Energy / Renewable Energy



Eliminate Down-time and Improve Quality

Adroit Technologies

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Adroit Solutions

Adroit Technologies concerns itself mainly with R&D, Production, Sales & Marketing, Training and Support of software products for Automation, SCADA, MIS and MES solutions. In addition, Adroit Technologies has a professional services arm, known as Adroit Technologies Technical Services that consults in and develops customised industrial IT, MIS and MES solutions for customers.

The **Energy Sector** is a vast and complex one and the Adroit SCADA is ideally suited to assist in the efficient monitoring and control of even the most complicated production plant.

The rigid and quality driven nature of this industry is ideally suited to the Adroit SCADA/HMI product. The time tested and proven reliability of the product sees Adroit being used by large producers to safely run these valuable and strategic assets.

The Adroit architecture and openness offers companies a unique capability of not only traditional SCADA/HMI functionality but the ability to integrate all aspects of their operations. By adopting a more holistic approach to Operations Management significant savings and operational efficiencies can be realised.

In this sector, Adroit is uniquely placed to ensure a superior quality of supply in all aspects of the operations and management of these facilities.

Adroit SCADA Capabilities and Benefits:-

- Process Visualisation
- Process Events and Alarming Management
- Quality Management
- Historical Data Logging and Trending
- Fully Object orientated
- Process Improvement / Built in Auditing functionality
- Reporting and Analysis
- Integration into Business Applications

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Energy / Renewable Energy

Energy & Renewable Energy

Target Areas

- Electrical Systems
- Power Stations
- Turbines
- Solar / Wind Farms
- Smart Power

Challenges

- Data Center
- Management Systems
- Efficiency Monitoring
- Remote Monitoring
- Reporting

Solutions

- SCADA
- PLC
- HMI
- VSD
- LVS



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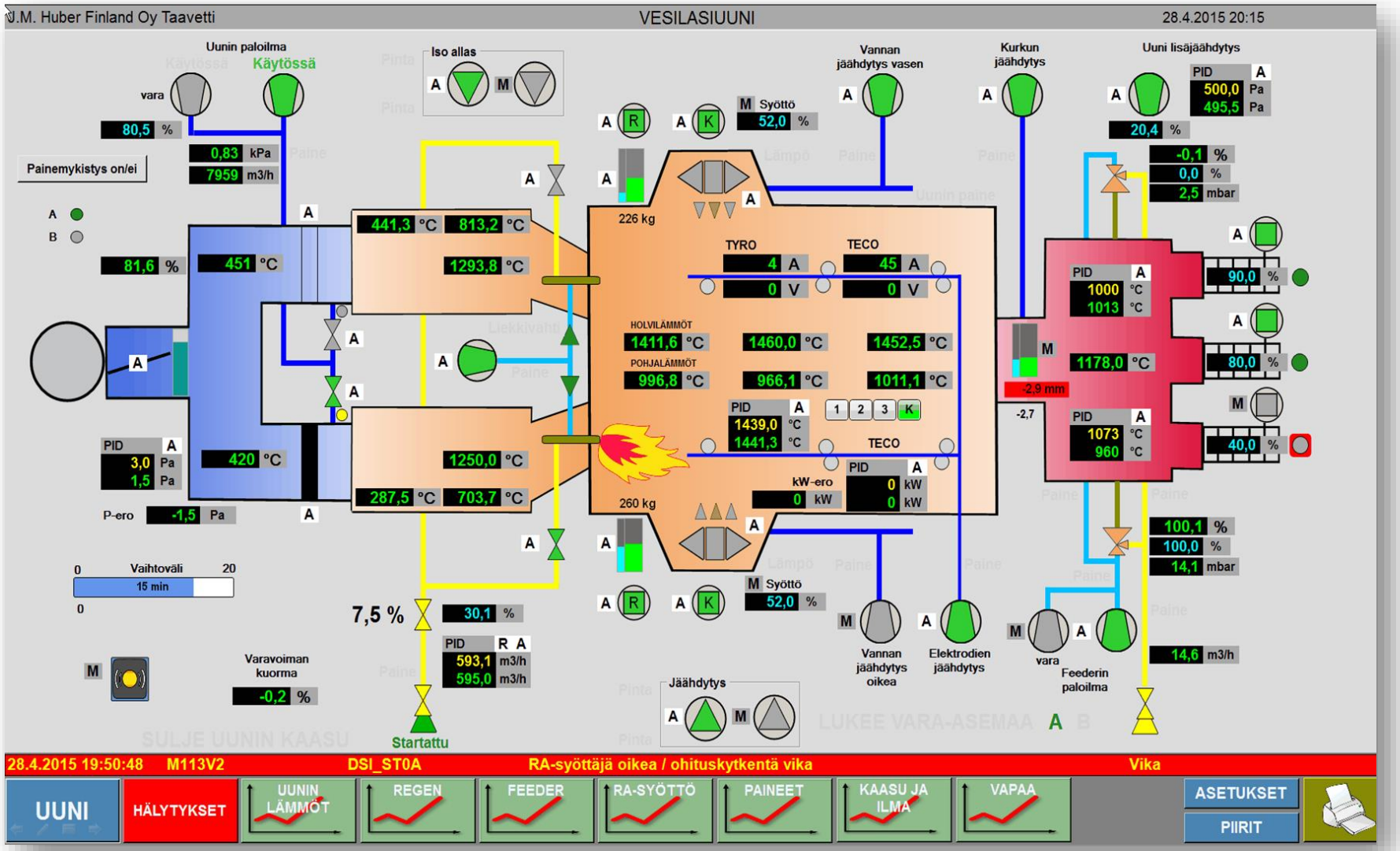
Turbine Application Solution, Finland

- Solution to renovate existing old turbine applications, based on old Mitsubishi Electric A and QnA PLCs
- Develop open and well documented turbine controls using modern techniques
- Keep Mitsubishi Electric PLC – change to newest model
- Renovation project fast and easy
- Most attractive alternative to the customer



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Turbine Application Solution, Finland

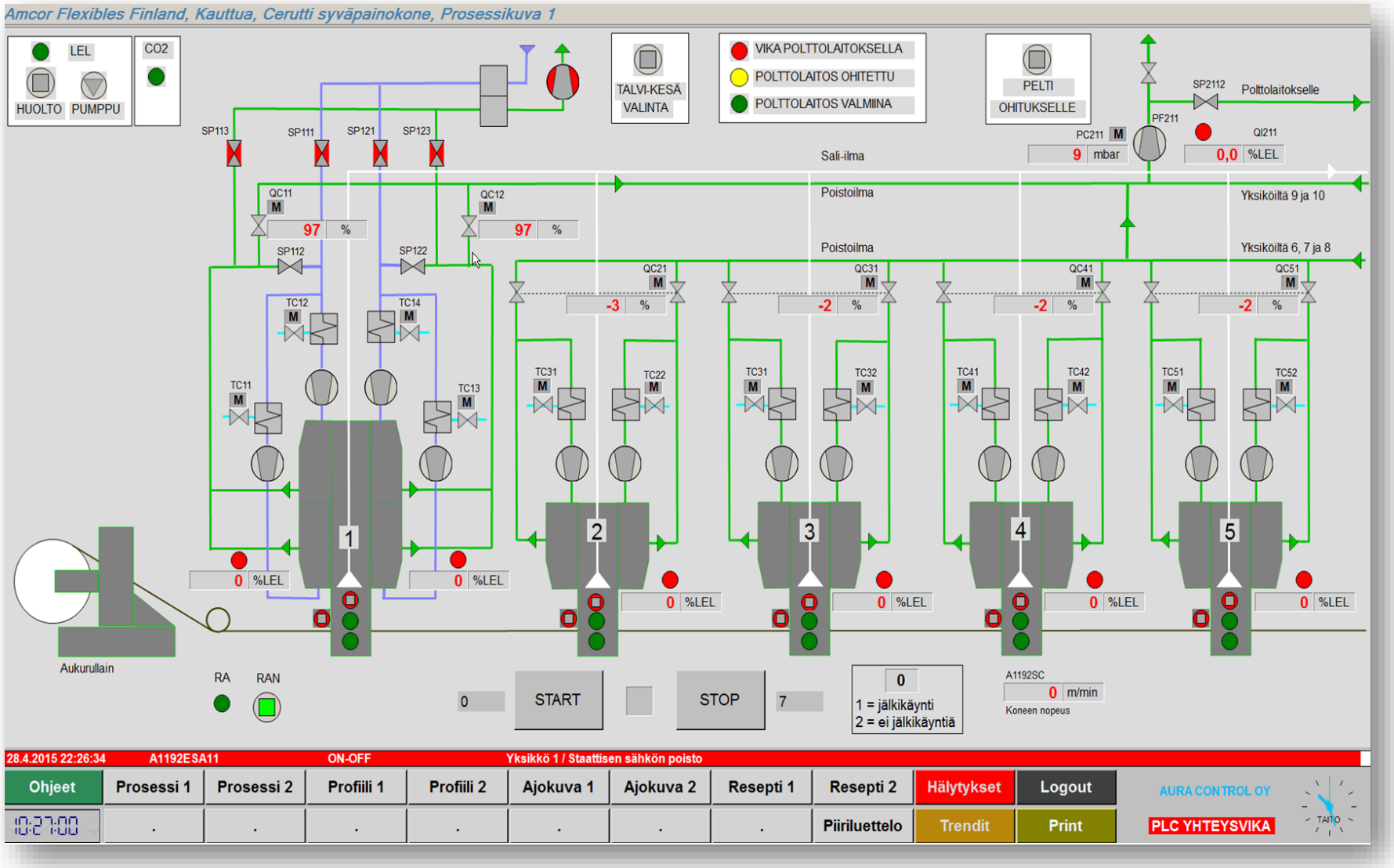


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Turbine Application Solution, Finland

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Production Planning and Efficiency, Ireland

A whole solution from our System Integrator Matt Pender Automation, Ireland http://mpac.ie/

Requirements:
Production reporting
Production efficiency solution for production machines
Machine Users
Shift Planning
Production Planning
Machine efficiency calculation based on operator
Reporting on Efficiency, Availability and Start/Stop times of Machines

Solution:
2 FX3U PLCs, MAPS SCADA 750

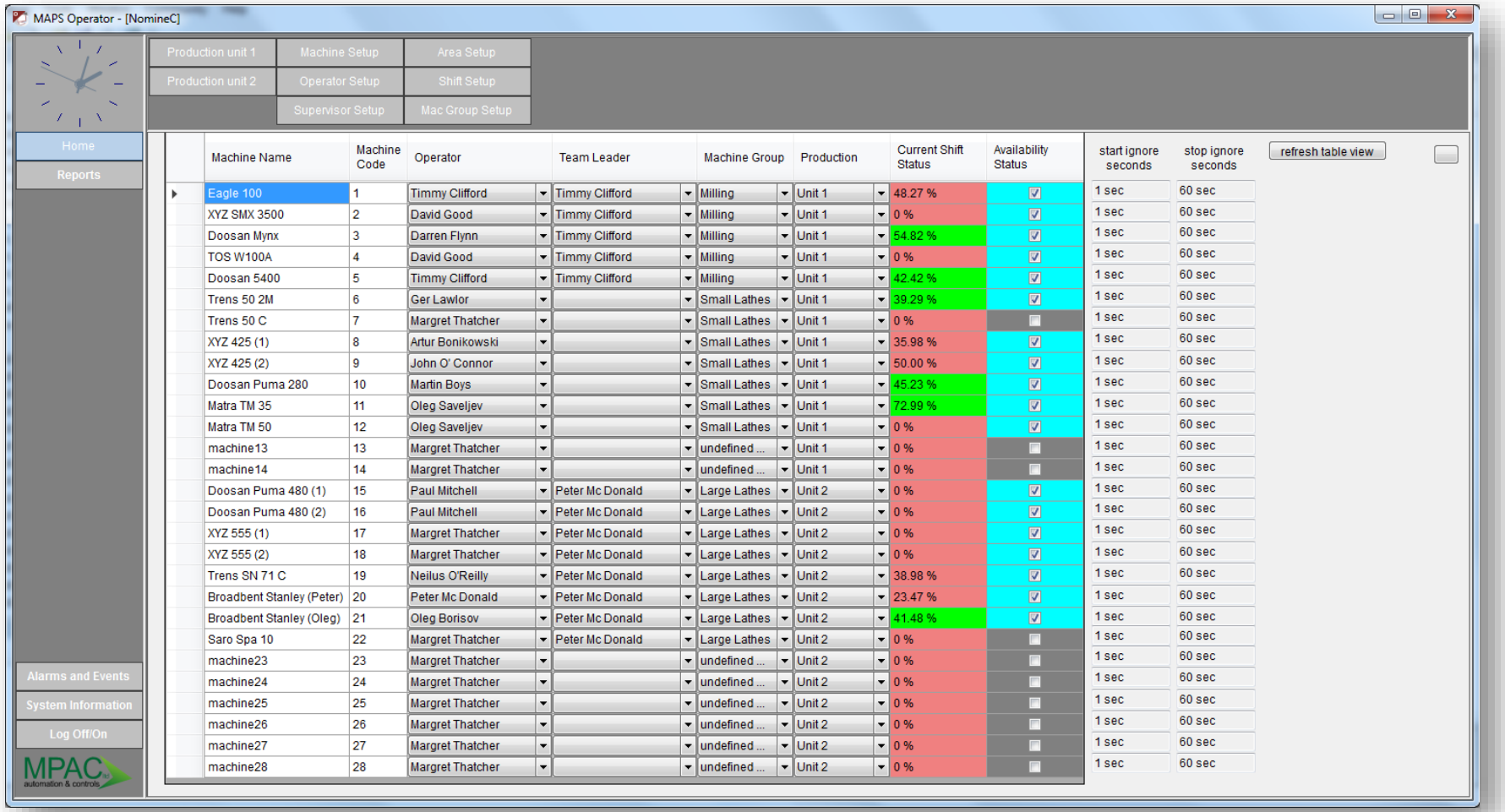
End customer has a factory to produce valves.



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Production Planning and Efficiency, Ireland

Energy / Renewable Energy



Machine Name	Machine Code	Operator	Team Leader	Machine Group	Production	Current Shift Status	Availability Status	start ignore seconds	stop ignore seconds
Eagle 100	1	Timmy Clifford	Timmy Clifford	Milling	Unit 1	48.27 %	☑	1 sec	60 sec
XYZ SMX 3500	2	David Good	Timmy Clifford	Milling	Unit 1	0 %	☑	1 sec	60 sec
Doosan Mynx	3	Darren Flynn	Timmy Clifford	Milling	Unit 1	54.82 %	☑	1 sec	60 sec
TOS W100A	4	David Good	Timmy Clifford	Milling	Unit 1	0 %	☑	1 sec	60 sec
Doosan 5400	5	Timmy Clifford	Timmy Clifford	Milling	Unit 1	42.42 %	☑	1 sec	60 sec
Trens 50 2M	6	Ger Lawlor		Small Lathes	Unit 1	39.29 %	☑	1 sec	60 sec
Trens 50 C	7	Margret Thatcher		Small Lathes	Unit 1	0 %	☐	1 sec	60 sec
XYZ 425 (1)	8	Artur Bonikowski		Small Lathes	Unit 1	35.98 %	☑	1 sec	60 sec
XYZ 425 (2)	9	John O' Connor		Small Lathes	Unit 1	50.00 %	☑	1 sec	60 sec
Doosan Puma 280	10	Martin Boys		Small Lathes	Unit 1	45.23 %	☑	1 sec	60 sec
Matra TM 35	11	Oleg Saveljev		Small Lathes	Unit 1	72.99 %	☑	1 sec	60 sec
Matra TM 50	12	Oleg Saveljev		Small Lathes	Unit 1	0 %	☑	1 sec	60 sec
machine13	13	Margret Thatcher		undefined ...	Unit 1	0 %	☐	1 sec	60 sec
machine14	14	Margret Thatcher		undefined ...	Unit 1	0 %	☐	1 sec	60 sec
Doosan Puma 480 (1)	15	Paul Mitchell	Peter Mc Donald	Large Lathes	Unit 2	0 %	☑	1 sec	60 sec
Doosan Puma 480 (2)	16	Paul Mitchell	Peter Mc Donald	Large Lathes	Unit 2	0 %	☑	1 sec	60 sec
XYZ 555 (1)	17	Margret Thatcher	Peter Mc Donald	Large Lathes	Unit 2	0 %	☑	1 sec	60 sec
XYZ 555 (2)	18	Margret Thatcher	Peter Mc Donald	Large Lathes	Unit 2	0 %	☑	1 sec	60 sec
Trens SN 71 C	19	Neilus O'Reilly	Peter Mc Donald	Large Lathes	Unit 2	38.98 %	☑	1 sec	60 sec
Broadbent Stanley (Peter)	20	Peter Mc Donald	Peter Mc Donald	Large Lathes	Unit 2	23.47 %	☑	1 sec	60 sec
Broadbent Stanley (Oleg)	21	Oleg Borisov	Peter Mc Donald	Large Lathes	Unit 2	41.48 %	☑	1 sec	60 sec
Saro Spa 10	22	Margret Thatcher	Peter Mc Donald	Large Lathes	Unit 2	0 %	☐	1 sec	60 sec
machine23	23	Margret Thatcher		undefined ...	Unit 2	0 %	☐	1 sec	60 sec
machine24	24	Margret Thatcher		undefined ...	Unit 2	0 %	☐	1 sec	60 sec
machine25	25	Margret Thatcher		undefined ...	Unit 2	0 %	☐	1 sec	60 sec
machine26	26	Margret Thatcher		undefined ...	Unit 2	0 %	☐	1 sec	60 sec
machine27	27	Margret Thatcher		undefined ...	Unit 2	0 %	☐	1 sec	60 sec
machine28	28	Margret Thatcher		undefined ...	Unit 2	0 %	☐	1 sec	60 sec

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Production Planning and Efficiency, Ireland



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Kelvin Power Station, South Africa

Kelvin Power produces power for the South African electrical grid.
It has the capacity for 6 x 30mw and 7 x 60mw generators.
Adroit is central to the information system utilised within the 24-hour operation, presently contains approx. 12,000 tags collected from multi-vendor equipment with various serial and Ethernet.

Adroit Stand-Alone Server
– 25,000 Scan Points and 1 Remote Client Connection





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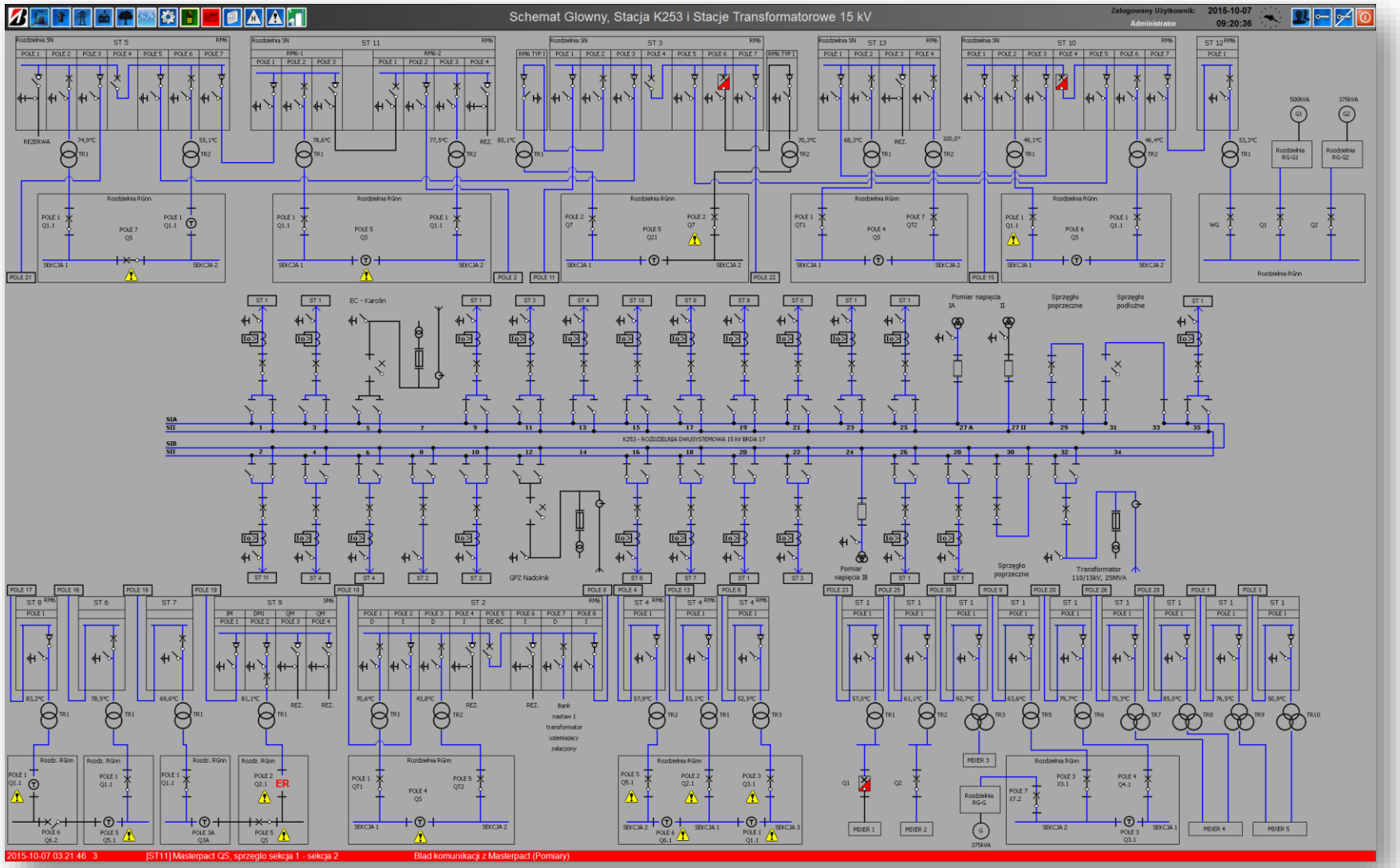
Bridgestone, Poland



- Electrical cabinet monitoring.
- Number of cabinets: 13
- Connection via OPC server to measurement meters and to Allen Bradley PLCs.
- Unlimited version of MAPS SCADA with Alarm Management and Report Suite.

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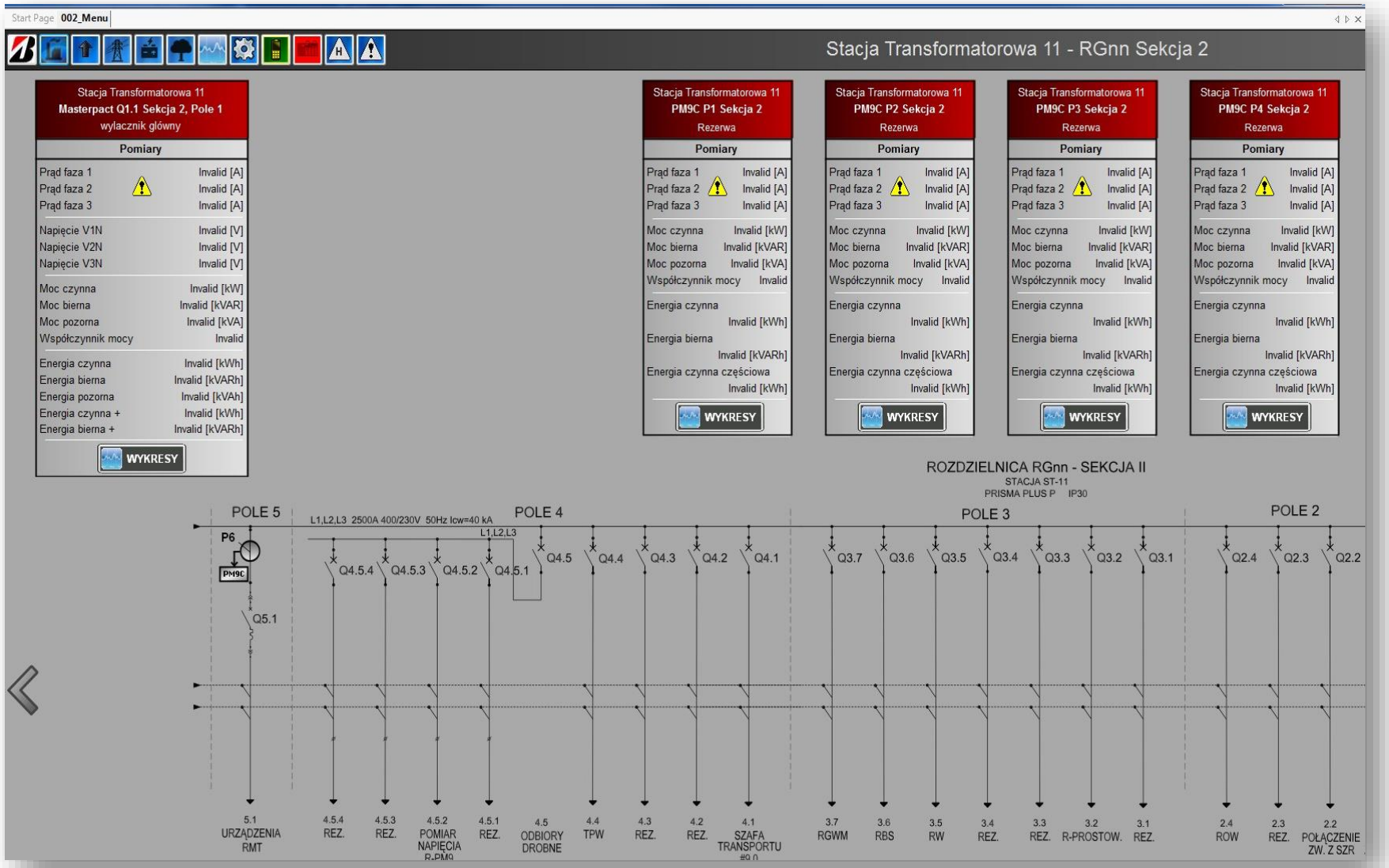
Bridgestone, Poland



WYKONAWCA:
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Bridgestone, Poland



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Versalis, Italy

Electrical monitoring system of one medium voltage cabin

System Components Offered:

MAPS Server 150 + GOT + FX3U + RTU + IOs + ME-96 + Thytronics protection

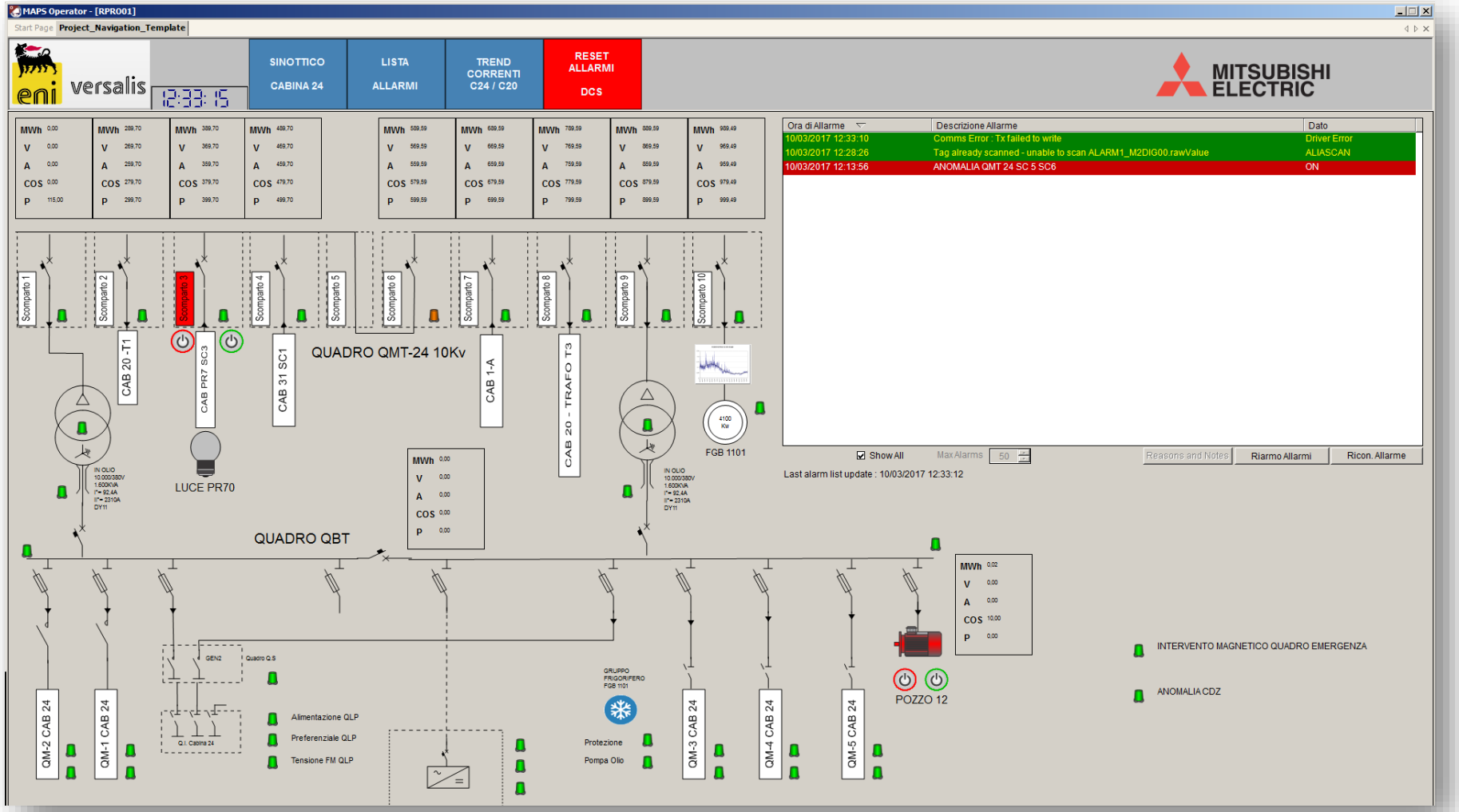
Outcome:

T/O generated: first pilot project 15K€

T/O potential in 2 years: 450k€

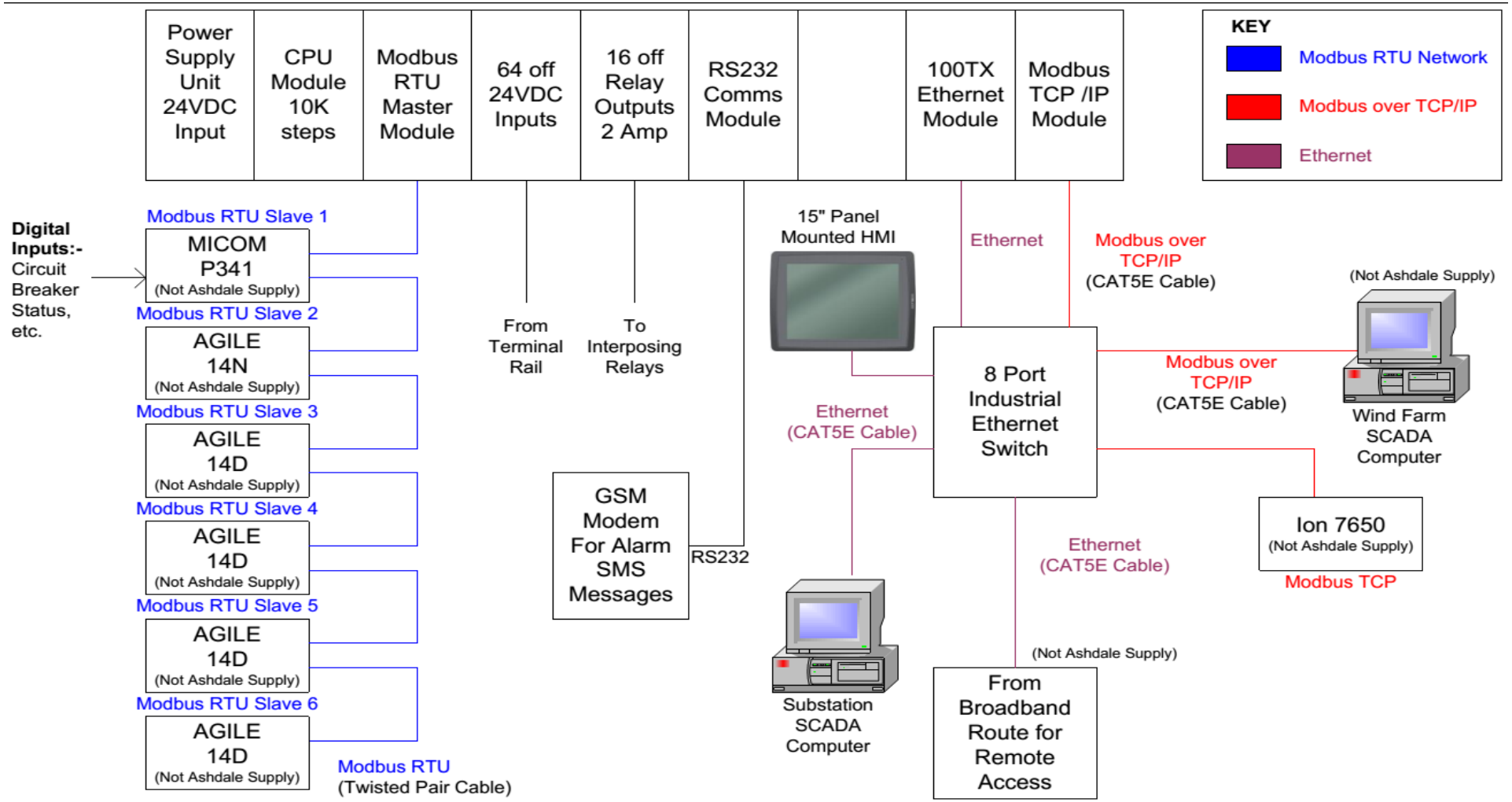
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Versalis, Italy



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Slieve Rushen **Wind Farm**, Ireland

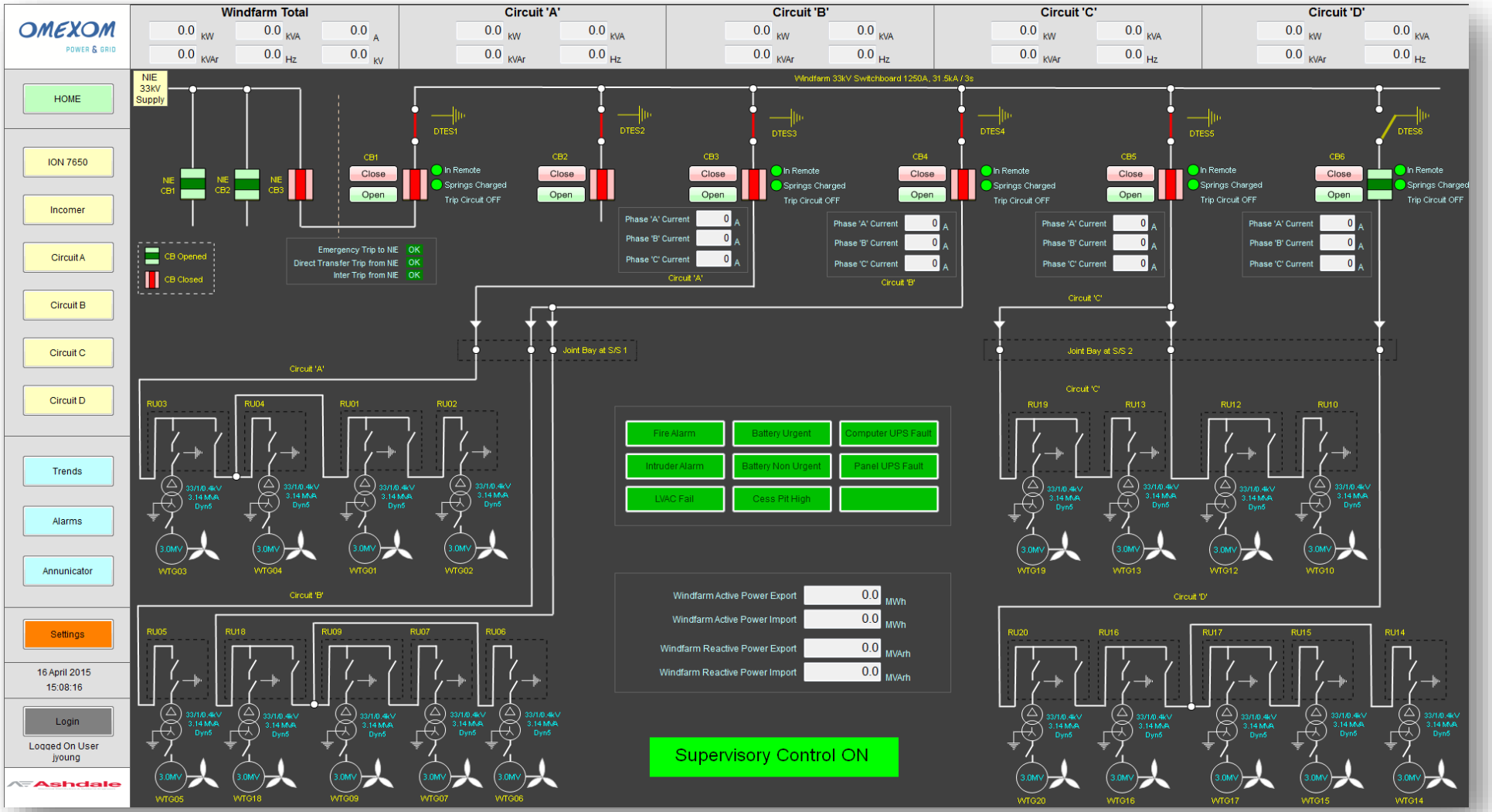


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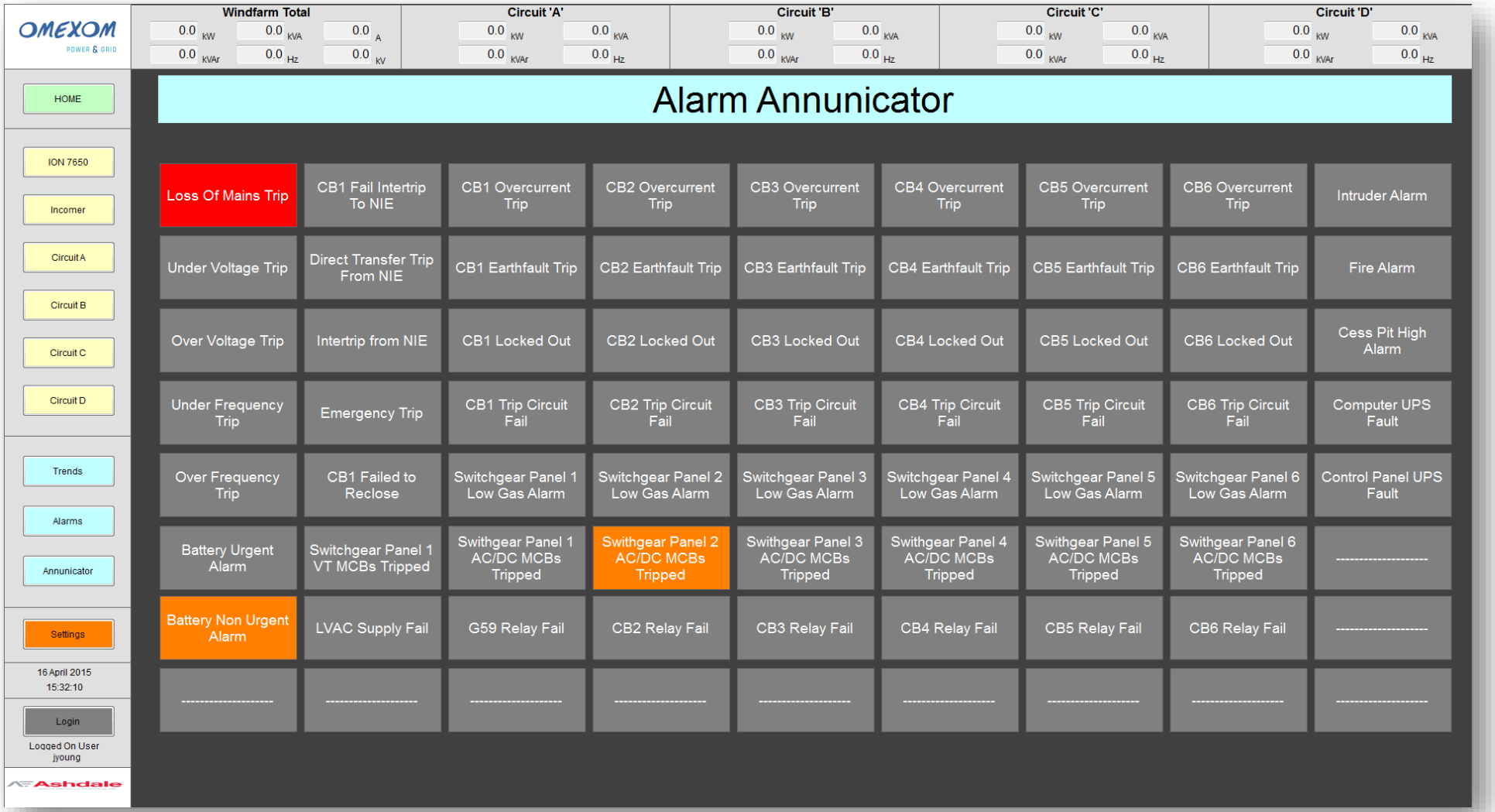
Slieve Rushen **Wind Farm**, Ireland

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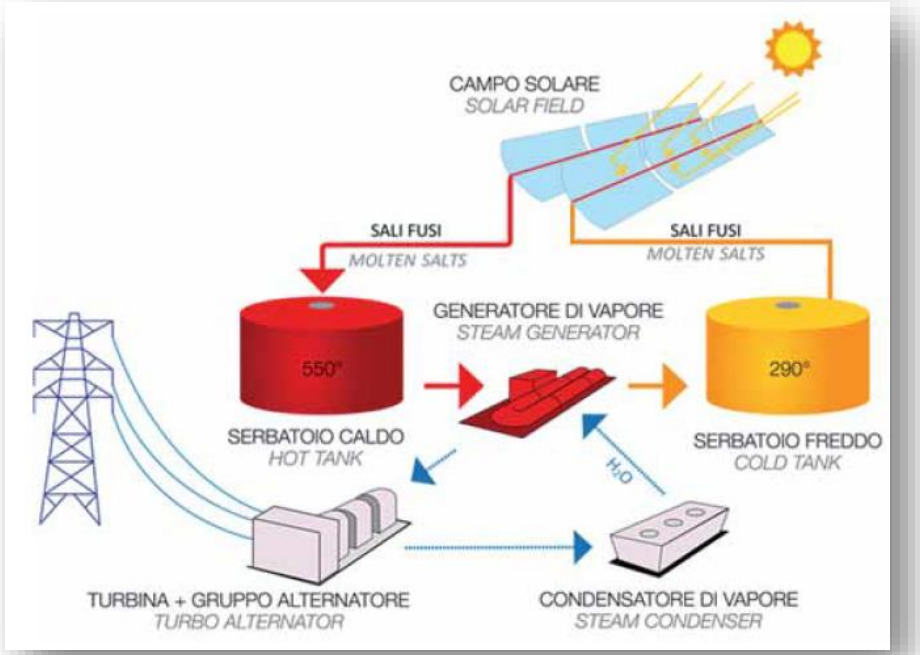
Slieve Rushen Wind Farm, Ireland

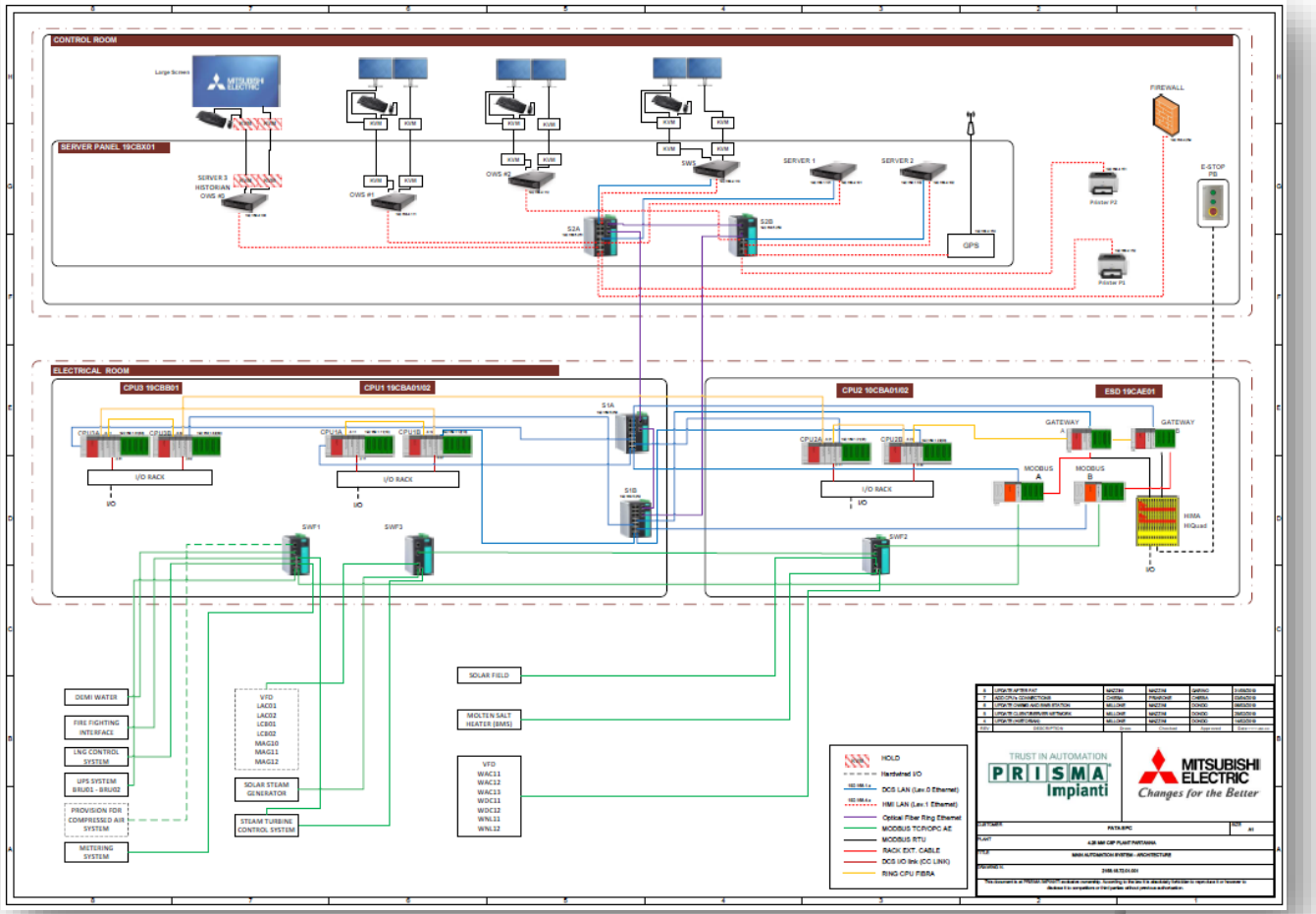


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Concentrated Solar Power (Partanna), Italy

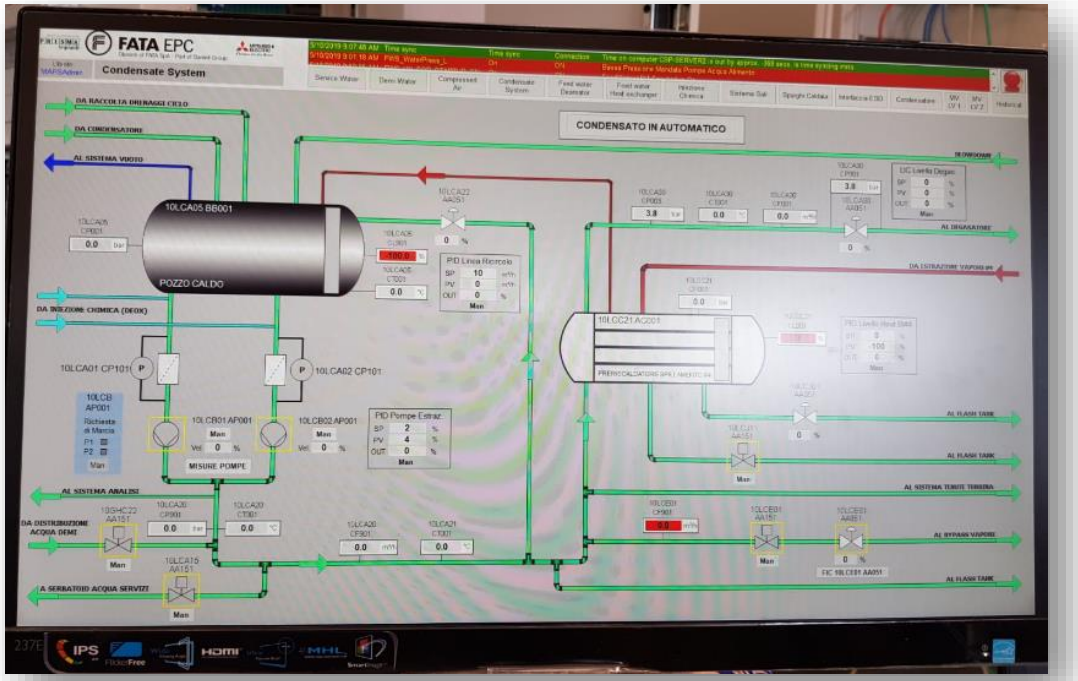
- MAPS Server 15000 (redundant pair) + MAPS 5 Remote Clients + SQL Server
- Total Project value = 275k€
- Two more projects expected in FY20-21

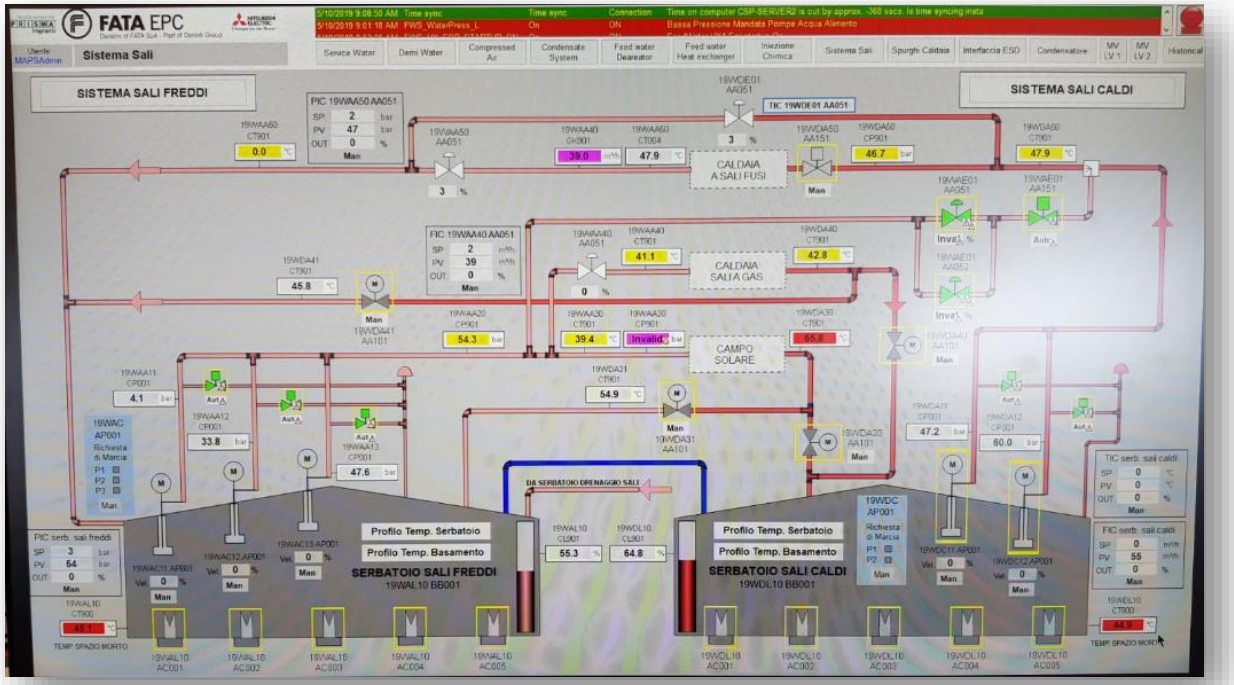




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Concentrated Solar Power (Partanna), Italy





Alarms & Historical Alarms; SQL logging for Analog Agents (external PC)

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Solar Powered Pump Station, Spain

Why Mitsubishi Electric Inverters?

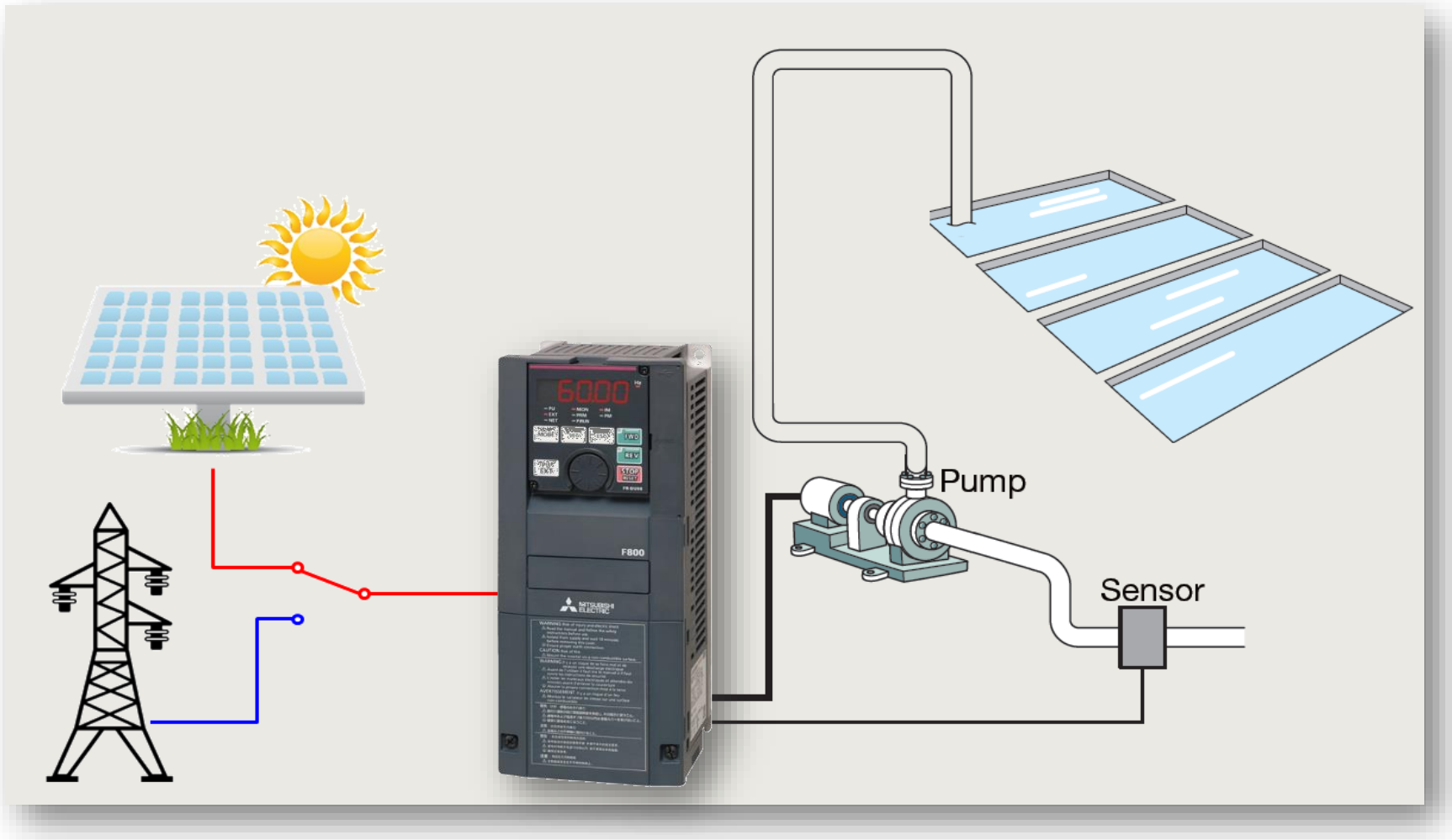
- ✓ Embedded logic control (PLC): More simple architecture
- ✓ Special functionality: Double PID to keep constant the DC voltage on the panels and the pressure of the pipe, at the same time.
- ✓ Lower power consumption (OEC)





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Solar Powered Pump Station, Spain



Possibility to feed the inverter via DC or AC voltage

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