

Effort and cost estimation for settlement of 9 August 2021

Covering Transpower in its roles as System Operator (ancillary services) and Grid Owner (LCE). The FTR Manager has responded directly to the Authority.

As System Operator and Grid Owner we can meet the timings we believe NZX advised yesterday (settling on either 20 June or 20 July). Estimated effort is 113hrs at TAS rates and 12hrs at \$212.52/hr (external developer, incl. GST and 12% handler fee per SOSPA). Note, the LCE 'payment' (credit against transmission charges) occurs at the end of the month after wholesale electricity market settlement has occurred.

A breakdown and indicative steps are below.

SO Ancillary Services settlement

Steps, first in TEST, then in PROD (NB TEST environment needs population with the relevant data)

- Parse the "..._VP" (81112021081200786) SPD casefile to extract the relevant data
- Back-up existing GSS calculations
- Delete existing GSS calculations for Aug 21
- Populate GSS with data for periods 37-42
- Recalculate GSS values
- Compare 'new' Aug 21 GSS with 'old' Aug 21 values
- Work with NZX re the 'back-and-forth' data transfers required to perform ancillary services settlement [sending whole month files]

Testing needs

- Check correct data is loaded to GSS
- Spot check GSS calculations
- Check original GSS values plus GSS values for periods 37-42 9 Aug 21 = recalculated Aug 21 GSS values

Estimated effort

GSS developer 12hrs @ \$212.52/hr (external developer, incl. GST and 12% handler fee per SOSPA)

Analyst testing 20hrs

GSS processing 20hrs

GO LCE settlement

Steps, first in TEST, then PROD (NB TEST environment needs population with the relevant data)

- Set the existing final price data for periods 1-36 and 43-48 to not be 'final prices' [Update existing final pricing type cases from F to N (81112021081200429 and 91112021080900728)]
- Set the final pricing flag to F for periods the "...._VP" final pricing case, periods 1-48 [Update existing final pricing type case from N to F (81112021081200786)]
- Modify pre RTP branch flow price procedure to reload LCE (Xrentals) data for 9th Aug 2021
- Run the Xrentals calculations
- Feed the outcome of Xrentals calculations into GO customer billing process – NB this requires use of legacy systems due to subsequent TPM changes to LCE processing.

NB prices in periods 1-36 and 43-48 are the same across all 'feasible' final pricing cases for 9 Aug 21. The approach described above has been determined to be lower risk and effort than inserting prices for periods 37-42 only.

Testing needs:

- Check case details are updated correctly
- Check fact records are linked correctly to the new final price type F case (81112021081200786)
 - Check periods 1-36 and 43-48 data is unchanged
 - Check periods 37-42 updated as expected
- Check LCE data is updated for affected day and prices are correct
- Spot check branch records calculated correctly with updated data in Xrentals calculations
- Check original Aug 21 Xrentals values plus Xrentals for periods 37-42 9 Aug 21 = recalculated Aug 21 Xrentals

Estimated effort

Data engineer – 56hrs [updating data and database tests]

Elapsed time 3 weeks

Analyst testing – 5hrs [Xrentals calculation testing]

GO pricing analyst – 12hrs [running GO LCE in legacy systems – TPM changes]

FTR Manager

Responded directly to the Authority.