount Booked for this Invoice (September 2021)	Total Booked upto this Invoice	Balance Amount
	<b>Non-Key Expert- Local Staff (Local in Rupees)</b>																					
1	Mr. Ramesh Senthil	Civil Engineer	Field	72	4,35,750.00	3,13,74,000.00	1.03	4,48,822.50	11.48	12.00	48.52	3,15,30,870.00	11.48	6.61	18.09	<b>0.90</b>	18.99	53.01	79,70,758.81	<b>4,03,940.25</b>	83,74,699.06	2,31,56,170.94
2	Mr. N. Srinivasulu Reddy	Construction Planner / Cost Estimator	Field	4	3,00,000.00	12,00,000.00	1.03	3,09,000.00	0.00	0.00	4.00	12,00,000.00	0	0	0	<b>0</b>	0	4	0	<b>0</b>	0	12,00,000.00
3	Mr. R. Muthurajan (Replaced for Mr.K.C.Vinod Chandra)	Quantity Surveyor - 1	Field	50	3,00,000.00	1,50,00,000.00	1.03	3,09,000.00	3.26	12.00	34.74	1,51,08,000.00	3.26	6.76	10.02	<b>0.95</b>	10.97	39.03	30,66,559.09	<b>2,93,550.00</b>	33,60,109.09	1,17,47,890.91
	<b>Sub Total 1 in INR</b>			<b>126</b>	<b>10,35,750.00</b>	<b>4,75,74,000.00</b>			<b>14.74</b>	<b>24.00</b>	<b>87.26</b>	<b>4,78,38,870.00</b>	<b>14.74</b>	<b>13.37</b>	<b>28.11</b>	<b>1.85</b>	<b>29.96</b>	<b>96.04</b>	<b>1,10,37,317.90</b>	<b>6,97,490.25</b>	<b>1,17,34,808.15</b>	<b>3,61,04,061.85</b>
	<b>Support Staff (Local in Rupees)</b>																					
4	Mr. B. Ajithkumar	Secretary	Field	70	52,290.00	36,60,300.00	1.03	53,858.70	2.90	12.00	55.10	36,79,124.40	2.90	6.58	9.48	<b>0.95</b>	10.43	59.57	5,05,884.36	<b>51,165.77</b>	5,57,050.12	31,22,074.28
5	Mrs. P. Prashanthi	Geo-technical Engineer	Home	6	4,35,750.00	26,14,500.00	1.03	4,48,822.50	0.13	3.00	2.87	26,53,717.50	0.13	0.04	0.17	<b>0</b>	0.17	5.83	74,600.40	<b>0</b>	74,600.40	25,79,117.10
6	Mr. Santosh Biswa	Contract Management Specialist	Home	6	4,35,750.00	26,14,500.00	1.03	4,48,822.50	4.35	1.65	0.00	26,36,069.63	4.35	1.65	6.00	<b>0</b>	6.00	0	26,36,069.63	<b>0</b>	26,36,069.63	0
7	Mr. A. Renu Kumar	Visa & Admin. Officer	Field	70	1,04,580.00	73,20,600.00	1.03	1,07,717.40	11.55	12.00	46.45	73,58,248.80	11.55	6.30	17.85	<b>0.81</b>	18.66	51.34	18,86,714.47	<b>87,251.09</b>	19,73,965.56	53,84,283.24
8	Mr. K. Manikandan	Accountant	Field	70	69,720.00	48,80,400.00	1.03	71,811.60	10.15	12.00	47.85	49,05,499.20	10.15	5.85	16.00	<b>0.86</b>	16.86	53.14	11,27,494.73	<b>61,757.98</b>	11,89,252.70	37,16,246.50
9	Mr. P. Raja (Replaced for Mr.R.Jagan)	Office Keeper-1	Field	70	26,145.00	18,30,150.00	1.03	26,929.35	11.71	12.00	46.29	18,39,562.20	11.71	6.80	18.51	<b>1.00</b>	19.51	50.49	4,89,399.94	<b>26,929.35</b>	5,16,329.29	13,23,232.91
10	Mr. T. Someswaran (Replaced for Mr.G.Arjun)	Office Keeper-2	Field	70	26,145.00	18,30,150.00	1.03	26,929.35	11.71	12.00	46.29	18,39,562.20	11.71	6.85	18.56	<b>1.00</b>	19.56	50.44	4,90,624.00	<b>26,929.35</b>	5,17,553.35	13,22,008.85
	<b>Sub Total 2 in INR</b>			<b>362</b>		<b>2,47,50,600.00</b>			<b>52.50</b>	<b>64.65</b>	<b>244.85</b>	<b>2,49,11,783.93</b>	<b>52.50</b>	<b>34.07</b>	<b>86.57</b>	<b>4.62</b>	<b>91.19</b>	<b>270.81</b>	<b>72,10,787.51</b>	<b>2,54,033.54</b>	<b>74,64,821.05</b>	<b>1,74,46,962.88</b>
	<b>REIMBURSABLE EXPENSES</b>																					
<b>1</b>	<b>TRANSPORTATION</b>																					
1	The Vehicles provided by the Consultants shall include the cost for the rental, drivers, operation, maintenance, repairs, insurance etc.	Month		170	50,000.00	85,00,000.00	1.03	51,500.00	12.00	24.00	134.00	85,36,000.00	12.00	14.00	26.00	<b>2.00</b>	28.00	142.00	10,82,021.56	<b>91,672.88</b>	11,73,694.44	73,62,305.57
<b>2</b>	<b>DUTY TRAVEL TO SITE (REIMBURSABLE)</b>																					
<b>2</b>	<b>Local Air Travel</b>																					
a	Professional Staff	Round Trip		10	20,000.00	2,00,000.00	1.03	20,600.00	2.00	12.00	8.00	2,04,800.00	2.00	2.00	4.00	<b>0</b>	4.00	6.00	67,738.00	<b>0</b>	67,738.00	1,37,062.00
b	Sub Professional Staff	Round Trip		80	10,000.00	8,00,000.00	1.03	10,300.00	3.00	12.00	77.00	8,23,100.00	3.00	0	3.00	<b>0</b>	3.00	77.00	30,000.00	<b>0</b>	30,000.00	7,93,100.00
<b>3</b>	<b>OFFICE RENT (REIMBURSABLE)</b>																					
1	The Rent Cost include maintenance, cleaning, repairs etc.	Month		77	1,00,000.00	77,00,000.00	1.03	1,03,000.00	12.40	12.00	64.60	78,93,800.00	12.40	7.00	19.40	<b>1.00</b>	20.40	56.60	19,61,000.00	<b>1,03,000.00</b>	20,64,000.00	58,29,800.00
<b>4</b>	<b>OFFICE SUPPLIES, UTILITIES &amp; COMMUNICATION (REIMBURSABLE)</b>																					
1	Office supplies	No.		77	10,000.00	7,70,000.00	1.03	10,300.00	10.57	12.00	66.43	7,89,929.00	10.57	7.00	17.57	1.00	18.57	58.43	1,77,800.00	<b>10,300.00</b>	1,88,100.00	6,01,829.00
2	Drafting supplies	No.		77	6,000.00	4,62,000.00	1.03	6,180.00	10.57	12.00	66.43	4,73,957.40	10.57	7.00	17.57	1.00	18.57	58.43	1,06,680.00	<b>6,180.00</b>	1,12,860.00	3,61,097.40
3	Computer running costs	No.		77	5,000.00	3,85,000.00	1.03	5,150.00	10.57	12.00	66.43	3,94,964.50	10.57	7.00	17.57	1.00	18.57	58.43	88,900.00	<b>5,150.00</b>	94,050.00	3,00,914.50
4	Domestic communication	No.		77	15,000.00	11,55,000.00	1.03	15,450.00	10.57	12.00	66.43	11,84,893.50	10.57	7.00	17.57	1.00	18.57	58.43	2,66,700.00	<b>15,450.00</b>	2,82,150.00	9,02,743.50

Sl. No.	Name of the Staff	Position	Office	Allocated Person Months / Quantity	Monthly Remuneration / Rate (at fixed rate) (From Jan'2020 to Jan'2021)	Allocated Amount (as per Contract)	Price Escalation Factor as per SCC Clause 6.2(c) (2nd year)	Revised Monthly Remuneration / Rate (at fixed rate) (From Feb'2021 to Jan'2022)	Utilised Quantity (From Jan'2020 to Jan'2021)	Estimated Quantity (From Feb'2021 to Jan'2022)	Unutilised Quantity (From Feb'2022 to end of the project)	Revised Allocated Amount (as per Price Escalation)	Total Person months/ quantity Spent for the Month (From Jan'2020 to Jan'2021)	Total Person months/ quantity Spent for the Month (From Feb'2021 upto last Month Aug'2021)	Total Person months/ quantity Spent upto last Month Aug'2021 (From Jan'2020 to Aug'2021)	Person Months/ Quantity Spent for current month (Sep' 2021)	Total Person Months/ quantity spent upto current month (August 2021) (From Jan'2020 to Sep'2021)	Balance Carried over	Total Amount Booked as on last Month (Jan'2020 to August'2021)	Amount Booked for this Invoice (September 2021)	Total Booked upto this Invoice	Balance Amount
5	OFFICE FURNITURE & EQUIPMENT (REIMBURSABLE)																					
A	Office Furniture (Purchase)																					
1	Work Station Table & Chairs	No.		LS	5,00,000.00	5,00,000	1.00	5,00,000.00	LS	0	0	5,00,000.00	LS	0	LS	0	LS	0	5,00,000.00	0	5,00,000.00	0
2	Conference Hall Table & Chairs	No.		LS	2,50,000.00	2,50,000.00	1.00	2,50,000.00	LS	0	0	2,50,000.00	LS	0	LS	0	LS	0	2,50,000.00	0	2,50,000.00	0
3	Office Interiors	No.		LS	10,00,000.00	10,00,000.00	1.00	10,00,000.00	LS	0	0	10,00,000.00	LS	0	LS	0	LS	0	10,00,000.00	0	10,00,000.00	0
B	Office Equipment (Purchase)																					
1	Multipurpose Copy Machine	No.		1	2,00,000.00	2,00,000.00	1.00	2,00,000.00	1	0	0	2,00,000.00	1	0	1	0	1	0	2,00,000.00	0	2,00,000.00	0
	A0,A1,A2 Plotter	No.		1	5,00,000.00	5,00,000.00	1.00	5,00,000.00	1	0	0	5,00,000.00	1	0	1	0	1	0	5,00,000.00	0	5,00,000.00	0
2	Laser Printers	No.		1	1,00,000.00	1,00,000.00	1.03	1,03,000.00	0	0	1	1,03,000.00	0	0	0	0	0	1	0	0	1,03,000.00	0
3	Desktop/Laptops	No.		15	60,000.00	9,00,000.00	1.03	61,800.00	10	2	3	9,03,600.00	10	0	10	0	10	5	6,00,000.00	0	6,00,000.00	3,03,600.00
4	Refrigerator, Coffee Vending Machine, Oven etc.	No.		LS	1,00,000.00	1,00,000.00	1.03	1,03,000.00	2	2	LS	1,03,000.00	2	0	LS	0	LS	LS	45,560.00	0	45,560.00	57,440.00
5	Office Attendance Biometric Systems	No.		LS	1,00,000.00	1,00,000.00	1.03	1,03,000.00	LS	0	0	1,03,000.00	0	0	0	0	0	LS	0	0	1,03,000.00	0
6	Office Server	LS		1	10,00,000.00	10,00,000.00	1.00	10,00,000.00	LS	0	0	10,00,000.00	LS	0	1	0	1	0	10,00,000.00	0	10,00,000.00	0
7	Projector	No.		2	25,000.00	50,000.00	1.00	25,000.00	2	0	0	50,000.00	2	0	2	0	2	0	50,000.00	0	50,000.00	0
8	Video Conference with Display TVs	No.		1	3,00,000.00	3,00,000.00	1.00	3,00,000.00	1	0	0	3,00,000.00	1	0	1	0	1	0	3,00,000.00	0	3,00,000.00	0
9	Softwares	No.		LS	30,00,000.00	30,00,000.00	1.03	30,90,000.00	0	3	LS	30,90,000.00	0	2	LS	1	3	LS	24,12,581.00	5,32,451.00	29,45,032.00	1,44,968.00
6	PER DIEM (PER DAY) ALLOWANCE (REIMBURSABLE)																					
1	International	No.		810	5,000.00	40,50,000.00	1.03	5,150.00	174.00	540.00	96.00	41,31,000.00	174.00	286.00	460.00	77.00	537.00	273.00	23,42,900.00	3,96,550.00	27,39,450.00	13,91,550.00
2	National	No.		50	5,000.00	2,50,000.00	1.03	5,150.00	0.00	10.00	40.00	2,51,500.00	0	0	0	0	0	50	0	0	0	2,51,500.00
7	REPORTS & DOCUMENT PRINTING (REIMBURSABLE)																					
1	Monthly Progress Report	No.		154	6,000.00	9,24,000.00	1.03	6,180.00	11.00	12.00	131.00	9,26,160.00	11.00	7.00	18.00	1.00	19.00	135.00	1,09,260.00	6,180.00	1,15,440.00	8,10,720.00
2	Design Report	No.		50	10,000.00	5,00,000.00	1.03	10,300.00	1.00	1.00	48.00	5,00,300.00	1.00	0	1.00	0	1.00	49.00	10,000.00	0	10,000.00	4,90,300.00
8	SURVEYS (REIMBURSABLE)																					
1	Bathymetric Survey	No.		1	8,00,000.00	8,00,000.00	1.03	8,24,000.00	0	1	0	8,24,000.00	0	1	1	0	1	0	8,24,000	0	8,24,000.00	0
2	Geo-Technical Survey	No.		50	15,000.00	7,50,000.00	1.03	15,450.00	0	10	40	7,54,500.00	0	0	0	0	0	50	0	0	0	7,54,500.00
3	Water Sample Testing	No.		10	45,000.00	4,50,000.00	1.03	46,350.00	0	8	2	4,60,800.00	0	8	8	0	8	2	3,70,800	0	3,70,800.00	90,000.00
4	Topographical Survey	No.		600	5,000.00	30,00,000.00	1.03	5,150.00	0	600	0	30,90,000.00	0	0	0	36	36	564	0	1,89,406.00	1,89,406.00	29,00,594.00
	Sub Total 3 in INR					3,86,96,000.00						3,93,42,304.40							1,42,95,940.56	13,56,339.88	1,56,52,280.44	2,36,90,023.97
	GROSS INVOICE OF SMEC INDIA PVT. LTD.					11,10,20,600.00						11,20,92,958.33							3,25,44,045.97	23,07,863.66	3,48,51,909.63	7,72,41,048.69
	Deduction of Mobilisation Advance	Advance Amount = INR 5,551,030				55,51,030.00						55,51,030			No. of months = 77		9th Month of deduction		5,76,730.39	72,091.30	6,48,821.69	49,02,208.31
	INVOICE OF SMEC INDIA PVT. LTD. (INR)					10,54,69,570.00						10,65,41,928.33							3,19,67,315.58	22,35,772.36	3,42,03,087.94	7,23,38,840.38

Sl. No.	Name of the Staff	Position	Office	Allocated Person Months / Quantity	Monthly Remuneration / Rate (at fixed rate) (From Jan'2020 to Jan'2021)	Allocated Amount (as per Contract)	Price Escalation Factor as per SCC Clause 6.2(c) (2nd year)	Revised Monthly Remuneration / Rate (at fixed rate) (From Feb'2021 to Jan'2022)	Utilised Quantity (From Jan'2020 to Jan'2021)	Estimated Quantity (From Feb'2021 to Jan'2022)	Unutilised Quantity (From Feb'2022 to end of the project)	Revised Allocated Amount (as per Price Escalation)	Total Person months/ quantity Spent for the Month (From Jan'2020 to Jan'2021)	Total Person months/ quantity Spent for the Month (From Feb'2021 upto last Month Aug'2021)	Total Person months/ quantity Spent upto last Month Aug'2021 (From Jan'2020 to Aug'2021)	Person Months/ Quantity Spent for current month (Sep' 2021)	Total Person Months/ quantity spent upto current month (August 2021) (From Jan'2020 to Sep'2021)	Balance Carried over	Total Amount Booked as on last Month (Jan'2020 to August'2021)	Amount Booked for this Invoice (September 2021)	Total Booked upto this Invoice	Balance Amount
	<b>TATA CONSULTING ENGINEERS LTD.</b>																					
	<b>Non-Key International Expert (in US Dollar)</b>																					
1	Mr. Manish Chintamani Sane	Specification Specialist [Distribution]	Field	3	11,560.00	34,680.00	1.02	11,791.20	0.00	3.00	0.00	35,373.60	0	0	0	0	0	3	0	0	0	35,373.60
2	Dr. Alok Kumar	Environmental Specialist	Field	15	12,750.00	1,91,250.00	1.02	13,005.00	1.94	3.00	10.06	1,92,015.00	1.94	1.40	3.34	0.09	3.43	11.57	42,906.53	1,170.45	44,076.98	1,47,938.02
3	Mr. Hyacinth Augusto Vaz	Organisational Expert	Field	9	10,950.00	98,550.00	1.02	11,169.00	0.00	3.00	6.00	99,207.00	0.00	1.95	1.95	0.00	1.95	7.05	21,779.55	0.00	21,779.55	77,427.45
	<b>Sub Total 4 in USD</b>			<b>27</b>		<b>3,24,480.00</b>			<b>1.94</b>	<b>9.00</b>	<b>16.06</b>	<b>3,26,595.60</b>	<b>1.94</b>	<b>3.35</b>	<b>5.29</b>	<b>0.09</b>	<b>5.38</b>	<b>21.62</b>	<b>64,686.08</b>	<b>1,170.45</b>	<b>65,856.53</b>	<b>2,60,739.07</b>
	<b>INVOICE OF TATA CONSULTING ENGINEERS LTD. (USD)</b>					<b>3,24,480.00</b>						<b>3,26,595.60</b>							<b>64,686.08</b>	<b>1,170.45</b>	<b>65,856.53</b>	<b>2,60,739.07</b>
	<b>(Key Staff) - Local in Rupees</b>																					
1	Mr. S. Siddappaswamy	Senior Civil Engineer	Field	72	8,00,000.00	5,76,00,000.00	1.03	8,24,000.00	7.13	12.00	52.87	5,78,88,000.00	7.13	6.02	13.15	0.81	13.96	58.04	1,06,65,978.18	6,67,440.00	1,13,33,418.18	4,65,54,581.82
2	Mr. Nagesh Chinnam	Senior Pipeline Engineer	Field	72	6,00,000.00	4,32,00,000.00	1.03	6,18,000.00	7.12	12.00	52.88	4,34,16,000.00	7.12	6.58	13.70	1.00	14.70	57.30	83,36,754.55	6,18,000.00	89,54,754.55	3,44,61,245.45
	<b>Sub Total 4 in INR</b>			<b>144</b>		<b>10,08,00,000.00</b>			<b>14.25</b>	<b>24.00</b>	<b>105.75</b>	<b>10,13,04,000.00</b>	<b>14.25</b>	<b>12.60</b>	<b>26.85</b>	<b>1.81</b>	<b>28.66</b>	<b>115.34</b>	<b>1,90,02,732.73</b>	<b>12,85,440.00</b>	<b>2,02,88,172.73</b>	<b>8,10,15,827.27</b>
	<b>Non-Key Expert [National] in Rupees</b>																					
3	Mr. Deb Kumar Kar (Replaced for Mr.Mayur Gupta / Mr.Surajit Debnath)	Mechanical Engineer	Field	40	5,00,000.00	2,00,00,000.00	1.03	5,15,000.00	1.13	10.00	28.87	2,01,50,000.00	1.13	1.58	2.71	0.36	3.07	36.93	13,78,700.00	1,85,400.00	15,64,100.00	1,85,85,900.00
4	Mr. Om Prakash Singh (Replaced for Mr.GVK Mohan)	Electrical Engineer	Field	45	5,00,000.00	2,25,00,000.00	1.03	5,15,000.00	1.54	12.00	31.46	2,26,80,000.00	1.54	6.12	7.66	0.90	8.56	36.44	39,23,672.73	4,63,500.00	43,87,172.73	1,82,92,827.27
5	Ms. Sudha J. (Replaced for Mr.Vinod MK)	Structural Engineer	Field	28	6,25,000.00	1,75,00,000.00	1.03	6,43,750.00	2.40	12.00	13.60	1,77,25,000.00	2.40	5.98	8.38	1.00	9.38	18.62	53,49,039.77	6,43,750.00	59,92,789.77	1,17,32,210.23
6	(Replaced for Mrs.Kirti Alhad Sadarjoshi /Mr.Kumar M)	Architect	Field	12	4,75,000.00	57,00,000.00	1.03	4,89,250.00	2.59	3.00	6.41	57,42,750.00	2.59	0	2.59	0	2.59	9.41	12,30,250.00	0	12,30,250.00	45,12,500.00
7	Mr. K. Senthil	Building Mechanical & Electrical Engineer	Field	16	5,50,000.00	88,00,000.00	1.03	5,66,500.00	0.22	0.00	15.78	88,00,000.00	0.22	0	0.22	0	0.22	15.78	1,21,000.00	0	1,21,000.00	86,79,000.00
8	Mr. S. Sreenivasula reddy	Specification Specialist	Field	4	5,00,000.00	20,00,000.00	1.03	5,15,000.00	0.00	0.00	4.00	20,00,000.00	0	0	0.00	0	0	4	0	0	0	20,00,000.00
9	Mr. S. M. Karthikaeswaran	Environmental Specialist	Field	30	5,00,000.00	1,50,00,000.00	1.03	5,15,000.00	9.66	12.00	8.34	1,51,80,000.00	9.66	6.11	15.77	0.86	16.63	13.37	79,77,118.18	4,42,900.00	84,20,018.18	67,59,981.82
10	Mr. Hema Kumar	Pipeline Engineer-3	Field	50	2,40,000.00	1,20,00,000.00	1.03	2,47,200.00	0.00	0.00	50.00	1,20,00,000.00	0	0	0	0	0	50	0	0	0	1,20,00,000.00
11	Mr. Najas Thattakatte Abdul Kareem	Safety & Health Expert-1	Field	40	2,40,000.00	96,00,000.00	1.03	2,47,200.00	0.00	0.00	40.00	96,00,000.00	0	0	0	0	0	40	0	0	0	96,00,000.00
12	Mr. Prashant Balan	Safety & Health Expert-2	Field	70	2,40,000.00	1,68,00,000.00	1.03	2,47,200.00	0.00	0.00	70.00	1,68,00,000.00	0	0	0	0	0	70	0	0	0	1,68,00,000.00
13	Mr. V.S. Rajasekar	Quantity Surveyor-2	Field	70	2,40,000.00	1,68,00,000.00	1.03	2,47,200.00	3.22	12.00	54.78	1,68,86,400.00	3.22	6.26	9.48	0.900	10.38	59.62	23,20,946.18	2,22,480.00	25,43,426.18	1,43,42,973.82
	<b>Sub Total 5 in INR</b>			<b>405</b>		<b>14,67,00,000.00</b>			<b>20.76</b>	<b>61.00</b>	<b>323.24</b>	<b>14,75,64,150.00</b>	<b>20.76</b>	<b>26.06</b>	<b>46.82</b>	<b>4.02</b>	<b>50.84</b>	<b>354.16</b>	<b>2,23,00,726.86</b>	<b>19,58,030.00</b>	<b>2,42,58,756.86</b>	<b>12,33,05,393.14</b>
	<b>REIMBURSABLE EXPENSES</b>																					
<b>1</b>	<b>TRANSPORTATION</b>																					
1	The Vehicle provided by the consultants shall include the cost for the rental, drivers, operation, maintenance, repairs, insurance etc.	Months		200	50,000.00	1,00,00,000.00	1.03	51,500.00	10.00	24.00	166.00	1,00,36,000.00	10.00	14.00	24.00	2	26.00	174.00	12,36,632.00	72,370.00	13,09,002.00	87,26,998.00
2	<b>Local Air travel</b>																					
	Professional Staff	Return Trip		50	20,000	10,00,000.00	1.03	20,600.00	4.50	12.00	33.50	10,07,200.00	4.50	2.00	6.50	0	6.50	43.50	1,44,012.00	12,822.00	1,56,834.00	8,50,366.00
	<b>Sub Total 6 in INR</b>					<b>1,10,00,000.00</b>						<b>1,10,43,200.00</b>							<b>13,80,644.00</b>	<b>85,192.00</b>	<b>14,65,836.00</b>	<b>95,77,364.00</b>
	<b>GROSS INVOICE OF TATA CONSULTING ENGINEERS LTD.</b>					<b>25,85,00,000.00</b>						<b>25,99,11,350.00</b>							<b>4,26,84,103.59</b>	<b>33,28,662.00</b>	<b>4,60,12,765.59</b>	<b>21,38,98,584.41</b>
	<b>Deduction of Mobilisation Advance</b>	<b>Advance Amount = INR 12,925,000</b>				<b>1,29,25,000.00</b>						<b>1,29,25,000.00</b>			<b>No. of months = 77</b>		<b>9th Month of deduction</b>		<b>13,42,857.14</b>	<b>1,67,857.14</b>	<b>15,10,714.29</b>	<b>1,14,14,285.71</b>
	<b>INVOICE OF TATA CONSULTING ENGINEERS LTD. (INR)</b>					<b>24,55,75,000.00</b>						<b>24,69,86,350.00</b>							<b>4,13,41,246.45</b>	<b>31,60,804.86</b>	<b>4,45,02,051.31</b>	<b>20,24,84,298.69</b>



Sl. No.	Name of the Staff	Position	Office	Allocated Person Months / Quantity	Monthly Remuneration / Rate (at fixed rate) (From Jan'2020 to Jan'2021)	Allocated Amount (as per Contract)	Price Escalation Factor as per SCC Clause 6.2(c) (2nd year)	Revised Monthly Remuneration / Rate (at fixed rate) (From Feb'2021 to Jan'2022)	Utilised Quantity (From Jan'2020 to Jan'2021)	Estimated Quantity (From Feb'2021 to Jan'2022)	Unutilised Quantity (From Feb'2022 to end of the project)	Revised Allocated Amount (as per Price Escalation)	Total Person months/ quantity Spent for the Month (From Jan'2020 to Jan'2021)	Total Person months/ quantity Spent for the Month (From Feb'2021 upto last Month Aug'2021)	Total Person months/ quantity Spent upto last Month Aug'2021 (From Jan'2020 to Aug'2021)	Person Months/ Quantity Spent for current month (Sep' 2021)	Total Person Months/ quantity spent upto current month (August 2021) (From Jan'2020 to Sep'2021)	Balance Carried over	Total Amount Booked as on last Month (Jan'2020 to August'2021)	Amount Booked for this Invoice (September 2021)	Total Booked upto this Invoice	Balance Amount
	<b>NJS ENGINEERS INDIA PVT. LTD.</b>																					
<b>I</b>	<b>REMUNERATION</b>																					
	<b>Key Staff- International Expert (in US Dollars)</b>																					
1	Dr. Ghulam Mustafa	Desalination Expert	Field	29.50	26,225.00	7,73,637.50	1.02	26,749.50	9.99	12.00	7.51	7,79,931.50	9.99	4.67	14.66	<b>0.22</b>	14.88	14.62	3,86,907.92	<b>5,884.89</b>	3,92,792.80	3,87,138.70
2	Dr. Uday G. Kelkar	Additional Key Expert - International	Field	2.50	26,225.00	65,562.50	1.02	26,749.50	1.01	1.49	0	66,344.01	1.01	0.62	1.63	<b>0.00</b>	1.63	0.87	42,998.99	<b>0</b>	42,998.99	23,345.02
3	Mr. Tharloak S. Bhatt	Contract Specialist (Distribution)	Field	8	22,700.00	1,81,600.00	1.02	23,154.00	0	8	0	1,85,232.00	0	0	0	<b>0</b>	0	8	0	<b>0</b>	0	1,85,232.00
	<b>Non-Key - International Expert</b>																					
4	Mr. Madhawa Delpachitra	Mechanical Engineer (Distribution)	Field	4	22,700.00	90,800.00	1.02	23,154.00	0	4	0	92,616.00	0	0	0	<b>0</b>	0	4	0	<b>0</b>	0	92,616.00
5	Mr. Manfred Kurt (Meisner)	Electrical Engineer (Distribution)	Field	4	23,500.00	94,000.00	1.02	23,970.00	0	4	0	95,880.00	0	0	0	<b>0</b>	0	4	0	<b>0</b>	0	95,880.00
	<b>Sub Total 5 in USD</b>			<b>48</b>		<b>12,05,600.00</b>			<b>11.00</b>	<b>29.49</b>	<b>7.51</b>	<b>12,20,003.51</b>	<b>11.00</b>	<b>5.29</b>	<b>16.29</b>	<b>0.22</b>	<b>16.51</b>	<b>31.49</b>	<b>4,29,906.90</b>	<b>5,884.89</b>	<b>4,35,791.79</b>	<b>7,84,211.71</b>
<b>II</b>	<b>REIMBURSABLE EXPENSES</b>																					
<b>2</b>	<b>DUTY TRAVEL TO SITE (in US Dollar)</b>																					
<b>1</b>	<b>International Air Travel</b>																					
	Professional Staff	Return Trip		10	3,000.00	30,000.00	1.02	3,060.00	0	5	5	30,300.00	0	0	0	<b>0</b>	0	10	0	<b>0</b>	0	30,300.00
	<b>Sub Total 6 in USD</b>					<b>30,000.00</b>						<b>30,300.00</b>							<b>0</b>	<b>0</b>	<b>0</b>	<b>30,300.00</b>
	<b>INVOICE OF NJS ENGINEERS INDIA PVT. LTD. (USD)</b>					<b>12,35,600.00</b>						<b>12,50,303.51</b>							<b>4,29,906.90</b>	<b>5,884.89</b>	<b>4,35,791.79</b>	<b>8,14,511.71</b>
	<b>Non-Key Expert [National]- in Rupees</b>																					
6	Mr. K. Prabhat (Replaced for Mr.Rahul N Ramdhan / Mr.Chandra Sekhar Reddy Yedla)	Pipeline Engineer 1	Field	60	4,30,000.00	2,58,00,000.00	1.03	4,42,900.00	3.76	8.00	48.24	2,59,03,200.00	3.76	0.00	3.76	0.90	4.66	55.34	16,16,800.00	<b>3,98,610.00</b>	20,15,410.00	2,38,87,790.00
7	Mr. P. Thangavel (Replaced for Mr.V.Tulasi Ram)	Pipeline Engineer - 2	Field	60	4,30,000.00	2,58,00,000.00	1.03	4,42,900.00	3.36	12.00	44.64	2,59,54,800.00	3.36	6.53	9.89	0.86	10.75	49.25	43,38,547.55	<b>3,80,894.00</b>	47,19,441.55	2,12,35,358.45
8	Mr. Saravanan P M	Hydraulic Modeller - 1	Field	8	4,30,000.00	34,40,000.00	1.03	4,42,900.00	0.09	7.91	0.00	35,42,039.00	0.09	4.34	4.43	0.63	5.06	2.94	19,60,483.36	<b>2,79,027.00</b>	22,39,510.36	13,02,528.64
9	Ms. V. Nandhini	Hydraulic Modeller - 2	Field	8	4,30,000.00	34,40,000.00	1.03	4,42,900.00	0.00	5.00	3.00	35,04,500.00	0	0	0	0	0	8	0	<b>0</b>	0	35,04,500.00
10	Mrs. R. Kanmani (Replaced for Dr. M. Rajsekhar Reddy)	Social Communication Specialist	Field	72	5,00,000.00	3,60,00,000.00	1.03	5,15,000.00	3.98	12.00	56.02	3,61,80,000.00	3.98	6.76	10.74	0.95	11.69	60.31	54,70,931.82	<b>4,89,250.00</b>	59,60,181.82	3,02,19,818.18
	<b>Support Staff (in Rupees)</b>																					
11	Mr. G. Murali	CAD Operator-1	Field	30	1,00,000.00	30,00,000.00	1.03	1,03,000.00	9.43	12.00	8.57	30,36,000.00	9.43	6.62	16.05	1.00	17.05	12.95	16,24,766.36	<b>1,03,000.00</b>	17,27,766.36	13,08,233.64
12	Ms. J. Nithya	CAD Operator-2	Field	30	1,00,000.00	30,00,000.00	1.03	1,03,000.00	1.80	12.00	16.20	30,36,000.00	1.80	6.39	8.19	1.00	9.19	20.81	8,37,795.45	<b>1,03,000.00</b>	9,40,795.45	20,95,204.55
13	Mr. Vijay Kumar	CAD Operator-3	Field	30	1,00,000.00	30,00,000.00	1.03	1,03,000.00	0.99	12.00	17.01	30,36,000.00	0.99	6.16	7.15	0.95	8.10	21.90	7,33,386.36	<b>97,850.00</b>	8,31,236.36	22,04,763.64
14	Mr. Suresh Mohan Dwivedi	GIS Operator	Field	18	2,50,000.00	45,00,000.00	1.03	2,57,500.00	2.77	12.00	3.23	45,90,000.00	2.77	6.38	9.15	1.00	10.15	7.85	23,36,520.45	<b>2,57,500.00</b>	25,94,020.45	19,95,979.55
15	TBN	Site Inspector-1	Field	50	1,35,000.00	67,50,000.00	1.03	1,39,050.00	0.00	5.00	45.00	67,70,250.00	0	0	0	0	0	50	0	<b>0</b>	0	67,70,250.00
16	TBN	Site Inspector-2	Field	50	1,35,000.00	67,50,000.00	1.03	1,39,050.00	0.00	0.00	50.00	67,50,000.00	0	0	0	0	0	50	0	<b>0</b>	0	67,50,000.00
17	TBN	Site Inspector-3	Field	50	1,35,000.00	67,50,000.00	1.03	1,39,050.00	0.00	0.00	50.00	67,50,000.00	0	0	0	0	0	50	0	<b>0</b>	0	67,50,000.00
18	TBN	Site Inspector-4	Field	50	1,35,000.00	67,50,000.00	1.03	1,39,050.00	0.00	0.00	50.00	67,50,000.00	0	0	0	0	0	50	0	<b>0</b>	0	67,50,000.00
19	Mr. Azeez Salahuddin Ahmed	MIS Specialist	Field	50	2,60,000.00	1,30,00,000.00	1.03	2,67,800.00	0.00	0.00	50.00	1,30,00,000.00	0	0	0	0.36	0.36	49.64	0.00	<b>96,408.00</b>	96,408.00	1,29,03,592.00
	<b>Sub Total 7 in INR</b>			<b>566</b>		<b>14,79,80,000.00</b>			<b>26.18</b>	<b>97.91</b>	<b>441.91</b>	<b>14,88,02,789.00</b>	<b>26.18</b>	<b>43.18</b>	<b>69.36</b>	<b>7.65</b>	<b>77.01</b>	<b>488.99</b>	<b>1,89,19,231.36</b>	<b>22,05,539.00</b>	<b>2,11,24,770.36</b>	<b>12,76,78,018.64</b>



Sl. No.	Name of the Staff	Position	Office	Allocated Person Months / Quantity	Monthly Remuneration / Rate (at fixed rate) (From Jan'2020 to Jan'2021)	Allocated Amount (as per Contract)	Price Escalation Factor as per SCC Clause 6.2(c) (2nd year)	Revised Monthly Remuneration / Rate (at fixed rate) (From Feb'2021 to Jan'2022)	Utilised Quantity (From Jan'2020 to Jan'2021)	Estimated Quantity (From Feb'2021 to Jan'2022)	Unutilised Quantity (From Feb'2022 to end of the project)	Revised Allocated Amount (as per Price Escalation)	Total Person months/ quantity Spent for the Month (From Jan'2020 to Jan'2021)	Total Person months/ quantity Spent for the Month (From Feb'2021 upto last Month Aug'2021)	Total Person months/ quantity Spent upto last Month Aug'2021 (From Jan'2020 to Aug'2021)	Person Months/ Quantity Spent for current month (Sep' 2021)	Total Person Months/ quantity spent upto current month (August 2021) (From Jan'2020 to Sep'2021)	Balance Carried over	Total Amount Booked as on last Month (Jan'2020 to August'2021)	Amount Booked for this Invoice (September 2021)	Total Booked upto this Invoice	Balance Amount
1	TRANSPORTATION																					
1	The Vehicle provided by the consultants shall include the cost for the rental, drivers, operation, maintenance, repairs, insurance etc.	Months		84.00	50,000.00	42,00,000	1.03	51,500.00	6.00	12.00	66.00	36,99,000.00	6.00	7.00	13.00	1	14.00	70.00	5,26,249.00	44,100.00	5,70,349.00	31,28,651.00
2	DUTY TRAVEL TO SITE																					
2	Local Air Travel																					
b	Sub Professional Staff	Return Trip		20	10,000.00	2,00,000.00	1.03	10,300.00	1.00	3.00	16.00	1,74,800.00	1.00	1.00	2.00	0.00	2.00	18.00	20,300.00	0.00	20,300.00	1,54,500.00
6	PER DIEM																					
1	International	Day		1,440	5,000.00	72,00,000.00	1.03	5,150.00	12.00	10.00	1,418.00	73,62,700.00	12.00	0.00	12.00	0.00	12.00	1,428	60,000.00	0.00	60,000.00	73,02,700.00
	Sub Total 8 in INR					1,16,00,000.00						1,12,36,500.00							6,06,549.00	44,100.00	6,50,649.00	1,05,85,851.00
	INVOICE OF NJS ENGINEERS INDIA PVT. LTD. (INR)					15,95,80,000.00						16,00,39,289.00							1,95,25,780.36	22,49,639.00	2,17,75,419.36	13,82,63,869.64
	Grand Total in INR					52,91,00,600.00						53,20,43,597.33							9,47,53,929.93	78,86,164.66	10,26,40,094.59	42,94,03,502.74
	Grand Total in USD					89,39,965.00						90,25,784.26							17,17,906.53	73,396.85	17,91,303.38	72,34,480.88
	Contingencies @ 5% (in INR)					2,64,55,030.00	INR 55555630 Grand total including Contingencies															
	Contingencies @ 5% (in USD)					4,46,998.00	USD 9386963 Grand total including Contingencies															
	Provisional Sum (in INR)					2,00,00,000.00																
	Provisional Sum (in USD)					25,000.00																
	GRAND TOTAL COST IN INR					57,55,55,630.00																
	GRAND TOTAL COST IN USD					94,11,963.00																
	PROJECTED FINANCIAL PROGRESS till the end of September 2021	10,26,40,094.59	in INR	Total project cost		57,55,55,630.00									INR			% Financial Progress till the end of September 2021		17.83%	in INR	
		17,91,303.38	in USD			94,11,963.00									USD					19.03%	in USD	
	ACTUAL FINANCIAL PROGRESS (Based on Bills Passed till the end of September 2021)	6,69,67,482.00	in INR															% Actual Financial Progress till the end of September 2021		11.64%	in INR	
		10,35,551.37	in USD																	11.00%	in USD	

In addition to the above for SMEC India Pvt. Ltd., the Mobilisation advance payment in Local Currency (5% of Contract value) received on 19.05.2020 as against Advance Bank Guarantee

In addition to the above for SMEC International Pty Ltd, the Mobilisation advance payment in Foreign Currency (5% of Contract value) received on 17.09.2020 as against Advance Bank Guarantee

In addition to the above for TATA Consulting Engineers Ltd., the Mobilisation advance payment in Local Currency (5% of Contract value) received on 22.10.2020 as against Advance Bank Guarantee

Chennai Metropolitan Water Supply & Sewerage Board  
**CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS**

**STATEMENT OF TIME**

**MONTH : September 2021**

Sl. No.	Name of the Staff	Position	TIME AS SPENT ON THE JOB																														Total No. of Days Worked	Man Month
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	SMEC INTERNATIONAL PTY LTD																																	
	Key Expert - International Expert																																	
1	Dr. Pararajasegram Dharmabalan	Project Manager	1	0	1	0	0	1	1	0	1	0	0	0	1	0	0	1	1	0	0	1	0	1	1	1	0	0	1	0	0	1	14	0.63
2	Mr. Shane Farquharson	Water Supply Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Mr. Michel Morillon	Mechanical Engineer (Desal)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Mr. Guilbert Z Gonzales (Replaced for Mr. Sergio de Bastos Vilar Magalhaes Paulo)	Electrical Engineer (Desal)	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	22	1.00
5	Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Replaced for Mr. John Goullee)	Pipeline Engineer	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	22	1.00
6	Mr. Abdel Toukan (Replaced for Mr.Roderick Mackenzie)	Contract Specialist (Desal)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Non-Key Expert - International Expert																																	
7	Mr. Afzal Abdul Latheef (Replaced for Mr. Manikandan Ganesh Shoranur)	Monitoring and Control Expert (Desal)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Chennai Metropolitan Water Supply & Sewerage Board  
**CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS**

Sl. No.	Name of the Staff	Position	TIME AS SPENT ON THE JOB																														Total No. of Days Worked	Man Month
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	SMEC INDIA PRIVATE LIMITED																																	
	Non-Key Expert - International Expert																																	
1	Dr. D. Elanchezian	Civil and Structure Engineer (Desal)	0	0	0																												0	0.00
2	Mr. Ashish Gosain	Monitoring and Control Expert (Distribution)	0	0	0																												0	0.00
3	Mr. Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan)	Specification Specialist (Desal)	0	0	0																												0	0.00
4	Mr. Hemant Chadha	Financial Expert	0	0	0																												0	0.00
5	Mr. Santhosh Kumar	Commissioning Engineer	0	0	0																												0	0.00
6	Mr. Rajesh Mishra	Social Communication Specialist	0	0	0																												13	0.59
	Non-Key Expert - Local Expert																																	
1	Mr. Ramesh Senthil	Civil Engineer	1	1	1																												20	0.90
2	Mr. N. Srinivasulu Reddy	Construction Planner / Cost Estimator	0	0	0																												0	0.00
3	Mr. R. Muthurajan (Replaced for Mr. K.C. Vinod Chandra)	Quantity Surveyor - 1	1	1																													21	0.95

Chennai Metropolitan Water Supply & Sewerage Board  
**CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS**

Sl. No.	Name of the Staff	Position	TIME AS SPENT ON THE JOB																														Total No. of Days Worked	Man Month
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	Support Staff																																	
4	Mr. B. Ajithkumar	Secretary	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	A	0	0	1	1	1	1	21	0.95
5	Mrs. P. Prashanthi	Geo-technical Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
6	Mr. Santosh Biswa	Contract Management Specialist	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
7	Mr. A. Renu Kumar	Visa & Admin. Officer	1	1	1	0	0	1	1	1	1	1	0	0	A	A	1	1	1	0	0	1	1	1	1	1	0	0	A	A	1	1	18	0.81
8	Mr. K. Manikandan	Accountant	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	A	1	A	1	1	0	0	A	1	1	1	19	0.86
9	Mr. P. Raja (Replaced for Mr.R.Jagan)	Office Keeper-1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	22	1.00
10	Mr. T. Someswaran (Replaced for Mr.G.Arjun)	Office Keeper-2	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	22	1.00

Chennai Metropolitan Water Supply & Sewerage Board  
**CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS**

Sl. No.	Name of the Staff	Position	TIME AS SPENT ON THE JOB																														Total No. of Days Worked	Man Month
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	TATA CONSULTING ENGINEERS LTD.																																	
	Non-Key - International Expert																																	
1	Mr. Manish Chintamani Sane	Specification Specialist [Distribution]	0	0	0																												0	0.00
2	Dr. Alok Kumar	Environmental Specialist	0	0	0																												2	0.09
3	Mr. Hyacinth Augusto Vaz	Organisational Expert	0	0	0																												0	0.00
	Key Expert - Local Expert																																	
1	Mr. S. Siddappaswamy	Senior Civil Engineer	1	1	1																												18	0.81
2	Mr. Nagesh Chinnam	Senior Pipeline Engineer	1	1	1																												22	1.00
	Non-Key Expert - Local Expert																																	
3	Mr. Deb Kumar Kar (Replaced for Mr.Mayur Gupta / Mr.Surajit Debnath)	Mechanical Engineer	0	0	0																												8	0.36
4	Mr. Om Prakash Singh (Replaced for Mr.GVK Mohan)	Electrical Engineer	1	1	1																												20	0.90
5	Ms. Sudha J. (Replaced for Mr.Vinod MK)	Structural Engineer	1	1	1																												22	1.00
6	(Replaced for Mrs. Kirti Alhad Sadarjoshi / Mr. Kumar M)	Architect	0	0	0																												0	0.00
7	Mr. K. Senthil	Building Mechanical & Electrical Engineer	0	0	0																												0	0.00
8	Mr. S. Sreenivasula Reddy	Specification Specialist	0	0	0																												0	0.00
9	Mr. S.M. Karthikaeswaran	Environmental Specialist	1		1																												19	0.86
10	Mr. S. Hema Kumar	Pipeline Engineer-3	0	0	0																												0	0.00
11	Mr. Najas Thattakatte Abdul Kareem	Safety & Health Expert-1	0	0	0																												0	0.00
12	Mr. Prashant Balan	Safety & Health Expert-2	0	0	0																												0	0.00
13	Mr. V.S. Rajasekar	Quantity Surveyor-2	1	1	1																												20	0.90

Chennai Metropolitan Water Supply & Sewerage Board  
**CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS**

Sl. No.	Name of the Staff	Position	TIME AS SPENT ON THE JOB																														Total No. of Days Worked	Man Month
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	NJS ENGINEERS INDIA PVT. LTD.																																	
	Key Expert - International Expert																																	
1	Dr. Ghulam Mustafa	Desalination Expert	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.22
2	Dr. Uday G.Kelkar	Additional Key Expert - International	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
3	Mr. Tharloak S.Bhatt	Contract Specialist (Distribution)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
	Non-Key Expert - International Expert																																	
4	Mr. Madhawa Delpachitra	Mechanical Engineer (Distribution)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
5	Mr. Manfred Kurt (Meisner)	Electrical Engineer (Distribution)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
	Non-Key Expert - Local Expert																																	
6	Mr. K. Prabhat (Replaced for Mr. Rahul N Ramdhan / Mr. Chandra Sekhar Reddy Yedla)	Pipeline Engineer-1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	A	A	1	0	0	1	1	1	1	1	0	0	1	1	1	1	20	0.90
7	Mr. P. Thangavel (Replaced for Mr. V. Tulasi Ram)	Pipeline Engineer - 2	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	A	A	A	0	0	1	1	1	1	19	0.86
8	Mr. Saravanan P M	Hydraulic Modeller-1	1	1	A	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	A	A	A	A	A	0	0	A	A	1	1	14	0.63
9	Mrs. V. Nandhini	Hydraulic Modeller - 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
10	Mrs. R. Kanmani (Replaced for Dr. M. Rajsekhar Reddy)	Social Communication Specialist	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	A	1	1	1	1	0	0	1	1	1	1	21	0.95








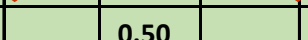



Chennai Metropolitan Water Supply & Sewerage Board  
**CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS**

Sl. No.	Name of the Staff	Position	TIME AS SPENT ON THE JOB																														Total No. of Days Worked	Man Month
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	Support Staff																																	
11	Mr. G. Murali	CAD Operator-1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	22	1.00
12	Ms. J. Nithya	CAD Operator-2	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	22	1.00
13	Mr. Vijay Kumar	CAD Operator-3	1	1	A	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	21	0.95
14	Mr. Suresh Mohan Dwivedi	GIS Operator	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1	22	1.00
15	TBN	Site Inspector-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
16	TBN	Site Inspector-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
17	TBN	Site Inspector-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
18	TBN	Site Inspector-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
19	Mr. Azeez Salahuddin Ahmed	MIS Specialist	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	8	0.36
			Total																														519	23.48

Holiday : Saturday, Sunday  
 CMWSSB / Government Public Holiday    Ganesh Vinayakar Chathurthi Holiday : 10.09.2021  
 Absent










# ANNEXURE 7 STAFF DEPLOYMENT SCHEDULE FOR ALL PACKAGES (PLAN FOR NEXT MONTHS)























Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-1	Design / Tender Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design / Tender Phase
COMMON STAFF FOR ALL PACKAGE									
1	SMEC International Pty Ltd.	Project Manager	Dr.P.Dharmabalan	70	70		3		3
2	TATA Consulting Engineers Ltd.	Senior Civil Engineer	Mr.S.Siddappaswamy	72	72		3		3
3	TATA Consulting Engineers Ltd.	Environmental Specialist	Dr.Alok Kumar	15	15		0.50		0.50
4	SMEC India Pvt Ltd.	Social Communication Specialist	Mr.Rajesh Mishra	16	16		1		1
5	TATA Consulting Engineers Ltd.	Environmental Specialist	Mr.S.M.Karthikaeswaran	30	30		3		3
6	NJS Engineers India Pvt. Ltd.	Social Communication Specialist	Mrs.R.Kanmani (Replaced for Dr.M.Rajsekhar Reddy)	72	72		3		3
STAFF DEPLOYMENT SCHEDULE FOR CP-1 (PLAN FOR NEXT MONTHS)									
KEY STAFF									
7	NJS Engineers India Pvt. Ltd.	Desalination Expert	Dr.Ghulam Mustafa	32	29.50		1.50		1.50
8	NJS Engineers India Pvt. Ltd.	Additional Key Expert - International	Dr.Uday G. Kelkar		2.50		0.50		0.50
9	SMEC International Pty Ltd.	Mechanical Engineer (Desal)	Mr.Michel Morillon	15	15		0.50		1
10	SMEC International Pty Ltd.	Electrical Engineer (Desal)	Mr.Guilbert Z Gonzales (Replaced for Sergio de Bastos Vilar Magalhaes Paulo)	25	25		3		3

Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-1	Design / Tender Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design / Tender Phase
11	SMEC International Pty Ltd.	Water Supply Engineer	(Replaced for Mr. Shane Farquharson)	23	2		0.50		0.50
12	SMEC International Pty Ltd.	Pipeline Engineer	Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Replaced for Mr. John Goullee)	70	4		0.05		0.05
13	SMEC International Pty Ltd.	Contract Specialist (Desal)	Mr. Abdel Fattah Toukan (Replaced for Mr. Roderick Mackenzie)	9	9		1		1
NON-KEY STAFF									
14	SMEC India Pvt Ltd.	Civil and Structure Engineer (Desal)	Dr. D. Elanchezian	42	42				0
15	SMEC India Pvt Ltd.	Monitoring and Control Expert (Desal)	Mr. Afzal Abdul Latheef (Manikandan Ganesh Shoranur)	11	11				0
16	SMEC India Pvt Ltd.	Specification Specialist (Desal)	Mr. Ganesh Venkataraman (Replaced for Mr. J. Shanmuganathan)	4	4		0.50		0.50
17	SMEC India Pvt Ltd.	Financial Expert	Mr. Hemant Chadha	3	3		0.50		0.50
18	SMEC India Pvt Ltd.	Quantity Surveyor 1	Mr. R. Muthurajan (Replaced for Mr. Vinod Chandra K.C)	50	30		2		2

Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-1	Design / Tender Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design / Tender Phase
19	TATA Consulting Engineers Ltd.	Mechanical Engineer	Mr. Deb Kumar Kar (Replaced for Mr. Mayur Gupta / Mr. Surajit Debnath)	40	15	◆-----	0.05	-----◆	0.05
20	TATA Consulting Engineers Ltd.	Electrical Engineer	Mr. Om Prakash Singh (Replaced for Mr. G.V.K. Mohan)	45	15				0
21	TATA Consulting Engineers Ltd.	Structural Engineer	Ms. Sudha J. (Replaced for Mr. Vinod M.K.)	28	10				0
22	TATA Consulting Engineers Ltd.	Architect	(Replaced for Mrs. Kirti Alhad Sadarjoshi / Mr. Kumar.M)	12	6		◆-----	0.50	0.50
23	TATA Consulting Engineers Ltd.	Building Mechanical and Electrical	Mr. K. Senthil	16	6		◆-----	0.50	0.50
OTHER SUPPORT COMMON STAFF (ALL PACKAGES)									
24	SMEC India Pvt Ltd.	Secretary	Mr. B. Ajithkumar	70	70	◆-----	3	-----◆	3
25	SMEC India Pvt Ltd.	Contract Management Specialist	Mr. Santosh Biswa	6	6				0
26	SMEC India Pvt Ltd.	Geotechnical Engineer	(Replaced for Mrs. P. Prashanthi)	6	6		◆-----	1	1
27	SMEC India Pvt Ltd.	Visa & Admin. Officer	Mr. A. Renukumar	70	70	◆-----	3	-----◆	3
28	SMEC India Pvt Ltd.	Accountant	Mr. K. Manikandan	70	70	◆-----	3	-----◆	3

Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-1	Design / Tender Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design / Tender Phase
29	NJS Engineers Pvt. Ltd.	CAD Operator -1	Mr. G. Murali	30	30				3
30	NJS Engineers Pvt. Ltd.	CAD Operator -2	Ms. J. Nithya	30	30				3
31	NJS Engineers Pvt. Ltd.	CAD Operator -3	Mr. K. Vijaykumar	30	30				3
32	NJS Engineers Pvt. Ltd.	GIS Operator	Mr. Suresh Mohan Dwivedi	18	18				3
33	NJS Engineers India Pvt. Ltd.	MIS Specialist	Mr. A. Salahuddin Ahmed	50	50				1.50
34	SMEC India Pvt Ltd.	Office Keeper-1	Mr. P. Raja (Replaced for Mr.R.Jagan)	70	70				3
35	SMEC India Pvt Ltd.	Office Keeper-2	Mr. T. Someswaran (Replaced for Mr.G.Arjun)	70	70				3

### STAFF DEPLOYMENT SCHEDULE FOR CP-2 (PLAN FOR NEXT MONTHS)

Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-2	Design Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design Phase
KEY STAFF									
1	SMEC International Pty Ltd.	Water Supply Engineer	(Replaced for Mr.Shane Farquharson)	23	3		0.50		0.50
NON-KEY STAFF									
2	NJS Engineers India Pvt. Ltd.	Mechanical Engineer (Distribution)	Mr. Madhawa Delpachitra	4	4		0.50		0.50
3	NJS Engineers India Pvt. Ltd.	Electrical Engineer (Distribution)	Mr. Manfred Kurt (Meisner)	4	4		0.50		0.50
4	SMEC India Pvt Ltd.	Monitoring and Control Expert (Distribution)	Mr. Ashish Gosain	12	6		1		1
5	SMEC India Pvt Ltd.	Construction Planner/ Cost Estimator	Mr. Naisa Sreenivasulu Reddy	4	4		0.50		0.50
6	SMEC India Pvt Ltd.	Quantity Surveyor 1	Mr. R.Muthurajan (Replaced for Mr.Vinod Chandra K.C)	50	15		1		1
7	TATA Consulting Engineers Ltd.	Mechanical Engineer	Mr. Deb Kumar Kar (Replaced for Mr. Mayur Gupta / Mr. Surajit Debnath)	40	9		2		2
8	TATA Consulting Engineers Ltd.	Electrical Engineer	Mr. Om Prakash Singh (Replaced for Mr. GVK. Mohan)	45	10		2		2
9	TATA Consulting Engineers Ltd.	Structural Engineer	Ms. Sudha J. (Replaced for Mr. Vinod M.K.)	28	6		2		2
10	TATA Consulting Engineers Ltd.	Architect	(Replaced for Mrs. Kirti Alhad Sadarjoshi / Mr. Kumar. M)	12	6		0.50		0.50
11	TATA Consulting Engineers Ltd.	Building Mechanical and Electrial	Mr. K. Senthil	16	10		0.50		0.50

### STAFF DEPLOYMENT SCHEDULE FOR CP-3 (PLAN FOR NEXT MONTHS)

Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-3	Design / Tender Support Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design Phase
KEY STAFF									
1	SMEC International Pty Ltd.	Pipeline Engineer	Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Replaced for Mr.John Goullee)	70	51	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></d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### STAFF DEPLOYMENT SCHEDULE FOR CP-4 (PLAN FOR NEXT MONTHS)

Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-4	Design Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design Phase
KEY STAFF									
1	SMEC International Pty Ltd.	Water Supply Engineer	(Replaced for Mr. Shane Farquharson)	23	18		1		1
2	SMEC International Pty Ltd.	Pipeline Engineer	Dr. Mohamed Abdelmoneim Sayed Ahmed Mohamed (Replaced for Mr.John Goullee)	70	15		2.50		2.50
3	TATA Consulting Engineers Ltd.	Senior Pipeline Engineer	Mr. Nagesh Chinnam	72	21		2.95		2.95
NON-KEY STAFF									
4	SMEC India Pvt Ltd.	Civil Engineer	Mr. Ramesh Senthil	72	21		2.95		2.95
5	NJS Engineers India Pvt. Ltd.	Pipeline Engineer-1	Mr. K. Prabhat (Replaced for Mr. Rahul N Ramdhan / Mr. Chandra Shekhar Reddy Yedla)	60	60		3		3
6	NJS Engineers India Pvt. Ltd.	Pipeline Engineer-2	Mr. P. Thangavel (Replaced for Mr. V. Tulasi Ram)	60	60		3		3
7	NJS Engineers India Pvt. Ltd.	Hydraulic Modeler-1	Mr. P.M. Saravanan	8	8		2.50		2.50



Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-4	Design Phase - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design Phase
8	NJS Engineers India Pvt. Ltd.	Hydraulic Modeler-2	Mrs. V. Nandhini	8	8		◀ 1 ▶		1
9	TATA Consulting Engineers Ltd.	Mechanical Engineer	Mr. Deb Kumar Kar (Replaced for Mr. Mayur Gupta / Mr. Surajit Debnath)	40	16		◀ 0.50 ▶		0.50
10	TATA Consulting Engineers Ltd.	Electrical Engineer	Mr. Om Prakash Singh (Replaced for Mr. G.V.K. Mohan)	45	13		◀ 0.85 ▶		0.85
11	TATA Consulting Engineers Ltd.	Structural Engineer	Ms. Sudha J. (Replaced for Mr. Vinod M.K.)	28	8	◀ 1 ▶			1
12	TATA Consulting Engineers Ltd.	Safety and Health Expert-2	Mr. Prasanth Balan	70	20				0
13	TATA Consulting Engineers Ltd.	Quantity Surveyor-2	Mr. V.S. Rajasekar	70	40	◀ 2.95 ▶			2.95
14	TATA Consulting Engineers Ltd.	Organizational Specialist	Mr. Hyacinth Augusto Vaz	9	9		◀ 0.50 ▶		0.50

### STAFF DEPLOYMENT SCHEDULE FOR CP-5 (PLAN FOR NEXT MONTHS)

Sl. No.	Entity	Position	Name [Replaced / (Original)]	Total Man months	Total Man months for CP-5	Design / Tender Phase (Technical Assistance by PMC) - Deployment Requirement			
						Oct-21	Nov-21	Dec-21	Total Man-months requirement in Design / Tender Phase (Technical Assistance by PMC)
NON-KEY STAFF									
1	TATA Consulting Engineers Ltd.	Electrical Engineer	Mr. Om Prakash Singh (Replaced for Mr. G.V.K. Mohan)	45	8		0.05		0.05
2	TATA Consulting Engineers Ltd.	Safety and Health Expert-1	Mr. Najas Thattakatte Abdulkareem	40	8				0
3	SMEC India Pvt Ltd.	Quantity Surveyor 1	Mr. R. Muthurajan (Replaced for Mr. Vinod Chandra K.C)	50	5				0

# Annexure 8 PMC Organisation Chart

