The INGESYS™IT solution makes it possible to integrate into a single system all the operating, analysis and management requirements of all the developer’s wind farm portfolio, regardless of global location or technology. This scalable, robust, modular standards-based architecture makes it possible to adapt the system to ongoing customer requirements, thereby guaranteeing the investment made.

**Optimum wind farm operation and integration**

**Complete integration into a single system:**
The INGESYS™ platform addresses the challenges of wind farm portfolio management faced by the different levels and departments of energy developers and asset operators.

- **Heavy Real Time Operation:** user-friendly interface for efficient real-time operation of portfolios of wind farms and other renewable assets. INGESYS™IT provides a common interface to all the assets so that they can be operated in a consistent way.

- **Advanced Operation Analysis:** tools that maximize the value of all the information available in order to optimize asset operation and ROI. Energy losses, fault types, efficiency, power curves and root events are calculated automatically by the system.

- **Asset Information Manager:** this module centralizes and distributes all the generation assets information to give support to operators and other stakeholders involved in asset operations.

- **Management Dashboard (KPIs):** this module calculates the real performance of the asset portfolio and give decision support for optimization actions.

**Open system**
INGSYS™IT enables the integration and consolidation of all the information sources of the assets. The information can be easily accessed by third party systems.

INGSYS™IT supports a wide range of communication protocols, such as:

- OPC DA & OPC XML Client and Server,
- ECDL 1850 Client and Server,
- IEC 61400-25 Client and Server,
- IEC 60870-5-101/104 Master and Slave,
- DNP 3.0 Master and Slave,
- MODBUS ASCII/RTU / TCP Master and Slave,
- Proprietary low bandwidth protocol.
- Other protocols can be integrated using the OPC Client/Server.

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**Characteristics**

**High availability configurations**

INGEISYS™IT implements hot redundancy. This configuration is suitable for critical systems, such as interface with the Electric System Operator.

**Total Power Control and Dispatch Center**

INGEISYS™IT implements advanced functions for asset power control (active power, reactive power, voltage control) as well as integration with Electric System Operators.

**Experience**

More than 7,000 MW worldwide (USA, China, Europe, Korea, Mexico, Australia, Chile,...) are currently being managed with the The INGEISYS™IT platform. Ingeteam has over 15 years of experience deploying and maintaining SCADA systems worldwide.

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