

Hon Dr Megan Woods

MP for Wigram

Minister of Housing

Minister of Energy and Resources

Minister of Research, Science and Innovation

Associate Minister of Finance



A J Sheppard

fyi-request-18847-c1c2ea79@requests.fyi.org.nz

OIA-22-027

Dear A J Sheppard

Thank you for your email of 11 March 2022, asking a series of questions under the Official Information Act 1982 (the Act) regarding the New Zealand Battery Project at Lake Onslow. I have decided to respond to each of your questions in turn.

What is the national NET gain that the proposed pumped hydro scheme at Lake Onslow will add to our national electricity generation capacity?

This Government has initiated the NZ Battery Project to investigate options to solve New Zealand's dry year electricity problem, in order to achieve 100 per cent renewable electricity and help to decarbonise the wider energy system.

The project is currently in its first phase, which is focused on investigating the technical, environmental and commercial feasibility of different options, with a primary focus on pumped hydro at Lake Onslow.

Electricity generation capacity is one of the elements that the Ministry of Business, Innovation and Employment (the Ministry) is exploring as part of its assessment of the feasibility of pumped hydro at Lake Onslow. The Government has not yet made any decisions on generation capacity.

A pumped hydro scheme at Lake Onslow is expected to reduce the need for the market to invest in additional 'overbuild' intermittent generation capacity.

If built, Lake Onslow will likely be a net consumer of electricity. It will draw from the grid to pump water while spot prices are low, and electricity is abundant, to be stored for generation when prices are high, and electricity is scarce.

For the purpose of the Act, I must refuse this part of your request under section 18(e), as the information requested does not exist, as the feasibility study in question is still being prepared.

Were any other sites explored for pumped hydro?

Yes. As part of the first phase of the NZ Battery Project, the Ministry is undertaking a prefeasibility desktop study to determine if any other sites may be developed to provide pumped hydro solutions to the dry year problem. Given the nature of the dry-year problem, the focus for the NZ Battery Project is on large-scale, long-term renewable energy storage. A scan for elevated basins in New Zealand has been carried out.

If so, where and why were they declined?

The Government has yet to make decisions on the viability of other potential sites for pumped hydro.

If no other sites were explored as options, then why not?

Please see the above answers.

Were any sites explored for reservoirs for traditional hydroelectric generation?

The Ministry is considering the potential for large-scale, long-term storage within existing hydroelectric reservoirs.

As noted above, the Government has not yet made any decisions on the feasibility of these options, or pumped hydro at Lake Onslow.

If so, then where and why were they declined?

Please refer to the above answer.

If no sites explored as options, then why not?

Please refer to the above answer.

Has any reports/study been undertaken yet to the potential negative effects on other hydro storage being used to power the pumped hydro?

The feasibility assessment of pumped hydro at Lake Onslow is considering the interaction with existing generation assets. However, my office has not yet received any reports on this matter.

If so, I request the information contained in those reports/studies.

As noted above, I must refuse this part of your request under section 18(e) of the Act, as the information requested does not exist, as the feasibility study in question is still being prepared.

How is the energy produced from the Lake Onslow pumped hydro going to be transmitted to the national grid and directed to where its likely needed in the upper north island?

The Ministry is running a feasibility analysis of pumped hydro at Lake Onslow, as well as other electricity storage options. A working assumption of the project is that any storage option would be connected to the national grid. This analysis will consider interactions with existing transmission assets.

Does Minister Megan Woods believe in perpetual motion?

No.

I trust you find this information helpful. However, you have the right to seek an investigation and review by the Ombudsman of my response to your request. Information about how to make a complaint is available at www.ombudsman.parliament.nz or Freephone 0800 802 602.

Warm regards

A handwritten signature in blue ink, appearing to read 'M. Woods', with a stylized flourish at the end.

Hon Dr Megan Woods
Minister of Energy and Resources