



Elektro Slovenija - SCADA/CIM Project

**Sector of activity :**

Energy Control Systems

**Client :**

ENSICO

**Year of completion :**

2005

**Financing :**

Client

**Mandate :**

To design, supply, install, and commission a new CCAPI-compliant SCADA system for Elektro Slovenija, which operates and maintains the electric transmission network in the Slovenia. Working with our local partner, ENSICO, the scope of work included the delivery of all hardware, software, documentation and training for the new system, as well as all necessary testing, field installation and adaptation services.

**Description :**

Elektro Slovenija (ELES) is the only electric power transmission company in Slovenia. Its transmission network operates on 400, 220 in 110 kV voltage levels, and is comprised of 141 transmission lines in a total length of 2,587 kilometres, 20 substations with 32 power transformers having a total rated power of 3951 MVA, 232 circuit-breakers, 747 disconnectors, 1281 measurement transformers, 510 surge arresters, and many other high-voltage devices, connects suppliers and consumers of electric power, and ensures the undisturbed operation of the Slovene electric power system. As a public company in full (100 percent) state ownership, ELES has been assigned three major responsibilities - to act as an electric power transmission company, system operator, and market operator in Slovenia. ELES and its

subsidiaries are also engaged in electric power trading, market telecommunications, and the organization of training programmes.

ENSICO and SNC-Lavalin Energy Control Systems were awarded the first phase contract to supply a GEN-4 SCADA system to Elektro-Slovenija (ELES) for the Slovenia National Control Centre in Ljubljana, capital city of Slovenia. SNC-Lavalin Energy Control Systems was responsible for the supply of the SCADA software as well as applications supporting the Common Information Model (CIM). The prime contractor, ENSICO, was responsible for the system design, software integration, installation, commissioning, and hardware maintenance. ENSICO is a Slovenian power and communication engineering company, and is an authorized value-added reseller for the GEN-3 and GEN-4 suite of products.

The objective of the system is to implement a CCAPI-compliant SCADA system, implementing Common Information Model (CIM) and Generic Data Interface (GID) standards as defined by IEC 61970, and using standard message bus technologies for communication between ELES business applications. The system components include the Operational Data Management System (ODMS) from

Shaw PTI as the CIM editor, CIM Data Warehouse and GID application programming interface developed by ENSICO, and GEN-4 SCADA supplied by SNC-Lavalin Energy Control Systems.

The system is based on a distributed architecture designed to international standards. Commercial off-the-shelf equipment is used throughout the system, which provides simplified maintenance and easier system expansion. The system is deployed on IBM Blade Center HS20 servers running RedHat Linux, and Dell Precision workstations running Windows. The system acquires both static and dynamic real-time data from the existing EMS using the CIM and GID components, and includes a Web Server for remote data access.

**Services provided :**

Supply of GEN-4 software, documentation, and support for the Supervisory Control and Data Acquisition (SCADA) applications, as well as applications supporting the Common Information Model (CIM).



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**CUSTOMER CONTACT :**

**ENSICO D.O.O.**

STEGNE 21 C  
Ljubljana, Slovenia  
1000

Mr. Janko Blatnik  
Tel: +386 1 511 20 00

**CONTACT US :**

**SNC-LAVALIN**

**ENERGY CONTROL SYSTEMS INC.**

2425 Pitfield Blvd.  
Montreal, Quebec  
Canada H4S 1W8  
Tel.: +1 (514) 334-6780  
Fax: +1 (514) 334-2610  
Email: [ecs@snclavalin.com](mailto:ecs@snclavalin.com)

**[www.snclavalin.com/ecs](http://www.snclavalin.com/ecs)**

**SNC-LAVALIN ENERGY CONTROL SYSTEMS INC.** SNC-Lavalin is Canada's largest engineering and construction firm. SNC-Lavalin Energy Control Systems has nearly 40 years experience, with systems installed on six continents. Our SCADA, Distribution Management System (DMS), Energy Management System (EMS) and Generation Management System (GMS) products are being used by some of the world's largest utilities. We also offer SCADA systems to monitor and control water distribution networks and natural gas distribution systems.