

From: s9(2)(a)@nzx.com>
Sent: Monday, 4 March 2024 7:59 am
To: Grant Benvenuti; murray.henderson; Roger Miller
Cc: Saki Hannah; Tuong Nguyen; Doug Watt
Subject: RE: Final prices for 9 Aug 2021

Likewise thanks all, and for the information Murray. Plain and simple we've uploaded the incorrect dataset.

We have the correct information from Transpower and as Murray has mentioned we went to a lot of effort to ensure accuracy back in 2021. I mistakenly misinterpreted the instructions and uploaded prices without the VRP cap as you have surmised Murray.

I had sent comms on Friday afternoon informing the market of an issue and requested they disregard pricing until further notice. Next steps include removing the current pricing and replacing with the prices including VRP and publish as interim – this morning. These will then be finalised on Tuesday.

Thanks

s9(2)(a)

From: Grant Benvenuti s9(2)(a)
Sent: Saturday, March 2, 2024 6:52 AM
To: murray.henderson s9(2)(a)@transpower.co.nz>; Roger.miller s9(2)(a); s9(2)(a)@nzx.com>
Cc: Saki.Hannah s9(2)(a)>; Tuong.nguyen s9(2)(a)>; doug.watt s9(2)(a)>
Subject: Re: Final prices for 9 Aug 2021

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Thanks Murray and others, great explanations. Unless there is a contrary view, I think we can close the discussion and leave it to the clearing/pricing manager to decide on next steps.

Cheers
Go

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From: Murray Henderson s9(2)(a)@transpower.co.nz>
Sent: Friday, March 1, 2024 10:04 PM
To: Roger Miller s9(2)(a)>; Grant Benvenuti <s9(2)(a)>

s9(2)(a)@nzx.com>

Cc: Saki Hannah <s9(2)(a)>; Tuong Nguyen <s9(2)(a)>; Doug Watt

s9(2)(a)

Subject: RE: Final prices for 9 Aug 2021

I wouldn't bother with the effort Roger.

All the VRP stuff was done to death and double checked multiple times before the initial interim prices were published. Those interim prices included VRP on pds 37-38 and scarcity on pds 39-42 (which was also scrutinised for correctness prior to publication).

What has happened is either a misidentification of which casefile to lift prices from or a misinterpretation of the directed actions (removing VRP as well as scarcity) which has resulted in the wrong 'new' prices being published.

Prices for periods 37-38 should be unchanged from the original interim prices published (VRP applied). Periods 39-42 should be different (lower) to the original interim prices (scarcity removed).

To reiterate from previous comms with many on this chain, the SPD cases 'build' on the previous solve for both VRP and Scarcity. Once there is a feasible solve and VRP is selected by the pricing manager to be added a new case is created which takes the feasible case appends "_VP" to the casename and applies VRP as an input to that case. Once solved those results have VRP in them. Similarly, if it was selected by the pricing manager that scarcity should be applied the 'prior' case is appended with "_SP" and the scarcity modifications are applied for the selected periods when that case is solved. It is possible for VRP and scarcity to overlap and apply to the same trading period. On Aug 9th 2021 this did not occur.

The casefile with scarcity and VRP is appended "_VP_SP" and was published as interim on whatever day it was in Aug 2021.

The casefile with VRP applied is appended "_VP" and was the one intended to be published today.

From: Roger Miller s9(2)(a)

Sent: Friday, March 1, 2024 8:16 PM

To: Murray Henderson s9(2)(a)@transpower.co.nz>; Grant Benvenuti

<s9(2)(a)@nzx.com>

Cc: Saki Hannah <s9(2)(a)>; Tuong Nguyen <s9(2)(a)>; Doug Watt

<s9(2)(a)>

Subject: Re: Final prices for 9 Aug 2021

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Sorry everybody. Looks like, in my haste while dealing with a minor flood at home, I went off slightly half cocked. I had always assumed that reserve infeasibilities were resolved in a single step by implementing VRP. It appears it is in fact a two step process. I will check the code on Monday to see how that works.

I haven't been very close to this so wasn't aware all the price "options" were already in the public domain.

Regards
Roger

Sent from [Outlook for Android](#)

From: Murray Henderson <s9(2)(a)@transpower.co.nz>
Sent: Friday, March 1, 2024 7:27:23 PM
To: Roger Miller <s9(2)(a)>; Grant Benvenuti <s9(2)(a)>; <s9(2)(a)>
<s9(2)(a)>@nzx.com>
Cc: Saki Hannah <s9(2)(a)>; Tuong Nguyen <s9(2)(a)>; Doug Watt <s9(2)(a)>
Subject: RE: Final prices for 9 Aug 2021

This is disappointing.

Note for accuracy and preciseness VRP does not remove violations or anything of the sort. VRP is a dynamic price cap. Infeasibilities were removed by the SO and revised data based back to the Pricing manager. If the Code conditions are met for application of VRP (a reserve infeasibility had been present prior to SO actions) then the pricing manager applies VRP to those trading periods. Those conditions existed for pds 37 and 38.

The change in prices between feasible and VRP application cases arises from the design of VRP adding additional dummy reserve in to the solve at the dynamic price determined by the Code methodology and the subsequent ability for SPD to use those resources in the solve. Co-optimisation of energy and reserve means adding VRP can impact reserve and energy prices. As it has in the solves for 9 Aug.

The prices published are feasible (no CVPs in the solution) but they've come from the case following the SO's resolution of the infeasibilities and prior to the pricing manager adding VRP.

Clearly, they are the wrong prices to have published.

See the attached email which details the cases run by the pricing manager for 9 Aug 2021, their status and examples of the prices within each schedule (clearly naming the correct case to publish). Note the way in which the VRP and scarcity pricing regimes were implemented in Transpower's market system meant full SPD solves were created at each stage of the process i.e. there is a pre-existing case which is feasible and has VRP applied but no scarcity. 'all' that has happened here is the prices from the wrong case have been published. There is no need to re-run pricing.

From: Roger Miller <s9(2)(a)>
Sent: Friday, March 1, 2024 5:24 PM
To: Grant Benvenuti <Grant.Benvenuti@ea.govt.nz>; Murray Henderson <s9(2)(a)>@transpower.co.nz>; <s9(2)(a)>@nzx.com>
Cc: Saki Hannah <s9(2)(a)>; Tuong Nguyen <s9(2)(a)>; Doug Watt

s9(2)(a)

Subject: RE: Final prices for 9 Aug 2021

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Hi Grant,

Yes that sounds right.

TP37 and 38 had reserve scarcity which was resolved with VRP.
TP 39-42 previously had scarcity pricing applied but now won't.

Roger

From: Grant Benvenuti s9(2)(a) >
Sent: Friday, March 1, 2024 4:41 PM
To: Murray Henderson s9(2)(a) @transpower.co.nz>; s9(2)(a) @nzx.com>
Cc: Saki Hannah <s9(2)(a)>; Roger Miller <s9(2)(a)>; Tuong Nguyen s9(2)(a); Doug Watt s9(2)(a)
Subject: RE: Final prices for 9 Aug 2021

Hi all,

Unfortunately, I am no expert of the detail of the pricing methodology, so I have included Tuong Roger and Doug in this email please feel free to include others to ensure we have the correct information. Firstly, we need to remember we must use the version of the Code in force on 9 August 2021

In the normal course of pricing, I believe there was constraint violations for TP37 and 38, and the normal process will be to apply the VRP to remove these violations. At the time, we then also applied scarcity pricing for TPs 39-42. The original PEC applied to scarcity pricing, and therefore now this has been upheld, the pricing methodology that needs to apply is – TP37 and 38 must use the VRP, and TPs 39-42 use the normal pricing (without scarcity pricing applied)

Tuong, Roger, Doug, Murray, anyone else, can you confirm (or otherwise) that this is correct?

If so, s9(2)(a) can you please rerun pricing using the case file that has the VRP for TP37 and 38 and no scarcity for TPs39 to 42

Cheers

GB

Grant Benvenuti
Principal Advisor
Electricity Authority

s9(2)(a)

From: Grant Benvenuti

Sent: Friday, March 1, 2024 4:29 PM

To: Murray Henderson <s9(2)(a)@transpower.co.nz>; s9(2)(a)

<s9(2)(a)@nzx.com>

Cc: Saki Hannah <s9(2)(a)>; Chris Birkinshaw <s9(2)(a)@transpower.co.nz>;

Rebecca Osborne <s9(2)(a)@transpower.co.nz>; Ramu Naidoo

<s9(2)(a)@transpower.co.nz>

Subject: RE: Final prices for 9 Aug 2021

Thanks Murray, yes we will need to get together soon to plan out how settlement will run. We will be in touch soon with more details

Cheers

GB

Grant Benvenuti
Principal Advisor
Electricity Authority

s9(2)(a)

From: Murray Henderson <s9(2)(a)@transpower.co.nz>

Sent: Friday, March 1, 2024 3:56 PM

To: Grant Benvenuti <s9(2)(a)>; s9(2)(a) <s9(2)(a)@nzx.com>

Cc: Saki Hannah <s9(2)(a)>; Chris Birkinshaw <s9(2)(a)@transpower.co.nz>;

Rebecca Osborne <s9(2)(a)@transpower.co.nz>; Ramu Naidoo

<s9(2)(a)@transpower.co.nz>

Subject: RE: Final prices for 9 Aug 2021

Hi All,

NZX, as pricing manager/clearing manager, has a copy of all final pricing case files stored locally. These were created and sent to NZX once each final pricing scheduled created within Transpower's market system completed solving i.e. the relevant casefiles were created and sent to NZX in Aug 2021 as they were created by the pricing manager. I believe as part of the pricing manager role final pricing casefiles were stored by NZX – possibly to fulfil contractual obligations under the pricing manager's service provider contract with the Authority.

Transpower also has copies of all of the final pricing casefiles but none have been requested or sent to NZX since the advent of RTP.

The correct casefile (VRP yes, scarcity no) is named 09Aug2021.3.NZX_VP. Publication of prices for historic price errors sits with the clearing manager in the Code and because NZX already has the casefiles there was no need, or request, for Transpower to be involved.

Note: I have missed a call from Tim this afternoon but due to other pressing deadlines have not called Tim back. I'll call on Monday.

For the avoidance of doubt the publication of energy and reserve prices to WITS does not trigger downstream publication to any other tools and systems with the possible exception of CHASM (clearing manager). The tools used to create settlement information for FTRs, ancillary services, and the GO's LCE do not have final prices for pds 37-42 for 9 Aug 2021. Manual, non-standard processes will have to be used to populate those tools with the prices from the 09Aug2021.3.NZX_VP casefiles.

As discussed previously there is a pressing need to meet to formulate a plan to ensure settlement for 9th Aug 2021 goes smoothly and participants are aware of the timings and plan.

Regards

Murray

From: Grant Benvenuti <s9(2)(a)>
Sent: Friday, March 1, 2024 3:24 PM
To: Murray Henderson <s9(2)(a)> <[s9\(2\)\(a\)@transpower.co.nz](mailto:s9(2)(a)@transpower.co.nz)>; s9(2)(a) <[s9\(2\)\(a\)@nzx.com](mailto:s9(2)(a)@nzx.com)>
Cc: Saki Hannah <s9(2)(a)>
Subject: Final prices for 9 Aug 2021

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Hi s9(2)(a), For the record,

s9(2)(a) - can you confirm the correct case file for the prices for 9 Aug 2021 has been sent to the pricing/clearing manager (prices with VRP but without scarcity pricing), and what the file name is

s9(2)(a) - can you confirm the correct casefile (as confirmed by s9(2)(a) in response to the above) is the casefile used to produce the final prices that were published today

Cheers

GB

Grant Benvenuti
Principal Advisor

s9(2)(a)
s9(2)(a)

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