Open Source and Energy Interoperability
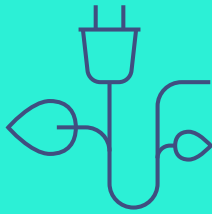
Digital Technology Impact: Digital technology alone is projected to generate $2.1 trillion in annual revenue.

Energy Sector Challenges: The energy sector needs to meet a 50% increase in demand by 2050 while becoming greener and smarter.

Promise of Open Source: Open source technology shows the greatest promise to accelerate the transition to clean energy.

Microgrids Role: Microgrids are key for energy access and transition, providing reliable and sovereign electricity.

Smart Grid Development: Digitalization involves developing a smart grid with two-way communication and advanced sensors.

Open Source Benefits: Open source platforms reduce costs, enhance interoperability, and improve integration across energy systems.
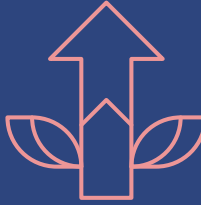
Standards and Collaboration: There is a need for industry-wide standards to facilitate interoperability and reduce silos.

Data Sharing Importance: Open source platforms enable better long-term planning through transparent and real-time data sharing.

Future-Proof Technology: Adopting open source solutions ensures assets remain adaptable and compatible with evolving standards and technologies.

Interoperability: IEEE 2030.5 standardizes communication between the smart grid and consumers using open web standards such as TCP/IP and XML.

Interoperability solution: The EVerest project empowers industry stakeholders by simplifying compliance while providing a scalable, interoperable foundation for innovation in EV charging.

Interoperability solution: The SPEEDIER project highlights the significant opportunity for open source software & open standards to improve DERs and their integration into smart grid systems.