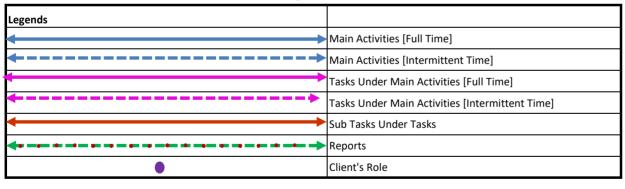


WORK SCHEDULE - CP1 Project Name: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision 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 Material / Equipment Testing & Inspection Report When 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 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

Task 11 Submission of Bid Evaluation Report - Financial

Construction supervision for CP2

Phase-I: Pre-construction activities

Phase-II: Activities During Construction

Inspection of Material

Contract Management

Pre Commissioning Activities

Construction Supervision and Quality Control

Measurements, Claims and Financial Control

Progress Monitoring, Record keeping and Reporting

Phase-II: Activities During Trial Run and Commissioning

Review of QAP & Construction Methodologies for Various

4.5.14

Task 12

12.1

Task 13

13.1

13.2

13.3

13.4

13.5

Task 14 14.1

Works

1

24

2

2

20

20 20

20

20 20

2

CMWSSB / JICA

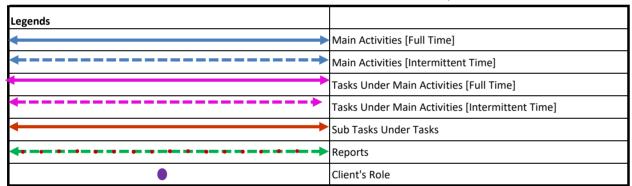
WORK SCHEDULE - CP2

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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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	tion in M	lonth	S												
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	37 38	39 40 41	42 43	44 45 4	47 48	49 50 51 52 53	54 55	5 56 5	57 58 59 60 61	62 63 6	4 65 66	6 67 68	69 70 7	1 72 73	3 74 75	76 77
					YEAR 20	020			YEAR 2021			YEAR 2022		YE	AR 202	3		١	YEAR 20	024			YEA	R 2025			YEAR 2	026
		Work Plan										Construct	on and	Commiss	ioning	(51 M	onths)						D	efect Li	iability F	eriod	(12 M	onths)
		Balance Team Mobilization by Commencement Date	1						Start of CP3												End of CI	23						
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							+																		
		Review of Good for Construction [GFC] Drawings, QA & QC Plans for CP3	7						4	-																		
	Task 2	Phase-II: Activities During Construction	46								+++												-			417		
	2.1	Construction Supervision and Quality Control	46						4													\blacksquare	-					
	2.2	Inspection of Material	46								+++										+		-					
	2.3	Progress Monitoring, Record keeping and Reporting	46						4		\cdot \vdash \vdash \vdash		++-			•++							1					
	2.4	Contract Management	46						→		+++	+	++-			• 🕂 🕂			-	-								
	2.5	Measurements, Claims and Financial Control	46							ŀ	+++	+	++-		-++	∙┿┿		┝┝┾┿┽╸		┝	.+++-		-					
	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			++-		->
	4.1	As-Built Drawings	1																					4+				
		Submission of Project Completion Report [PCR]	3																									
	Task 5	Regular Inspection During Defect Liability Period	12																				4			++-	-	
		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

Projec	t Name: C	Consultancy for "Design, Preparation of Bid Documents & Eva	luation o	of Ride	or th	e Pronos	ed Co		ORK S					rater R	Povers	12O es	mosis	Desal	ination	n Plan	nt at D	orur a	long F	ast Co	ast Ro	ad So	outh of	Chen	nai Ta	amil N	ladu a	and Co	netru	uction N	Mana	gement	. & Su	nervisio	n for	the Pro	nosed	
Projec	t ivallie. C	onsultancy for Design, Freparation of Did Documents & Eva	iuation	n bius i	01 11	-		n Plant															_			au, s	Julii O	Cileii	iiai, i	211111 IV	iauu a	and Co	, iisti u	iction i	nanag	gemen	. Q Ju	pervisio	11 101	tile Fit	poseu	
Activity	Task	Activities and tasks	Duration in	1 2	3 4	5 6 7	8 9 1	0 11 12	13 14 15	5 16 17	18 19	20 21	22 23	24 25 2	26 27 2	8 29 3	30 31 3	2 33 3	4 35 36	37 38	39 40	ouratio	on in N	10nth:	7 48 49	50 51	52 53 5	4 55 5	6 57 58	59 60	61 62	63 64	65 66	67 68 69	9 70 7	1 72 73	74 75	76 77 78	79 80	81 82 83	8 84 85 86	6 87
			Months			YEAR 2020	0			Y	EAR 20	21				YE/	AR 2022					YEAR	2023				YE	R 2024					YEAR	2025				YEAR	2026		YEAR	2027
		Work Plan		ı			Desi	gn and I	Bid docu (28 Mc		prepa	ration				Bid	and s		or	ent						Co	onstruc		nd Com Months		oning							De		iability F Months		
		Balance Team Mobilization by Commencement Date	1	**																																						
		Work Plan for Improvement of Existing Water Distribution System (CP4)			1	Start of CI										Ħ																										
4.5.11		Design Works of CP4	27	4											-																											
		Reconnaissance Survey, Data and Information Collection	2	4	-	>																																				
		Review and Analysis of Data	2		← -			$\perp \perp \downarrow$								Ш	$\perp \! \! \perp$													Ш	Ш				Ш							4
	Task 3	Conducting Surveys and Investigations	3			4 -		•						\perp		44	$\perp \!\!\! \perp$	\perp		Ш										Ш	Ш		\perp		4					$\perp \! \! \perp$		4
	Task 4	Detailed Design of the Improvement of the Existing Water Distribution System CP4	18												+	Ш																			Ш							
	4.1	Upgradation of Existing network in GIS	12		1		+					-		Ш	Ш	44	$\perp \! \! \perp$	Ш		Ш										Ш	Ш		\perp		Ш							
	4.2	Creation of District Metered Areas (DMAs)	8							-																																
	4.3	Hydraulic Design and Modelling of distribution system	8				•									Ш																			Ш							
	4.4	Plan to Improve the Existing Network	6								•					Ш																										
	4.5	Design and Improvement of Storage reservoirs	6						1		•			Ш	Ш																				Ш							
	4.6	Design and providing metered service connections	6						+							Ш																			Ш							
	4.7	Design the SCADA system	6						+								Ш																		Ш							
	Task 5	Preparation and Submission of Draft Detailed Project Report	2									4					Appro by CMW																									
	5.1	Preparation and Submission of Final Detailed Project Report															Н			Ш															Ш							
	Task 6	Assisting in procurement of Software to CMWSSB	2						4							HI																										
	Task 7	Preparation of Technical Specifications	3											4	+																											
	Task 8	BoQ Preparation	2											+	+	HI																										
	Task 9	Bid Documents Preparation for CP4	2											1	-	•																										
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											CMWSS																												
	Task 12	Submission of Final Bid Evaluation Report - Technical	1														T	-					oval by	丁																		
	Task 13	Submission of Bid Evaluation Report - Financial Evaluation	1																••			CMW	/SSB / JII	CA																		

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.

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																				Proj	ject Du	ıratio	n in Mo	nths															
Activity	Task	Activities and tasks	Duration	1	2 3 4	4 5 6	7 8	9 10 11	12 13	14 15 16	6 17 18	19 20 2	1 22 23	24 25	26 27 28	8 29 30	0 31 32	33 34	35 36	37 38	39 40 4	41 42 4	3 44 45	46 47 4	49 50	51 52 5	53 54 5	56 57 5	58 59 6	o 61 62	63 64	65 66	67 68 6	59 70 71	72 73 74 7	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																	•	•																End	of CP4	
	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																		4										H		\blacksquare						
	21.2	Inspection of Material	34																		4			-+-	+-			+++				+++	. 4 - 1		>				
	21.3	Progress Monitoring, Record keeping and Reporting	34																		4				++-			-++	+-			+++							
	21.4	Contract Management	34																		4				++-			-++	-			+++							
	21.5	Measurements, Claims and Financial Control	34																		4				++-			-++	+-		-	┾┿╅							
	Task 22	Phase-II: Activities During Trial Run and Commissioning	2																									Ш	\top										
	22.1	Pre Commissioning Activities	1																																*				
	22.2	Commissioning Activities	1																																*	+			
		Monthly Progress Report with Quality & Quantity Control Details	38																	4				-	-				1				-			•			
		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																																	1	-		
	Task 24	Regular Inspection During Defect Liability Period	12																																	-			
		Implementation of EIA and EoMP	73		4-			-+							++-	-			++				+++				++				++-								

								١	NORK	SCH	EDI	JLE	- CP	5																															
>																			Pro	oject	Durat	ion in	Mon	ths -	30 Mo	nths Ir	ivolve	ment								<u>-</u>									
Activit	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	0 21 2	2 23	24 25	26 27	28 29	30 3:	1 32 33	34 3!	36 37	7 38 39	40 41	42 43	44 45	46 47 4	8 49 50	51 52	53 54	55 56	57 58 5	59 60	61 62 63	3 64 6	55 66	67 68 6	59 70	71 72	73 74	75 76	77 78	79 80 83	. 82 83	84 85	36 87
4.5.16		Installation of External Power Transmission Line CP5	30									1														-												\Box							
	Task 1	Technical Coordination	30									ŧ		-			-	-		-	++-	-				+																			
	Task 2	Monthly Progress Report	30									•									.	-																							
		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