European Microgrid Research Results

What are the most common microgrid models in the EU?
Interestingly enough,Soshinskaya wrote in 2014 that for microgrids 'the most common models in the EU are DSO Monopoliescompared to more Free Market and Prosumer models around the world'. 80 This is a particularly paradoxical situation,given that the EU implemented a liberalised electricity market while many non-EU countries did not.

What challenges did the European Union microgrids project face?
The European Union MICROGRIDS project explored similar technical challenges such as safe islanding and reconnection practices, energy management, control strategies under islanded and connected scenarios, protection equipment, and communications protocols . Active research continues on all of the topics pioneered in these early studies . 2.

What are the different microgrid business models?
These structures are categorised in literature as three different microgrid business models with differing ownership and operation structures: the DSO Monopoly Model (DSOMM),the Prosumer Consortium (PC),and the Free Market Model (FMM)(Schwaergerl,Tao,2014).

Why do we need more microgrids?
More microgrids aimed to increase the penetration of microgeneration in electrical networksby exploiting and extending the microgrids concept. The project achieved a great deal thanks to the in-depth investigation of new micro source,storage and load controllers for providing efficient microgrid operations.

Can EU law facilitate the regulation of microgrid models?
The basic answer to this question is that EU law can facilitate the regulation of these microgrid models if existing rules are adapted to include microgrids.

What technical challenges did the microgrids project face?
Similar technical challenges were explored by the European Union MICROGRIDS project such as energy management, safe islanding and re-connection practices, protection equipment, control strategies under islanded and connected scenarios, and communications protocols .

The aim of this article is to provide a research-based legal definition for microgrids, primarily for the EU, although it could also be adapted to other jurisdictions. The intended geography of adoption matters, given that ...

Our goal for the Puerto Rico 2024 Symposium on Microgrids is to continue our exchange of results from microgrid research, demonstration, and deployment worldwide with an emphasis on recent results and areas of potential ...

From 1st Feb 2017 to 31st Jan 2022, 61.5 person-months secondments have been implemented in this project. The project has achieved the following main technical results, and disseminated ...

The model is adapted from Cigre Benchmark model to integrate Distributed Energy Resources (DERs). As the benchmark system is obtained from the real network, it will enable industrial ...

This article presents the demonstrative development of the Towards Intelligent DC-based hybrid Grids Optimizing the Network performance (TIGON) project at the Centre for the Development of Renewable Energy - ...