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Low-emissions economy inquiry
New Zealand Productivity Commission
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TRUSTPOWER SUPPLEMENTARY SUBMISSION: LOW EMISSIONS ECONOMY INQUIRY

1 Introduction and overview

1.1.1 Trustpower Limited (**Trustpower**) welcomes the opportunity to provide a further, supplementary submission to the Productivity Commission (**the Commission**) on its *Low emissions economy inquiry* issues paper (**the Issues Paper**).

1.2 Our earlier submission

1.2.1 We submitted our views to the Commission previously on 2 October. As we noted in that submission, we own and operate a number of hydro generation stations around New Zealand. Hydro generation operations traverse iwi rights and interests, and cut across the energy, water, and environmental sectors, which are governed by numerous regulatory and institutional settings. With a broad geographical spread of assets, Trustpower is well placed to speak to the different regulatory approaches we experience through national and local government agencies under different agencies and jurisdictions, within and outside the Resource Management Act (**RMA**) framework.

1.2.2 As we noted in October, through these interactions we have observed a lack of 'joined-up thinking' among the institutions making decisions relating to water use. We believe that these decisions have suffered from a lack of coordination and alignment across the national and local government agencies around New Zealand, which each apply different policy and regulations, and give different weighting to energy, water, and environmental concerns. These different applications can mean erosion of value in some areas and retention in others.

1.2.3 This lack of 'joined-up thinking', particularly in relation to environmental (notably water quality) and water allocation issues, is adversely impacting the resilience and flexibility of existing hydro generation in New Zealand. Existing hydro generation will play a key role in New Zealand's transition to a low-emissions economy; we therefore believe that it is essential to address this disjointed thinking in order for the transition to be successful.

1.2.4 To provide an independent perspective on our position, we commissioned a report from Sapere Research Group on the topic of 'joined-up thinking' in relation to energy, water and climate change objectives (**the Sapere Report**). The Sapere Report is now complete, and is appended to this submission.

- 1.2.5 We request that the Commission consider this report alongside, and as part of, our submission to the Issues Paper.

2 Conclusions of the Sapere Report

- 2.1.1 The Sapere Report discusses the likely future requirements for flexibility in the electricity system, particularly in light of increased investment in wind, solar and geothermal capacity. Solar and wind technologies, in particular, are inflexible and intermittent (i.e. “non-dispatchable”), and, in order to ensure demand and supply continue to be matched in real time (and at all times), the rest of the electricity supply will need to be very flexible as a result.
- 2.1.2 In most countries, flexibility is provided by carbon-intensive thermal generation. In contrast, New Zealand is blessed to have a significant quantity and quality of hydro generation, which has the potential to provide this flexibility. In Chapter 2 of their report, Sapere notes the national significance of the existing hydro generation that New Zealand already has.
- 2.1.3 However, as we note above, hydro generation’s existing flexibility is being undermined by a lack of joined-up thinking both at the national policy level, and between national policy and local decision-making.
- 2.1.4 In Chapters 3-5 of their report, Sapere highlights the different pressures that bear down on hydro operators, and the different mechanisms that dictate how hydro generators can be operated. They examine where the tensions lie between national objectives for energy, water and climate change, and between national objectives and local decision-making.
- 2.1.5 At the end of Chapter 5, Sapere concludes:

... within the E-W-E [Energy-Water-Environment] nexus with relevance for hydro generation, there is a lack of joined-up thinking between

- *National energy-related objectives (security and reliability) and local water decision making*
- *National emissions reduction objectives and local water decision making*
- *National emissions reduction objectives and electricity sector objectives, and*
- *The three parts of the E-W-E nexus from an overall costs and benefits perspective.*

The lack of joined-up thinking arises due to the fact that

- *Within the RMA framework, the language translating the national objectives into local water decision-making is not well-defined and is not forceful;*
- *The electricity market does not have a focus on a low emissions electricity system as a goal in itself. The market regards the carbon price emanating from the NZ ETS as the sole vehicle for signalling the value of reducing emissions to emitters, including participants in the electricity market. This contrasts with the strong imperatives given to ensuring energy security and system reliability;*
- *At the local level, there is no mechanism that would provide directive guidance to local authorities over how to translate the three national objectives into local water decision-making, whilst accounting for the costs and benefits of their decisions. The consequence is ad-hoc local decision-making that is disjointed from national imperatives:*
 - *Although the RMA makes provisions for some level of renewable electricity generation, these need to be weighed against a multitude of other matters of local importance.*
 - *The outcome of this decision-making is significantly influenced by the way the language concerning these matters is framed. The fact that National Policy Statements seem to carry different weightings (e.g. as evidenced in*

the language used) creates the risk that local decisions are made in a way that reflect local interests at the expense of national objectives.

- *Finally, the lack of a directive framework that would support decision-making on potentially conflicting matters can also create an issue when such decisions are appealed, as court rulings are likely to reflect statutory provisions that are more prescriptive;*
- *At the national level, there is no mechanism that would provide direction on how decisions with impact on energy security, system reliability, emissions and electricity cost should be synchronised.*

3 Our observations and recommendations

- 3.1.1 In Trustpower's view, existing flexibility of the country's electricity system is certainly being diminished by a lack of joined-up thinking both at the national policy level, and between national policy and local decision-making.
- 3.1.2 The wide array of policy delivery mechanisms across energy, water and the environment, create:
- a) tension between national energy, water and emissions objectives; and
 - b) conflict between national objectives and the way they are accounted for in decisions at local levels.
- 3.1.3 As discussed in the Sapere report, the disjointed thinking arises due to the legal and policy framework around the national objectives being neither well-defined nor directive. It also occurs because of the numerous government agencies responsible for considering the climate change agenda – each carrying this out in isolation of the other. In particular, there are a large number of national policy mechanisms which impact the operation of hydro generation. However decisions around water use are made at the local level under the RMA.
- 3.1.4 While there is a National Policy Statement (**NPS**) on Renewable Electricity Generation (**REG**), in practice we have found it to be toothless, and again, as mentioned above, given different recognition in different regions.

3.2 Consequences

- 3.2.1 As a consequence, water management decisions at the local level are made without adequate consideration of the national objectives, as evidenced in the language of NPSs on Renewable Electricity Generation and Freshwater Management, and the RMA in general.
- 3.2.2 Any imperative to prioritise a low-emissions electricity system is weak, as evidenced in the language of the Electricity Industry Act and the Electricity Authority's statutory objective.
- 3.2.3 This disjointed thinking is resulting in:
- a) New Zealand being less likely to meet its emissions targets, and greater risk with electricity sector public policy objectives;
 - b) Increased costs to the public from failing to meet public policy objectives that have national significance; and
 - c) Issues that could be settled at submission stage being taken through to Environment Court – neither the RMA nor NPS:REG offer any support when it comes to protecting hydro generation's access to water, or give weighty consideration to the role hydro can play in supporting a low-emissions future.

3.3 Solutions

- 3.3.1 At the national level, decisions around energy objectives, low-emission objectives and electricity cost implications must be synchronised.
- 3.3.2 At the local level, water management decision-makers must be given more direction on how to account for national energy objectives, low-emissions objectives and electricity cost implications.
- 3.3.3 The two points above require new delivery mechanisms that will mitigate the impacts arising from:
 - a) The tension between national objectives; and
 - b) The conflict between national objectives and current local water decision-making.

3.4 Conclusion

- 3.4.1 In summary, it is essential that New Zealand policy makers join up their thinking. Our climate policy must have clear objectives, with cascading rules and mechanisms to support retention of existing hydro flexibility.
- 3.4.2 The formation of the Climate Change Commission should provide a vehicle for ensuring objectives and priorities are clear at the national level. However it will be essential that strong and clear direction is given to local decision-makers on how to give effect to these priorities.
- 3.4.3 Finally, we have given these issues, and potential solutions, considerable thought. We would welcome the opportunity to engage with the Commission in person to share our views on these solutions.

Regards,



JAMES TIPPING
MANAGER STRATEGY AND REGULATION

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