



ACCC CONDUCTORS ON A 380 KV LINE

Replacing ACSR with High Temperature Low Sag (HTLS) composite-core conductor for near-double capacity, same towers

380 KV

LINE VOLTAGE

+130%

TRANSMISSION
CAPACITY

1,500 A

MAX RATED
CURRENT

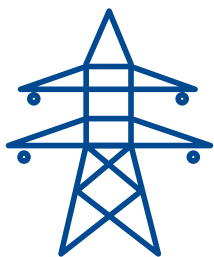
180-200°C

OPERATING
TEMP

+49%

RATED TENSILE
STRENGTH

TRANSMISSION SOLUTION



Omexom Transmission Solutions brings High Temperature Low Sag (HTLS) conductor expertise to 380 kV transmission upgrades: replacing standard ACSR with ACCC composite-core conductors delivers roughly 130% more transmission capacity on existing towers, no new foundations, no corridor impact, backed by manufacturer-certified installation teams for this failure-critical technology.



THE CHALLENGE

- Increase transmission capacity without replacing existing towers
- Carbon core is failure-critical, a small installation error can be fatal
- New tools, procedures & manufacturer-certified installer training required
- Work often occurs on live, dual-circuit poles, strict grounding needed



KEY BENEFITS

- ~130% more capacity, no new towers or foundations needed
- Low sag at high temp → longer spans, better wildfire resilience
- Higher aluminum content → lower losses, lower emissions
- Composite core → longer corrosion life, better wind/ice/vibration resistance

THE SOLUTION

Low coefficient of thermal expansion in the composite core keeps deflection low even at 180–200°C operating temperature, the core mechanism behind the capacity gain.

ACCC (Aluminium Conductor Composite Core) replaces standard ACSR, same diameter & weight.

e.g. ACSR "Condor" → ACCC "Warsaw":
+49% RTS, +130% capacity.

Manufacturer-led theoretical + practical training, certified per installer.

Specialised tooling, e.g. 1,600 mm groove-wheel tensioner/brake, sourced via the Omexom Group.



Typical Use Case: Existing transmission lines that need more capacity without new towers, foundations, or corridor impact.

Critical: Certified installers only

OMEXOM

For any questions regarding this solution, please contact:

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