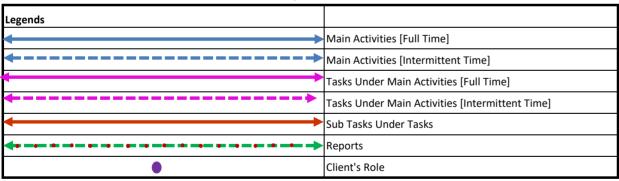
							V	VORK	SCHED	ULE - CP	1																	
Proj	ect Name	Consultancy for "Design, Preparation of Bid Documents & Ev				-	Cons	ructio	n of 400 M	LD Capacit	y Seav									_			d, Sout	h of Ch	nennai	, Tami	Nadı	and L
		Construction Management & Sup	ervision fo	or the Pi	roposed	l Desalin	ation	Plant a	nd its Pro	luct Water	Conve					lant an Month		Porur	and all	allied	work	s.						
Activity	Task	Activities and tasks	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 2	25 26	27 28	29 30 3:	1 32 33	34 35 36	37 38	39 40 41	42 43	44 45 4	6 47 48	3 49 50	51 52 53	3 54 55	56 57 !	58 59 60	61 62	63 64 65 66
					YEA	AR 2020			YE	AR 2021				YEAR 20	022			١	EAR 202	3			,	YEAR 202	24		Y	YEAR 2025
		Work Plan		Design	n and Bio prepara (9 Mon		ent		cess mana tion of cont Months					Cons	structio	n and Co	ommiss	oning o	f Desal	ination	Plant	(42 Mo	onths)			8	(2M)	
4.5.1		Team Mobilization and Kick Off meeting	1	→			Ш																				Ш	
4.5.2		Inception Report: (Output-1)	1	*		start of																						
		Work Plan for Perur Desalination Plant (CP1)				CP1																						
4.5.3		Design Works of CP1	9				-																					
	Task 1	Data and Information Collection	2	*																							Ш	
	Task 2	Review the Technical Information	2	•	+																							
	Task 3	Conducting Surveys and Investigations	2																								Ш	
	Task 4	Concept Design of Perur DSP	5	•	+ -	-	A	pproval	by CMWSSB																			
	Task 5	Preparation & Submission of Concept Design Report	1		+	\vdash	-			_																		
	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 Documents Preparation for Perur DSP (CP1)				4	1		ЩП																			
	Task 9	Preparation of Request for PreQualification [RFQ] Documents		+			F	MWSSB loat RFC		by																		
	Task 10	Preparation of Request for Proposal [RFP] Documents				+			CMWSSB																			
4.5.5		Tendering Assistance	12						CANACCED																		Ш	
	Task 11	Prebid Meetings, Clarifications & Issue of Addendums etc.	6						CMWSSB to Float RFP																			
	Task 12	Submission of PQ Evaluation Report	1				Ш	**		7	Ш																	
	Task 13	Submission of Bid Evaluation Report - Technical	1.50				Ш	•		Approval by CMWSSB /																		
	Task 14	Submission of Bid Evaluation Report - Financial	1						+++ 	ICA																		
4.5.6		Construction supervision for CP1	42																									
	Task 15	Phase-I: Pre-construction activities	12																						7			
	15.1	Design Review & Submission of Review Reports	12							4				-											of CP1			
	15.2	Review of QAP & Construction Methodologies for Various Works	9									4				•									End o			
	Task 16	Phase-II: Activities During Construction	30										4												/	→		
	16.1	Construction Supervision and Quality Control	30										-													→		
	16.2	Inspection of Material	30										4											+				
	16.3	Progress Monitoring, Record keeping and Reporting	30											+ +				4			-							
	16.4	Contract Management	30															+										

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. **Project Duration in Months** Task **Activities and tasks** Duration in Months Measurements, Claims and Financial Control 30 8 Task 17 | Phase-II: Activities During Trial Run and Commissioning Pre Commissioning Activities 2 6 17.2 Commissioning Activities Monthly Progress Report with Quality & Quantity Control Monthly When Material / Equipment Testing & Inspection Report Ever 4.5.7 Task 18 PMC Services During Post-Construction 2 As-Built Drawings 18.1 2 Submission of Project Completion Report [PCR] nplementation of EIA and EoMP

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 documents to JICA on March 2020 & August 2020 for concurrence



WORK SCHEDULE - CP2 Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 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. **Project Duration in Months Activities and tasks** Duration Task in Months YEAR 2020 YEAR 2021 YEAR 2022 YEAR 2023 YEAR 2024 YEAR 2025 Bid process managemer **Design and Bid document preparation Construction and Commissioning Defect Liability Period Work Plan** and selection of (15 Months as per RFP) (24 Months) (12 Months) contractor (9 Months) Balance Team Mobilization by Commencement Date Start Work Plan for Construction of Storage Reservoirs & of CP2 **Pumping Stations (CP2)** 15 4.5.8 Design Works of CP2 Data and Information Collection 1 Task 1 1 Task 2 Review the Technical Information 1.50 Conducting Surveys and Investigations Task 3 8 Task 4 Detailed Design of the Reservoirs and Pumping Stations 3 Task 5 Preparation & Submission of Draft Detailed Design Report Approval by CMWSSB Task 6 Preparation & Submission of Final Detailed Design Report 2 2 4.5.9 **Bid Documents Preparation for CP2** Preparation of Request for PreQualification [RFQ] 1 Approval by Task 7 **Documents** CMWSSB / JICA Preparation of Request for Proposal [RFP] Documents 1 Task 8 9 4.5.10 **Tendering Assistance** Task 8 Prebid Meetings, Clarifications & Issue of Addendums etc. 8 **CMWSSB** to Float **CMWSSB** to Float Submission of PQ Evaluation Report 1 Task 9 End of CP2 1 Task 10 Submission of Bid Evaluation Report - Technical Approval by CMWSSB / JICA 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 Review of QAP & Construction Methodologies for Various 2 12.1 Works Task 13 Phase-II: Activities During Construction 20 13.1 Construction Supervision and Quality Control 20

20

20

20

2

13.2

13.3

13.4

13.5

Task 14 14.1 Inspection of Material

Contract Management

Pre Commissioning Activities

Progress Monitoring, Record keeping and Reporting

Phase-II: Activities During Trial Run and Commissioning

Measurements, Claims and Financial Control

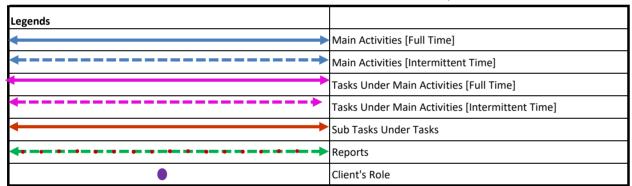
WORK SCHEDULE - CP2

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.

		management a se	P 5. 1.01011 1													-,	۱۰ . ت	•••••	••	••••			. w. p																		
							·		·	·	·			<u> </u>		·		Р	rojec	t Du	ratio	n in	Mont	ths		·	<u> </u>	<u> </u>	<u>-</u>			·	·	<u>-</u>	<u> </u>	<u>-</u>	<u> </u>	<u>-</u>		·	
Activity	Task	Activities and tasks	Duration in Months	11121	3 4	5 6	7 8 9	9 10	11 12	13 14	15 16	5 17 18	3 19 20	0 21 2	22 23 2	24 # 2	26 27	28 29	30 3	1 32 3	33 34	35 3 6	37 3	38 39	40 41	42 4	3 44 4	5 46 4	48	49 50	51 52	53 54	55 56	6 57 5	58 59	60 6	61 62	63 64	65 66	67 6	68 69 70
	14.2	Commissioning Activities	1																												#										
		Monthly Progress Report with Quality & Quantity Control Details	24															•	-	-								-			-										
		Material / Equipment Testing & Inspection Report	24															+	-			-+-		-		++	-				-										
4.5.15	Task 15	Defect Liability Period	12																													+									
	15.1	As-Built Drawings	1																																*						
	15.2	Submission of Project Completion Report [PCR]	3																																+						
	Task 16	Regular Inspection During Defect Liability Period	12																													-			-			•			
		Implementation of EIA and EoMP	48					+				++-					- + -		-					-			-							++							

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.



WORK SCHEDULE - CP3

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.

>												Proje	ct Dura	ation in	Month	าร												
Activity	Task	Activities and tasks	Duration in Months	1 2 3	4 5 6 7 8	3 9 10	11 12 1	3 14 1	15 16 17 18 19 20 21 22 2	3 24 2	5 26 27 2	28 29 30 31 32 33 34 35 5	36 37 38	39 40 4	1 42 43	44 45	46 47 4	18 49 50 51 52 5.	3 54 5	5 56 5	58 59 60	61 62 63	64 65	66 67 6	8 69 70	71 72	73 74	75 76 77
					YEAR 20	020			YEAR 2021			YEAR 2022			YEAR 20	23			YEAR 20	024			YE	EAR 2025			YEA	R 2026
		Work Plan										Construct	ion and	Commis	ssioning	g (51 N	/lonths)							Defect	Liability	/ Perio	d (12 I	Months)
		Balance Team Mobilization by Commencement Date	1						Start of CP3												End of	f CP3						
4.5.14		Construction Supervision for CP3	51																									
	Task 1	Phase-I: Pre-construction activities	2						↔																			
	1.1	Review of DPR for CP3	2																									
	1.2	Reconnaissance Survey and Understand the Scheme Proposals for CP3	2						←→																			
		Assisting in Land Acquisition, Authority Permissions for the Facilities for CP3	7							-																		
	1.4	Developing the Reporting Requirements for CP3	2							4																		
		Review of Good for Construction [GFC] Drawings, QA & QC Plans for CP3	7						4	-																		
	Task 2	Phase-II: Activities During Construction	46																									
	2.1	Construction Supervision and Quality Control	46						4														-					
	2.2	Inspection of Material	46								+++							╺┝╺┿┵┥			++							
	2.3	Progress Monitoring, Record keeping and Reporting	46						4	-	┝┾┿	+		-				╺┝╸┿╺┿╺	-		\cdot							
	2.4	Contract Management	46						→		┝┿┿	+	++-	-			-	╺┝╸┿╺┿╺	-	-	+++							
	2.5	Measurements, Claims and Financial Control	46							-	+++	+	┥┽╸	-	┝		-	╺┝┾┿┽	-		+++-		-+					
	Task 3	Phase-II: Activities During Trial Run and Commissioning	2																									
	3.1	Pre Commissioning Activities	1																									
	3.2	Commissioning Activities	1																			← →						
		Monthly Progress Report with Quality & Quantity Control Details	51						• • • • • • •							-												
		Material / Equipment Testing & Inspection Report	51					 	╒┥ ╺ ┦╼┞╾┝╴┾╴┼╵	┿┿	┥━┝	╺┝┾┿┽┽┥┥┥┉	- - -	┾┿╅			-++	+	++	+		-++-						
4.5.15	Task 4	Defect Liability Period	12																					-				
	4.1	As-Built Drawings	1																					4+				
		Submission of Project Completion Report [PCR]	3																							+		
	Task 5	Regular Inspection During Defect Liability Period	12																					-				
		Implementation of EIA and EoMP	51																									

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

WORK SCHEDULE - CP4 Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bid Documents & Evaluation of Honorate Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works. **Project Duration in Months** Task **Activities and tasks** Months YEAR 202 YEAR 2020 YEAR 2021 YEAR 2022 YEAR 2023 YEAR 2024 YEAR 2025 YEAR 2026 Bid process manageme **Design and Bid document preparation** and selection of **Construction and Commissioning Defect Liability Period Work Plan** (28 Months) (38 Months) (12 Months) contractor (9 Months) Balance Team Mobilization by Commencement Date 1 Start of CP4 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 Review and Analysis of Data 2 Task 3 Conducting Surveys and Investigations 3 Detailed Design of the Improvement of the Existing Water 18 Task 4 Distribution System CP4 4.1 Upgradation of Existing network in GIS 12 4.2 Creation of District Metered Areas (DMAs) 4.3 Hydraulic Design and Modelling of distribution system Plan to Improve the Existing Network 4.5 Design and Improvement of Storage reservoirs 6 4.6 Design and providing metered service connections 4.7 Design the SCADA system Approval 2 Task 5 Preparation and Submission of Draft Detailed Project Report CMWSSB Preparation and Submission of Final Detailed Project 5.1 Assisting in procurement of Software to CMWSSB 2 Task 6 Task 7 Preparation of Technical Specifications 3 2 Task 8 **BoQ Preparation** Bid Documents Preparation for CP4 2 4.5.13 endering Assistance 9 Task 10 Prebid Meetings, Clarifications & Issue of Addendums etc. 8 Task 11 Submission of Draft Bid Evaluation Report 1 CMWSSB to Float RFP 1 Task 12 Submission of Final Bid Evaluation Report - Technical Approval by CMWSSB / JICA 1 Task 13 | Submission of Bid Evaluation Report - Financial Evaluation

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 upto Porur and all allied works.

							Desail	iiatio	i i iaiit	and it	31100	uct wa	itel C	Jonvey	ance r	ipellili	e 1101	iii tile	ı ıaıı	t and t																							
																					Pro	ject D	uratio	n in N	lonth	S																	
Activity	Task	Activities and tasks	Duration in Months	1	2 3	4 5	6 7 8	9 10	11 12 1	13 14 15	5 16 17	7 18 19 2	20 21	22 23 2	4 25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44 4	5 46 4	7 48 49	50 51	52 53	54 55	56 57 5	58 59 (60 61 6	63 6	64 65 6	66 67	68 69 70	71 72	73 74	75 76	77 78 7	9 80 81	1 82 83	85 86 87
4.5.15		Construction Supervision for CP4	38																		+												\forall	+									
	Task 20	Phase-I: Pre-construction activities	2																		•	•																			End of	CP4	
	20.1	Review of QAP & Construction Methodologies for Various Works	2																		+	→																					
	Task 21	Phase-II: Activities During Construction	34																			4		++	++		++			++	++		++	++	+	++-		→					$A \cup A$
	21.1	Construction Supervision and Quality Control	34																			+											\blacksquare	\blacksquare	\blacksquare			-					
	21.2	Inspection of Material	34																			4		_ - -		++-	-			-+-				-++	44			-					
	21.3	Progress Monitoring, Record keeping and Reporting	34										\top						\sqcap		T	4	•			++-	+-			-++	++		-	-++	++			-					
	21.4	Contract Management	34										\top									4				++-				-++	-		-	-++	++			-					
	21.5	Measurements, Claims and Financial Control	34										#									4	•			++-	┿-┿-			-++	. —		-	-++	•			-					
	Task 22	Phase-II: Activities During Trial Run and Commissioning	2		+	\top	+											\vdash	H	Н				+	+						\top		+	++									
		Pre Commissioning Activities	1									Ш	\top																				П					*					
	22.2	Commissioning Activities	1										П																				П		П			*	+				
		Monthly Progress Report with Quality & Quantity Control Details	38																		•	-	-		++	-	+			-	-	-	++	-	-				•				
		Material / Equipment Testing & Inspection Report	38																																								
4.5.7	Task 23	Defect Liability Period	12																														\Box										
	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		4-			++				+++				-	-			-+-				-++									++					+	•				

									W	ORK	SCH	EDI	ULE ·	- CP	5																																		
>																				F	roje	ct D	urati	on in	Mor	nths ·	30 N	onth	Invo	lvem	ent																		
tivit	Task	Activities and tasks	Duration		2 4	5	7.0			42 44	45 46	47 40	1000	124		24 25	26 27	20 20		24 22	22.2	125	26 27	20 20	40	411			1 40 4			254	55 56	57.50	50.60	C4 C3				.0.60	70 74	70 70		5 76 7	7 70 7	00 04	02.02	04.05	06 07
¥			Months	1 2	3 4	5 6	7 8	9 10	11112	13 14	15 16	1/ 18	19 20	21 24	2 23 4	24 25	26 27	28 29	9 30 :	31 32	33 34	35	36 37	38 39	40 4	1 42 4	3 44 4	5 46 4	48 4	50 5	1 52 5	3 54	55 56	5/ 58	59 60	61 62	2 63 64	1 65 6	6 6/16	8 69	/0 /1	/2 /3	3 /4 /:	5 /6 /	/ /8 /	80 81	82 83	84 85	36 87
4.5.16		Installation of External Power Transmission Line CP5	30										1		\vdash	\blacksquare	$\overline{}$		\Box										1																				
	Task 1	Technical Coordination	30										→ -	-			-+-	-				++		-		-	++		-																				
	Task 2	Monthly Progress Report	30										•							Ļ	ł	• •	•			•	•	• •	•		П	П						П											
		Implementation of EIA and EoMP	30										+ -		-	- + -	-+-					++				++	++		*																				

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