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## **RE: Consultation Paper – congestion rebate policy**

Nova Energy (Nova) favours returning the residue of the loss and constraint excess (LCE) as a rebate on wholesale electricity purchases, i.e. Option D of the initial options outlined by the Authority. The benefit of this option is that retailers will, through competition, need to factor the rebate in their retail pricing. This will provide a direct benefit to consumers.

The LCE arises as a feature of the locational marginal pricing model employed to determine prices in the wholesale electricity market (WEM). As such, the LCE bears no relationship to Transpower's capital or operating costs in the short term, and it is unlikely to have a meaningful impact on the location of new load in the long term. The reasoning for linking the distribution of the LCE settlement residue to the TPM is therefore weak.

Allocating the residue in proportion to total TPM charges (Option A), or complex benefit-based formulae (Options B & C) would spread the funds wider, but the primary difference with Option D is that they include payments to generators, helping subsidise the generator's fixed costs. Such a subsidy would not serve to increase competition among generators or reduce retail prices. The minor impact it might have of helping facilitate new investment in generation would be more than offset by the windfall gain for the existing generation fleet.

The Authority' rejects Option D because it 'would likely severely undermine nodal pricing signals...' and 'leave generators fully exposed to congestion costs...'. To give this context, it is useful to a) consider the factors that give rise to the LCE, b) look at the size of the expected rebate in relation to the market, c) consider what impact the rebate would have on undermining nodal pricing signals and d) address the question of market integrity.

- a) The level of LCE created is a function of load, lines losses, spot prices, and lines constraints. Load and lines losses are comparatively stable over time, however variable hydro inflows result in changes in generation sources and the direction and magnitude of power flows, as well as impacting the magnitude of wholesale spot prices overall. The excess resulting from lines losses can be expected to increase in relationship with prices, and as such can provide a natural hedge for wholesale electricity purchases.

The excess resulting from lines constraints are far more volatile, and more nuanced than simply reflecting circuits that need upgrading to meet load growth. Constraints more often result from lines maintenance work, new builds or unscheduled outages on part of the grid. They also arise when equation constraints may be violated due to factors such as shortage of reserves or insufficient voltage support in parts of the grid. These elements are volatile in that they don't necessarily follow a predictable pattern, but they all result in higher nodal prices on different parts of the grid at various times. This directly impacts returns for generators, energy costs for retailers and some direct connect consumers.

The point here is that differences in nodal prices across parts of the grid do not always reflect an efficient price signal for future demand or generation. In fact nodal prices can be a misleading signal when a lines constraint is temporary, or it can easily be remedied.

- b) Table 2 in the Consultation paper shows the LCE settlement residue and its relationship to the TPM revenue. Of more significance is the relationship of the LCE to the total market size.

Over the period Dec 2019 to Dec 2021 the total LCE (before net FTR payments) was \$210m<sup>1</sup>. This constitutes 1.4% of the \$15,033m of total market purchases over the same period. Of the total LCE, the settlement residual is therefore likely to represent less than 1% of market purchases<sup>2</sup>. If the residual was rebated to electricity purchasers, then more than 80% of this could be expected to flow directly back through to consumers<sup>3</sup>. That is entirely consistent with the Authority's objectives.

- c) The Authority claims that distributing the LCE residual through a rebate on wholesale market purchases would weaken nodal pricing signals.

An area with high long term average nodal prices occurs in the upper South Island and Buller. Typically, average prices at DOB0331 are around 15% higher than BEN2201 or 6% higher than ISL2201. Applying a 1% rebate to purchasers at DOB and ISL would mean the rebate received at DOB would be 6% higher than that received at ISL for the same volumes. The ratio of energy costs between DOB and ISL however remains unchanged. The net cost of energy at both points in relation to generation at Benmore would be reduced by just 1%. That effect is very small in relation to other factors that determine the expected location of growth in electricity demand. The size of the rebate is comparatively minor in relation to the overall volatility of nodal pricing effects.

- d) Allocating the residual to electricity purchasers by way of rebate would not impact on the integrity of the market. Even if a generator chooses to increase the price difference across a lines constraint and thereby benefit from an increased rebate on its wholesale purchases, they only receive a share of the additional constraint excess created. Aside from the implications from a trading conduct perspective, it would be unlikely that a party would gain overall from such behaviour.

Implementing Option D can be simply achieved by the Clearing Manager incorporating the rebate in the monthly energy invoice of all direct energy purchasers. The benefit of that, besides the administrative efficiency, is that it is immediate and can be incorporated by retailers in their pricing calculations, the size of the available rebate is loosely correlated with the cost of their electricity purchases.

In contrast, the complexity proposed by options B and C merely ensures that market participants will have limited ability to determine what sums they might expect to receive in any month and the relationship to wholesale costs will be much weaker. As a result, it would be very difficult to factor the rebate into retail pricing models.

Yours sincerely



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<sup>1</sup> Applying figures sourced from the Clearing Manager [Clearing Month Summary List \(electricityclearing.co.nz\)](http://electricityclearing.co.nz)

<sup>2</sup> Based on the ratio of Settlement residue to LCE identified in Table 2 of the Consultation paper.

<sup>3</sup> Based on estimates in the Sapere analysis prepared for Mercury Energy.

