



Panasonic

Rugged Toughpad tablets support field based electricity workers in harsh Queensland environment.

ERGON ENERGY

ERGON ENERGY AUTOMATED ITS FIELD-BASED OPERATIONS WITH PANASONIC TOUGHPAD TABLETS

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TOUGHPAD

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Leading electricity distributor and retailer Ergon Energy has launched a major field operations automation project, with the first phase seeing the rollout of 500 Panasonic rugged tablets.

The Field Force Automation project (FFA) has introduced the Toughpad FZ-G1 tablets into a wide array of varying vehicle types and configurations. Through this, the Toughpad has increased the mobility and efficiency of Ergon's field crews by enabling them to work either within the vehicle or by taking the Toughpad to the work site. The Toughpads had to meet strict selection criteria to ensure they were fit for purpose in the harsh environments that workers face on a daily basis.

A Queensland Government-owned corporation, Ergon Energy supplies electricity to around 700,000 homes and businesses across nearly 97% of the state of Queensland(1). Its electricity network consists of approximately 150,000 kilometres of power lines and around one million power poles across the state's diverse and harsh environments – ranging from coastal locations to major urban areas and remote mining towns.

Ergon Energy field crews are responsible for establishing and maintaining the network across this vast and challenging area, and restoring power after disasters, cyclones and floods.

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For many years, Ergon Energy has conducted its field operations through manually intensive paper based methods. Work was distributed through a process involving many people and culminating in work dockets being printed out at depots around the state and then handed over to the field crews.

The field crews then travelled to grid locations to fix faults and captured new information from the site on paper. Once the work was completed, paper records were returned to the depot staff to be updated in the central system.

The process was time consuming, and because it was paper based with multiple people involved, it was easier for information to be lost or recorded incorrectly.

Jason Ledbury, Program Director for Field Force Automation, Ergon Energy, said, “We as an energy provider have a responsibility of providing the most efficient services to the community. We also realised there is going to be much more competition in the retail electricity market driving more customer service work and with our old processes it would have been difficult for us to scale up without requiring more resources. Therefore we identified the need to revamp our processes by empowering our workforce with technology.”

Jason Ledbury said that the new Toughpads – coupled with an extensive systems integration solution and enhanced processes – are already saving Ergon workers up to as much as 45 minutes on the job per day. This has been achieved through a combination of intelligent job routing, data accuracy improvements and electronic workflows. The company is expecting further efficiencies as it moves to the next phase of the project.

Extensive selection criteria

Ergon Energy embarked on the project with the clear vision of providing a technology platform for the future. In selecting the appropriate technology, a detailed evaluation of market leading devices was conducted with a diverse panel of staff.

A strict set of 20 selection criteria was used to shortlist the technology provider; key performance criteria that were assessed included ruggedness, in-vehicle ergonomics and docking suitability, long battery life, weight and portability, connectivity, on field and in vehicle safety, screen size and resolution.

“Ergon Energy operates in some of the toughest environments in extremely hot, wet and dusty areas with workers having to drive very long distances. We tested out the devices across a whole range of factors – using them in the sunlight, in rain, inside the vehicles – using them in the sunlight, in rain, inside the vehicles in rugged terrain, etc.

The Toughpad was tough enough to stand the ongoing punishment and deal with all the environmental issues. It can be easily mounted on the vehicles and is light enough to be carried in the field. The long battery life was another added advantage for remote use. Overall, it was the device that came out on top in most of the criteria we had set,” added Ledbury.

The Panasonic Toughpad FZ-G1 was chosen after an extensive evaluation and selection process, for both its form factor and functionality.

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Another critical factor for Ergon was that the Toughpad needed to be safely and securely mounted in the wide array of field vehicles used, from light service to specialist heavy vehicles. Working with partners Data#3 and Advanced Mobile IT (AMIT), Ergon Energy's technology provider, SPARQ Solutions, worked closely with Ergon field crews to develop a mounting solution for each vehicle configuration that would meet strict government safety standards. In total, AMIT delivered 9 different accredited vehicle configurations and subsequently fitted out around 400 vehicles over a 3 month period to meet the delivery requirements of the project.

According to Jason Lee, Product Marketing Manager for Toughbook, Panasonic Australia, the versatility of the Toughpad FZ-G1 makes it an ideal fit for Ergon Energy. “This is the largest single roll-out of Panasonic Toughpads to date. Over the years, Panasonic has supported a number of Australian energy providers with rugged solutions that meet the demands of the environments they work in, and that ensure organisations don't lose productivity due to downtime from damaged equipment. We're now seeing a move to rugged tablet technology to provide greater flexibility in the field. The Toughpad FZ-G1 provides the convenience and portability of a small tablet device coupled with the productivity of a PC and rugged reliability.”

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Rugged, enterprise-ready field solution

The Panasonic Toughpad FZ-G1 is made specifically for harsh environments such as those the Ergon Energy field crews face daily. It is designed to endure high temperatures, drops and knocks, thick dust and heavy rain and meets MIL-STD-810G and IP65 certification, giving it the advantage even in Queensland's most unforgiving weather. Furthermore, the 10.1" WUXGA 1920 x 1200 screen with anti-reflective and anti-glare treatment means the device is easy to read even in bright sunlight.

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For a business, the ability to use enterprise ready software is as important as the hardware itself. Data#3 supported Ergon Energy by managing the software implementation and delivery direct to the field crews of the 500 Toughpads, pre-installed and ready to go with Windows® 7 and Ergon's own mobility solution, ABB Service Suite, which is tailored to its business operations. Using Toughpad and the new integrated software solution, Ergon Energy has re-engineered its processes – removing multiple handling, and resulting in better prioritisation and allocation of work.

Using the devices' 4G mobile connectivity module, the field crews are now able to access information that was previously only available in the office or through a library of paper manuals held in their vehicles. The introduction of the Toughpad has enabled the removal of these manuals and procedures from vehicles, saving on printing and fuel costs. Additionally, access to live data, emails, intranet and internet also assists in improving the flow of information to and from the field and will improve the ability to deal with customer requests.

In some remote areas, Ergon Energy has also adopted the Toughpad's extended battery which provides up to 20 hours of battery life, making it a reliable tablet computer when charging is not available, ensuring vital data is accessible anytime, anywhere.

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Jason Ledbury says the adoption has been smooth and he has received a great response from his workforce. The Ergon Energy field crews have embraced the Toughpad FZ-G1 with great ease.

“We have noticed an increased efficiency through optimised processes and are now in a position to cope with a greater volume of work. We will continue to roll out new work types using the Toughpad FZ-G1,” added Ledbury.

With the first phase now coming to an end, Ergon Energy has further plans to issue more work to the field in line with their Mobility Roadmap over the next five years, and plans to expand its Toughpad fleet accordingly.

(1) Except for Brisbane and the Queensland South East corner.

Panasonic's very latest Toughpad FZ-G1

The fully rugged Toughpad FZ-G1 tablet sets the new benchmark for outdoor viewable tablets making it ideal for field workforces in outdoor scenarios. With its capacitive, 10-finger multi-touch display and digitizer pen and flexible configurable ports this Windows 8.1 device can be used to view high definition documentation and images in the field whilst benefiting from connectivity options to ensure data is always available when needed.

The flexible configuration port gives business users the legacy port options they require in a compact, fully rugged and lightweight form factor.

- Intel® Core™ i5-4310U vPro Processor
- Windows 8.1 Pro Update
- Intel HD 4400 graphics
- Next generation IPSa outdoor display technology
- 10.1" high brightness WUXGA (1920x1200) display (up to 800cd/m2)
- Capacitive 10 finger multi-touchscreen + digitizer
- 180cm shock resistant*
- Water and dust resistant (IP65)*
- Up to 10 hours battery life with user replaceable battery
- Optional Hot swap function

* Tested by an independent third party lab following MIL-STD-810G and IEC 60529, Sections 13.4, 13.6.2, 14.2.5 and 14.3.



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