Low load: automated intervention using the RTDE

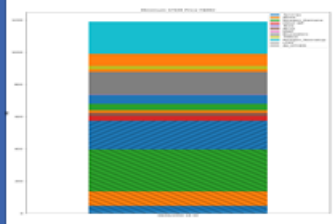
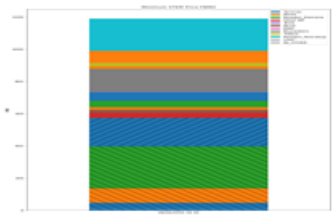
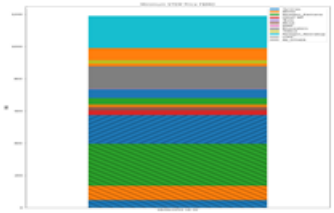
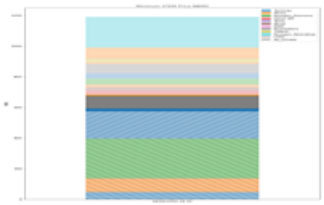
Presented to WA Electricity Consultative Forum

By Matthew Fairclough, Principal Analyst

20 October 2021

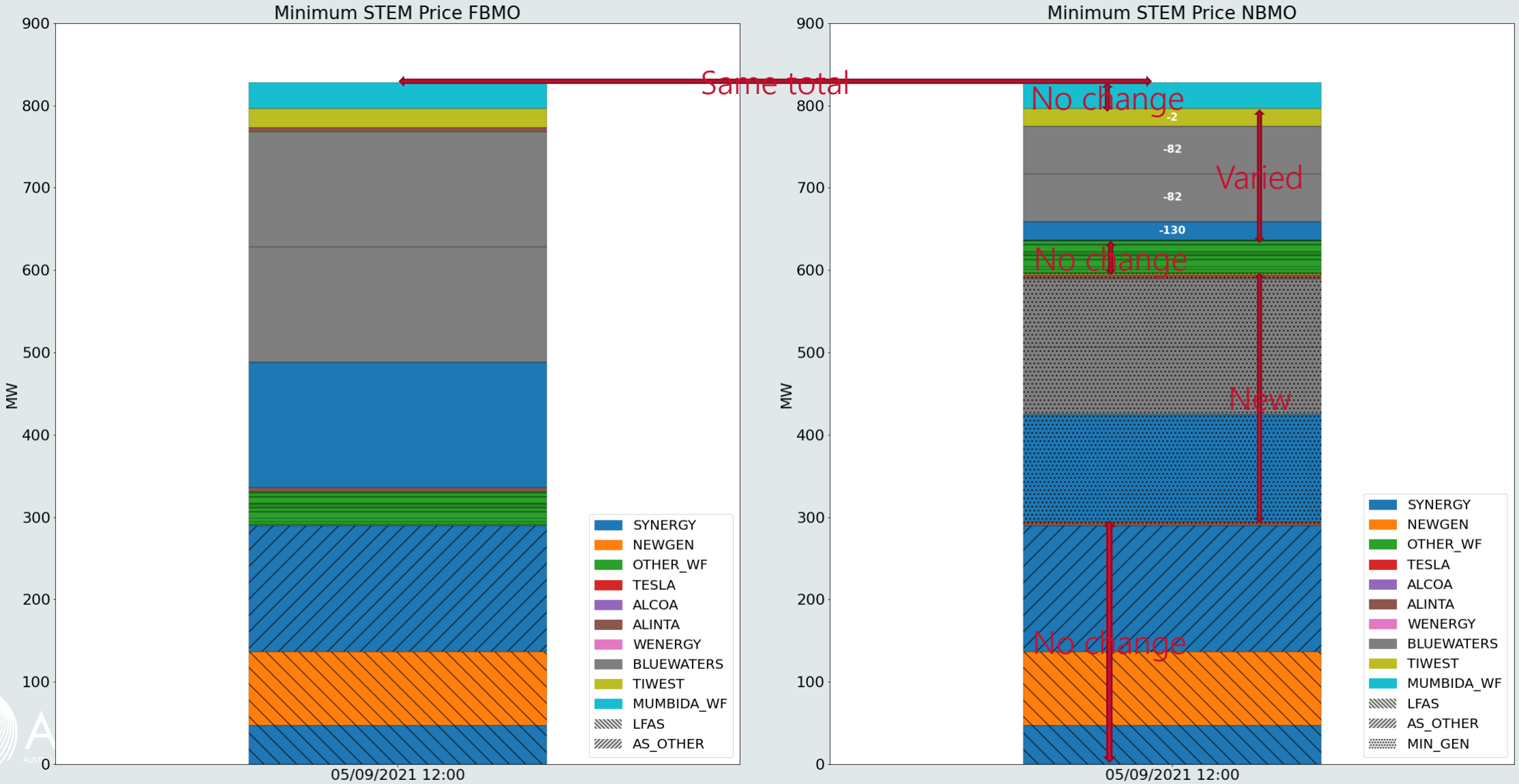
BMO and intervention process

BMO and intervention

	BMO	Input into RTDE – automatic intervention	Manual intervention	Dispatch Instructions
Existing		Unchanged 	Rapid manual decision-making when low load event occurs – potentially resulting in conflicting Dispatch Instructions	
New	Unchanged 	Varied 	Reduced manual decision-making when low load event occurs	

AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

Original BMO vs RTDE input



Additional details

Details of Variations

	DELIVERY_INT	PARTICIPANT	FACILITY	PRICE	MW	FUEL_TYPE	PURPOSE	MODIFIED
0	05/09/2021 12:00	WPGENER	PORTFOLIO	-1000	47	LIQUID	LFAS	NaN
1	05/09/2021 12:00	NEWGEN	NEWGEN_KWINANA_CCG1	-1000	90	NON_LIQUID	LFAS	NaN
2	05/09/2021 12:00	WPGENER	PORTFOLIO	-1000	153	LIQUID	OTHER	NaN
3	05/09/2021 12:00	ALINTA	ALINTA_PNJ_U2	-1000	5	NON_LIQUID	MIN_GEN	Inserted
4	05/09/2021 12:00	WPGENER	PORTFOLIO	-1000	130	LIQUID	MIN_GEN	Inserted
5	05/09/2021 12:00	GRIFFINP	BW1_BLUEWATERS_G2	-1000	82	NON_LIQUID	MIN_GEN	Inserted
6	05/09/2021 12:00	GRIFFIN2	BW2_BLUEWATERS_G1	-1000	82	NON_LIQUID	MIN_GEN	Inserted
7	05/09/2021 12:00	ALINTA	ALINTA_PNJ_U1	-1000	5	NON_LIQUID	MIN_GEN	Inserted
8	05/09/2021 12:00	TIWEST	TIWEST_COG1	-1000	2	NON_LIQUID	MIN_GEN	Inserted
9	05/09/2021 12:00	BLAIRFOX	BLAIRFOX_WESTHILLS_WF3	-1000	1	NON_LIQUID	NaN	NaN
10	05/09/2021 12:00	TSLA_MGT	TESLA_PICTON_G1	-1000	0	LIQUID	NaN	NaN
11-19	05/09/2021 12:00		Assorted NSG		~24	NON_LIQUID	NaN	NaN
20	05/09/2021 12:00	TSLA_GER	TESLA_GERALDTON_G1	-1000	0	LIQUID	NaN	NaN
21-25	05/09/2021 12:00		Assorted NSG		~13	NON_LIQUID	NaN	NaN
26	05/09/2021 12:00	TSLA_KEM	TESLA_KEMERTON_G1	-1000	0	LIQUID	NaN	NaN
27	05/09/2021 12:00	TSLA_NOR	TESLA_NORTHAM_G1	-1000	0	LIQUID	NaN	NaN
28	05/09/2021 12:00	BLAIRFOX	BLAIRFOX_KARAKIN_WF1	-1000	1.008	NON_LIQUID	NaN	NaN
29	05/09/2021 12:00	ALBGRAS	ALBANY_WF1	-1000	0.068	NON_LIQUID	NaN	NaN
30	05/09/2021 12:00	ALCOA	ALCOA_WGP	-1000	0	NON_LIQUID	NaN	NaN
31	05/09/2021 12:00	ALINTA	ALINTA_PNJ_U2	-1000	0	NON_LIQUID	NaN	-5
32	05/09/2021 12:00	WPGENER	PORTFOLIO	-1000	22.2	LIQUID	NaN	-130
33	05/09/2021 12:00	WENERGY	PERTHENERGY_KWINANA_GT1	-1000	0	LIQUID	NaN	NaN
34	05/09/2021 12:00	GRIFFINP	BW1_BLUEWATERS_G2	-1000	58	NON_LIQUID	NaN	-82
35	05/09/2021 12:00	GRIFFIN2	BW2_BLUEWATERS_G1	-1000	58	NON_LIQUID	NaN	-82
36	05/09/2021 12:00	ALINTA	ALINTA_PNJ_U1	-1000	0	NON_LIQUID	NaN	-5
37	05/09/2021 12:00	TIWEST	TIWEST_COG1	-1000	21	NON_LIQUID	NaN	-2
38	05/09/2021 12:00	MUMBIDA	MWF_MUMBIDA_WF1	-1000	32.147	NON_LIQUID	NaN	NaN