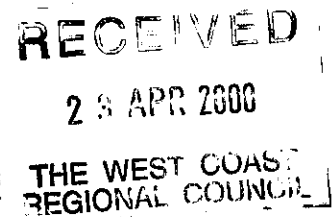




IF.07.ELE

18 April 2008

'Mokihinui Hydro Proposal'
West Coast Regional Council
Main South Road
PO Box 66
GREYMOUTH



Dear Sir,

Submission – Mokihinui Hydro Proposal

This submission is in response to Meridian Energy Limited's (Meridian) application for the necessary resource consents publicly notified by the Buller District Council and West Coast Regional Council. This concerns the construction, operation and maintenance of a hydro electric generation facility on the Mokihinui River – the Mokihinui Hydro Proposal (MHP).

The hydro generation facility includes a dam, power house, substation and other associated facilities (such as a permanent office, workshop and storage buildings). The proposal also includes the construction, operation and maintenance of a transmission line and substation to convey the generated electricity to the national grid.

We understand that the proposed dam will generate between 310 and 360 gigawatt hours (GWh) per year of renewable electricity which will be enough power to meet the current and immediate future needs of the West Coast.

Additionally this will also include a new transmission line from the dam site across the Stockton Plateau to link with the existing Inangahua-Waimangaroa 110 kV transmission line in the upper Waimangaroa valley – a total length of approximately 29 km. (We acknowledge that the route south of Charming Creek Road is still under review with Department of Conservation (DoC) and Solid Energy).

Development West Coast (formerly the West Coast Development Trust) supports this proposal given the significant economic development benefits that will emerge from the implementation of this initiative – outlined below. We also note that the MHP is consistent with the Government's goal under the New Zealand Energy Strategy of having 90% of New Zealand's power from renewable sources by 2025.

Development West Coast's (DWC) mission is to create an environment for sustainable investment, development and employment opportunities including partnerships with organisations and community groups engaged in areas such as social development, environmental sustainability and infrastructure developments. DWC is commercially and politically neutral,

and is able to act as a regional advocate on economic development and commercial matters.

DWC recognises that there is a direct correlation between economic growth and the timely provision of robust infrastructure. Therefore the security of supply of electricity within the region is essential to the continued and sustainable economic growth of the West Coast region. It will also reduce the region's reliance on the importation of electricity from other parts of the country. We also acknowledge the further economic benefits associated with the construction of the facility.

Rationale Supporting MHP Development

Introduction

The total amount of power used on the West Coast each year exceeds 300GWh. Approximately 90GWh is supplied from existing West Coast power stations and the balance is transmitted from generation in the Waitaki Valley through long transmission lines to Christchurch, Kikiwa and then Inangahua.

The MHP will connect to the existing national grid transmission lines which presently supply the West Coast from Inangahua. It will provide an important contribution to meeting the nation's and South Island's growing energy demand and it is also well sized to meet the current and future electricity requirements of the West Coast – reducing inefficient transmission losses in supplying power to the region and improving West Coast security of supply.

The peak electricity demand on the West Coast is currently approximately 65 MW. This is supplied by nine small West Coast power stations (with a total peak output of 13 MW) with the balance imported from other regions. The maximum generation from Mokihinui Power Station will be 65 to 85 MW (subject to detailed design).

DWC is aware of a report commissioned by Transpower NZ Limited ("Load Growth on the West Coast" Covec Ltd, August 2007") which examines the ability of the transmission system to supply existing and future projections of electricity demand. The report predicts that the peak West Coast demand is expected to grow from its current level to approximately 100 MW by 2011. The Mokihinui power station output will therefore become an important part of the electricity supply mix for the West Coast electricity demand and assist with meeting this growth.

Wholesale Power Prices

The wholesale electricity prices at each transmission grid exit point differ in relation to each other, to reflect the value of energy lost in transmission. The difference in transmission power losses around the country are accounted for by giving each grid exit point node a 'location factor'. The reference node in the South Island for location factors is Benmore where the location factor is 1.0. West Coast nodes have a location factor higher than 1.0 to account for transmission losses.

The regional prices are therefore determined by the offer prices of generators, the amount of demand in a region, and the robustness of the transmission connections between the demand and the generators. The difference between wholesale prices on the West Coast (currently higher

than elsewhere) and prices elsewhere on the power system could be reduced as a result of the operation of the Mokihinui power station.

Improved Security and Quality of Supply

The West Coast is currently vulnerable to experiencing electricity transmission faults which occur anywhere along the supply chain from the Waitaki Valley to the West Coast; therefore the power quality of electricity supply on the West Coast is also anticipated to improve with the operation of Mokihinui power station.

Local Lines Company Benefits

The local lines company, Buller Electricity (the local West Coast community owned lines company) is charged by Transpower for a number of services which a local power station could partially provide. Transpower recovers the cost of the main AC grid backbone by charging lines companies "interconnection charges". The interconnection charge is allocated to lines companies based on their peak demand offtake.

Meridian, in conjunction with Buller Electricity, has developed a grid connection substation concept which has the flexibility to enable Buller Electricity to develop a connection directly to the substation. The injection of power from the MHP has the potential to reduce the peak demand offtake of Buller Electricity for any future demand connected to the Cedar Creek substation. This could in turn reduce Transpower interconnection charges to Buller Electricity.

Construction Benefits

The construction of the dam, the powerhouse and the associated infrastructure is programmed over a period of approximately three years. The major part of the construction, the dam and powerhouse will occupy a large proportion of that time (approximately 2 1/2 years) and during that period will require a workforce peaking at approximately 310 people, with the final number being dependent on the shift system chosen by the contractor.

Whilst a portion of these people will be locals, the large number of the personnel required and specialist skills required for some types of work will most likely result in the majority of personnel being brought in for the project. To attract the required skills, the contractor will need to make available accommodation for its personnel and/or arrange suitable transport of the labour force from the nearest business centre, Westport. Meridian will also have construction management and design personnel on site supervising the contract works who will require accommodation.

The construction and accommodation requirements have positive economic implications for not only the Westport to Karamea regions (subject to availability of accommodation) but also to the wider regional economy, for the transportation and supply of materials and labour.

Recreation

DWC acknowledges that the MHP will have significant effects on the regionally important rafting and kayaking opportunities in the Mokihinui catchment and that there are no measures available to directly mitigate adverse effects on these activities.

However, so that public recreational enjoyment of the setting is maintained or enhanced, the potential exists to maximise positive effects on other activities, including flat-water kayaking and canoeing, managed jet and power boating, walking, tramping, mountain biking and angling. Opportunities that may be created include:

- Enhanced pedestrian and mountain biking access along the Mokihinui River Track (which is also proposed by the draft Conservation Management Strategy);
- A potentially popular flat water kayaking and canoeing opportunity on the proposed impoundment, with associated commercial support (canoe and kayak hire, guiding);
- Water taxi service on the impoundment to below The Forks, potentially obviating some helicopter activity in the backcountry-remote setting and enabling whitewater rafting and kayaking on the North Branch;
- Heritage asset developments via the relocation and interpretation of currently inaccessible and poorly-known mining artefacts, as per the recommendations of the MHP Archaeology assessment (Barr 2007);
- A lake angling opportunity with ready pedestrian and boat access;
- Catchment-wide development for recreation – as per Rough and Tumble Lodge vision and the Rata Consultants (2007) recreation potential assessment.

Social Impact

As with any major project, there is a mix of positive and adverse social effects. Furthermore, the distribution of effects and the types of effects likely to be experienced differ from one community to another, depending on location. Overall, this assessment concludes that the long-term cumulative social effects of the MHP are significantly positive and enabling for communities at all geographic levels - from the immediate host community of Seddonville, to the coastal communities of northern Buller and residents and businesses in the wider Buller District

For the immediate host community of Seddonville, the long-term outcome is likely to be a consolidation and steady but not spectacular growth of the residential community. Given the broad base of community support, it is likely that this community will be positively enabled to enjoy an expanded range of livelihood and recreational options. However, DWC acknowledges that in the short term, it is the issues associated with construction activities (particularly the traffic-related issues) which will have to be managed effectively so as to avoid the risks of potentially significant adverse social effects for this community.

For the coastal settlements of Hector, Ngakawau and Granity, the MHP supports an emerging long-term trend towards local economic diversification by enhancing future tourism and holiday-making opportunities for a larger potential market, thus enabling these communities to make progress towards a more sustainable form of development. However, in the short term, it is the issues associated with accommodating the incoming workforce which will have to be managed effectively in order to enhance the potential opportunities and avoid the potential adverse social effects.

Successful implementation of the MHP would also reflect the sentiment that the West Coast should be allowed to determine the balance between economic development and environmental protection.

Other Hydro Developments on the West Coast

DWC acknowledges that from a renewable energy point of view, hydro generation is currently, the only viable option for the West Coast region as it has high rainfall and mountainous terrain. We are aware that along with other generators, Meridian has undertaken preliminary investigations and considered numerous other rivers in the search for renewable energy development and hydro potential on the West Coast.

These reviews have largely concluded that the majority of West Coast rivers are unsuitable because they either:

- do not have sufficient river flow or head (elevation) to generate hydro potential greater than 50 MW and/or
- have a level of legal protection (either the river or the adjacent land) which make development difficult or in some cases unlawful.

Examples of these rivers and the protection include Karamea River (National Park), Ngakawau River (ecological area), Buller and Grey Rivers' (national water conservation order).

Despite DWC's strong support for the MHP, it has one reservation in that DWC would urge that a co-ordinated and planned approach to renewable energy resources be taken at a national level. This would avoid regions (like the West Coast) with a seemingly high prevalence of hydro assets, being "picked off " to satisfy national demand.

Accordingly we encourage the completion of Renewable Energy Assessments being implemented by the Energy Efficiency and Conservation Authority (ECCA) which will help direct accurate targeting of renewable energy development opportunities, provide a sound underpinning of policy development, and determine the balance between economic development and environmental protection.

In summary, DWC considers the MHP a real and viable option for providing renewable generation on the West Coast, providing a much higher level of security of supply to meet the continued demand and sustain the economic growth of the West Coast region. We also acknowledge the further economic benefits and social impacts associated with the construction of the facility.

Yours sincerely



Warren Gilbertson
Regional Development Manager
DEVELOPMENT WEST COAST