



TRANSPOWER

Keeping the energy flowing

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Proposed Actions to Correct Undesirable Trading Situation 2019

Transpower welcomes the opportunity to respond to the Electricity Authority's (the Authority's) consultation on its proposed actions to correct previous outcomes in the wholesale electricity market, published March 11, 2021. The actions to correct arise from the undesirable trading situation (UTS) that the Authority has determined existed from 3 – 27 December 2019. Our response covers the perspectives of System Operator, FTR manager, and Grid Owner as administrator of residual Loss and Constraint Excess (LCE) disbursement.

This submission responds to:

1. the Authority's request at paragraph 5.79 for the System Operator and FTR manager (among others) to publicly submit on the proposed actions to correct; and
2. the proposals at paragraph 5.88 to direct Transpower as FTR manager to recalculate rentals (Loss and Constraint Excess, LCE) and as grid owner to distribute residual LCE.¹

The Code, clause 5.3, requires that the Authority consults with the System Operator if it is possible that an action to correct may have an effect on system security. The System Operator supports the Authority's correction action to treat generators whose offers were not reset as *constrained on*. Paying *constrained on* to generators whose offers were not reset will support compliance with dispatch instructions and maintain incentives for system security.

We provide our response to the Authority's questions in Appendix 1.

The mechanics of revising offers, final prices, payments, and receivables

This UTS event in December 2019 lasted 25 days which is 1,200 trading periods, in contrast to the previous (and only) UTS event in March 2011 that covered just 14 trading periods.² Therefore we concur with the Authority's view that "*implementing the resettlement process may take several months for the pricing and clearing managers to implement and audit.*"³

¹ Residual Loss and Constraint Excess (aka "rentals") is any quantum of rentals that remains (is residual) after the rentals have been used to settle the FTR market.

² UTS March 2011, Final decision [here](#).

³ Electricity Authority, Proposed Actions to Correct Undesirable Trading Situation 2019: Consultation paper, 11 March 2021, paragraph 5.86.

We consider the correction process for final prices should run out of sync with the codified business as usual (BAU) processes under Part 14, until the outputs from the correction process are known and can be incorporated into BAU wash-up processes. Service providers should not be expected to deliver the extra outputs under deadlines the same as the codified monthly processes.

Transpower processes that will need to be re-run during and after the Authority's correction action are:

- System Operator:
 - assist the pricing manager (NZX) with recalculating the prices, via the system operator's market system, SPD; and publishing the reset prices to WITS; and
 - re-run the ancillary services settlement process for instantaneous reserves for every trading period.
- FTR manager: Re-calculate the LCE for the FTR market and deliver result to the clearing manager.
- Grid Owner: Redistribute residual LCE, for December 2019.

We expand on these steps below.

Price recalculation and publication assistance by System Operator

If instructed as the Authority proposes, the following steps will need to be completed to recalculate and publish revised final prices (energy and instantaneous reserves) for December 2019.

1. Assist the pricing manager with offer revisions and price recalculation in standalone SPD (if needed).
2. Load each revised daily final pricing schedule information received from the pricing manager to the Transpower market system for publication.
3. Check publication of the revised final prices.

Revised final prices will be available once this process has been completed for each day within the UTS period.

Instantaneous reserves calculation by System Operator

If instructed as the Authority proposes, the following steps will need to be completed to resettle instantaneous reserves for December 2019.

1. Receive revised final instantaneous reserve prices from the pricing manager.
2. Recalculate base monthly instantaneous reserve settlement values.
3. Provide revised base monthly instantaneous reserve settlement values to the clearing manager for the calculation of revised constrained on amounts (subject to final Authority determination).
4. Incorporate revised constrained on values for instantaneous reserves received from the clearing manager into the revised monthly instantaneous reserve settlement information sent to the clearing manager.

Once these steps have been completed, the clearing manager will need to account for the new final instantaneous reserve settlement information and adjust invoices and payments accordingly.

LCE (Transmission rentals) calculation by FTR manager

If instructed as the Authority proposes, the following steps will need to be completed to recalculate rentals for the FTR market for December 2019.

1. Receive new finalised SPD pricing cases provided by the pricing manager for each complete day.
2. Implement a small software change required for the FTR platform to allow a recalculation of an already published Rentals calculation.
3. Recalculate LCE for each of the affected trading days (3-27 December).
4. Supply the clearing manager with the revised December 2019 Rentals determination.

Once these steps have been completed, the clearing manager will need to account for the new final FTR clearing prices and adjust the settlements accordingly.

There is no risk to revenue adequacy for the affected December 2019 period. The December 2019 period was a settlement month where FTR participants paid more in aggregate to acquire FTRs than the resulting revenue stream after FTR settlement.

Residual LCE disbursement by grid owner

If instructed as the Authority proposes, Transpower, as the Grid Owner, will receive a revised residual LCE amount. The methodology we use to allocate LCE payments to our customers, in accordance with Part D of the benchmark agreement, is published on our website [here](#).

The March 2011 UTS was administered by Transpower in accordance with the same methodology and we assume we would be directed to follow the same methodology. This approach means that any customer LCE for the December 2019 period would not be recalculated; instead the difference amount would be treated by scaling and we would credit our customers after the revised residual LCE is received.

Finally, the complexity and reach of the correction process is likely to necessitate ongoing and iterative engagement between the administrators of the energy, reserves, FTR and LCE components. We are on hand to support the correction processes and deliver its results.

Yours faithfully,



Joel Cook

Regulatory Affairs & Pricing Manager

Appendix 1

| # | Question | Response |
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| 1 | What, if any, actions should the Authority undertake to address excess spill, system security, and any other consequent effects? How would such actions address the objectives of Part 5 of the Code? | We agree with the Authority that is <i>"impossible to reverse everything that happened during the UTS period"</i> and <i>"it is not feasible to un-spill the excess spill that occurred, nor unwind the attendant effects on North Island security of supply and the potential further flow-on impacts."</i> [refer paragraph 4.3]. |
| 2 | Do you agree that the Authority should seek to correct the UTS period by resetting the payments made/received by spot market purchasers and generators? (If not, please explain your reasoning.) | Yes. |
| 3 | Do you agree that the Authority should attempt to correct settlement during the UTS period by resetting prices in the electricity market? | Yes. An 'in-market' resettlement would preserve the complex interactions within the market (compared with an 'out-of-market' resolution), improve traceability/record-keeping, and adjust historic prices in line with settlement. We agree with the reasoning put forward in paragraphs 5.10-5.14. |
| 4 | Do you agree that injection and off-take volumes should remain unchanged in any resettlement? | Yes. We agree with the points raised by the Authority in paragraph 5.3. In addition, any adjustments to settlement volumes would need to be used only for base price x volume settlement and not for any constrained on or off calculations. If adjusted volumes were used in constrained on calculations a generator without 'reset offers' who was assessed as having reduced volumes (to offset the increased volumes at other stations) would not be compensated for generation they actually produced offered at prices in excess of the revised settlement prices. This is contrary to the Authority's proposed treatment of constrained on payments in paras. 5.46-5.50 |
| 5 | Do you agree that the Authority should attempt to correct the UTS by revising final prices in the electricity market, rather than by an 'off-market' wash-up of spot electricity payments to and from the clearing manager? | Yes. We agree with the Authority's analysis of the various options. |
| 6 | If offer prices and offer volumes are reset, which hydro generating stations should have offers reset? (Please answer yes/no, with any additional supporting commentary.) | No comment. |

| # | Question | Response |
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| 7 | If offer prices and volumes are reset, do you agree that North Island offer prices and offer volumes should remain the same as originally submitted? (If not, please identify any alternative actions.) | No comment. |
| 8 | Do you agree that resetting offer prices and volumes by imposing a cap is the preferred action to correct the UTS? If not, please identify preferred alternatives. | Yes. We agree with the rationale presented by the Authority. |
| 9 | If revisions to offer prices are to vary through time or across generating stations, how should the offer prices be determined? | We consider that varying offer price revisions through time or across generation stations would add complexity to the price recalculation process and increase the potential for errors to be made in the recalculation of the new set of final prices. |
| 10 | Do you consider that final prices should be reset directly? If so, how should they be calibrated? | No. We agree with the rationale presented by the Authority. |
| 11 | Do you agree that the aggregate offer volumes of each generating station should equal the aggregate amount offered by that station during the UTS period? Please describe any preferred alternatives. | Yes. We agree with the rationale presented by the Authority. |
| 12 | Which of these mechanisms in paragraph 5.41(a) – (e), if any, should be used to calibrate 'corrected' electricity offer prices? (Please identify any other preferred alternatives.) | No comment. |
| 13 | Do you agree that generators, other than those with 'reset offers', that were dispatched to generate electricity at offer prices above the reset final prices should be treated as constrained on? (If not, please identify preferred alternatives.) | Yes. As System Operator, Transpower relies on generator compliance with dispatch instructions. Constrained on payments assist dispatch compliance through ensuring generators will be compensated in line with their offers when these exceed final prices. Paying constrained on to generators whose offers were not reset should support future willingness to comply with dispatch instructions and maintain incentives for security of supply. |
| 14 | Do you agree with the Authority's proposal not to revise constrained off payments, associated with frequency keeping? (If not, please explain and identify any preferred alternatives.) | Yes. We agree with the rationale presented by the Authority. |
| 15 | Should offers to the instantaneous reserves market during the UTS period be corrected? If so, how should instantaneous reserve offers be corrected? | No (not corrected). We agree with the rationale presented by the Authority. We note that there are constrained on payments for instantaneous reserves |

| # | Question | Response |
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| | | calculated separately from those for energy. The Authority may wish to explicitly cover the treatment of constrained payments for instantaneous reserve in its final determination. |
| 16 | Do you agree with the proposed approach to treatment of derivatives for the purposes of correcting the UTS? Please explain your answer. | For the FTR derivatives yes. |
| 17 | Are there any additional, feasible and lawful actions that the Authority should or could undertake in relation to derivatives markets? | No comment. |
| 18 | How should the Authority use its powers under Part 5 in relation to LCE payments? | We support revising LCE payments, please see response to question 22. |
| 19 | Should the Authority use its powers under Part 5 of the Code to direct retailers to reimburse consumers that had contracts on variable price terms? What, if any, action should the Authority take in relation to variable price contracts? | No comment |
| 20 | How should any resettlement arising from the actions to correct the UTS be implemented? | We consider the correction process for final prices should run out of sync with the codified business as usual (BAU) processes under Part 14, until the pricing outputs from the correction process are known and can be incorporated into BAU wash-up processes. |
| 21 | If there is a resettlement, what window of time after invoicing should be allowed for traders to meet their obligations? | No comment. |
| 22 | Please provide feedback on the operational implementation of the proposed actions to correct the UTS, including the interest rate that should be used to scale payments. | <p data-bbox="871 1328 1302 1395">Please refer to the main body of this submission.</p> <p data-bbox="871 1417 1394 1585">Once Transpower, as Grid Owner, receives a revised residual LCE amount we will allocate LCE payments to our customers, in accordance with Part D of the benchmark agreement.</p> <p data-bbox="871 1608 1410 1888">We assume we would be directed to follow the same methodology as used for the March 2011 UTS. This approach means that any customer LCE for the December 2019 period would not be recalculated; instead the difference amount would be treated by scaling and we would credit our customers after the revised residual LCE is received.</p> |