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Competition issues in the electricity market are exacerbating the impacts of constrained gas supply

Electric Kiwi and Haast Energy Trading (Haast) welcome the GIC's consultation on Gas Market Settings.

We consider the GIC's investigation is timely both in the context of the New Zealand Government's zero greenhouse emissions and 100% renewable electricity ambitions and also given the attention on the impact of gas supply on wholesale electricity prices.

The two matters have become tightly entwined as high electricity prices and affordability issues are a barrier to electrification of the economy and decarbonisation. The Government will not achieve its environmental objectives if electricity prices remain high for extended periods.

It is already clear the electricity price projections the Climate Change Commission was relying on to try to demonstrate electrification/the transition to zero carbon emissions is doable and affordable are way off the mark.

To illustrate this, wholesale electricity prices have averaged $281/MWh in the last 3 months, $179.94/MWh in the last year and $127.66/MWh over the last 4 years. This compares to an average price of $68.44/MWh in the preceeding 8 years from 2009 to 2017.[1] The GIC's Gas Market Settings paper makes it very clear that while wholesale electricity prices are particularly high right now, prices can be expected to remain high in the medium-term if high gas prices continue to be reflected in electricity prices most of the time.

Electricity market power issues can't be solved by the GIC

A lot of the focus in recent analysis of high electricity and gas prices has been on an assumed one-way relationship between a reduction in gas supply and higher electricity prices. There is no doubt gas supply is tight in New Zealand. It is appropriate that tight gas conditions raise electricity prices to an extent proportional to gas's role in electricity markets, but we believe this is an over-simplification of the situation. The markets are tightly coupled with the electricity spot market being overwhelmingly larger than the gas spot market. High electricity prices can result in higher gas prices, as the GIC has noted "during constrained periods, the electricity price can set the gas price in short-term trades due to the opportunity cost of gas used for electricity generation". Independent analysts now increasingly refer to electricity netbacks as underpinning gas pricing.

We believe the following factors explain how weak competition in the wholesale electricity market is impacting the gas market and making New Zealand's current energy constraints worse than they need to be:

- The gas spot price is set by very small volumes and is effectively only a balancing market. The market is coupled to the electricity spot market which is overwhelmingly larger.

[1] As at 31 May 2021: https://www.emi.ea.govt.nz/Wholesale/Reports/W_P_C?DateFrom=20090721&DateTo=20210531&RegionType=NZ&_rsdr=ALL&_si=_dr_DateFrom|20090721,_dr_DateTo|20210531,_dr_RegionType|NZ,_dr__rsdr|ALL,_dr_TimeScale|MONTH,v|4

- The scarcity pricing mechanisms in the gas spot market refer to electricity spot prices.

- High wholesale electricity prices result in increased gas-powered electricity generation which increases demand for gas and increases the price of gas. Gas-fired generators are sometimes marginal in both the gas and electricity markets.

- Although the gas spot market accounts for less than 5% of the gas market, and gas fired generation accounts for less than 15% of the electricity market, because of electricity market power issues, gas prices are reflected in electricity markets close to 100% of the time. If the electricity markets was sufficiently competitive, we should only see the gas price reflected relative to the amount of time gas is marginal in the electricity market.

- Due to the above dynamics, the participants with the most influence over how the gas spot price is set are predominantly the electricity gentailers, including those that don't own gas fired power stations.

Currently the highest cost plant is gas, but that doesn't make the situation the GIC's problem or fault. There are fundamental issues of market concentration and structure in the New Zealand's electricity market which need to be resolved. An efficient electricity market with expensive gas marginal circa 20% of the time and cheap renewables marginal the remainder would not be undergoing any material stress at the moment. The above issues are important because the GIC can't solve electricity competition issues and shouldn't be held accountable for the problems that arise due to them.

Prioritise fair and transparent wholesale markets. Consider the role of capacity markets.

New Zealand's gas market will remain dependent on one overwhelming large consumer in Methanex. The economics of liquids extraction and associated gas sales to Methanex are likely to continue to dominate investment decisions in the upstream gas market. Despite much discussion in the industry of a capital strike following the ban on new offshore exploration, we do not believe the ban has played a material role in the current gas supply issues. Our view is there remains sufficient reserves and economic rationale for development of existing reserves to supply the market in the medium-term. The recently announced drilling program from OMV demonstrates the market is working. In this respect, we agree with the GIC that there are not obvious market design changes required specifically in gas.

In our opinion, the priority area the GIC should continue to progress is rules that promote a fair and transparent wholesale market. In particular, this means continuing to pursue a mandatory information disclosure regime and to learn lessons from the Electricity Authority's failed light touch approach to market monitoring and enforcement. The GIC should implement a mandatory regime as soon as practically possible and resource an active monitoring and enforcement function.

Consideration should be given to the appropriate body for monitoring and enforcing the wholesale market rules. Our experience with the Electricity Authority holding a combined market design, monitoring and enforcement role is that it creates conflicts of interest. Too often, the Authority has sought to defend the market it has designed rather than seeking to challenge undesirable market outcomes and behaviour. The NEM in Australia has a structure with segregation of duties which in our opinion leads to better outcomes. The AEMC is responsible for market design and the AER (as part of the ACCC) responsible for monitoring and enforcement. We believe moving monitoring and enforcement of the New Zealand electricity and gas markets to the Commerce Commission should be given serious consideration, this is an option the GIC could advise the Government on.

The other area the consultation paper touches on which we believe has merit is capacity markets. The Climate Change Commission's advice highlights the rapid transition that New Zealand's energy system will undergo as our economy transitions away from fossil fuels towards predominantly renewable electricity. The recent past shows the risk large generators will manage market supply to be late to market and keep prices high. We believe the case for a capacity market to manage the transition in an orderly way is growing. A capacity market could be the organising scheme of a National Energy Strategy the Minister recently announced was under consideration. While this capacity market would most appropriately sit in the electricity market, it would also provide longer-term signals regarding the role of gas in the electricity market which could also make investment decisions more orderly in the gas market. The design of any capacity market would need to be carefully chosen, it should avoid providing windfall returns to sunk generation investments, and cost allocation should act as a counterbalance to the incentive large generators have to always leave the market short and prices high.

Concluding remarks

The gas market has undergone a supply shock in recent years. Unfortunately issues of market structure and concentration in the electricity market has resulted in the disruption being much larger than it needed to be. If New Zealand is to succeed in its transition to a low carbon economy and maintain affordability, reforms are needed to address market power in the electricity market. This is clearly outside the mandate of the GIC to address on their own.

We encourage the GIC to continue reforms which create a level playing field in wholesale markets, particularly regarding the implementation of a mandatory information disclosure regime and accompanying market monitoring and enforcement. Consideration should be given to whether the Commerce Commission should be responsible for monitoring and enforcement.

Capacity markets may have a potential role to play in coordinating the energy transition in New Zealand. We support further exploration of how this could work but stress that any scheme needs to be designed with consumers in mind and not incumbent interests.

Yours sincerely,

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