



WHAT IS iPLUG?

The iPLUG project is focused on developing power electronics based on multiport converters, which will enable the integration of multiple renewable sources, energy storage systems, and loads to the grid

OBJECTIVES

This will result in improved grid stability and reliability, reduced grid congestion, and easier integration of renewable energy sources. In addition, the project aims to reduce the cost of integrating renewable energy technologies, make renewable energy more competitive with fossil fuels, and provide greater flexibility in managing energy flows on the grid.

IMPACT

By promoting a sustainable energy system, the iPLUG project aims to aid global efforts to combat climate change and generate job opportunities in the renewable energy sector. The project also intends to work together with energy providers and regulators to overcome any regulatory obstacles and facilitate the integration of renewable energy sources into the power grid.

5 COUNTRIES

SPAIN, SERBIA, SWEDEN, ITALY AND UNITED KINGDOM.

8 PARTNERS

5 RESEARCH INSTITUTIONS

AND

3 COMPANIES



EVENTS

The iPLUG Project had its KICK-OFF meeting at CITCEA-UPC facilities, in Barcelona, where project discussions started to take place. Subsequently, the 01 General Assembly meeting was held on the University of Strathclyde in Glasgow. During this meeting, a concise overview of the ongoing activities was presented, with particular emphasis on the outcomes of WP1. The presentation encompassed the study cases, potential KPIs, and grid requirements for multiport converters, as well as an evaluation of various topologies for MV and LV multiport converters. In addition, several researchers shared their previous research endeavors related to the project.

PUBLICATIONS

The project has presented the first publication described as follows:

M. D. Hernández, O. Esquiús Mas, M. C. Mañe, E. Prieto Araujo and O. G. Bellmunt, "Fault Ride Through Control of Multiport Converter for Distribution Grids," 2022 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe), Novi Sad, Serbia, 2022, pp. 1-5, doi: 10.1109/ISGT-Europe54678.2022.9960596

