

Amendment –9 dated 01.01.2025 in the RfP for Transmission Service Provider to establish “Transmission Scheme for integration of Davanagere / Chitradurga and Bellary REZ in Karnataka” through tariff based competitive bidding process.

Sl.	Clause No.	Existing Clause	New/Revised Clause
1.	<p>Appendix F.1:</p> <p>SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION</p>	<p>Repeater Requirements</p> <ul style="list-style-type: none"> If the repeater location is finalized in the Control Room of a nearby substation, TSP shall provide 1 no. OPGW (48F) on a single Earthwire peak with OPGW Hardware & mid-way Joint Boxes etc. of the line crossing the main line and 1 no. Approach Cable (48F) 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 1 no. OPGW (48F) on a single Earthwire peak with OPGW Hardware & mid-way Joint Boxes etc. of the line crossing the main line and 1 no. Approach Cable (48F) / UGFO (48F) 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. <p>OR</p>	<ul style="list-style-type: none"> If the repeater location is finalized in the Control Room of a nearby substation, TSP shall provide 1 no. OPGW (48F) OPGW to accommodate all the fibers in main transmission line on a single Earthwire peak with OPGW Hardware & mid-way Joint Boxes etc. of the line crossing the main line and 1 no. Approach Cable (48F) and required approach Cable to accommodate all the OPGW fibers 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 OPGW to accommodate all the fibers in main transmission line 1 no. OPGW (48F) on a single Earthwire peak with OPGW Hardware & mid-way Joint Boxes etc. of the line crossing the main line and required approach Cable/UGFO to accommodate all the OPGW fibers 1 no. Approach Cable (48F) / UGFO (48F) 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. <p>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</p>

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		<ul style="list-style-type: none"> 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 1 no. Approach Cable (48F) / UGFO (48F) 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 for AC and DC supply, battery bank, Air Conditioner and other associated systems Maintenance of OPGW Cable and OPGW Hardware, repeater equipment & items associated with repeater shelter shall be responsibility of TSP. 	<p>DC supply, battery bank, Air Conditioner and other associated systems.</p> <p>OR</p> <p>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 1 no. Approach Cable (48F) / UGFO (48F) required approach Cable to accommodate all the OPGW fibers 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 for AC and DC supply, battery bank, Air Conditioner and other associated systems Maintenance of OPGW Cable and OPGW Hardware, repeater equipment & items associated with repeater shelter shall be responsibility of TSP.</p>
2.	Frequently Asked Queries: 3.0 Communication	<p>3.3 How is the OPGW laying done in case of LILO lines?</p> <p>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 & 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 & 132 kV lines where only one E/W</p>	<p>3.3 How is the OPGW laying done in case of LILO lines?</p> <p>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 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. 48F 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 1x24F 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 Out portion towers of 400 kV & 765 kV lines. On 220 & 132 kV lines where</p>

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		<p>peak is available TSP to install one no. 24F OPGW in place of conventional earthwire.</p> <p>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. Incase 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.</p>	<p>only one E/W peak is available TSP to install one no. 24F 48F OPGW in place of conventional earthwire.</p> <p>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 48F OPGW to be installed on both E/W peaks for common M/C portion of 765 kV & 400 kV lines. Incase 220/132 kV lines using multi circuit portion where single E/W peak is available one no 48F 96F may be installed for common multi circuit portion.</p>
3.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.1.0 Establishment of 765/400kV Davanagere/Chitradurga Pooling Station	<p>I. TSP shall supply, install and commission two (2) No. FODP (96F or higher) and one (1) No. FODP (72F or higher) along with panel and approach Cable (24F each), Joint Box etc. with all associated hardware fittings from gantry tower to Control Room for all the incoming lines / Bays envisaged under the present scope. The required Approach Cables with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room shall be modified as per 48F/96F OPGW.</p>	<p>I. TSP shall supply, install and commission two (2) No. FODP (192F or higher) and one (1) No. FODP (144F or higher) along with panel and approach Cable (48F each), Joint Box etc. with all associated hardware fittings from gantry tower to Control Room for all the incoming lines / Bays envisaged under the present scope. The required Approach Cables with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room shall be modified as per 48F/96F OPGW.</p>
4.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.2.0 LILO of Narendra New – Madhugiri 765kV D/C transmission line at Davanagere/ Chitradurga 765/400kV PS	<p>(i) For Multi Circuit Tower Configuration: Two (2) No. OPGW cable containing twenty four (24) Fibres (24F) to be installed and commissioned by the TSP on both the Earthwire peaks</p> <p>(ii) For Double Circuit Tower configuration (for both Loop In and Loop Out portion): One (1) No. OPGW cable containing twenty four (24) Fibres (24F) on one earthwire peak and conventional earthwire on other E/W peak for both Loop In and Loop Out Lines.</p>	<p>(i) For Multi Circuit Tower Configuration: Two (2) No. OPGW cable containing forty eight (48) Fibres (48F) to be installed and commissioned by the TSP on both the Earthwire peaks</p> <p>(ii) For Double Circuit Tower configuration (for both Loop In and Loop Out portion): One (1) No. OPGW cable containing forty eight (48) Fibres (48F) on one earthwire peak and conventional earthwire on other E/W peak for both Loop In and Loop Out Lines. Proposed OPGW Hardware, Joint Box and other accessories shall be as per 48/96 Fiber (as applicable) OPGW.</p>

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5.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.3.0 Upgradation works at Narendra New (2 Nos. 765kV Line bays)	(I) TSP shall supply, install and commission Joint Box/ OPGW Cable (24F)/ Approach Cable (24F) , hardware fittings etc. required for integration of OPGW cable from existing 765kV Narendra – Madhugiri Line to the FOTE at control room of existing 400kV Narendra New S/S due to upgradation works of Bays at 765kV Narendra New.	(I) TSP shall supply, install and commission Joint Box/ OPGW Cable (48F)/ Approach Cable (48F) , hardware fittings etc. required for integration of OPGW cable from existing 765kV Narendra – Madhugiri Line to the FOTE at control room of existing 400kV Narendra New S/S due to upgradation works of Bays at 765kV Narendra New. The required Approach Cables with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room shall be modified as per 48F/96F OPGW.
6.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.4.0 Upgradation works at Madhugiri S/S (2 Nos. 765kV Line bays)	(I) TSP shall supply, install and commission Joint Box/ OPGW Cable (24F)/ Approach Cable (24F) , hardware fittings etc. required for integration of OPGW cable from existing 765kV Narendra – Madhugiri Line to the FOTE at control room of existing 400kV Madhugiri S/S due to upgradation works of Bays at 765kV Madhugiri	(I) TSP shall supply, install and commission Joint Box/ OPGW Cable (48F)/ Approach Cable (48F) , hardware fittings etc. required for integration of OPGW cable from existing 765kV Narendra – Madhugiri Line to the FOTE at control room of existing 400kV Madhugiri S/S due to upgradation works of Bays at 765kV Madhugiri The required Approach Cables with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room shall be modified as per 48F/96F OPGW.
7.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.5.0 Establishment of 400/220kV Bellary PS	I. TSP shall supply, install and commission two (2) No. FODP (96F or higher) and one (1) No. FODP (24F or higher) along with panel and approach Cable (24F each), Joint Box etc. with all associated hardware fittings from gantry tower to Control Room for all the incoming lines / Bays envisaged under the present scope.	I. TSP shall supply, install and commission two (2) No. FODP (192F or higher) and one (1) No. FODP (48F or higher) along with panel and approach Cable (48F each), Joint Box etc. with all associated hardware fittings from gantry tower to Control Room for all the incoming lines / Bays envisaged under the present scope. The required Approach Cables with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room shall be modified as per 48F/96F OPGW.
8.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.6.0 400/220kV Bellary PS - 765/400kV	I. On 400/220kV Bellary PS - 765/400kV Davangere/ Chitradurga PS D/C line, TSP shall supply, install and commission One (1) No. OPGW cable containing twenty four (24) Fibres (24F) on one Earth Wire (E/W) peak and conventional earth wire on other E/W peak.	(I) On 400/220kV Bellary PS - 765/400kV Davangere/ Chitradurga PS D/C line, TSP shall supply, install and commission One (1) No. OPGW cable containing forty eight (48) Fibres (48F) on one Earth Wire (E/W) peak and conventional earth wire on other E/W peak. Proposed OPGW Hardware, Joint Box and other accessories shall

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	Davanagere/Chitradurga PS D/C transmission line		be as per 48 Fiber OPGW .
9.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.7.0 FOTE requirement at 765/400kV Davanagere/Chitradurga PS (for 2 Nos. of 400kV Line bays)	I. TSP shall supply, install and commission 1 No. FODP (72F or higher) alongwith panel and required Approach Cable (24F) with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room.	I. TSP shall supply, install and commission 1 No. FODP (144F or higher) alongwith panel and required Approach Cable (48F) with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room. The required Approach Cables with all associated hardware fittings from gantry tower to Bay Kiosk and from the Bay Kiosk to Control room shall be modified as per 48F/96F OPGW .
10.	SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION C.10.0	New Clause	For the extension / By pass portion of existing line with OPGW: OPGW requirement on extended line / By pass portion shall be of same OPGW fiber capacity of existing line