

Electrical, Electronic, Control and Instrumentation Engineering

Qenos
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<http://www.qenos.com>

Introducing Qenos

Qenos is Australia's leading plastics and rubber company. We have large manufacturing plants in Sydney and Melbourne. We employ over 1000 people.

Qenos is a vital link in the manufacturing chain for petrochemicals. We use oil and gas feedstock from Bass Strait and Moomba Basin to produce bulk supplies of olefins, polyethylene, polypropylene, synthetic rubber and specialty plastics.

Qenos is a joint venture by Orica and ExxonMobil.

We employ technical and professional staff from a number of university disciplines.



Control Room



11kV Switchgear

Electrical Engineering at Qenos

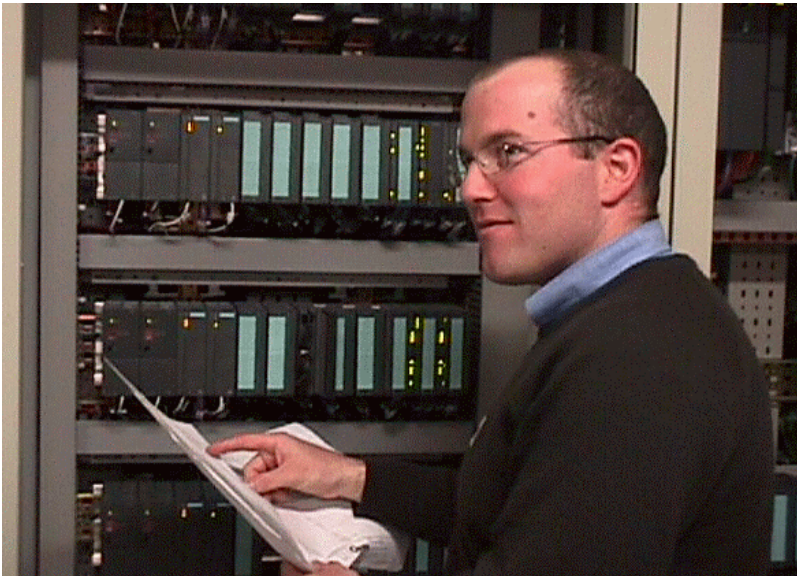
Electrical equipment provides the power to run the plants. Electrical engineers work on the supply system and the control of the hundreds of motors at each plant. Motors drive pumps, fans, compressors and extruders; the largest is 3.4MW. The total electrical load of all Qenos manufacturing sites is 65MW. The supply system voltages range from 66,000V to 24V. There is also a focus on the standards required for the safe use of electricity.

Typical equipment includes transformers, switchgear, relays, uninterruptable power supplies, motors, variable speed drives, programmable logic controllers, and lighting.

What Is Instrumentation & Control?

Instrumentation & Control systems are used to control our complex manufacturing processes. Sophisticated electronics measure process variables e.g. flow, temperature, pressure, weight, position and product elemental components. Each plant has thousands of such devices connected to their control system.

The latest programmable logic controllers, distributed control systems and operator interfaces are used. These employ modern computer technology such as Microsoft NT, Ethernet communications and open architecture software.



Distributed Control System

Culture

The working culture at Qenos encourages initiative and analytical thinking within a team based environment. There is an expectation of good technical judgement and a large focus on safety. Employees accept high levels of autonomy and responsibility. Contributions to the company's objectives can be made right from the start of employment.

Continuous development of skills is supported through internal and external training programs. Engineers are encouraged to seek equipment specific knowledge and the latest engineering excellence.

Variety

Work at Qenos uses skills from all four areas of electrical, electronic, control and instrumentation engineering. Tasks can include the areas of:

- Power Distribution
- Digital Electronics
- Instrumentation
- Power Electronics
- Projects
- Solving Problems
- Planning and Co-ordinating

Challenges

Qenos presents a number of challenges for its employees in the electrical and instrumentation fields.

- Design & commissioning new installations
- Specification and procurement
- Programming control systems
- All facets of project management
- Fault finding and reliability improvements
- Equipment modernisation



Repairing electronics

- Preventative maintenance
- Improving production
- Optimising existing systems



Programmable Logic Controller

What I Like At Qenos

- “Wide range of equipment and applications”
- “Advancing technology”
- “Working in teams with engineers of other disciplines”
- “Technical expertise is rewarded”
- “High degree of autonomy and responsibility”
- “Flexibility to pursue areas of interest”
- “Adapting computer technology to our needs”

More information: <http://www.qenos.com>
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