

**2022-2024 Three-Year Plan for Electricity System Research - Research Topic 2.3: Evolution, planning, management and electricity networks operation**

**Roberto Ciavarella (ENEA)**

Electricity security represents the power system's capability to supply electricity to the end users. In a carbon free energy system, the ability of the electricity system to guarantee an adequate level of operational security, adequacy, reliability, and resilience, even in the presence of significant shares of non-programmable renewable generation sources, becomes a priority.

In these premises, the project “Evolution, planning, management and electricity networks operation” aims to study, analyze and develop methodologies, models and tools that enable advanced operation and planning of decarbonized energy systems based on an appropriate assessment of the adequacy, operational safety, resilience and energy security.