

Implementing EZMaxPlanner to improve asset maintenance for a renewable energy generator

BACKGROUND

Manawa Energy is New Zealand's largest independent electricity generator and renewable energy developer with a heritage of over 100 years in energy generation.

In 2022, Manawa (formerly TrustPower) restructured their business to focus on energy generation and their commercial and industrial electricity business. They operate 26 power generation schemes managed through nine Generation Site (GS) teams. They have 230 employees, including 65 field technicians working across the country.



Manawa is undergoing a major asset management transformation project to align their asset operations strategy with their company objectives of being a leader in sustainable renewable energy generation and development to support New Zealand's ambitions for a thriving, low-emissions and climate-resilient future.

THE CHALLENGE

Manawa identified some differences and inefficiencies in the way asset maintenance and repairs were managed across their 26 sites and between their Generation Site (GS) teams.

The impact of these identified inefficiencies were:

- GS teams were carrying out high volumes of manual tasks daily;
- Preventative Maintenance (PM) activities were not always completed to schedule; and
- Asset Management Strategies were not being adhered to.

Manawa recognised the need to improve and standardise their processes for planning, scheduling and executing work to better enable their Generation Site leads, technicians and mobile field crews.

The asset management challenges were:

- Regular meetings to set the Schedule for the next reporting period were time-consuming and inconsistent;
- Planning and scheduling of work orders often occurred on whiteboards, spreadsheets and other ad-hoc systems;
- Each GS team had a different ad-hoc and manual approach to planning and scheduling resulting in a lack of visibility of work order progress;
- Setting Schedules in IBM Maximo was manual and time-consuming resulting in work orders not being updated appropriately or at all;
- Allocating or reassigning work orders to a specific person or date in native IBM Maximo was time-consuming; ▶



The challenge continued...

- PM work orders were being deprioritised and pushed to the backlog due to not being allocated;
- Backlogs were difficult to view by region and across the organisation holistically;
- Mobile field crews had limited visibility of changes in their work schedule;
- Work orders were not being closed off until the field crew members returned to the office to complete via desktop IBM Maximo.

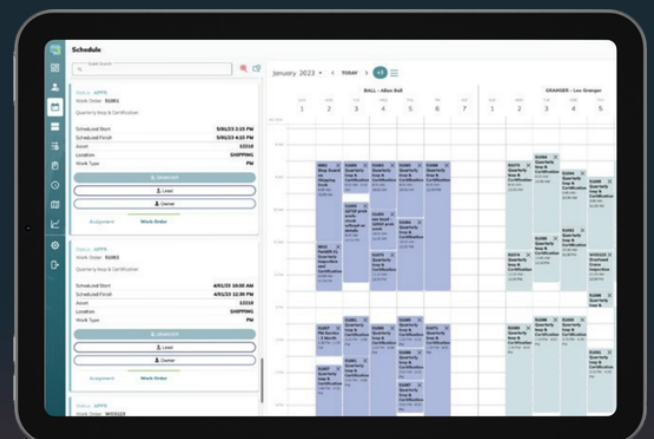
THE SOLUTION

Manawa were initially looking for a mobility solution to allow their technicians to use IBM Maximo in the field. In late 2021, Manawa engaged COSOL to carry out an EZMaxMobile Pilot Program. The aim of the pilot project was to evaluate if this solution could better enable their mobile workforce and increase efficiencies.

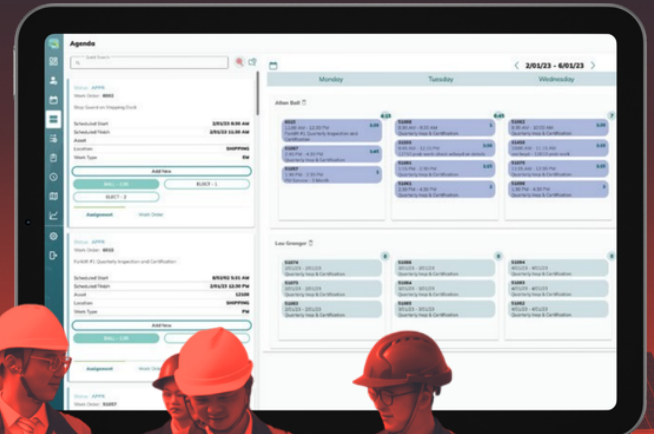
Pilot Program leads to problem identification

Carried out in a controlled and targeted way, the EZMaxMobile Pilot Program identified a greater need for Manawa to improve how work orders were planned, scheduled and allocated to their mobile field crews. These broader planning and scheduling issues needed to be addressed for the real benefits of EZMaxMobile to be realised. With an understanding of the problems to be solved and organisational needs, EZMaxPlanner was implemented into Manawa's existing IBM Maximo application prior to rolling out EZMaxMobile.

Scheduling in EZMaxPlanner:



Resource levelling in EZMaxPlanner:



Implementing EZMaxPlanner combined with EZMaxMobile has been critical to the success of mobility in our organisation and has put the power of IBM Maximo into the hands of our field crews.

Trevor Loader,
Generation Technology & Data Insights Manager,
Manawa Energy



EARLY OUTCOMES

EZMaxPlanner was implemented in April 2022 and rolled out to the nine Generation Site teams in May 2022. The roll out of EZMaxMobile is nearing completion.

While these solutions are still very new to the organisation, Manawa's Generation Technology & Data Insights Manager, Trevor Loader has already seen the impact it is having.



The net effect of EZMaxPlanner and EZMaxMobile is our site technicians no longer need to use desktop IBM Maximo. Our schedulers can plan and assign work orders in one simple 'drag & drop', and our organisation can better view and manage backlogs."

— Trevor Loader, Generation Technology & Data Insights Manager, Manawa Energy

Empowering Manawa's people

- ✓ EZMaxPlanner was the right sized solution for Manawa's small decentralised GS teams and what the organisation needed.
- ✓ Schedulers can plan and allocate work orders with one simple 'drag & drop' - reducing the number of clicks from ten (in native IBM Maximo) to just one.
- ✓ Mobile crews can view, manage and sync completed work orders while in the field
- ✓ The easy and intuitive nature of EZMaxPlanner has empowered employees and helped them embrace new ways of working and technologies.

CASE STUDY

ENERGY & WATER

Efficiencies for the organisation

- ✓ EZMaxPlanner helped solve a business problem quickly and enabled Manawa to be successful in their first steps in asset management maturity with minimal effort
- ✓ Consistent scheduling processes and system usage is now being applied across all GS.
- ✓ PM work orders are now visible and allocated to the right technicians at the right time, helping Manawa to achieve their Asset Maintenance Strategy.
- ✓ Greater automation of work orders has been achieved with work orders scheduled in desktop IBM Maximo being pushed to the mobile device of the right technician, in real-time.

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