Amendment No. 3 dated 01.10.2021

to

Request for Proposal (RfP) and Transmission Service Agreement (TSA) for selection of Transmission Service Provider through tariff based competitive bidding process to establish transmission system for "Transmission scheme for evacuation of 3 GW RE injection at Khavda P.S. under Phase-1"

S. No.2			Amended Provision						
	2 of Request for Proposal Notification of RfP		S. No.2 of Request for Proposal Notification of RfP						
PFC Co	nsulting Limited (hereinafter referred to as BPC) hereby		PFC Co	onsulting Limited (hereinafter referred to as BPC) hereby					
Tra	nsmission scheme for evacuation of 3GW RE injection at I under Phase-I	Khavda P.S.	Trai	nsmission scheme for evacuation of 3GW RE injection at under Phase-I	Khavda P.S.				
S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date	S. No.	Name of Transmission Element	Schedule COD in months from Effective Date				
1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor 765/400 kV, 1500 MVA ICT - 3 Nos. 765 kV ICT bays - 3 Nos. 400 kV ICT bays - 3 Nos. 330 MVAR 765 kV bus reactor -1 No. 125 MVAR 420 kV bus reactor -1 No. 765 kV reactor bay - 1 Nos. 765 kV line bay - 2 Nos. 400 kV reactor bay - 1 No. 400 kV line bay - 3 Nos. 500 MVA, 765/400 kV Spare ICT - 1 No. 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. Future Scope: Space for 765/400 kV, ICT along with bays - 5 Nos. 400/220 kV, ICT along with bays - 4 Nos.	Matching timeframe of RE projects or 24 months from date of SPV transfer whichever is later *	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor 765/400 kV, 1500 MVA ICT - 3 Nos. 765 kV ICT bays - 3 Nos. 400 kV ICT bays - 3 Nos. 330 MVAR 765 kV bus reactor -1 No. 125 MVAR 420 kV bus reactor -1 No. 765 kV reactor bay - 1 Nos. 765 kV line bay - 2 Nos. 400 kV reactor bay - 1 No. 400 kV line bay - 3 Nos. 500 MVA, 765/400 kV Spare ICT - 1 No. 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. Future Scope: Space for 765/400 kV, ICT along with bays - 5 Nos. 400/220 kV, ICT along with bays - 4 Nos.	24 months				

S. No	Existing Provision	Amended Provision				
	Nos.400 kV Line bays – 7 Nos.220 kV Line bays - 8 Nos.765 kV reactor along with bays - 2 Nos.400 kV reactor along with bays – 1 No.765 kV bus sectionalizer- 1 No.400 kV bus sectionalizer- 1 No.400 kV bus sectionalizer- 1 No.2.Khavda PS (GIS) – Bhuj PS 765 kV D/C line3.2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line• 765 kV AIS line bays – 2 Nos.	6 Nos. 400 kV Line bays - 9 Nos. 220 kV Line bays - 8 Nos. 765 kV reactor along with bays - 2 Nos. 400 kV reactor along with bays - 1 No. 765 kV bus sectionalizer- 1 No. 400 kV bus sectionalizer- 1 No. 400 kV bus sectionalizer- 1 No. 2. Khavda PS (GIS) – Bhuj PS 765 kV D/C line 3. 2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line • 765 kV AIS line bays - 2 Nos.				
	 * the SCOD of the transmission scheme would be reviewed and intimated to the bidder before bid submission. Note: As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW and proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line ba for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LT, application has been received from AGEFL and the same is under process. ii. GIS Bay (if any) for completion of diameter in one and half breaker schem shall also be in the scope of the TSP. 	Note: i. As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW at proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LTA application has been received from AGEFL and the same is under process.				
2.	Clause 1.2, Section-1: Introduction of RfP	Clause 1.2, Section-1: Introduction of RfP				
	The TSP will be required to establish Transmission scheme for evacuation of 3GW RE injection at Khavda P.S. under Phase-I	The TSP will be required to establish Transmission scheme for evacuation of 3GW RE injection at Khavda P.S. under Phase-I				

S. No		Existing Provision		Amended Provision					
	S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date	S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date			
	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor • 765/400 kV, 1500 MVA ICT - 3 Nos. • 765 kV ICT bays - 3 Nos. • 400 kV ICT bays - 3 Nos. • 330 MVAR 765 kV bus reactor -1 No. • 125 MVAR 420 kV bus reactor -1 No. • 125 MVAR 420 kV bus reactor -1 No. • 765 kV reactor bay - 1 Nos. • 765 kV line bay - 2 Nos. • 400 kV reactor bay - 1 No. • 400 kV line bay - 3 Nos. • 500 MVA, 765/400 kV Spare ICT - 1 No. • 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. Future Scope: Space for • 765/400 kV, ICT along with bays - 5 Nos. • 400/220 kV, ICT along with bays - 4 Nos. • 765 kV Line bays along with switchable line reactor - 6 Nos. • 400 kV Line bays - 7 Nos. • 220 kV Line bays - 8 Nos. • 765 kV reactor along with bays - 1 No. • 765 kV sectionalizer - 1 No. • 400 kV sectionalizer - 1 No.	Matching timeframe of RE projects or 24 months from date of SPV transfer whichever is later *	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor 765/400 kV, 1500 MVA ICT - 3 Nos. 765 kV ICT bays - 3 Nos. 400 kV ICT bays - 3 Nos. 330 MVAR 765 kV bus reactor -1 No. 125 MVAR 420 kV bus reactor -1 No. 765 kV reactor bay - 1 Nos. 765 kV line bay - 2 Nos. 400 kV reactor bay - 1 No. 400 kV reactor bay - 1 No. 500 MVA, 765/400 kV Spare ICT - 1 No. 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. Future Scope: Space for 765/400 kV, ICT along with bays - 5 Nos. 400/220 kV, ICT along with bays - 4 Nos. 765 kV Line bays along with switchable line reactor- 6 Nos. 400 kV Line bays - 9 Nos. 220 kV Line bays - 8 Nos. 765 kV reactor along with bays - 1 No. 400 kV reactor along with bays - 1 No. 400 kV reactor along with bays - 1 No. 400 kV bus sectionalizer - 1 No.	24 months			
	2.	Khavda PS (GIS) – Bhuj PS 765 kV D/c line		2.	Khavda PS (GIS) – Bhuj PS 765 kV D/c line				

S.		E	Existing Provis	ion				A	mended Provi	ision	
No											
	 3. 2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line 765 kV AIS line bays – 2 Nos. 							2 nos. of line bays each Khavda PS (GIS) – Bhuj PS • 765 kV AIS line bays	5 765 kV D/c li		f
	* the SCOD of the transmission scheme would be reviewed and intimated to the bidder before bid submission.						* Dele Note:	ted			
	Note:						Note:				
	 As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW at proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LTA application has been received from AGEFL and the same is under process. 							As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW at proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LTA application has been received from AGEFL and the same is under process.			
	ii.	GIS Bay (if any) for comple shall also be in the scope oj	-	eter in one and i	half breaker scheme		ii.	GIS Bay (if any) for comple shall also be in the scope o		eter in one and h	alf breaker scheme
3.	Clause	2.6.1, Section 2: Informati	on and Instru	ctions to Bidders	s of RfP		Clause	e 2.6.1, Section 2: Informat	ion and Instru	uctions to Bidder	rs of RfP
	2.6.1.	All Elements of the Project	are required .				2.6.1.	All Elements of the Project	t are required		
	S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre- required for declaring the commercial operation (COD) of the respective Element		S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre- required for declaring the commercial operation (COD) of the respective Element
	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with	Matching timeframe of RE	62.16%	Elements marked at Sl. No. 1, 2 & 3 are		1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with	24 months	62.16%	Elements marked at SI. No. 1, 2 & 3 are
		1X330 MVAR 765 kV bus reactor and 1X125	projects or 24 months		required to be commissioned			1X330 MVAR 765 kV bus reactor and 1X125			required to be commissioned
		reactor and 1X125 MVAR 420 kV bus	from date		simultaneously			MVAR 420 kV bus			simultaneously

	Existing Provision					Amended Provision					
	2	reactor	of SPV transfer whichever	22.66%	as their utilization is		reactor	22.66%	as their utilization is		
	2.	Khavda PS (GIS) – Bhuj PS 765 kV D/c line	is later *	32.66%	dependent on commissioning of each other.	2.	Khavda PS (GIS) – Bhuj PS 765 kV D/c line	32.66%	dependent on commissioning of each other.		
	3.	2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line		5.18%		3.	2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line	5.18%			
	* the SCOD of the transmission scheme would be reviewed and intimated to the bidder before bid submission.					* Dele	ted				
	Note:					Note:					
i	i.	As on date, Adani Green Stage-I connectivity for 500 proposed Khavda PS at 400 for termination of the dedic included under the scope application has been receiv	00 MW and St kV level. Acco cated lines from of works of	age-II Connecti ordingly, 3nos. c m AGEFL's Solai Khavda P.S. Fu	vity for 3500 MW at of 400 kV GIS line bay r PV project has been rther, 1000MW LTA	proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further					
i	ii.	GIS Bay (if any) for comple shall also be in the scope oj	-	ter in one and	half breaker scheme	e ii. GIS Bay (if any) for completion of diameter in one and half breaker scheme shall also be in the scope of the TSP.					
c s c	The payment of Transmission Charges for any Element irrespective of its successful commissioning on or before its Scheduled COD shall only be considered after successful commissioning of the Element(s) which are pre-required for declaring the commercial operation of such Element as mentioned in the above table. Scheduled COD for overall Project: 24 months from date of transfer of SPV					r successful commissioning on or before its Scheduled COD shall only be considered					
	SI. No	. 8 of Format 1 of Annexure	-8: Bidders' U	ndertakings of	RfP	SI. No. 8 of Format 1 of Annexure-8: Bidders' Undertakings of RfP					
	3. We confirm that our Bid meets the Scheduled COD					8. We confirm that our Bid meets the Scheduled COD					

	E	xisting Provis	ion			A	mended Provi	ision	
S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre- required for declaring the commercial operation (COD) of the respective Element	S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre- required for declaring the commercial operation (COD) of the respective Element
1. 2. 3.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor Khavda PS (GIS) – Bhuj PS 765 kV D/c line 2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line SCOD of the transmission s	Matching timeframe of RE projects or 24 months from date of SPV transfer whichever is later *	62.16% 32.66% 5.18%	Elements marked at SI. No. 1, 2 & 3 are required to be commissioned simultaneously as their utilization is dependent on commissioning of each other.	1. 2. 3.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor Khavda PS (GIS) – Bhuj PS 765 kV D/c line 2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line	- 24 months	62.16% 32.66% 5.18%	Elements marked at S No. 1, 2 & 3 ar required to b commissioned simultaneousl as the utilization dependent of commissioning of each other.
bidde	r before bid submission.				* Deleted Note:				
i.						As on date, Adani Green Stage-I connectivity for 50 proposed Khavda PS at 40 bay for termination of th has been included unde 1000MW LTA application under process.	000 MW and S 00 kV level. A ne dedicated l r the scope	tage-II Connectiv ccordingly, 3nos. ines from AGEFL of works of Kh	ity for 3500 MW of 400 kV GIS li 's Solar PV proje avda P.S. Furth

ii. GIS Bay (if any) for completion of diameter in one and half breaker scheme

GIS Bay (if any) for completion of diameter in one and half breaker scheme

shall also be in the scope of the TSP.

ii.

S.		Existing Provision			Amended Provision			
No								
	its succe considere required the above	that the payment of Transmission Charges for any ssful commissioning on or before its Schedule ad after the successful commissioning of Eleme for declaring the commercial operation of such Ele table. d COD for the Project: 24 months from date of tran	d COD shall only be nt(s) which are pre - ement as mentioned in	We agree that the payment of Transmission Charges for any Element irrespectiv				
5.	Sl. No. 2:	Detailed Scope of Work, Schedule-2 of TSA		Sl. No. 2:	Detailed Scope of Work, Schedule-2 of TSA			
	S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date	S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date		
	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor 765/400 kV, 1500 MVA ICT - 3 Nos. 765 kV ICT bays - 3 Nos. 400 kV ICT bays - 3 Nos. 330 MVAR 765 kV bus reactor -1 No. 125 MVAR 420 kV bus reactor -1 No. 765 kV reactor bay - 1 No. 765 kV ine bay - 2 Nos. 400 kV reactor bay - 1 No. 400 kV line bay - 3 Nos. 500 MVA, 765/400 kV Spare ICT - 1 No. 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. Future Scope: Space for 765 kV Line bays along with bays - 5 Nos. 400 kV Line bays along with switchable line reactor- 6 Nos. 400 kV Line bays - 7 Nos. 220 kV Line bays - 8 Nos.	Matching timeframe of RE projects or 24 months from date of SPV transfer whichever is later *	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor 765/400 kV, 1500 MVA ICT - 3 Nos. 765 kV ICT bays - 3 Nos. 400 kV ICT bays - 3 Nos. 330 MVAR 765 kV bus reactor -1 No. 125 MVAR 420 kV bus reactor -1 No. 765 kV reactor bay - 1 No. 765 kV ine bay - 2 Nos. 400 kV reactor bay - 1 No. 400 kV reactor bay - 1 No. 500 MVA, 765/400 kV Spare ICT - 1 No. 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. Future Scope: Space for 765 kV Line bays along with bays - 5 Nos. 400/220 kV, ICT along with bays - 4 Nos. 765 kV Line bays along with switchable line reactor - 6 Nos. 400 kV Line bays - 9 Nos. 220 kV Line bays - 8 Nos.	24 months		

S. No	Existing Provision	Amended Provision				
	 765 kV reactor along with bays - 2 Nos. 400 kV reactor along with bays - 1 No. 765 kV bus sectionalizer - 1 No. 400 kV bus sectionalizer - 1 No. 400 kV bus sectionalizer - 1 No. 400 kV bus sectionalizer - 1 No. 2. Khavda PS (GIS) - Bhuj PS 765 kV D/c line 3. 2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) - Bhuj PS 765 kV D/c line 765 kV AIS line bays - 2 Nos. * the SCOD of the transmission scheme would be reviewed and intimated to the bidder before bid submission. Note: <i>i.</i> As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW at proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LTA application has been received from AGEFL and the same is under process. <i>ii.</i> GIS Bay (if any) for completion of diameter in one and half breaker scheme shall also be in the scope of the TSP. 	Note: i. As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW at proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LTA application has been received from AGEFL and the same is under process.				
6.	Schedule 3: Scheduled COD of TSA All Elements of the Project are required	Schedule 3: Scheduled COD of TSA All Elements of the Project are required				

S. No		Ex	isting Provisi	on		Amended Provision						
	S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre- required for declaring the commercial operation (COD) of the respective Element	S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre- required for declaring the commercial operation (COD) of the respective Element		
	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor	Matching timeframe of RE projects or	62.16%	Elements marked at S. No. 1, 2 & 3 are required to be commissioned simultaneously as their	1.	Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus		62.16%	Elements marked at S. No. 1, 2 & 3 are required to		
	2.	Khavda PS (GIS) – Bhuj PS 765 kV D/c line	24 months from date of SPV	32.66%		2.	reactor Khavda PS (GIS) – Bhuj PS 765 kV D/c line	24 months	32.66%	be commissioned simultaneously as their utilization is dependent on commissioning of each other.		
	3.	2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line	transfer whichever is later *	5.18%	utilization is dependent on commissioning of each other.	3.	2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line		5.18%			
		the SCOD of the transmission scheme would be reviewed and intimated to the idder before bid submission.										
	The payment of Transmission Charges for any Element irrespective of its successful commissioning on or before its Scheduled COD shall only be considered after successful commissioning of the Element(s) which are pre-required for declaring the commercial operation of such Element as mentioned in the above table.						ayment of Transmission sful commissioning on or b successful commissioning ng the commercial operat	of the Elem	duled COD shall ent(s) which are	only be considered e pre-required for		
7.	Techni	4.0 of Specific Technical Re cal Specifications of Transn cal Requirements for Transn	n of RfP and Cla	use 4.0 of Specific	B: Teo	e 4.0 of Specific Technical chnical Specifications of ⁻ ic Technical Requirements	Fransmission	System of RfP	and Clause 4.0 of			
		nsmission line shall be desi p given in National Building	-	-	-		ansmission line shall be o nd map given in National	-	-	-		

S.	Existing Provision	Amended Provision
No		
	his own assessment of local wind conditions and frequent occurrences of high intensity winds (HIW) due to thunderstorms, dust-storms, downburst etc. along the line route and wherever required, higher wind zone than that given in wind map shall be considered for tower design for ensuring reliability of line	 also make his own assessment of local wind conditions and frequent occurrences of high intensity winds (HIW) due to thunderstorms, dust-storms, downburst etc. along the line route and wherever required, higher wind zone than that given in wind map shall be considered for tower design for ensuring reliability of line. Further, for transmission line sections passing within a distance of 50 km from the boundary of two wind zones, higher of the two wind zones shall be considered for design of towers located in such sections.
8.	Clause 17.0 & 18.0 of Specific Technical Requirements for Transmission Line, Annexure-B: Technical Specifications of Transmission System of RfP and Clause 17.0 & 18.0 of Specific Technical Requirements for Transmission Line, Scheduled 2 of TSA	Clause 17.0 & 18.0 of Specific Technical Requirements for Transmission Line, Annexure-B: Technical Specifications of Transmission System of RfP and Clause 17.0 & 18.0 of Specific Technical Requirements for Transmission Line, Scheduled 2 of TSA
	 17.0 Wherever, transmission lines are passing through coastal/ creek regions, the fabricated tower parts and stubs shall have a minimum overall zinc coating of 900 gram/sq m of surface area except for plates and sections below 5mm which shall have a minimum overall zinc coating of 610 gram/ sqm of surface area. The average zinc coating for all sections and plates 5mm and above shall be maintained as 127 microns and that for plates and sections below 5mm shall be maintained as 87 microns. 18.0 For foundation in creek or aggressive soil areas, Concrete of M30 Grade design Mix conforming to IS 456 and epoxy coated reinforcement as per IS 13620 shall be used. 	17.0 Deleted 18.0 Deleted
9.	Specific Technical Requirements for Transmission Line, Annexure-B: Technical Specifications of Transmission System of RfP and Specific Technical Requirements for Transmission Line, Scheduled 2 of TSA	Specific Technical Requirements for Transmission Line, Annexure-B: Technical Specifications of Transmission System of RfP and Specific Technical Requirements for Transmission Line, Scheduled 2 of TSA
		New Para insertion at SI. No. 17.0
		17.0 Wherever, transmission lines are passing through cyclone prone areas i.e. areas upto 60 km from coast following shall also be applicable:
		a) Terrain category-I, with terrain roughness factor (K2) of 1.08 shall be considered for tower design.
		 b) Importance factor for cyclonic region (K4) of 1.3 shall be considered for tower design.
		c) The number of consecutive spans between the section points/ angle

 point shall not exceed 10 spans or 3km instead of conventional practice of 15 spans or 3km, in order to reduce the failure of such towers in costal areas due to cascading effect. The section shall be terminated with tension tower/ angle to	S. No	Existing Provision	Amended Provision
Specifications of Transmission System of RfP and Specific Technical Requirements for Transmission Line, Scheduled 2 of TSA Specifications of Transmission Line, Scheduled 2 of TSA New Para insertion at SI. No. 18.0 18.0 Wherever, transmission lines are passing through cyclone prone areas (i.e. areas upto 60 km from coast)/ creek regions/ aggressive soil areas following shall also be applicable: a) The fabricated tower parts and stubs shall have a minimum overall zinc coating of 900 gram/sq m of surface area except for plates and sections below Smm which shall have a minimum overall zinc coating of 610 gram/ sqm of surface area. The average zinc coating for all sections and plates Smm and above shall be maintained as 127 microns and that for plates and sections below Smm shink all be maintained as 37 microns. b) Ready mix concrete of M30 Grade shall be used to avoid use of locally available saline water. However, design mix concrete of M30 Grade conforming to IS 456 with potable water can be used at locations where transportation of ready mix concrete is not feasible. Minimum cement content in any case shall not be less than 330kg/m3. c) The surface of the reinforced steel shall be reasted with epoxy based coating to enhance corrosion performance of foundation. Use of epoxy coated reinforcement in foundation shall be as per iS 13620. In addition, two (2) coats of bituminous painting of minimum 1.6kg/m2 per coat shall be applied on all exposed faces of foundation (i.e. pedestal & base slab). d) Double coat 20mm thick cement plaster shall be provided on all exposed concrets surface as well up to 300mm below ground level to give protection to concrets surface for environmental and saline			of 15 spans or 5km, in order to reduce the failure of such towers in coastal areas due to cascading effect. The section shall be terminated with tension tower/ angle tower and angle of deviation should be
	10.	Specifications of Transmission System of RfP and Specific Technical Requirements	 Specifications of Transmission System of RfP and Specific Technical Requirements for Transmission Line, Scheduled 2 of TSA New Para insertion at SI. No. 18.0 18.0 Wherever, transmission lines are passing through cyclone prone areas (i.e. areas upto 60 km from coast)/ creek regions/ aggressive soil areas following shall also be applicable: a) The fabricated tower parts and stubs shall have a minimum overall zinc coating of 900 gram/sq m of surface area except for plates and sections below 5mm which shall have a minimum overall zinc coating of 900 gram/sq m of surface area except for all sections and plates 5mm and above shall be maintained as 127 microns and that for plates and sections below 5mm shall be maintained as 87 microns. b) Ready mix concrete of M30 Grade shall be used to avoid use of locally available saline water. However, design mix concrete of M30 Grade conforming to IS 456 with potable water can be used at locations where transportation of ready mix concrete is not feasible. Minimum cement content in any case shall not be less than 330kg/m3. c) The surface of the reinforced steel shall be treated with epoxy based coating to enhance corrosion performance of foundation. Use of epoxy coated reinforcement in foundation shall be as per IS 13620. In addition, two (2) coats of bituminous painting of minimum 1.6kg/m2 per coat shall be applied on all exposed faces of foundation (i.e. pedestal & base slab). d) Double coat 20mm thick cement plaster shall be provided on all exposed concrete surface as well up to 300mm below ground level to give protection to concrete surface from environmental and saline

S. No	U U U U U U U U U U U U U U U U U U U						A	mended Provisi	on			
						paint of minimum 30-35 microns dry film thickness each shall be applied on the stub in the 50mm coping portion as well as up to 350mm above CL portion						
11.	Specifi	c Technical Requirements cations of Transmission Sy nsmission Line, Scheduled	stem of RfP an									
						New P	ara insertion at Sl. No. 19	.0				
							19.0 The raised chimney foundation is to be provided in areas prone to flooding/water stagnation like paddy field /agricultural field & undulated areas to avoid direct contact of water with steel part of tower. The top of the chimney of foundation should be at least above HFL (High Flood Level) or the historical water stagnation/ logging level (based on locally available data) or above High Tide Level or 500 mm above Natural Ground level (whichever is higher).					
12.	Substa and Cl	1.1: Insulation Coordin tion, Annexure-B: Technic ause 1.1: Insulation Coor tion, Scheduled 2 of TSA	cal Specification	ns of Transmissi	on System of RfP	Substa and Cl	1.1: Insulation Coordir tion, Annexure-B: Techni ause 1.1: Insulation Coor tion, Scheduled 2 of TSA	cal Specificatio	ns of Transmissi	on System of RfP		
	1.1 Ins	ulation Coordination				1.1 Insulation Coordination						
		e system design paramete ow:	ers for substation	ons/switchyards	shall be as given		e system design paramete ow:	ers for substation	ons/switchyards	shall be as given		
	SI	Description of	765/400kV K	havda PS (GIS)	Extn. of	SI	Description of	765/400kV K	havda PS (GIS)	Extn. of		
	No	parameters	s/s		765kV Bhuj PS s/s	No	parameters	s/s		765kV Bhuj PS s/s		
			765 kV	400 kV	765 kV			765 kV	400 kV	765 kV		
			System	System	System			System	System	System		
	8.	Minimum creepage distance for insulator string/ longrod	24800 mm (31mm/kV)	13020 mm (31mm/kV)	24800 mm (31mm/kV)	8.	Minimum creepage distance for insulator string/ longrod	24800 mm (31mm/kV)	13020 mm (31mm/kV)	24800 mm (31mm/kV)		

S. No	Existing Provision						Amended Provision						
		insulators/ outdoor bushings					insulators/ bushings	outdoor					
		Minimum creepage distance for switchyard equipment		10500mm 25mm/kV)	20000 (25mm/kV)	9.	Minimum distance switchyarc	creepage for I equipment	24800 mm (31mm/kV)	13020 mm (31mm/kV)	24800 mm (31mm/kV)		
13.	Clause 4.0: General Facilities of Specific Technical Requirements for Substation, Annexure-B: Technical Specifications of Transmission System of RfP and Clause 4.0: General Facilities of Specific Technical Requirements for Substation, Scheduled 2 of TSA 4.0 General Facilities					Clause 4.0: General Facilities of Specific Technical Requirements for Substation, Annexure-B: Technical Specifications of Transmission System of RfP and Clause 4.0: General Facilities of Specific Technical Requirements for Substation, Scheduled 2 of TSA 4.0 General Facilities							
	d)	d) All outdoor steel structures including anchor/foundation bolts shall be fully galvanized. The weight of the zinc coating shall be at least 610 gm/sq.m and 900 gm/sq.m for coastal/ creek regions.						 d) All outdoor steel structures including anchor/foundation bolts shall be fully galvanized. The weight of the zinc coating shall be at least 900 gm/ sq.m for coastal/ creek regions. 					
14.	Clause 5.0 of Specific Technical Requirements for Substation, Annexure-B: Technical Specifications of Transmission System of RfP and Clause 5.0 of Specific Technical Requirements for Substation, Scheduled 2 of TSA					Clause 5.0 of Specific Technical Requirements for Substation, Annexure-B: Technical Specifications of Transmission System of RfP and Clause 5.0 of Specific Technical Requirements for Substation, Scheduled 2 of TSA							
	5.0 EXTENSION OF EXISTING SUBSTATION The following drawings/details of existing substation is attached with the RFP documents for further engineering by the bidder.					5.0 EXTENSION OF EXISTING SUBSTATION The following drawings/details of existing substation is attached with the RFP documents for further engineering by the bidder.							
	SI. N	Io. Drawing Titl	le Drawing No	o./Details	Rev. No.	SI. I	No. [Drawing Title	Drawir	ng No./Details	Rev. No.		
	A.	A. 765kV Bhuj PS						765kV Bhuj PS					
	3.0) Earthmat Layo	ut TB-385-5	10-014	Rev.00	3.	0 Ear	thmat Layout	C/ENGG	/BHUJ/LAY/EM	Rev.1		
						Copy of Earthmat Layout is attached at Appendix-A.							

- Aller -282--81 KHAVDA'GIS D/C LINE 5 05 4005 AND 3 0 3 E of address for C of address for C of STH C OF 1A 5 C 07 64 5 DE 101 C OF 6P1 0 07 391 5 07 10 5 07 10 6 07 178 \$ 07 09 6 C CI CB OF NOA 3" OF / of sur-01 100 10 01 150+16/9 OF AND BUT E of Privous 07 .5 1 05 150. 04 AO C C4 ... CF 50. C 04 575 2011 2 2 2 0 04 65 6 P 07 400-04 or the OF 150+1 01 TO 404 01 08 OF AUX BUS 01 150+11/3 OF 150+15/1 Of Doil. OF BEADIN OF 201 RJ of the OF R 100 CF 150+1 R. I.R. 0.000 0.000 COLOR OF FUTURE N BUE -D MAIN BUS 101-1 (11-2) (11-200 - Surges N. A. 10 FUTURE N H M E. 54 : 1: : Fi 语 7 : 接 R : 12 E :12 :1 R 1 10111101 聖堂を 10.15M ACT DI ある 12 Title: Main Earthmat Layout for 765kV Bhuj PS Drg. No.: C/ENGG/BHUJ/LAY/EM Rev-1 Easth arid EARTHMAT LAYOUT I having Earthment and not avai lelete (existing)

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Appendix-A