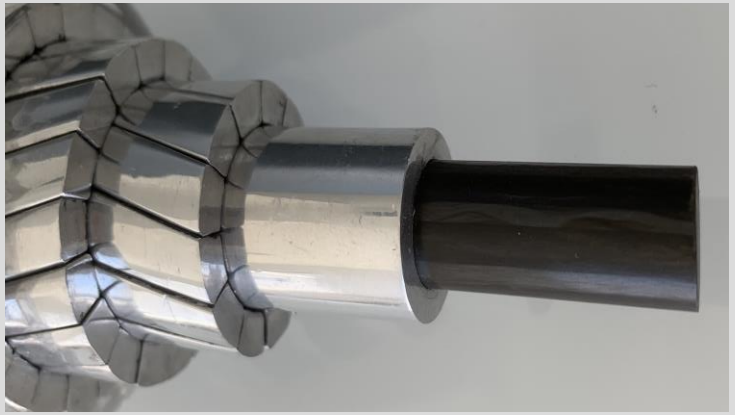
CABLE Conductor Manufacturing Prize

Team Name:	*TS Conductor Corporation*
Primary Submitter Name:	Jason Huang
City and State:	Huntington Beach, California
Member Names (including partners and affiliates):	Rulong Chen Vivek Kohli
Submission Title:	Advanced Conductor with Conductive Strength Member



Description of Material

- *Turning the carbon composite strength member conductive, making an already best-in-class conductor even superior (even higher ampacity and efficiency).*
- *The application market size is huge, as it is for the entire transmission and distribution PowerGrid (upgrading existing grid, tripling the grid capacity by 2050)*
- ***Goal: Beat a Conductor System.***

Fabrication Approach

- Carbon Composite pultrusion in Epoxy with small fraction carbon fiber substituted with high conductivity CNT carbon
- Carbon Composite Core encapsulated with high purity aluminum, for field robustness, lifetime shielding protection and compatibility with standard work practice
- Additional stranding for conductor or insulation layer for covered conductor

Potential Impact

- Becoming the New Conductor Standard for PowerGrid with Efficiency (replacing the dominant century old ACSR technology)
- Fastest and Most Economical Way for Grid Modernization (3x capacity with existing structures in existing right of way)
- 'Green Discount' in Energy Transition (lower Capex than traditional approach)
- Pay for Upgrade via 50% reduced line loss