

Amendment No. 1 (Dated: 12.06.2025) to the Request for Proposal Documents for Selection of Bidder as Transmission Service Provider to Establish “Transmission System for Proposed Green Hydrogen / Green Ammonia Projects in Kakinada Area (Phase-I)” through Tariff Based Competitive Bidding Process.

S. No	Clause No.	Existing Clause	New/Revised Clause
1.	RFP & TSA Specific Technical Requirements for Communication C.1.0	Establishment of 765/400kV Kakinada S/s (I) TSP shall supply, install and commission one or more FODP with minimum 240 Fiber capacity with panel and approach Cable (48F each) with all associated hardware fittings from gantry tower to Control Room for all the incoming lines envisaged under the present scope.	Establishment of 765/400kV Kakinada S/s (I) TSP shall supply, install and commission one or more FODP with minimum 120 Fiber capacity with panel and approach Cable (24F each) with all associated hardware fittings from gantry tower to Control Room for all the incoming lines envisaged under the present scope.
2.	RFP & TSA Specific Technical Requirements for Communication C.2.0	LILO of Vemagiri – Srikakulam 765kV D/C line at Kakinada S/s (I) On LILO of both ckt of 765kV Vemagiri - Srikakulam D/C line at Kakinada S/s, TSP shall supply, install and commission OPGW and earthwire as per Tower Configurations: i. Loop-In and Loop out Ckt on Single Towers: Two (2) no. OPGW cable containing 48 Fibres (48F) OPGW to be installed and commissioned by the TSP on both the Earthwire peaks. ii. Loop-In and Loop out Ckt on Two separate Towers: One (1) no. OPGW cable containing 48 Fibres (48F) on one earthwire peak and conventional earthwire on other E/W peak for both Loop In and Loop Out Lines.	LILO of Vemagiri – Srikakulam 765kV D/C line at Kakinada S/s (I) On LILO of both ckt of 765kV Vemagiri - Srikakulam D/C line at Kakinada S/s, TSP shall supply, install and commission OPGW and earthwire as per Tower Configurations: i. Loop-In and Loop out Ckt on Single Towers: Two (2) No. OPGW cable containing 24 Fibres (24F) OPGW to be installed and commissioned by the TSP on both the Earthwire peaks. ii. Loop-In and Loop out Ckt on Two separate Towers: One (1) no. OPGW cable containing 24 Fibres (24F) on one earthwire peak and conventional earthwire on other E/W peak for both Loop In and Loop Out Lines. Note: Existing OPGW on Vemagiri – Srikakulam 765kV D/C line is 24 Fiber therefore 24 Fiber OPGW is proposed on the LILO of Vemagiri – Srikakulam 765kV D/C line at Kakinada S/s

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3.	RFP & TSA Specific Technical Requirements for Communication Appendix-F.1	Repeater Requirements - If the repeater location is finalized in the Control Room of a nearby substation, TSP shall provide OPGW (96F- Fibers) to accommodate all the fibers in main transmission line on a single Earthwire peak with OPGW Hardware and mid-way Joint Boxes etc. of the line crossing the main line and required approach Cable to accommodate all the OPGW fibers (96F) with all associated hardware fittings, to establish connectivity between crossing point of main transmission line up to the repeater equipment in substation control room. TSP shall co-ordinate for Space and DC power supply sharing for repeater equipment. TSP shall provide FODP, FOTE (with STM-16 capacity) with suitable interfaces required for link budget of respective link. OR - If the repeater location is finalized in the nearby substation premises, the TSP shall identify the Space for repeater shelter in consultation with station	Repeater Requirements - If the repeater location is finalized in the Control Room of a nearby substation, TSP shall provide <u>OPGW to accommodate all the fibers in main transmission line</u> on a single Earthwire peak with OPGW Hardware & mid-way Joint Boxes etc. of the line crossing the main line <u>and required approach Cable to accommodate all the OPGW fibers</u> with all associated hardware fittings, to establish connectivity between crossing point of main transmission line up to the repeater equipment in substation control room. TSP shall co-ordinate for Space & DC power supply sharing for repeater equipment. TSP shall provide FODP, FOTE (with STM-16 capacity) with suitable interfaces require for link budget of respective link. OR - If the repeater location is finalized in the nearby substation premises, the TSP shall identify the Space for repeater shelter in consultation with station owner. Further TSP shall provide <u>OPGW to accommodate all the fibers in main transmission line</u> on a single

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		owner. Further TSP shall provide OPGW (96F) to accommodate all the fibers in main transmission line on a single Earthwire peak with OPGW Hardware and mid-way Joint Boxes etc. of the line crossing the main line and required approach Cable/UGFO to accommodate all the OPGW (96F) fibers with all associated hardware fittings, to establish connectivity between crossing point of main transmission line up to the substation where the repeater shelter is to be housed. TSP shall provide repeater shelter along with FODP, FOTE (with STM-16 capacity) with suitable interfaces require for link budget of respective link, reliable power supply provisioning for AC and DC supply, battery bank, Air Conditioner and other associated systems. OR If the repeater location is finalized on land near the transmission tower. TSP shall make the provisions for Land at nearby tower for repeater shelter. Further TSP shall provide required approach Cable to accommodate all the OPGW (96F) fibers with all	Earthwire peak with OPGW Hardware & mid-way Joint Boxes etc. of the line crossing the main line and <u>required approach Cable/UGFO to accommodate all the OPGW fibers</u> with all associated hardware fittings, to establish connectivity between crossing point of main transmission line up to the substation where the repeater shelter is to be housed. TSP shall provide repeater shelter along with FODP, FOTE (with STM-16 capacity) with suitable interfaces require for link budget of respective link, reliable power supply provisioning for AC and DC supply, battery bank, Air Conditioner and other associated systems. OR If the repeater location is finalized on land near the transmission tower. TSP shall make the provisions for Land at nearby tower for repeater shelter. Further TSP shall provide <u>required approach Cable to accommodate all the OPGW fibers</u> with all associated hardware fittings to establish connectivity up to the location of repeater shelter. TSP shall provide repeater shelter along with FODP, FOTE (with STM-16 capacity) with suitable interfaces require for link budget of respective link, reliable power supply provisioning

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		associated hardware fittings to establish connectivity up to the location of repeater shelter. TSP shall provide repeater shelter along with FODP, FOTE (with STM-16 capacity) with suitable interfaces require for link budget of respective link, reliable power supply provisioning for AC and DC supply, battery bank, Air Conditioner and other associated systems	for AC and DC supply, battery bank, Air Conditioner and other associated systems
4.	RFP Frequently Asked Queries: 3.0 Communication	3.3 How is the OPGW laying done in case of LILO lines? Reply: In case LILO lines are on same towers (e.g. both Line in and Line Out portion are on same towers, generally done LILO of S/C lines). Then ~~2x48F~~ OPGW shall be required to install by TSP on both earthwire peak on 400 kV & 765 kV lines where two E/W peaks are available. On 220 & 132 kV lines where only one E/W peak is available TSP to install one no. ~~96F~~ OPGW. Incase LILO lines are on different towers (e.g. both Line In and Line Out portion are on different towers, generally done LILO of D/C lines). Then ~~1x48F~~ OPGW shall be required to install by TSP on one earthwire peak and conventional earthwire on second earthwire peak, on both Line In and Line	3.3 How is the OPGW laying done in case of LILO lines? Reply: In case LILO lines are on same towers (e.g. both Line in and Line Out portion are on same towers, generally done LILO of S/C lines). Then ~~2x24F~~ OPGW shall be required to install by TSP on both earthwire peak on 400 kV & 765 kV lines where two E/W peaks are available. On 220 kV & 132 kV lines where only one E/W peak is available TSP to install one No. ~~48F~~ OPGW. Incase LILO lines are on different towers (e.g. both Line In and Line Out portion are on different towers, generally done LILO of D/C lines). Then ~~1x24F~~ OPGW shall be required to install by TSP on one earthwire peak and conventional earthwire on second earthwire peak, on both Line In and Line Out portion towers of 400 kV & 765 kV lines. On 220 kV & 132 kV lines where

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		Out portion towers of 400 kV & 765 kV lines. On 220 & 132 kV lines where only one E/W peak is available TSP to install one no. 48F OPGW in place of conventional earthwire. 3.4 How is the OPGW laying done in case Multi circuit Towers? Reply: In case two different lines are using common multi circuit portion for some distance (originating from different stations, may be terminating on same or on different stations). Two no. 48F OPGW to be installed on both E/W peaks for common M/C portion of 765 kV & 400 kV lines. In case 220/132 kV lines using multi circuit portion where single E/W peak is available one no 96F may be installed for common multi circuit portion.	only one E/W peak is available TSP to install one No. 24F OPGW in place of conventional earthwire. 3.4 How is the OPGW laying done in case Multi circuit Towers? Reply: In case two different lines are using common multi circuit portion for some distance (originating from different stations, may be terminating on same or on different stations). Two No. 24F OPGW to be installed on both E/W peaks for common M/C portion of 765 kV & 400 kV lines. In case 220/132 kV lines using multi circuit portion where single E/W peak is available one No. 48F may be installed for common multi circuit portion.
5.	RFP & TSA Specific Technical Requirements for Substation	C.8.11 STATCOM Station Auxiliary Power Supply 	C.8.11 STATCOM Station Auxiliary Power Supply

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	Clause no. C.8.11	Wherever the Voltage variation on the incomer is very high, a solid state AVR (Automatic Voltage Regulator) shall be provided to control the auxiliary supply voltage. 	Wherever the Voltage variation on the incomer is very high, AVR (Automatic Voltage Regulator) shall be provided to control the auxiliary supply voltage.
6.	Clause 1.6.1.1 of RFP	Establishment, operation and maintenance of the Project on build, own, operate and transfer basis and completion of all the activities for the Project, including survey, detailed project report formulation, arranging finance, project management, necessary Consents, Clearances and Permits (way leave, environment and forest, civil aviation, railway/ road/river/canal/power crossing/PTCC, etc.), land compensation, design, engineering, equipment, material, construction, erection, testing and commissioning. Further, the actual location of substations, switching stations or HVDC terminal or inverter stations in the scope of TSP shall not be beyond 3 Km radius of the location proposed by the BPC in the survey report. Further, the actual location of Greenfield substations (Switching Stations or HVDC Terminal or Inverter Stations) for a generation pooling substation and for load serving substations in the scope of TSP shall not be	Establishment, operation and maintenance of the Project on build, own, operate and transfer basis and completion of all the activities for the Project, including survey, detailed project report formulation, arranging finance, project management, necessary Consents, Clearances and Permits (way leave, environment & forest, civil aviation, railway/ road/ river/ canal/ power crossing/ PTCC, etc.), land compensation, design, engineering, equipment, material, construction, erection, testing & commissioning. Further, the actual location of Greenfield Substation (Switching Station or HVDC Terminal or Inverter Station) in the scope of TSP: - For Generation Pooling Substation shall not be beyond 3 Km radius of the location proposed by BPC in their survey report. - For Load Serving Substation within the scope of TSP shall not be beyond 5 Km radius of the location proposed by the BPC in their Survey Report.

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		beyond 3 Km radius of the location proposed by the BPC in the survey report. However, actual location of any Greenfield intermediate Substations in the scope of TSP shall not be beyond 10 Km radius of the location proposed by the BPC in the Survey Report.	For an Intermediate Substation shall not be beyond 10 Km radius of the location proposed by the BPC in their Survey Report.
7.	Clause 5.1.4 of TSA	The TSP shall be responsible for a) Acquisition of land for location specific substations, switching stations or HVDC terminal or inverter stations. Also, the actual location of Greenfield substations (Switching Stations or HVDC Terminal or Inverter Stations) for a generation pooling substation and for load serving substations in the scope of TSP shall not be beyond 3 Km radius of the location proposed by the BPC in the survey report. However, actual location of any Greenfield intermediate Substations in the scope of TSP shall not be beyond 10 Km radius of the location proposed by the BPC in the Survey Report.	The TSP shall be responsible for a) Acquisition of land for location specific substations, switching stations or HVDC terminal or inverter stations. Also, the actual location of Greenfield substations (Switching Stations or HVDC Terminal or Inverter Stations) in the scope of TSP: - For Generation Pooling Substation shall not be beyond 3 Km radius of the location proposed by BPC in their survey report. - For Load Serving Substation within the scope of TSP shall not be beyond 5 Km radius of the location proposed by the BPC in their Survey Report - For an Intermediate Substation shall not be beyond 10 Km radius of the location proposed by the BPC in their Survey Report.