

Potential Manifest Error – Loss Factor Adjustment of AS quantities in the Forecast BMO at the Price Caps

Issue

- AEMO understands the Balancing Market intended design was such that:
 - Facilities can be dispatched at any price at or within the Max and Min Price Caps
 - Ancillary Service providers are given priority at the Price Caps ahead of energy.
- AEMO's systems are implemented in line with AEMO's understanding of the intended design.
- Based on the current WEM Rules :
 - When determining the Forecast BMO for dispatch, AEMO must apply loss factors to all offers, including those at the Price Caps.
 - IPP Facilities with a Loss Factor > 1 will no longer remain at the Price Caps.
- AEMO's IT systems do not currently apply the loss factor adjustment required under clause 7A.3.2(a) for Balancing Price-Quantity Pairs submitted at the Price Caps.

Issues

- AS Facilities at the Price Caps are not afforded priority ahead of energy.
 - These Facilities could be dispatched down automatically.
 - Without AEMO intervention, this would threaten Power System Security.
 - Potentially a manifestly incorrect outcome
- A Market Participant with a loss factor greater than 1 cannot ensure its Facilities are included at the Price Caps in the Forecast BMO.

Potential cause of the problem

- WEM Rules require the Price Caps to be applied twice:
 1. once when Market Participants submit their offers (clause 7A.2.4(c))
 - these offers are not loss factor adjusted
 2. again when AEMO determines the Forecast BMO (clause 7A.3.2(a))
 - AEMO must loss factor adjust offer prices in this process.
 - Where IPP Facility has a Loss Factor > 1 offers will no longer remain at the Price Caps

Options

- **Option 1:**
 - Rule Change Proposal to align the WEM Rules with AEMO's understanding of the intended design.
 - Potentially a relatively simple rule change option.
 - Low cost and short implementation
 - *AEMO considers this to be the most pragmatic option.*
- **Option 2: Address issue through WEM Reform**
 - Issue will remain until reforms
- **Option 3:**
 - AEMO updates its systems to be compliant with the rules
 - Will require manual intervention and other measures to maintain system security
 - Could require considerable change to systems and use of resources
 - *Least preferred option*

Questions

- Do MAC members agree that the issue produces a manifestly incorrect outcome?
- Should a Rule Change Proposal be progressed?

Loss Factors

IPP Facilities with Loss Factors Greater Than 1

Facility	Loss Factor
INVESTEC_COLLGAR_WF1	1.006
ALINTA_WGP_GT	1.011
ALINTA_WGP_U2	1.011
ALINTA_PNJ_U2	1.014
TESLA_KEMERTON_G1	1.018
EDWFMAN_WF1	1.021
TESLA_PICTON_G1	1.022
TESLA_GERALDTON_G1	1.022
NEWGEN_KWINANA_CCG1	1.023
PERTHENERGY_KWINANA_GT1	1.028
TIWEST_COG1	1.028
NEWGEN_NEERABUP_GT1	1.034
NORTHAM_SF_PV1	1.035
BIOGAS01	1.036
BLAIRFOX_BEROSRD_WF1	1.038
SOUTH_CARDUP	1.040
ALBANY_WF1	1.042
HENDERSON_RENEWABLE_IG1	1.043
BLAIRFOX_KARAKIN_WF1	1.043
MERSOLAR_PV1	1.044
ATLAS	1.044
RED_HILL	1.045
KALAMUNDA_SG	1.046
ROCKINGHAM	1.046
TAMALA_PARK	1.057
GRASMERE_WF1	1.065
AMBRISOLAR_PV1	1.076
TESLA_NORTHAM_G1	1.079
GOSNELLS	1.084
BLAIRFOX_WESTHILLS_WF3	1.089
SKYFRM_MTBARKER_WF1	1.107
PRK_AG	1.163
STHRNCRS_EG	1.169
DCWL_DENMARK_WF1	1.449

IPP Facilities with Loss Factors Less Than 1

Facility	Loss Factor
ALINTA_WWF	0.945
MWF_MUMBIDA_WF1	0.953
NAMKKN_MERR_SG1	0.965
ALINTA_PNJ_U1	0.977
ALCOA_WGP	0.985
BADGINGARRA_WF1	0.992
GREENOUGH_RIVER_PV1	0.995
BW1_BLUEWATERS_G2	0.999
BW2_BLUEWATERS_G1	0.999