Big Data for Renewable Generation

Data is knowledge, but that requires one to turn it into information. For quite a few years our university has invested in installing various renewable generation technologies. Consequently, there are various types of Photo Voltaic (PV) panels, and more recently also plans to install a Photo Voltaic Thermal installation. Additionally, a Combined Heat and Power plant running on bio-fuel is soon to be switched on. Considering that most of these installations are part of our facility management and can therefore not be used for "life" research purpose, the aim is always to install them with suitable data gathering technologies to collect as much data as possible. This has e.g. meant that various years of data have already been gathered about the various PV panels, and the same will applies to all new installations. More recently a project has looked at bringing all this data together in one location with also data from local weather stations to allow for research to be performed on these types of generation and how the generation is e.g. linked with weather patterns, can match demand at those points in time and so on. The purpose is to not only make this data available internally, but also ensure there is open access where-ever possible so that others can also build on it.