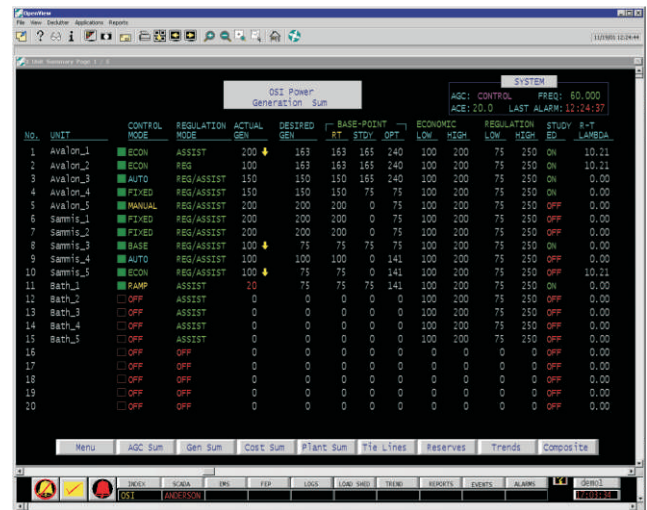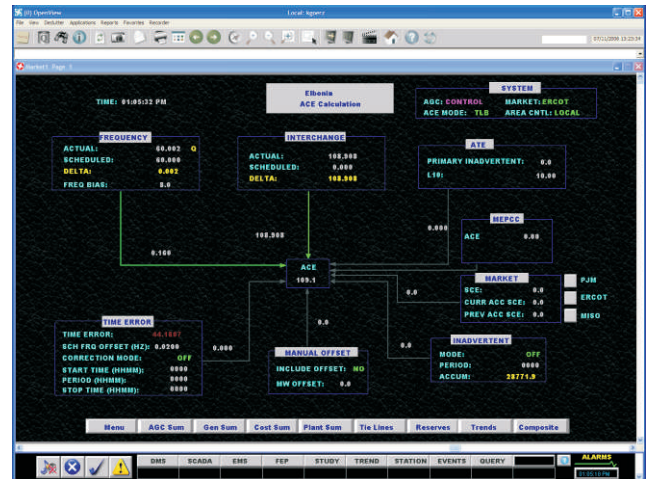# OpenAGC

Automatic Generation Control and Dispatch

Real-Time control with a significant number of generation resources is unquestionably one of the most important functions within any control system. The overall economic performance of a generation company can be reflected by how well it uses its generation resources to meet demand in the most efficient manner. OSI recognizes the need for a highly reliable analysis and control algorithm and fulfills this need with its Multi-Area Automatic Generation Control, package, **OpenAGC™**.

OpenAGC is ideal for utilities in need of a state-of-the-art AGC package. **OpenAGC** can easily be integrated into an existing control center environment because it is based on open standards for software and database implementation. **OpenAGC** is ideal for those searching for an upgrade from an existing AGC product; be it a primary or backup control center site.

Featured **OpenAGC** functionality includes:

- Market Operation
- Multi-Area Control
- Reserve Monitoring
- Load Frequency Control
- Production Costing
- Economic Dispatch
- NERC Performance Monitoring

In today's deregulated environment, power producers need a means of easily separating generation resources into control groupings (sometimes referred to as multi-area). **OpenAGC** is specifically designed to meet this need, allowing individual generator assignments to separate control groupings or areas. The user interface makes it easy to view resources according to these groupings because it consists of tabular and graphic displays that put the operator "in control" of all resources. Trends and plots are used to summarize vital system information and can easily be customized based on information preference. When used in conjunction with OSI's **OpenView™** .NET based Graphical User Interface, AGC information can be made available to the company enterprise via a web browser, subject to individual permissions.

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OpenAGC supports many features for tuning and control, yet it maintains its simplicity through intuitiveness, making optimum performance and control response easily realizable. Also, realistic system response is achieved through proven non-linear filtering techniques for computing Area and Unit Control Errors (ACE and UCE). Unit models are general-purpose, allowing for any generator type to be modeled and numerous control modes and regulation participations allow for tailored generation response

.Other salient features of the **OpenAGC** include:

- Full support for market operation (ERCOT, MISO, CAISO, PJM, IESO, etc.).

- The dispatch algorithm accommodates multiple Incremental Heat Rate and emission characteristics, as well as multiple fuel mix assignments per generator.

- Standard reserve monitoring is performed for two configurable time periods, short-term and long-term, for spinning and standby reserves. The operator is automatically notified of any reserve deficiency.

- Plant and generator production costs are computed and reported on an hourly, daily and monthly basis.

- The latest NERC performance monitoring criteria, including CPS1 and CPS2, are used to monitor the AGC performance, and reports may be generated for direct submissions.

- Support for jointly owned and combined cycle units.