

Pre-Commercial PMU Applications Projects

Applicant	Utility Engagement	Synchrophasor Enabled Functionality	Data	Open Framework
Quanta Technology, LLC	<ul style="list-style-type: none"> • NYPA 	Direct Non-Iterative State Estimator	Data conditioning	Open structure
Electric Power Group, LLC	<ul style="list-style-type: none"> • SCE • ERCOT • Dominion Virginia 	Phasor Simulator for Operator Training	Supplement proprietary event data	Use of standard protocols
Burns & McDonnell Engineering Company, Inc.	<ul style="list-style-type: none"> • Southern Company 	Real-time stability monitoring and analysis	Archival database, real-time data pre-processing (detect and process bad/missing data)	GPA's openPDC, openHistorian
Hawaiian Electric Company	<ul style="list-style-type: none"> • HECO 	Real-time operational awareness for variable generation; measurement/modeling of DG and microgrid impacts on operations, restoration, and contingency capabilities	Data management and analysis capability, integrate SCADA and non-SCADA data streams	Common data analysis platform
Peak Reliability	<ul style="list-style-type: none"> • BPA • CAISO • Idaho Power • SDGE • SCE 	Extensive functionality including real-time voltage stability assessment, linear state estimation, cascading propagation prediction, phase angle separation, rate of change baselining and monitoring, decision support for operators, closed loop controls, and generator load model enhancement and validation	Manage and improve data quality (validity and availability), assessment of data quality impact on tool performance	GPA – Interoperability, integrated security, common configuration interface, common analytics interface
Grid Protection Alliance	<ul style="list-style-type: none"> • Dominion Virginia • Oklahoma Gas and Electric Company • SPP • NorthWestern Energy • BPA 	Oscillation detection, mode damping monitoring, wide-area VAR control, automated PMU calibration, line parameter estimation, and synchronous machine parameter estimation	Bad data detection, data smoothing and conditioning	Open and Extensible Control and Analytics (openECA) Platform