

## **DEPLOYMENT OF MICROGRIDS IN THE DEVELOPED COUNTRIES: AN APPRAISAL**

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### **ABSTRACT**

Microgrids are the significant emerging systems for incorporating distributed energy generation into the larger electrical distribution system both from renewable as well as fossil fuel power sources. In the past decade the majority of microgrids had been only as pilot projects or research-related experiments, but such is not going to be the case in near future since whole power system is growing smarter very fast specially in the developed countries. Recent years have indicated a shift as some of the first commercial-scale microgrid projects reached noticable milestones. The budge from pilot corroboration projects to fully commercial projects is accelerating with the passable adoption of the IEEE islanding standards for microgrids. There is no particularly accepted benchmark test system for microgrids; as per the local necessitate different systems employ diverse microgrid topologies. This paper presents a detail appraisal of the current research development, demonstration and implementation work being carried out in the highly developed countries where the Microgrids are functional fruitfully; specifically at United States, Canada in North America and at Germany, Italy, United Kingdom in Europe. In this paper we shall see the implementation technical details, operating concepts, practical challenges and the control schemes of various microgrid set ups in the mentioned advance countries steering towards the wider goal of evolution of smart grid.

**KEYWORDS:** MicroGrid Configurations, Micro Grid Implementations, MicroGrid Projects, Developed Countries