

Transpower New Zealand Limited

ATTN: Tania Lund

Western Bay of Plenty Development Plan: Major CAPEX proposal Long List Consultation.

We agree with and strongly support the assessment to invest in more transmission capacity to serve the Western Bay of Plenty.

Renewable energy is an essential requirement to enable our industries to decarbonise both their production and transport over the next 10-20 years. Being unable to supply our region effectively will be a major constraint to growth. Planning should anticipate being 'in front' of the growth curve rather than on or behind it.

Long List Options

There are a range of scenarios considered which would appear to offer potential to get in front of the growth curve within our region, particularly accessing increased capacity from the Eastern Bay of Plenty.

Criteria

We would like to recommend that two additional aspects are included in the criteria for assessment.

1. **Resilience** – as the information provided clearly illustrates that the region is a nett energy importer. It is very important that resilience, in a holistic sense, is looked at when reviewing the opportunities and costs.
 - a. An increased reliance on energy in industrial, freight and transport sectors which increase the demand and the risk of disruption.
2. **Sustainability** – this is considered a vital factor in relation to our regions strategic advantage in the future as such it is important that the sustainability aspects of each of these development plans is considered.
 - a. Utilising renewable and low carbon sources of energy which be vital for our regions ability to compete on a global stage.

Constraints

Regionally there are some significant infrastructure programmes and projects which could present constraints or challenges from a planning perspective. These should actively be considered in relation to any works that may be required in the long/short list of options.

Scenarios

In looking at the growth forecasts we have compiled some supporting information around what we believe the growth will look like in the region. It is important to note that actual numbers have consistently exceeded projected numbers on growth and that is likely to continue. To assist these numbers are outlined below under 'Demographics of WBOP'.

In addition some of the materials drawn from the Infrastructure Forum has also been provided as a source of information for planning purposes.

Demographics of WBOP

WBOP population projections have traditionally been underrepresented. An analysis from the University of Waikato, commissioned by Priority One, shows that projections are between 10% (Stats NZ high end) and 20% (Stats NZ low end) over a 15 year time period between forecasts.

The WBOP population has increased at a rate of 2.4% CAGR since 2000 and 2.9% CAGR since 2012.

We note population forecasting from regional authorities appears very low in comparison to these figures:

- SmartGrowth (*Housing and Building capacity assessment 2022*) forecasts population of the Western BOP subregion (Stats NZ high end) will be 317,000 at 2048 – this implies an annual growth rate of 1.5%, mid-range is 1%
- Tauranga city council (Statistics 2023) forecasts a Tauranga City population of 220,000 by 2063, implied growth rate of 0.8%

Should Western BOP population continue to grow at the same rate as the last 10 years, we can expect a sub-regional population of 458,000 by 2048. Constraints to population growth of immigration, land availability and housing affordability should be noted.

There are also some projects which may occur in the next 10-15 years such as the Hospital relocation to the race course which would be a greenfield development with a larger facility.

Business

The need for industrial land closely follows population increases. It is likely that more industrial land will need to be zoned.

Kiwifruit is expected to double in the next 10 years, as will post-harvest facilities required (packing / cool stores). We expect this supply chain will need to be zero carbon, including port equipment and vessels.

We expect most businesses to have fully decarbonised by 2050 (process heat, heavy / light vehicle emissions).

There is likely to be additional demand for business that remain unquantified today, these include; Data centres, who have shown repeated interest in basing some assets in the region. The potential for Tauranga Airport to move to Paengaroa should be considered in planning forward.

Transport & Logistics

Tauranga port handles 36% of New Zealand's exports and the region is increasingly a critical freight and logistics hub for the Golden Triangle which represents 50% of New Zealand's population and 42% of all freight.

There is increasing pressure on supply chains to reduce carbon, in our region this is likely to incorporate the increased use of battery electric vehicles, and for heavy vehicles the production of hydrogen, biodiesel, sustainable aviation fuel (SAF), and green methanol. covering aviation, trucking, rail, handling and shipping.

There are other programs of work which may yield more information in the near term:

- The **Regional Energy Transition Accelerator (RETA)** which includes the Kaingaroa Forest Catchment within this regions assessment for Biomass.
 - Nationally this biomass is likely to offer great potential for biofuels, SAF and green methanol.

Due to timing of various initiatives and programmes it may be difficult to get really clear numbers around the future demand scenarios for this but it would be important to look specifically at the regional production of these fuels and the projected energy requirements for these.

Air New Zealand is also pushing ahead with its fleet replacement for the Q300's which is likely to use liquified hydrogen which is assumed needs to be produced via electrolysis and stored in region.

Step Loads

The following input is provided for potential step loads within the region which, whilst fluid are all in various stages of consideration, planning and /or long term delivery.

1. One of the variables which should be considered is the completion of some of the major programs of work such as SH29 (a summary copy provided) which has implications for housing, and industrial land availability and job creation.
2. Potential relocation of the Hospital to the Racecourse in a Greenfields development.
3. New multipurpose stadium.
4. New Conference centre and hotel.
5. New Airport Paengaroa.
6. Hydrogen Production for heavy vehicles.

Weightings

Weightings should consider that growth has outstripped projections consistently. Understanding or modelling how that works within the weightings concept being used would be recommended.

Inability to supply

The counterfactual or base case would have significant impacts within the region. Without having a detailed understanding of the methodology proposed. It needs to consider the growth rates and factor that into any approach taken.

Calculation Period

The calculation period to 2050 is an appropriate timescale as it allows consideration of some of the significant growth and infrastructure development within the region.

Kind Regards,

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Priority one