

# PROJECT UPDATE Te Whare Wai Para Nuku Moa Point Sludge Minimisation Facility

MAR 2026



## News & Progress

March has been another busy period on site as we move further into pre-commissioning phases across the site and achieve a major step forward.

The main process building is now plugged into the mains at a new high voltage switch room installed to service not only the plant but also the other local users, including Wellington International Airport. So, we are now permanently powered - an important milestone for the project.

This follows on from the significant effort over the last few months installing thousands of metres of cable that connect transformers to the main site switchboards and carrying out post-construction tests.

These cables are now delivering power from the transformers to the building and its equipment, forming the backbone of the facility's operations.



HV cables installed to building



## Powered and connected

This month marks a big shift for Te Whare Wai Para Nuku, now it is connected into the regional high voltage grid.

Wellington Electricity laid a new cable above the Miramar Golf Course, from Strathmore, and constructed a new High Voltage (HV) Switchroom to replace the existing one.

This new infrastructure will serve the plant and neighbouring business, industrial and residential customers, improving resilience and adding capacity to the network.

*Did you know that most industrial processes, including the new Moa Point Sludge facility use 'three-phase power' as it is the most efficient?*



500mm² cables installed inside

The new facility uses three-phase power which has three alternating currents.



The **4** new transformers will 'transform' the HV supply into **400 volts** of electricity to feed into the building.

These travel

**6,500 m**

down **chunky 500mm²** cables into the building where smaller cables carry power from

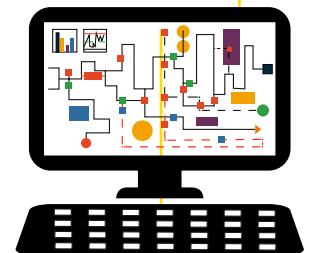
**2** switchrooms

across the plant. **5** fibre optic cables and a range of routers link the treatment plant and the sludge facility, carrying information from **100s** of instruments and systems that measure and monitor processes.

All this data is all integrated through a system called

### SCADA

(Supervisory Control and Data Acquisition), and is managed (by a person) via a computer interface.



## Did you know?

*Nikola Tesla gained a patent for 'three-phase power' in America in 1888. Tesla envisaged a system that used three alternating currents off set from one another by a third or 120 degrees, relative to the others.*

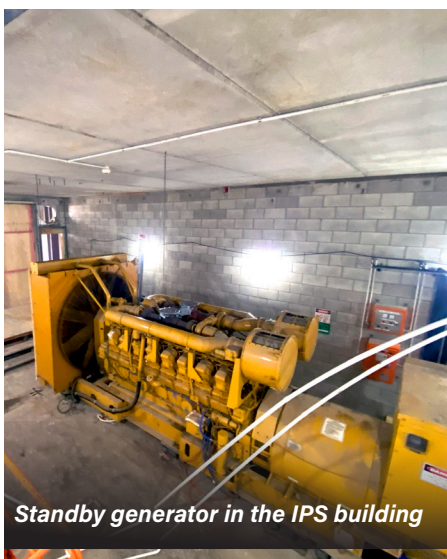
*This arrangement produced a more constant flow of power than a single-phase systems, making it efficient to transmit electricity over long distances and to power industrial machinery.*

## Pumping progress

We are entering a new critical phase of construction as we prepare to commission the next stage of the sludge minimisation facility.

Before we continue to dismantle the old IPS building we need to complete an essential step - switching the IPS pumps over to the new switchboard.

See last month's feature for more information about how tricky the first phase of demolition was and how we over came those challenges.



Standby generator in the IPS building



## Finishing touches

The team are busy connecting everything, not just electrical networks, but pipework and mechanical equipment.

We currently have

**210** people working on site



including a big team of fitters and welders piecing together all the processes.

In the main process building, work inside continues, putting up walls, building amenities, changing rooms, and lunch rooms.

Work also continues on Heating, Ventilation, and Air Conditioning, (HVAC) critical to ensuring the atmosphere is controlled, any odorous air is removed, and a constant temperature is maintained.

Our painters have been working steadily on the interior protective coatings applying the finishing touches in areas previously inaccessible.

The facade is almost completed, aside from the final curtain wall above the entrance.



View of southern facade



Digesters in March

Now the scaffolding's gone there is room for concrete bases to be poured and new silos to go in.

The pre-Thermal Hydrolysis Process silos, two 250 m<sup>3</sup> cubic metre stainless steel pre-dewatering tanks and the last big structure to be built onsite, the export silo is under construction.

At the digesters, a crew are pre-commissioning the pipework, pressure testing for leaks, a crucial step in the sequence. Smaller 50 mm dia pipework, that carries compressed air, potable water etc. is also being installed.

Pipework for the gas conditioning network (which 'cleans' the biogas before it reaches the engines and boilers), is almost completed.

All the pipework up the hill to the Moa Point treatment plant is also now completed and being pressure tested.

Pre-commissioning is progressing and we're on track for completion mid-year.