



CHENNAI METROPOLITAN WATER SUPPLY & SEWERAGE BOARD (CMWSSB)



MPR (05) / (June 2020)

PMC for Chennai Perur 400 MLD Desalination Plant and Allied Works

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10 July 2020

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1 EXECUTIVE SUMMARY

This Monthly Progress Report for June 2020 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 upto June 2020

Component	Key Message
PMC (Consulting) Services	<ul style="list-style-type: none"> • Revised Monthly Progress Report (MPR 01) for January & February 2020 submitted on 06.04.2020, 14.04.2020 and 26.05.2020 • Revised Inception Report submitted on 04.04.2020 and 16.04.2020 • Revised Design Criteria for CP4 components submitted on 16.04.2020 • Monthly Progress Report (MPR 02) for March 2020 submitted on 17.04.2020 and 26.05.2020 • Interim Report for the development of Concept Design for Chennai Perur 400MLD Desalination Plant for CP1 components submitted on 23.04.2020 and 26.05.2020 • Quarterly Progress Report (QPR 01) for January to March 2020 submitted on 24.04.2020 and 22.05.2020 • Monthly Progress Report (MPR 03) for April 2020 submitted on 09.05.2020 and 22.05.2020 • Draft Environmental Impact Assessment (EIA) Review Report for CP1 submitted on 26.05.2020 • Monthly Progress Report (MPR 04) for May 2020 submitted on 11.06.2020 • Responses to JICA Comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 24.06.2020
	<ul style="list-style-type: none"> • Progressive expenditure (at actuals i.e. based on bills passed till the end of June 2020) = Nil (INR) and Nil (USD) • For SMEC India Pvt. Ltd., the Mobilisation advance payment (5% of Contract value) received on 19.05.2020 as against Advance Bank Guarantee.
	<ul style="list-style-type: none"> • Progressive expenditure (Projected based on man-month consumed till the end of June 2020) = 1,62,68,427 (INR) and 464,532 (USD)
	<ul style="list-style-type: none"> • Activities generally progressing on schedule • Accelerated program being followed for CP1, which brings forward the issue of the RFP to market by 4 to 5 months
	<ul style="list-style-type: none"> • The emerging COVID-19 virus outbreak is being monitored and CMWSSB is to be informed of any impact on the mobilization of PMC personnel. Due to the COVID-19 issues Pandemic across the globe, the Government of India announced the partial 5th lockdown period from 01.06.2020 to 30.06.2020 through India and also Government of Tamil Nadu announced the full lockdown period from 19.06.2020 to 30.06.2020 throughout Chennai and its adjacent Districts in Tamil Nadu.
Project (the Works)	<ul style="list-style-type: none"> • No Project site work has been commenced
	<ul style="list-style-type: none"> • Progressive expenditure = Nil
	<ul style="list-style-type: none"> • No activities scheduled to commence as of end June 2020

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. Based on a discussion with CMWSSB officials, it is understood that the proposed desalination plant's land ownership transfer is in process. Upon receipt of the same, Consent To Establish (CTE) application will be forwarded to TNPCB (Tamil Nadu Pollution Control Board), the action to be taken up by CMWSSB.
4. Forest Clearance for cutting trees at Perur DSP site to be obtained from Tamil Nadu Forest Department.
5. Approval for the erection of offshore structure to be obtained from the Tamil Nadu Maritime Board.
6. System hydraulic design for the clear water transmission main from Perur DSP to Porur Headworks water transmission system (pumping station and transmission pipeline) and proposed water allocation to Core City and expansion area is to be resolved following initial analysis by PMC.
7. Flexibility to perform PMC work activities remotely requires resolution between CMWSSB and PMC, as the current COVID-19 virus Pandemic situation may introduce restrictions on travel and project remobilizations.
8. It is challenging to access the project site due to COVID-19 Pandemic issues spread across the globe. The Government of India announced the partial 5th lockdown period from 01.06.2020 to 30.06.2020 through India and also Government of Tamil Nadu announced the full lockdown period from 19.06.2020 to 30.06.2020 throughout Chennai and its adjacent Districts in Tamil Nadu.
9. Quick turn-round of requests with approvals (Work From Home) and follow up on timeline is essential to undertake the acceleration of CP1 components and regular timeline schedule for CP4 components.
10. Non-Availability of most of the pipeline inventory data specific to the CP4 package in the digital format [Scaled AutoCAD/ GIS (.Prj)] files and conversion of the available physical data into required digital format.

2 ABBREVIATIONS & ACRONYMS

Abbreviation / Acronym	Meaning
BoQ	Bill of Quantity
CMWSSB	Chennai Metropolitan Water Supply and Sewerage Board
CP	Contract Package
DI	Ductile Iron
DMA	District Metered Area
DMS	Document Management System
DSP	Desalination Plant
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
OJT	On-Job-Training
PMC	Project Management Consultant (Consortium)
PQ	Pre-Qualification
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
WDS	Water Distribution Station
WDZ	Water Distribution Zone

3 INTRODUCTION

3.1 This Progress Report

This is the fifth (5th) monthly progress report and covers activities of the Project Management Consultant (PMC services) and the Project (the Works) during **June 2020**.

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 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
TOTAL	1988 person-months

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

3.3 PMC Scope of Work

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

- CP1 - 400 MLD Sea Water Reverse Osmosis (SWRO) Desalination Plant at Perur
- CP2 – Pumping Stations & Reservoirs 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 as 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 finalizing 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 organizational 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 components, Draft Environmental Impact Assessment (EIA) Review Report for CP1 components and Revised Prequalification documents (RFQ) for CP1 on DBO basis for the Project.

4 PROGRESS REPORT FOR PMC SERVICES

4.1 Achieved Activities – June 2020

The activities achieved during June 2020 are listed in Table 3.

Table 3: Achieved Activities – June 2020

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 4: Conceptual design for Perur DSP is in progress with initial preliminary calculations based on the available existing data <ul style="list-style-type: none"> Interim Report for the development of Concept Designs for Chennai Perur 400 MLD Desalination Plant for CP1 components submitted to CMWSSB on 23.04.2020 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 components. Online Zoom Video conference call and discussion with CE (O&M)–II CMWSSB officials on 26.05.2020 for the progress of the consultancy work and technical discussion for CP1 to CP4 components. Preparation of proposed sludge treatment facility at Perur, RO Configuration – Conventional Design and RO Configuration – 3 Centre Design. Preparation and submission of sludge treatment process design, detail notes on 3 Centre or Pressure Centre Design. Preparation and submission of Mass Balance and Process Flow Diagram (Peak Flow and Normal Flow). Preparation of Summary of Revised Design Raw Sea Water Quality Parameters, Summary of major Product Water Quality Parameters, SWRO Desalination plant layout. 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.
CP2	Task 9: Revised Request for Qualifications (RFQ) document was prepared on the DBO basis and issued to the Client for review. After review, CMWSSB sent the RFQ to JICA for concurrence. Comments received from JICA on PQ documents on 05.06.2020. <ul style="list-style-type: none"> Online Zoom Video conference call and discussion with CE (Project)–II, CE (O&M)–II CMWSSB officials on 15.06.2020 for the responses on JICA comments and Prequalification documents for CP1 on DBO basis. Responses to JICA comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 24.06.2020
	Task 1: Data and information collection commenced (JICA documents, DPRs, Master Plan)
	Task 2: Review of technical information commenced (checking of the hydraulic design of the transmission system based on the available data) <ul style="list-style-type: none"> Calculation of CWR Capacity at Perur Reviewed the beneficiary population from Perur to Porur and the observation was submitted to CMWSSB for feedback.
CP3	No significant activities have been carried out during this period

Package	Achieved Activities
CP4	Task 1: Reconnaissance Survey, Data and information collection commenced (JICA documents, Master Plan) <ul style="list-style-type: none"> Review of Population projection and preparation of observations on population projection and demand considered in the JICA and Master plan documents. Population projection by PMC to arrive the beneficiary details for the year 2025 Site Visit to Area IX : Valluvarkottam Headworks and Southern Headworks on 15.06.2020 Site Visit to Area XIII : Thiruvanniyur WDS, Velachery WDS (new) and Velachery WDS (Old) on 18.06.2020
	Review of salient details and existing water distribution network drawings for CP4 components and identification of gaps in the available data
CP5	No activities have been carried out during this period
General	Monthly Progress Report (MPR 04) for May 2020 submitted on 10.06.2020
	Draft Environmental Impact Assessment (EIA) Review Report for CP1 components submitted to CMWSSB on 26.05.2020 <ul style="list-style-type: none"> 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 components.
	Environmental support activities commenced including documentation review and approvals planning

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

4.2 Deliverables Status at June 2020

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 4.

Table 4: Deliverables Status

SI.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	For Design and Tender Assistance for CP1	
	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
		July 2020
	2.2 PQ Document	Draft PQ document for CP1 components submitted on 24.02.2020
		Revised PQ document for CP1 components submitted on 03.03.2020, 06.03.2020 for client review and sent to JICA for Concurrence for floating of the tender
		Comments received from JICA on PQ documents on 05.06.2020.

Sl.No.	Report / Document	Tentative Date / Frequency / Status **
		Responses to JICA comments and Revised Prequalification documents (RFQ) on DBO basis submitted to CMWSSB on 24.06.2020
	2.3 PQ Evaluation Report	September 2020 (July 2020)
	2.4 Bid (RFP) Document	November 2020 (September 2020)
	2.5 Bid Evaluation Report (Technical)	March 2021 (October 2020)
	2.6 Bid Evaluation Report (Financial)	April 2021 (December 2020)
3	For Design and Tender Assistance for CP2	
	3.1 Detailed Design Report and Drawings	April 2021
	3.2 PQ Document (if required)	July 2021
	3.3 PQ Evaluation Report (if required)	August 2021
	3.4 Bid Document (RFP)	September 2021
	3.5 Bid Evaluation Report (Technical)	December 2021
	3.6 Bid Evaluation Report (Financial)	April 2021
4	For Design and Tender Assistance for CP4	
	4.1 Detailed Design Report and Drawings	December 2021
	4.2 Bid Document(s)	April 2022
	4.3 Bid Evaluation Report (Technical)	September 2022
	4.4 Bid Evaluation Report (Financial)	November 2022
5	For Construction Supervision of CP 1	
	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	For Construction Supervision of CP 2	
	6.1 Quality and Quantity Control Report	Every Month
	6.2 Final Inspection Report	At Appropriate timing
7	For Construction Supervision of CP 3-1 to CP 3-4	
	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	For Construction Supervision of CP 4	
	8.1 Quality and Quantity Control Report	Every Month
	8.2 Final Inspection Report	At Appropriate timing
9	Environmental and Social Safeguard	
	9.1 EIA Review Report for CP 1	Draft Environmental Impact Assessment (EIA) Review Report for CP1 component submitted to CMWSSB on 26.05.2020
	9.2 Environmental Monitoring Report	Every Month
10	Progress Report and Project Completion Report	
	10.1 Monthly Progress Report (MPR)	<ul style="list-style-type: none"> MPR 01 for Jan' & Feb'2020 (2 copies) submitted on 10.03.2020 for review Observations on MPR 01 received from CMWSSB on 31.03.2020 Revised MPR 01 for Jan' & Feb'2020 (soft copy) submitted on 14.04.2020 Revised MPR 01 for Jan' & Feb'2020 (10 copies) submitted on 26.05.2020 MPR 02 for March 2020 (10 copies) submitted on 26.05.2020

Sl.No.	Report / Document	Tentative Date / Frequency / Status **
		<ul style="list-style-type: none"> MPR 03 for April 2020 (10 copies) submitted on 22.05.2020 MPR 04 for May 2020 (soft copy) submitted on 10.06.2020 MPR 04 for May 2020 (10 copies) submitted on 11.06.2020
	10.2 Quarterly Progress Report (QPR)	<ul style="list-style-type: none"> QPR 01 for Jan' to March 2020 (soft copy) submitted on 24.04.2020 QPR 01 for Jan' to March 2020 (10 copies) submitted on 26.05.2020
	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 4 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 than 3 months due to 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 months delay in floating of the RFQ and consequently the RFP for CP1 components. 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 national staff (outside Chennai) working from home on the Project, due to COVID-19 pandemic across the globe.

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

4.3 Actual Progress versus Planned Progress – Upto June 2020

Actual progress during the month's upto June 2020 is with planned progress.

Table 5: 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 happened 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, submission has been made.

Sl. No.	Deliverable	Planned	Actual	Remarks/reasons for the delay
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 components	23.04.2020	23.04.2020 (soft copy)	
		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 components	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 submission has been made.
		20.04.2020	26.05.2020	Hard copies submitted
12	Monthly Progress Report (MPR 04) for May 2020	10.06.2020	10.06.2020	
		10.06.2020	11.06.2020	Hard copies submitted
13	Revised PQ document for CP1	24.06.2020	24.06.2020	Responses to JICA comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB (Hard copies submitted)

Also, as per the baseline schedule, the PMC is progressing with the collection and review of data and information to inform early activities planned on CP1, CP2 and CP4.

4.4 Financial Progress Upto June 2020

A summary of financial progress (at actuals based on the bills passed) for the PMC Services Contract at the end of June 2020 is included in Table 6.

Table 6: Financial Progress (Actual based on the bill passed) on PMC Services at the end of June 2020

Month	Monthly Expenditure	Cumulative Expenditure	% of Total Contract Value
January 2020	INR 0	INR 0	0.00%
	USD 0	USD 0	0.00%
February 2020	INR 0	INR 0	0.00%
	USD 0	USD 0	0.00%
March 2020	INR 0	INR 0	0.00%
	USD 0	USD 0	0.00%
April 2020	INR 0	INR 0	0.00%
	USD 0	USD 0	0.00%
May 2020 **	INR 0	INR 0	0.00%
	USD 0	USD 0	0.00%
June 2020	INR 0	INR 0	0.00%
	USD 0	USD 0	0.00%

** For SMEC India Pvt. Ltd., the Mobilisation advance payment (5% of Contract value) received on 19.05.2020 as against Advance Bank Guarantee.

However, a summary of financial progress (projected based on man-month consumed) for the PMC Services contract at the end of June 2020 is included in Table 7. For further details, please refer to **Annexure 5**.

Table 7: Financial Progress (Projected based on man-months consumed) on PMC Services at the end of June 2020

Month	Monthly Expenditure	Cumulative Expenditure	% of Total Contract Value
January 2020	INR 10,77,836	INR 10,77,836	0.18%
	USD 56,098	USD 56,098	0.60%
February 2020	INR 25,81,997	INR 36,59,833	0.62%
	USD 112,801	USD 168,899	1.79%
March 2020	INR 38,31,393	INR 74,91,226	1.30%
	USD 56,261	USD 225,159	2.39%
April 2020	INR 22,26,340	INR 97,17,566	1.69%
	USD 90,351	USD 315,518	3.35%
May 2020	INR 23,29,743	INR 1,20,47,309	2.09%
	USD 60,913	USD 376,431	4.00%
June 2020	INR 42,21,118	INR 1,62,68,427	2.83%
	USD 88,100	USD 464,532	4.94%

4.5 Staffing Inputs – June 2020

4.5.1 Mobilized Personnel

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

Table 8: Mobilized Personnel (International / National)

Position / Role	Name of the staff	Category	Commenced Date	De-mobilization date	Re-mobilization date	Total months allocated	Total months mobilized so far (till June 2020 end)	Balance man-months available (July 2020 onwards)
Project Manager (Team Leader)	Dr. P.Dharma Dharmabalan	I	14.02.2020	26.02.2020	07.04.2020	70	2.03	67.97
Desalination Expert	Dr.Ghulam Mustafa	I	10.02.2020	22.02.2020	01.04.2020	29.50	3.18	26.32
Additional Key Expert – International	Dr.Uday G.Kelkar	I	01.06.2020			2.50	0.18	2.32
Water Supply Engineer	Mr.Shane Farquharson	I	20.01.2020	20.03.2020		23	2.04	20.96
Mechanical Engineer (Desal)	Mr.Michel Morillon	I	20.01.2020	08.02.2020 15.03.2020	23.02.2020 01.04.2020	15	3.53	11.47
Contract Specialist (Desal)	Mr.Roderick Mackenzie	I	20.01.2020	15.02.2020		9	0.90	8.10
Civil and Structural Engineer (Desal)	Dr.D.Elanchezian	I	20.01.2020	04.04.2020		42	2.45	39.55
Financial Expert	Mr.Hemanth Chadha	I	22.06.2020			3	0	3.00
Civil Engineer	Mr.Ramesh Senthil	N	20.01.2020			72	5.21	66.79
Senior Civil Engineer	Mr.S.Siddappaswamy	N	27.01.2020	22.02.2020	01.04.2020	72	2.501	69.499
Senior Pipeline Engineer	Mr.Nagesh Chinnam	N	04.02.2020			72	3.863	68.137
Environmental Specialist	Dr.Alok Kumar	I	24.02.2020	07.03.2020	25.04.2020	15	0.908	14.092
Environmental Specialist	Mr.S.M.Karthikaeswaran	N	25.02.2020			30	3.727	26.273
Pipeline Engineer-1	Mr.Chandra Shekhar Reddy Yedla	N	25.02.2020	05.03.2020		60	0.32	59.68
Hydraulic Modeller-1	Mr.P.M.Saravanan	N	25.02.2020	27.02.2020		8	0.09	7.91
CAD Operator-1	Mr.G.Murali	N	25.02.2020	24.03.2020	01.05.2020	30	2.86	27.14
Contract Management Specialist	Mr.Santosh Biswa	N	02.03.2020			6	0.82	5.18
Visa and Admin Officer	Mr.A.Renu Kumar	N	20.01.2020			70	5.17	64.83
Accountant	Mr.K.Manikandan	N	09.03.2020			70	3.72	66.28
Office Boy-1	Mr.R.Jagan (Replacement to Mr.Thukaram)	N	03.02.2020			70	4.86	65.14
Office Boy-2	Mr.G.Arjun (Replacement to Mr.Ramesh)	N	03.02.2020			70	4.86	65.14

I – International Staff

N – National Staff

A project office has been established in Chennai to accommodate PMC personnel and integrate resources from PMC partners 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 both short and long-term commitments to the Project.

No PMC team has been permanently demobilized from the Project. However, some resources with intermittent or staged inputs were temporarily demobilized during the period due to COVID-19 pandemic issues.

After the COVID-19 pandemic issues resolved and the end of the 5th extended lockdown period in India, several of these team members are scheduled to return to Chennai for further inputs to this Project in the coming month of July 2020.

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:

Table 9: 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 upto May'2020	Number of Days of Claim in June 2020	Cumulative Number of Days of Claim upto June 2020	Balance Number of Days for Claim
1	NJS Engineers India Pvt. Ltd.	International	2250	1,440	12	0	12	1,428
2	SMEC India Pvt. Ltd.	International		810	178	0	178	632
		National	50	50	0	0	0	50
3	SMEC International Pty. Ltd.	Per-diem allowance in INR for the International Experts will be claimed by SMEC India Pvt. Ltd.						
4	TATA Consulting Engineers Ltd.	Not applicable. Hence no claim will be made for the entire project duration						
	TOTAL		2,300	2,300	190	0	190	2,110

4.5.3 Summary of Personnel Inputs for the Period

A summary of personnel inputs for the period (June 2020) is included in **Annexure 6**.

Planned mobilisation of PMC personnel for the next three (3) month period (upto September 2020) 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 at the end of June 2020, there are no changes to the PMC's nominated key personnel for this Project; however, two support staffs (Office boy-1 and Office boy-2) have been replaced with new personnel from March 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 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 and his cost is to be met from the cost of Desalination Expert and there is no change in project approved budget for this PMC assignment.

4.6 Meetings and Site Visits – June 2020

A summary of critical meetings and site visits completed during the period is furnished in Table 10.

Table 10: Meetings and Site Visits (June 2020)

Date	Meeting	Location	Attendees
03.06.2020	Meeting conducted by SE (Desal) CMWSSB officials for the Draft Environmental Impact Assessment (EIA) Review Report for CP1 components.	Online Zoom Meeting Video Conference Call	CMWSSB, PMC members
04.06.2020	Meeting conducted by Project Manager (PMC) for a discussion on the preparation of presentation and progress of consultancy work for CP1 to CP4	Online Zoom Meeting Video Conference Call	PMC members
06.06.2020	Meeting conducted by Project Co-ordinator (PMC) for a discussion on the responses of JICA comments for PQ documents for CP1	Online Zoom Meeting Video Conference Call	PMC members
08.06.2020	Meeting conducted by Additional Key Expert (PMC) for a discussion on the revised responses of JICA comments for PQ documents for CP1	Online Zoom Meeting Video Conference Call	PMC members
11.06.2020	Meeting conducted by Engineering Director (i/c) CMWSSB officials for the Action Taken Report, progress of the consultancy work and technical presentation for CP1 to CP4 components.	Online Zoom Meeting Video Conference Call	CMWSSB, PMC members
15.06.2020	Site Visit to Area IX : Valluvarkottam Headworks and Southern Headworks and discussion with Deputy Area Engineer and operator of CMWSSB.	Valluvarkottam Headworks and Southern Headworks	CMWSSB, PMC member
15.06.2020	Meeting conducted by CE (Project)–II, CE (O&M)–II CMWSSB officials for the responses on JICA comments and Prequalification documents for CP1 on DBO basis.	Online Zoom Meeting Video Conference Call	CMWSSB, PMC members
18.06.2020	Site Visit to Area XIII : Thiruvanniyur WDS, Velachery WDS (new) and Velachery WDS (Old) and discussion with Assistant Engineer (O&M), CMWSSB.	Thiruvanniyur WDS, Velachery WDS (new) and Velachery WDS (Old)	CMWSSB, PMC member

Date	Meeting	Location	Attendees
19.06.2020	Meeting conducted by Project Manager (PMC) for a technical discussion on the revised design based on sea water quality parameters and product water quality parameters for CP1	Online Zoom Meeting Video Conference Call	PMC members
20.06.2020	Meeting conducted by Project Co-ordinator (PMC) for a discussion on the responses of JICA comments for PQ documents for CP1	Online Microsoft Teams Meeting Video Conference Call	PMC members
22.06.2020	Meeting conducted by Senior Civil Engineer and Additional Key Expert (PMC) for a discussion on the responses of JICA comments for PQ documents for CP1	Online Zoom Meeting Video Conference Call	PMC members
27.06.2020	Meeting conducted by Desalination Expert (PMC) for a discussion on Instrumentation works for the Draft Concept Report for CP1 components	Online Zoom Meeting Video Conference Call	PMC members
30.06.2020	Webinar conducted by JICA for an explanation of counter measures against COVID-19 under JICA Assisted Water Supply and Sewerage Project(s) in India	Online Microsoft Teams Meeting Video Conference Call	JICA, CMWSSB and PMC members

The regular meetings/technical discussions have been conducted by PMC team on preparation of updated Draft Concept Report including preparation of proposed sludge treatment facility at Perur, RO Configuration – Conventional Design and RO Configuration – 3 Centre Design, sludge treatment process design, detail notes on 3 Centre or Pressure Centre Design, Mass Balance and Process Flow Diagram (Peak Flow and Normal Flow) and Summary of Revised Design Raw Sea Water Quality Parameters, Summary of major Product Water Quality Parameters, SWRO Desalination plant layout, responses on JICA comments on Prequalification documents for CP1 components, Monthly Progress Report for May 2020. Also, regular interactions, discussions held with CMWSSB officials and other Project aspects until June 2020. Where formal minutes have not been recorded, these meetings are not listed in the above.

4.7 Health & Safety – June 2020

There are no health and safety incidents to report for June 2020, associated with the activities of the PMC. The evolving international situation regarding the COVID-19 virus is Pandemic, however, of concern to the PMC, as restricted travel movements may impact mobilisation of international (and possibly national) staff. The PMC will keep CMWSSB informed of any developments that impact the delivery of the Consulting Services. It is requested that CMWSSB consider approval of out-of-Country professional inputs if the COVID-19 virus Pandemic situation worsens and travel restrictions are enforced, for the PMC to maintain progress on activities. Also, it is requested that CMWSSB to consider the approval of national and support staff for work from home inputs, if the COVID-19 virus situation worsens and travel restrictions to sites are enforced, for the PMC to maintain progress on activities.

The details of Insurance are listed in Table 11.

Table 11: Details of Insurance

Name of the Firm	Type of Insurance	Name of the Agency	Insurance Value	Period Insurance from	Period Insurance to
SMEC International Pty. Ltd.	Third-Party Motor Vehicle Liability Insurance Third-Party Liability Insurance	SBI General Insurance	INR 100 Million	10.01.2020	09.01.2021
	Professional Liability	Engineering Consultants Underwriters Ltd.	AUD 1 Million	31.06.2018	30.06.2020
	Employer's Liability and Worker Compensation Insurance	CHUBB Insurance Singapore limited	SGD 10 Million	01.07.2019	31.12.2020
	Insurance against Loss or Damage	Not Applicable	-	-	-
SMEC India Pvt. Ltd.	Third-Party Motor Vehicle Liability Insurance Third-Party Liability Insurance	SBI General Insurance	INR 100 Million	10.01.2020	09.01.2021
	Professional Liability	Bajaj Allianz General Insurance Company Ltd.	INR 205 Million	07.07.2019	06.07.2020
	Employer's Liability and Worker Compensation Insurance	IFFCO – TOKIO General Insurance Co. Ltd.	INR 640.84 Million	05.01.2020	04.01.2021
	Insurance against Loss or Damage	Bajaj Allianz General Insurance Company Ltd.	INR 8.40 Million	30.04.2020	29.04.2021
NJS Engineers India Pvt. Ltd.	Third-Party Motor Vehicle Liability Insurance		To be provided as and when vehicles are mobilised monthly		
	Professional Liability	New India Assurance Company Limited	INR 259 Million	20.04.2020	20.07.2027
	Employer's Liability and Worker Compensation Insurance	New India Assurance Company Limited	INR 20 Million	20.04.2020	19.04.2021
	Insurance against Loss or Damage	Not Applicable	-	-	-
TATA Consulting Engineers Ltd.	Third-Party Motor Vehicle Liability Insurance	IFFCO TOKIO General Insurance Company Ltd.	INR 0.62 Million	14.01.2020	13.01.2021
	Professional Liability	The New India Assurance Co. Ltd.	INR 1500 Million	03.10.2019	02.10.2020
	Employer's Liability and Worker Compensation Insurance	The New India Assurance Co. Ltd.	INR 1145 Million	01.04.2020	31.03.2021
	Insurance against Loss or Damage	The New India Assurance Co. Ltd.	INR 1000 Million	03.10.2019	02.10.2020

4.8 Variations

4.8.1 Submitted/Approved

There are some variation requests submitted or approved during this 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 and his cost is to be met from the cost of Desalination Expert and there is no change in Project approved budget for this PMC assignment.

4.8.2 Under Consideration

There are no future variations currently under consideration.

4.9 Communication and Correspondence

There is no progress on activities to report for Project communications this period. The PMC does, however, 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 lines of communication.

The correspondence details of the letters submitted to CMWSSB and letters received from CMWSSB for the Project is furnished in Table 12.

Table 12: Details of Correspondence for the Project

Sl. No.	Details of Correspondence letter	Letter Correspondence reference number, date	Date of submission / received
1	Submission of Draft Minutes of Meeting held on 03.06.2020 for Draft Environmental Impact Assessment Review Report	Soft copy sent by email to CMWSSB on 06.06.2020	06.06.2020
2	Submission of Updated Cost Break-up details between Consortium Members	Ref: SMEC/ CMWSSB/5061185/077, dated 08.06.2020	08.06.2020
3	List of activities to be carried out for CP1 to CP4 during extended 5 th lockdown period till 30 June 2020	Ref: SMEC/ CMWSSB/5061185/078, dated 10.06.2020	10.06.2020
4	Submission of Monthly Progress Report (MPR 04) for May 2020	Soft copy sent by email to CMWSSB on 10.06.2020	10.06.2020
5	Submission of Monthly Progress Report (MPR 04) for May 2020 (10 copies)	Ref: SMEC/ CMWSSB /5061185/079 dated 10.06.2020	10.06.2020

Sl. No.	Details of Correspondence letter	Letter Correspondence reference number, date	Date of submission / received
6	Submission of Draft Pre-Qualification document (RFQ) for CP1 on DBO basis (4 copies)	Ref: SMEC/ CMWSSB/5061185/082, dated 12.06.2020	12.06.2020
7	Submission of Draft Minutes of Meeting held on 11.06.2020 for the progress of the Project and technical discussion	Soft copy sent by email to CMWSSB on 12.06.2020	12.06.2020
8	Reply to CMWSSB letter for the clarification on Monthly Invoice from Jan' to April 2020	Ref: SMEC/ CMWSSB/5061185/075, dated 16.06.2020	17.06.2020
9	Submission of Invoice for May 2020 for SMEC International Pty Ltd in Foreign Currency	Ref: SMEC/ CMWSSB/5061185/085, dated 15.06.2020	17.06.2020
10	Submission of Invoice for May 2020 for SMEC India Pvt. Ltd. In Local Currency	Ref: SMEC/ CMWSSB/5061185/081, dated 15.06.2020	17.06.2020
11	Detail of Invoices for May 2020 for all Consortium Members	Ref: SMEC/ CMWSSB/5061185/083, dated 16.06.2020	17.06.2020
12	Reply to JICA Queries on Pre-Qualification document (RFQ) for CP1 on DBO basis	Ref: SMEC/ CMWSSB/5061185/084, dated 16.06.2020	17.06.2020
13	Submission of responses to JICA comments on Pre-Qualification document (RFQ) for CP1 on DBO basis	Sent by email to CMWSSB on 19.06.2020	19.06.2020
14	Data requirement/GAPs of CP-4 and CP-1	Sent by email from PMC on 19.06.2020	19.06.2020
15	Mobilization of Dr.Uday G.Kelkar (Additional Key Expert – International) (Soft copy sent by email to CMWSSB on 22.06.2020)	Ref: SMEC/ CMWSSB/5061185/085, dated 19.06.2020	22.06.2020
16	Mobilization of Mr.Hemant Chadha (Finance Expert) – Non-Key International Expert (Soft copy sent by email to CMWSSB on 22.06.2020)	Ref: SMEC/ CMWSSB/5061185/086, dated 19.06.2020	22.06.2020
17	Land for CWR and Pumping Station at Porur	Sent by email to CMWSSB on 23.06.2020	23.06.2020
18	Submission of responses to JICA comments and Revised Pre-Qualification document (RFQ) for CP1 on DBO basis	Sent by email to CMWSSB on 23.06.2020	23.06.2020

Sl. No.	Details of Correspondence letter	Letter Correspondence reference number, date	Date of submission / received
19	Submission of Responses to JICA comments and Revised Pre-Qualification document (RFQ) for CP1 on DBO basis (2 copies)	Ref: SMEC/ CMWSSB/5061185/087, dated 24.06.2020	24.06.2020
20	Additional Authorized signatory details for the signing of Measurement Book/claims. Request for release of reimbursable of 1% Registration fees, Mobilisation Advance Payments and Monthly Invoice Amount from January to April 2020 (Soft copy sent by email to CMWSSB on 30.06.2020)	Ref: SMEC/ CMWSSB/5061185/088, dated 29.06.2020	30.06.2020
21	Suggestion on Terms of Reference for carrying out the Sea Water Sample Survey for CP1	Received by email from CMWSSB on 01.06.2020	01.06.2020
22	Signed Minutes of Meeting held on 26.05.2020 for the progress of work and technical discussion on CP1 to CP4	Received by email from CMWSSB on 02.06.2020	02.06.2020
23	Road map and the core city and added area boundary drawing received from CMWSSB	Received by email from CMWSSB on 03.06.2020	03.06.2020
24	Drawings and details of Area V, VIII, IX, X received from CMWSSB	Received by email from CMWSSB on 03.06.2020	03.06.2020
25	Letter from CMWSSB on remarks and clarifications on Mobilization advance, Registration Fee & Monthly Bills Payment	Letter No: CMWSSB/SE(Desal)/400 MLD Plant/PMC-010/2020, dated 02.06.2020	04.06.2020
26	Queries received from JICA (CMWSSB) on PQ documents for CP1 on DBO basis	Received by email from CMWSSB on 05.06.2020	05.06.2020
27	Alignment Plan and Longitudinal section drawing of product water transmission main	Received by email from CMWSSB on 05.06.2020	05.06.2020
28	Replacement of Key Experts – Forwarded for JICA concurrence	Letter No: CMWSSB/SE(Desal)/400 MLD Plant/PMC-010/2020, dated 11.06.2020	12.06.2020
29	Reply from CMWSSB on data requirement /GAPs of CP-4 and CP-1	Received by email from CMWSSB on 23.06.2020	23.06.2020

The PMC team is maintaining the Document Management System (DMS) for the project and DMS will be provided to CMWSSB.

5 PROGRESS OUTLOOK FOR PMC SERVICES

5.1 Activities Planned Next Month

A summary of planned (key) activities for July 2020 is provided in Table 13.

Table 13: Planned Activities until the month of July 2020 (PMC activities)

Contract Package	Activities (Planning for next months)
CP1	Task 2: Review of technical information is continuing and gap analysis to be completed to inform sea water quality sampling etc.
	Task 3: Confirm the scope of services for proposed site sea water sampling and topographic survey investigation <ul style="list-style-type: none"> Conducting the sea water quality analysis Conducting the topographical (Grid) survey at Perur site
	Task 4: Conceptual Design Report – complete data collection activities and commence the conceptual design
	Task 5 : Preparation & Submission of Concept Design Report <ul style="list-style-type: none"> Preparation and Submission of Concept Design Report
	Task 9: Request for Qualification (RFQ) – issue document to market (early July) <ul style="list-style-type: none"> Comments from JICA will be incorporated in the updated PQ documents Obtaining concurrence from JICA for PQ documents for CP1 components
	Task 10: Request for Proposal (RFP) – commence document preparation in early August 2020
CP2	Task 1: Data collection – collection and verification of data on the existing/proposed CMWSSB water transmission system and proposed battery limits (including site information for Porur WDS)
	Task 2: Review technical information and decide on the preferred location of the new reservoir and pumping station on Porur HW site <ul style="list-style-type: none"> Pumps combination at Perur will be reviewed. Review of the preliminary design in the DPR. Reviewing the AECOM report about Pumping Station at Perur and WDS and PS at Porur and giving our observations, if any. Submission on Note on Product Water Transmission Main for arriving the pump head.
	Task 3: Confirm the scope of services for proposed site topographic survey and geotechnical investigation <ul style="list-style-type: none"> Conducting the topographical survey at Porur site Implementation of the topographical surveys for the construction area of the pumping stations in the premises of the Perur DSP and the pumping station and reservoir in the Porur WDS
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"> Hydraulic analysis of the product water transmission main for final determination of the pump head and counter measure for water hammer. Received the product water pipeline transmission design, we will review the design to arrive at the pumping head required at Perur pumping station.
	Task 2: Review of draft CP3 bid documents (prepared by CMWSSB) performed and the issue of comments

Contract Package	Activities (Planning for next months)
CP4	<p>Task 1: Data collection – collect and verify data on the existing CMWSSB water distribution network according to agreed prioritization of WDZs (Area X and Area XIII)</p> <ul style="list-style-type: none"> Review of Technical information about the Project and revision of population and demand details with CMWSSB consent. Collect and review of the topographical survey for the Chennai core city Review of the inventory data of the zone-wise distribution network provided by CMWSSB
	<p>Task 1: GIS development – progressive development of the GIS database for existing water distribution asset inventory, including design of attribute data structure</p>
	<p>Task 2: Preliminary Design basis status report – a document for proposed design criteria for water distribution system modelling and design</p> <ul style="list-style-type: none"> Preparation and submission of PMC observations on various components of the Master plan/ JICA report
CP5	No planned activities during this period
General	<ul style="list-style-type: none"> Draft Final Report for the development of Concept Designs for CP1 components – finalise based on Client/JICA reviews Preparation and Submission of Monthly Progress Report for June 2020
	<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 Leads on specific requirements relevant to each package</p> <ul style="list-style-type: none"> Preparation of Environmental Management Plans and Environmental Monitoring Plans for CP1 and CP2 (for Perur pumping station). Presentation of Draft environmental review report and finalization of the EIA draft by incorporating the comments, if any, from CMWSSB.
	<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 14.

Table 14: Managing Progress Risks (PMC activities)

Contract Package	Risk	Control measure	Status
All	COVID-19 virus Pandemic restricts travel movements of PMC personnel and prevents mobilization 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 through to tendering of 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	Enter upon permission to be obtained by CMWSSB from HR & CE Board	●
CP2	Porur Headworks / WDS: The site designated for construction of reservoir and pumping station at Porur is taken for other Project and already construction of 6 MLD WTP is under progress. This will call for a change in the layout plan for the proposed reservoir and pumping station in the nearby area.	Details of existing assets on the Porur Headworks / WDS site to be provided by CMWSSB as a priority to allow the PMC to review the site layout concept urgently. Allocation of 400 Mld of treated water: CMWSSB has been requested to provide the quantities allocated enroute 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 resource if required for the digitization of hard-copy network plans	●

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 June 2020, 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 – June 2020

There are no achieved activities (Works) to report.

6.2 Actual Progress versus Planned Progress – June 2020

The Project works are not scheduled to commence until later in 2020 (CP3 components). Other contract packages may start even later during 2021 and beyond.

There is no comparison of planned versus actual progress to report.

6.3 Financial Progress in June 2020

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

6.4 Health & Safety – June 2020

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 June 2020 period. We note that before this period, the CMWSSB has been awarded CRZ clearance for the Project.

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 July 2020 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 at Table 15.

Table 15: 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 Works 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 – 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)
KEY EXPERT			
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	Shane Farquharson	Water Supply Engineer-- International Expert	23
4	Michel Morillon	Mechanical Engineer (Desal)- International Expert	15
5	Sergio de Bastos Vilar Magalhaes Paulo	Electrical Engineer (Desal)- International Expert	25
6	John Goullee	Pipeline Engineer-International Expert	70
7	Roderick Mackenzie	Contract Specialist (Desal) - International Expert	9
8	Tharloak S Bhatt	Contract Specialist (Distribution)- International Expert	8
9	S.Siddappaswamy	Senior Civil Engineer	72
10	Nagesh Chinnam	Senior Pipeline Engineer	72
	Sub Total		396
NON KEY EXPERT - INTERNATIONAL			
1	Dr.D.Elancherian	Civil and Structure Engineer (Desal)	42
2	Madhawa Delpachitra	Mechanical Engineer (Distribution)	4
3	Manfred Kurt (Meisner)	Electrical Engineer (Distribution)	4
4	Manikandan Ganesh Shoranur	Monitoring and Control Expert (Desal)	11
5	Ashish Gosain	Monitoring and Control Expert (Distribution)	12
6	Shanmuganathan J	Specification Specialist (Desal)	4
7	Manish Chintamani Sane	Specification Specialist (Distribution)	3
8	Hemanth Chadha	Financial Expert	3
9	Dr.Alok Kumar	Environmental Specialist	15
10	Santhosh Kumar	Commissioning Engineer	10
11	Rajesh Mishra	Social Communication Specialist	16
12	Hyacinth Augusto Vaz	Organisational Expert	9
	Sub Total		133
NON KEY EXPERT - NATIONAL			
13	Ramesh Senthil	Civil Engineer	72
14	Surajit Debnath	Mechanical Engineer	40
15	G.V.K.Mohan	Electrical Engineer	45
16	Vinod M K	Structural Engineer	28
17	Kumar M	Architect	12

Sl. No.	Name of the Expert (International/ National Local)	Role/ Position	Staff Month (SM)
18	K.Senthil	Building Mechanical and Electrical Engineer	16
19	Chandra Shekhar Reddy Yedla	Pipeline Engineer 1	60
20	V.Tulasi Ram	Pipeline Engineer 2	60
21	Hema Kumar. S	Pipeline Engineer 3	50
22	P.M.Saravanan	Hydraulic Modeler - 1	8
23	V.Nandhini	Hydraulic Modeler - 2	8
24	Naisa Sreenivasulu Reddy	Construction Planner Cost Estimator	4
25	S.Sreenivasula Reddy	Specification Specialist	4
26	S.M.Karthikaeswaran	Environmental Specialist	30
27	Dr.M.Rajsekhar Reddy	Social Communication Specialist	72
28	Najas Thattakatte Abdulkareem	Safety and Health Expert-1	40
29	Prasanth Balan	Safety and Health Expert-2	70
30	Vinod Chandra K.C	Quantity Surveyor 1	50
31	V.S.Rajasekar	Quantity Surveyor 2	70
	Sub Total		739
SUPPORTING STAFF			
1	TBN	Secretary	70
2	G.Murali	CAD Operator-1	30
3	TBN	CAD Operator (2 Nos.)	60
4	TBN	GIS Operator	18
5	TBN	Inspectors (4 Nos.)	200
6	TBN	Geotechnical Engineer	6
7	TBN	MIS Specialist	50
8	Santosh Biswa	Contract Management Specialist	6
9	A.Renu Kumar	Visa and Admin. Officer	70
10	K.Manikandan	Accountant	70
11	R.Jagan (Person replaced from Mr.Thukaram)	Office Boy-1	70
12	G.Arjun (Person replaced from Mr.Ramesh)	Office Boy-2	70
	Sub Total		720
	Total		1988

Annexure 2 Project Scope

Sl. No.	Component	Construction Items
CP1	Construction of the Perur DSP (400 MLD)	<ul style="list-style-type: none"> Seawater intake facilities Pre-treatment facility Seawater desalination facilities by Reverse Osmosis (RO) technology Post-treatment facility for remineralization and disinfection Potable water storage Effluent discharge pipelines Pre-treatment and wastewater treatment facility All other buildings and structures necessary for the seawater desalination plant Perur electrical sub-station (80 MVA capacity). Perur UGT Product water tanks of Capacity 36 ML (4 compartments of each 9 ML) Potable water tank of 3 ML (2 compartments of each 1.50 ML)
CP2	Construction of Pumping Station and Reservoirs	<ul style="list-style-type: none"> Pump house and pump facility at Perur DSP Porur UGT of Capacity of 10 ML Pump house and pump facility at Porur Headworks
CP3	Construction of product water transmission system	<ul style="list-style-type: none"> Product water transmission main (DN 1000, 1600, 1800 and 2000mm, 65 km, MS or DI pipe)
CP4	Improvement of the existing distribution system in Chennai Core City	<ul style="list-style-type: none"> Replacement of the existing distribution pipes (DN100-450 mm, 375km, DI pipe) Installation of supplementary distribution pipes to strengthen the capacity of the existing distribution networks (D150-700mm, 101km, DI pipe) Installation of new water distribution pipes in un-covered streets in Core city (DN100-150 mm, 258km, DI pipe) Reinforcement of the storage capacity of Under Ground Tank (UGT) and Elevated Storage Tanks (ESRs) Installation of service connections and water meters Setup of district metered areas (DMA)
CP5	Installation of external power transmission line	<ul style="list-style-type: none"> Construction of 230/110 kV transmission lines to achieve dedicated power feed to the existing Nammeli DSP, Nammeli Expansion DSP and the proposed Perur DSP

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 JUNE 2020

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
1	<ul style="list-style-type: none"> Due to COVID-19 Pandemic issues across the globe, the Government of India announced the partial 5th lockdown period from 01.06.2020 to 30.06.2020 through India and also Government of Tamil Nadu announced the full lockdown period from 19.06.2020 to 30.06.2020 throughout Chennai and its adjacent Districts in Tamil Nadu, so some the National staff (outside Chennai) and International staff are allowed to work on the project as Work From Home option. Preparation of Summary of Revised Design Raw Sea Water Quality Parameters and Summary of Major Product Water Quality Parameters and SWRO Desalination plant layout, RO Configuration – Conventional Design and RO Configuration – 3 Centre Design. Preparation of proposed sludge treatment facility at Perur. 	Dr.P.Dharmabalan (Project Manager, International Expert) Mr.S.Srinivasa Rao (Project Co-ordinator); Dr.Ghulam Mustafa (Desalination Expert) Mr.Michel Morillon (Mechanical Engineer, Desal); Mr.R.Senthil (Civil Engineer); Mr.S.M.Karthikaeswaran (Environmental Specialist)	Preparation of updation on the Design Report for the development of Concept Designs for CP1
2	<ul style="list-style-type: none"> Preparation of Presentation on Draft EIA Review report for CP1 components. 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 components. 	Mr.Siddappaswamy (Sr.Civil Engineer); Dr.Alok Kumar (Environmental Specialist); Mr.S.M.Karthikaeswaran (Environmental Specialist); Mr.R.Senthil (Civil Engineer)	Presentation on Draft EIA Review report for CP1 on 03.06.2020
3	<ul style="list-style-type: none"> Online Zoom Meeting Video Conference Call meeting conducted by Project Manager (PMC) for a discussion on sea water sampling procedures, topographical surveys, preparation of presentation slides for CP1 and CP4 components on 04.06.2020 	Dr.P.Dharmabalan (Project Manager, International Expert) Dr.Ghulam Mustafa (Desalination Expert); Mr.Michel Morillon (Mechanical Engineer, Desal); Mr.Siddappaswamy (Sr.Civil Engineer); Mr.R.Senthil (Civil Engineer); Mr.Nagesh Chinnam (Sr. Pipeline Engineer); Mr.S.M.Karthikaeswaran (Environmental Specialist)	Preparation of presentation slides on CP1 to CP4 and updation on the Design Report for the development of Concept Designs for CP1.

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
4	<ul style="list-style-type: none"> JICA Comments received from CMWSSB on 05.06.2020 for PQ documents for CP1 components and preparation of responses. Online Zoom Video conference call and discussion with Contract Management Specialist on 06.06.2020 for the responses on JICA comments and Prequalification documents for CP1 on DBO basis. Online Microsoft Teams Video conference call and discussion with Contract Management Specialist on 08.06.2020 for the responses on JICA comments and Prequalification documents for CP1 on DBO basis. Online Zoom Video conference call and discussion with Additional Key Expert (International) on 08.06.2020 for the responses on JICA comments and Prequalification documents for CP1 on DBO basis. 	<p>Dr.Uday G. Kelkar (Additional Key Expert – International); Mr.Siddappaswamy (Sr.Civil Engineer); Mr.S.Srinivasa Rao (Project Co-ordinator); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist)</p>	Discussion on responses on JICA comments and Prequalification documents for CP1 on DBO basis
5	<ul style="list-style-type: none"> Finalisation of Terms of Reference for Sea water Sample analysis and updation of comments. Identification and shortlisting of agencies for Sea Water Sampling and characterization for CP1. Follow-up with NABL agencies for due diligence for CP1 components. Finalisation of Terms of Reference for carrying out the Topographical (Grid) Survey at Perur for CP1 and Porur for CP2. Identification and shortlisting of agencies for carrying out the Topographical (Grid) Survey at Perur for CP1 and Porur for CP2. 	<p>Dr.Dharmabalan (Project Manager, International Expert) Mr.Siddappaswamy (Sr.Civil Engineer); Mr.S.Srinivasa Rao (Project Co-ordinator); Mr.R.Senthil (Civil Engineer)</p>	Co-ordination with Survey agencies for carrying out the Topographical (Grid) Survey at Perur for CP1 and Porur for CP2
6	<ul style="list-style-type: none"> Preparation of Monthly Progress Report (MPR 04) for May 2020 	<p>Dr.Dharmabalan (Project Manager, International Expert) Mr.Siddappaswamy (Sr.Civil Engineer); Mr.Nagesh Chinnam (Senior Pipeline Engineer) Mr.R.Senthil (Civil Engineer)</p>	MPR 04 (10 copies) submitted on 11.06.2020

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
7	<ul style="list-style-type: none"> Review of available Data / Drawings for CP4 components 	Mr.Siddappaswamy (Sr.Civil Engineer); Mr.Shane Farquharson (Water Supply Engineer); Mr.Nagesh Chinnam (Senior Pipeline Engineer) Mr.R.Senthil (Civil Engineer)	Preparation of preliminary base work for CP4
8	<ul style="list-style-type: none"> Online Zoom Video conference call and discussion with Engineering Director (i/c) CMWSSB officials for the Action Taken Report, the progress of the consultancy work and technical discussion for CP1 to CP4 components on 11.06.2020 	Dr.Dharmabalan (Project Manager, International Expert) Mr.S.Srinivasa Rao (Project Co-ordinator); Mr.Siddappaswamy (Sr.Civil Engineer); Dr.Ghulam Mustafa (Desalination Expert) Dr.Alok Kumar (Environmental Specialist); Mr.R.Senthil (Civil Engineer); Mr.S.M.Karthikaeswaran (Environmental Specialist)	Presentation on Action Taken Report, the progress of the consultancy work and technical discussion for CP1 to CP4 components
9	<ul style="list-style-type: none"> Online Zoom Video conference call and discussion with CE (Project)-II, CE (O&M)-II CMWSSB officials on 15.06.2020 for the responses on JICA comments and Prequalification documents for CP1 on DBO basis. 	Dr.Dharmabalan (Project Manager, International Expert) Mr.S.Srinivasa Rao (Project Co-ordinator); Mr.Siddappaswamy (Sr.Civil Engineer); Dr.Uday G. Kelkar (Additional Key Expert – International); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist)	Discussion on responses on JICA comments and Prequalification documents for CP1 on DBO basis
10	<ul style="list-style-type: none"> Site Visit to Area IX : Valluvarkottam Headworks and Southern Headworks on 15.06.2020 and discussion with Deputy Area Engineer and operator of CMWSSB. Site Visit to Area XIII : Thiruvanniyur WDS, Velachery WDS (new) and Velachery WDS (Old) on 18.06.2020 and discussion with Assistant Engineer (O&M), CMWSSB. 	Mr.R.Senthil (Civil Engineer)	Preparation of preliminary base work for CP4

Sl. No.	Key activity / significant task carried out	List of PMC team members	Working on Delivery
11	<ul style="list-style-type: none"> Preparation of Revised Prequalification documents for CP1 on DBO basis. 	Dr.Dharmabalan (Project Manager, International Expert) Mr.S.Srinivasa Rao (Project Co-ordinator); Mr.Siddappaswamy (Sr.Civil Engineer); Dr.Uday G. Kelkar (Additional Key Expert – International); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist)	Submission of responses on JICA comments and Revised Prequalification documents for CP1 on DBO basis on 24.06.2020

Annexure 7 Team Deployment Schedule for Next months

Annexure 8 Organisation Chart

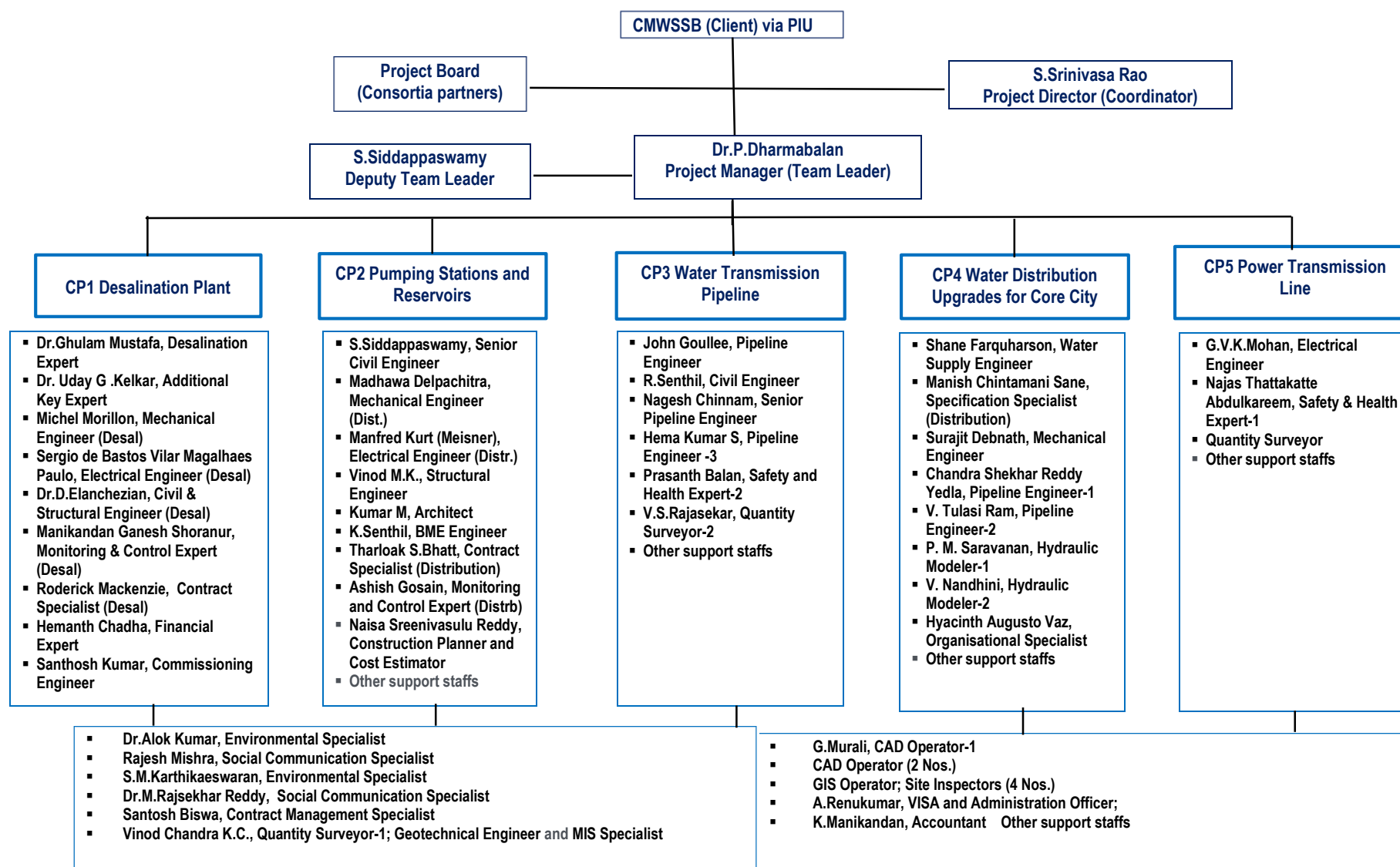


Figure 1: PMC Organisation Chart

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 consortia 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.

