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Bangladesh Power System Reliability and Efficiency Improvement Project



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Name of the project	Project period	Scope of Reconductoring work
Bangladesh Power System Reliability and Efficiency Improvement Project	01/ 07/2017 to 30/06/2025	1. Barisal(N) - Barisal 132kV Double Circuit Line- (9.335 Route-Km) 2. Saidpur - Purbasadipur 132kV Double Circuit Line - (24.971 Route-Km)



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Transmission Line Upgradation Database

Sl. No.	Name of Transmission Line	Voltage Level(kV)	Route km	No. of circuit	Circuit km	Name of the Project	Previous Conductor	Previous Current Capacity (Amp)	New Current Capacity (Amp)	Conduct or Details	Completion Time	Remarks
1.	Barisal(N) - Barisal	132kV	9.335	Double	18.67	Bangladesh Power System Reliability and Efficiency Improvement Project	ACSR Hawk	2x646 Amp @ 80°C	2x852 Amp @ 120°C	ACCC Hawk	17/12/2019	Capacity Enhanced
2.	Saidpur-Purbasadipur	132kV	24.971	Double	49.942			2x646 Amp @ 80°C	2x852 Amp @ 120°C	ACCC Hawk	12/1/2020	Capacity Enhanced



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Benefits of using ACCC Conductor

- ACCC conductors have a larger aluminum content and a lighter, stronger composite core. This allows them to operate at higher temperatures without significant sag. As a result, they can carry up to **double the amount of current** compared to traditional ACSR.
- It can **reduce the amount of sag**, allowing the conductor to **maintain a safe clearance** from the ground even at high operating temperatures.
- The carbon fiber composite core is **lighter** than steel core. This reduced weight makes ACCC conductors easier to transport and install, and it allows for a lower mechanical load on existing towers, which can be a **key advantage for line upgrades**.



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Main Challenges of using ACCC Conductor

- Higher initial cost than ACSR conductors.
- The carbon fiber composite core is a critical component that requires careful handling during installation.
- Unlike a steel core, the composite core is stiff and brittle in nature. Excessive bending during transportation or installation can cause internal damage.
- Installation requires specific tools and trained crews.
- The fittings and dead-ends for ACCC conductors are also specialized, as they must effectively grip the core without damaging it, a more complex process than with conventional steel-core conductors.



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Reconductoring work at Saidpur site





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Reconductoring work at Purbasadipur site





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Reconductoring work at Barisal site





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Reconductoring work at Barisal Substation site





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Thank You