

Local Generation

MainPower's Generation Projects Newsletter

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Mount Cass Update

After a lot of behind the scenes activity MainPower's proposal for a wind farm on Mt Cass is about to take another big step forward, with a new resource consent application having recently been lodged with the Hurunui District Council.

This follows a major re-design of the wind farm layout to avoid environmentally sensitive areas of the site. The re-design was an important part of an extensive mediation we had with the District Council, Department of Conservation, the Canterbury Regional Council and others.

The main parties to the mediation have agreed to the new layout in principle. We have some conditions to resolve still, but are confident we now have a clear way forward on the project.

New design minimises ecological impact

Perhaps the biggest change with the new layout is the relocation of an access road running along the ridge to service the turbines. The road will be used firstly to transport machinery and materials for construction and then for on-going maintenance.

The road was originally planned to run near the crest of the ridge. The new design has it along a terrace on the North side of the ridge with three "ramp roads" running to the ridge itself. The terrain and gradient is a bit more challenging for road construction and the roads will be longer but some clever design and engineering means we can make it work.

Coupled with the re-positioning of a number of turbines and other infrastructure we now have a design that will help us avoid significant areas of limestone and plant communities. The changes mean that we will reduce the amount of native vegetation affected by the wind farm by 80 percent. With the revised proposal about 1 hectare of native woody vegetation will be affected – which is a very small proportion of total vegetation on the site. (See over page for details).

There are similar reductions in the amount of limestone pavement that will be affected by the construction.

Next steps

Our new consent application has now been notified by Hurunui District Council – this means it is open to public submissions, which close on 28 June.

That application will then be combined with our earlier application and there will be an Environment Court hearing on the revised proposal, likely to be held in late 2010.

In the mean-time we will continue discussions with the parties to the mediation on appropriate conditions and hope to resolve any remaining concerns ahead of the court hearing.

Up on the Ridge



The MainPower team working on the Mt Cass project is feeling pretty up-beat at the moment. Lodging a resource consent application for a project of this scale is a huge amount of work, requiring much attention to detail. We are pleased to have that behind us.

We've also been really pleased with where we got to on mediation with a number of groups that had concerns about its ecological impact. Mediations are challenging – and on projects like this people quite naturally hold strong points of view. From our point of view, there were a number of areas in which we were forced to think laterally about how we could build some elements of the wind farm to lessen the impact. We also appreciated the constructive suggestions from other parties involved in the mediation and the acknowledgement amongst them that renewable energy is something worth having.

For people interested in detail, our new consent application can be viewed at the Hurunui District Council office in Amberley or at www.hurunui.govt.nz. The closing date for submissions is 28 June.

MainPower will be holding an open day to discuss Mt Cass Wind Farm on 12 June between 11am - 4pm at Waipara Hall. We would love to see you there.

Andrew Hurley
Project Manager, Mt Cass Wind Farm

Summary of changes and effects

The major changes to the wind farm layout from our initial proposal are:

- Relocation of a number of wind turbine generators (generally to the west of Mt Cass peak)
- Relocation and re-design of roading
- Moving the electricity substation, switchyard and maintenance buildings from the Mt Cass Ridge to the Northern Terrace
- A transmission line moved to suit the new substation location and following the Northern Terrace Road back along to Mt Cass.

The major benefit of these changes is to substantially reduce the amount of native plant life and surface limestone that will be disturbed. The exact area depends on what turbine choice we go with. We are looking at three turbine options:

Turbine	Maximum Height (m)	Maximum Number of Turbines
R33	55	68
R60	95	41
R90	130	26

The following tables show the effects of the original proposal compared with the revised proposal.

Affected areas (ha)	Original proposal	Revised proposal	Total in Mt Cass area
Native shrubland	2.9	0.8	172.6
Native forest	2.2	0.27	185
Limestone boulderfield	1.5	1.41	92.2
Limestone pavement	4.1	1.45	118



The location of our mini hydro scheme

Mt Cass can ...

- Help us achieve energy self-sufficiency for the region making us less reliant on external sources of electricity (at the moment there's no generation in North Canterbury)
- Provide a more reliable electricity supply, helping protect ourselves against power shortages
- Contribute to regional economic growth by an estimated \$152 million to \$316 million over 25 years
- Provide new jobs for the region throughout its construction and operation
- Retain money in the community through fewer payments being made to national electricity suppliers
- Help reduce greenhouse gas emissions – it could offset emissions each year equivalent to the amount of CO₂ produced by 19,000 cars
- Contribute to the country's renewable energy efforts to lower carbon emissions and deliver secure and clean energy at affordable prices to support economic development
- Contribute to the diversity of energy supply, complementing the existing wind producing areas such as the Manawatu and Southland.

Mini hydro update

Work is well underway on our first mini hydro generation project. This is a great example of how we can use local resources in a smart way to contribute to the energy self-sufficiency of our region.

This "boutique" generation project situated 20 km north-west of Methven. It capitalises on the fact that the local landowners needed to extract a small amount of irrigation water from Little River – a tributary of the Rakaia River. MainPower will use the driving force of diverted water to run through a Pelton Wheel turbine. A small proportion will then be used for irrigation before the remainder is returned to the river.

Construction began on the scheme earlier this year and is expected to be finished by the end of the year with the scheme producing up to 900 kW of electricity – enough to power around 500 average sized homes. This will help us to meet our region's energy demand, which is growing at twice the national rate.

Contact Us

For further information about MainPower's plans to develop a wind farm at Mt Cass please visit www.mainpower.co.nz/generation