

# The transition to low carbon economy

2018 OERC Energy and Climate Change Symposium

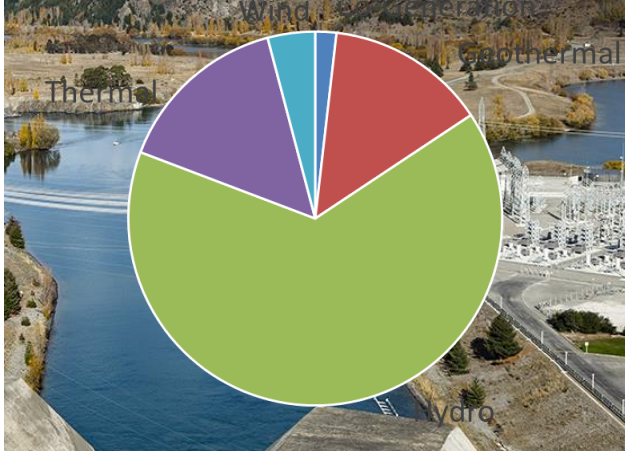
John Clarke, GM Operations





**“Climate change  
is my generation’s  
nuclear-free  
moment, and I am  
determined that  
we will tackle it  
head-on”**



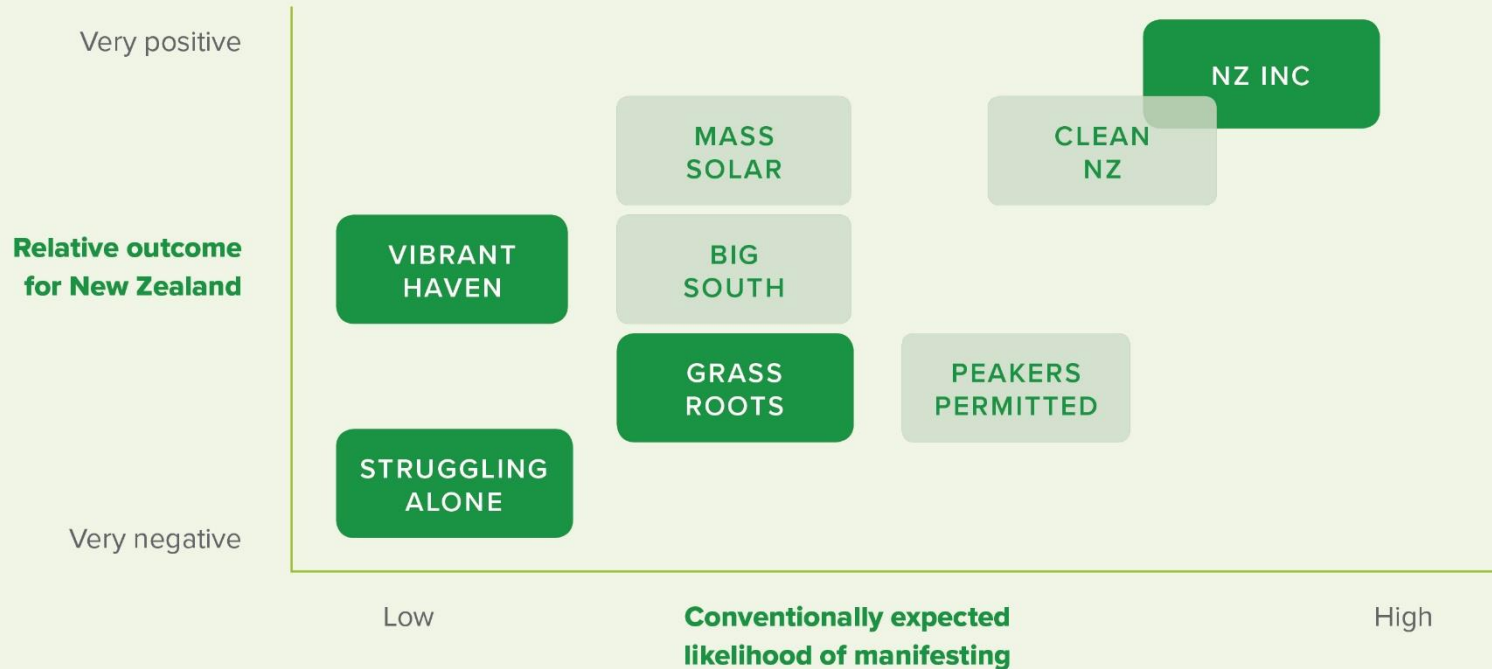


***“as our electricity is already 85% renewable, our choices to reduce our carbon footprint are more limited compared to other countries”***



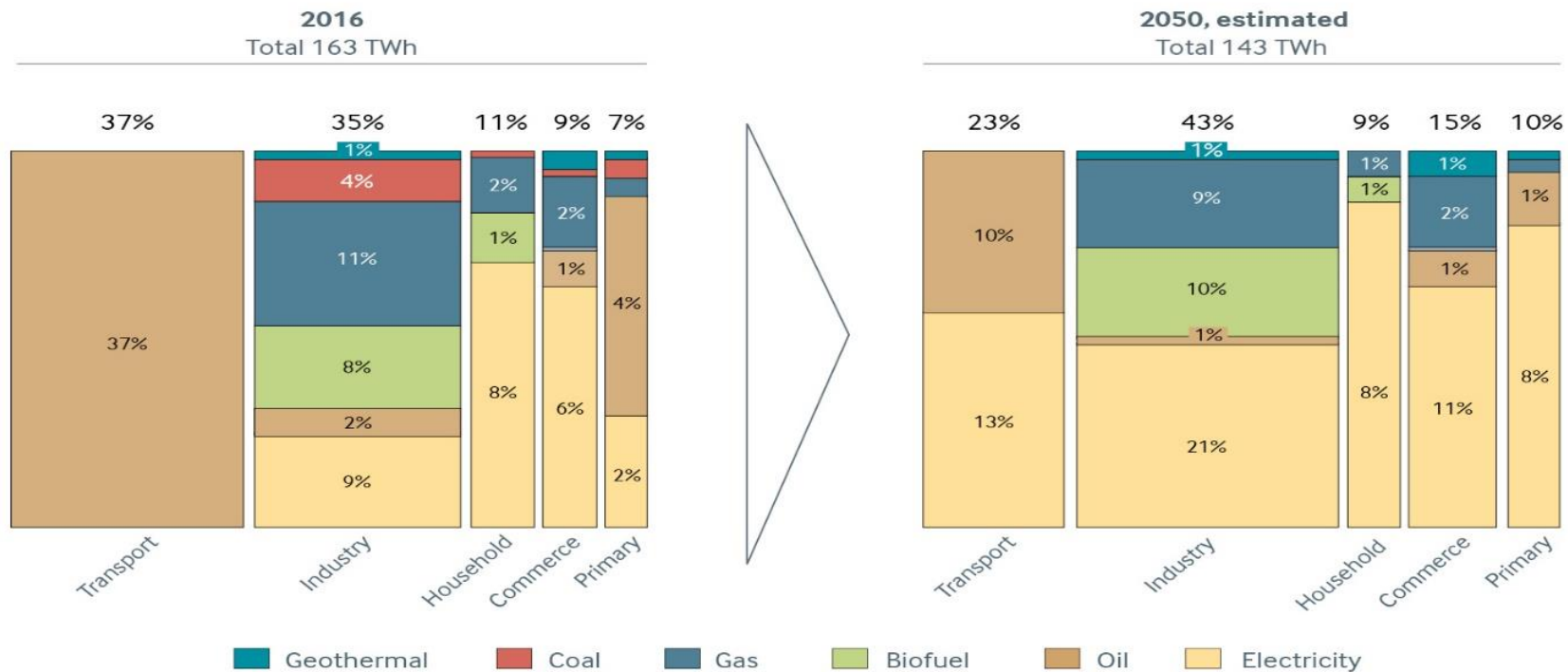
## SCENARIOS CONSIDERED FOR

# Te Mauri Hiko



# Transformation of the energy sector

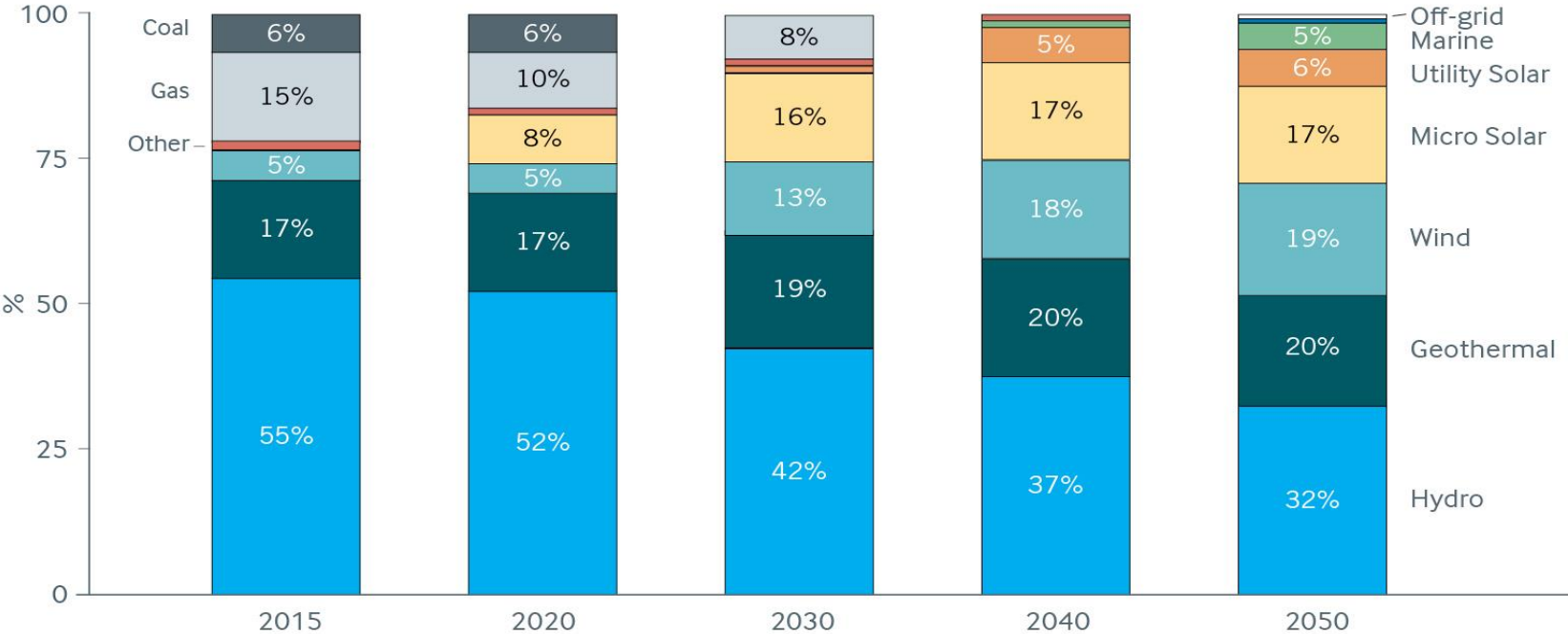
Exhibit 8: Estimated delivered energy demand share by type and sector





# Powering the Transformation

Exhibit 11: Composition of New Zealand’s electricity supply portfolio by generation type – 2015 to 2050

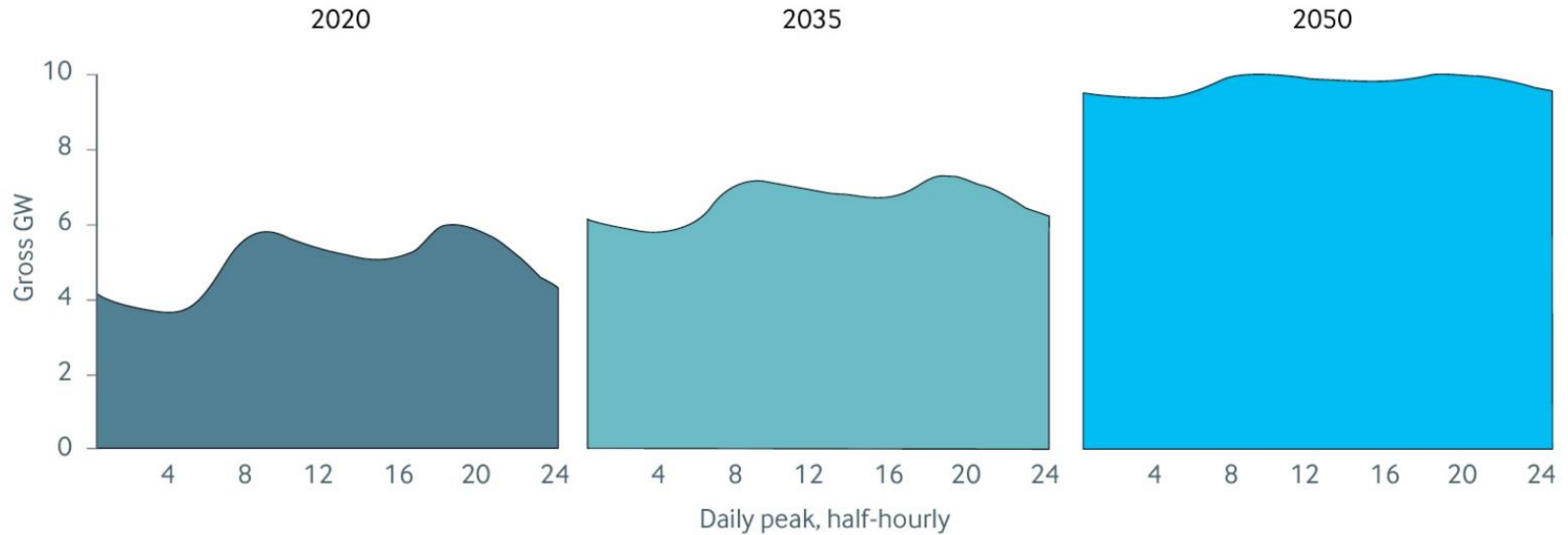




**Challenges Ahead**

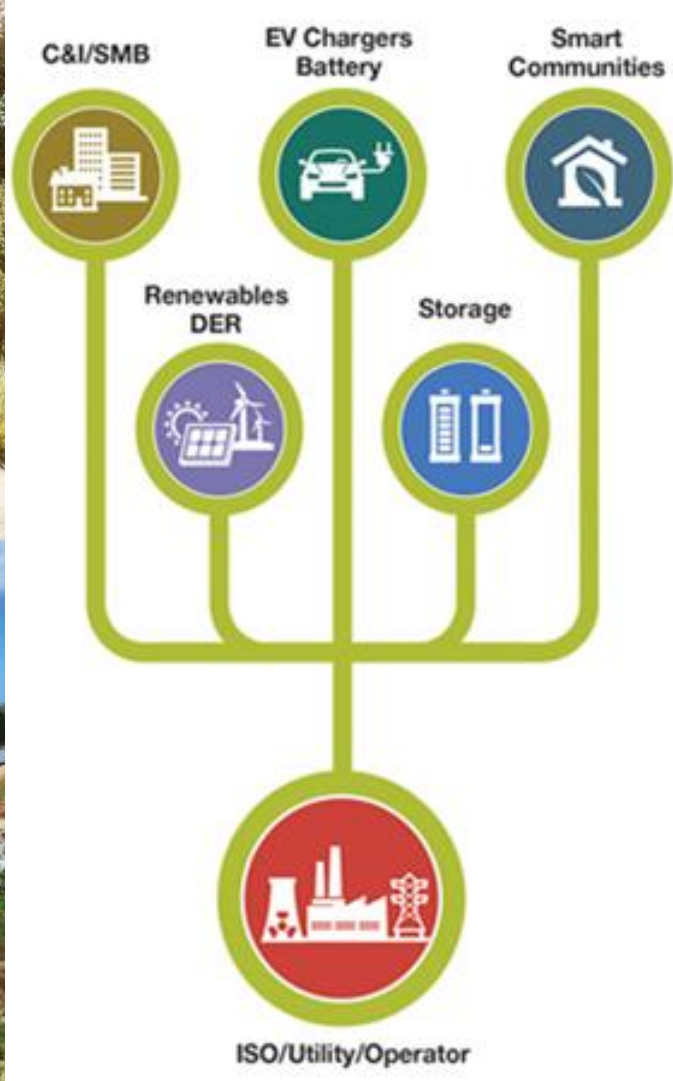
# Smoothing the peaks – optimising investment

Exhibit 5: Average daily winter load profile estimated



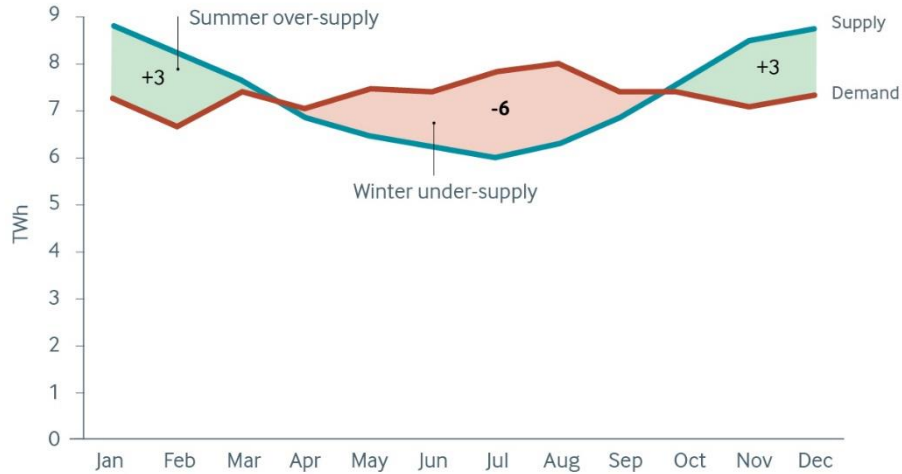
Note: Analysis based on average winter day, not the most “peaky” day of the year.





# The summer-winter challenge

Exhibit 15: Monthly supply and demand estimate for normal year



Monthly supply and demand estimate for dry year





**Investment – how will it happen**



**There is an exciting future  
ahead of us—we now need  
to grasp it.**

