

ISO Rules

Part 200 Markets

Division 207 Demand Curve Parameters

Section 207.1 Gross Minimum Procurement Volume



External Consultation Draft
August 31, 2018

Applicability

- 1 Section 207.1 applies to:
 - (a) the **ISO**.

Requirements

Gross Minimum Procurement Volume

- 2 The **ISO** must, for each **base auction** and **rebalancing auction**, establish the gross minimum procurement volume that meets the **resource adequacy standard** in accordance with subsections 3 and 4 below.

Base Auction Gross Minimum Procurement Volumes for 2021/2022 and 2022/2023 Obligation Periods

- 3 The **ISO** must establish the gross minimum procurement volumes as follows:
 - (a) 18,516 MW of **maximum capability** for the **base auction** for the 2021/2022 **obligation period** based on the assets listed in Appendix A; and
 - (b) 18,597 MW of **maximum capability** for the **base auction** for the 2022/2023 **obligation period** based on the assets listed in Appendix B.

Probabilistic Model

- 4(1) The **ISO** must perform a probabilistic model of resource adequacy that considers the following characteristics:
 - (a) the load forecast referred to in subsection 5;
 - (b) the **available capability** or available generation from all individual **generating units** and **aggregated generating facilities** in Alberta that the **ISO** anticipates will have, for the **obligation period**, a:
 - (i) **maximum capability** greater than or equal to 5 MW; or
 - (ii) **uniform capacity value** that is greater than or equal to 1 MW.
 - (c) historical outages of thermal assets, including **automatic forced outages**, **delayed forced outages**, **planned outages** and ambient temperature derates, and any projected changes as applicable;
 - (d) historical performance of existing intermittent resources, including wind and solar, and any projected changes;
 - (e) anticipated performance of new intermittent resources, including wind and solar;
 - (f) historical performance of hydroelectric generation and any projected changes;
 - (g) historical performance of cogeneration sites in Alberta and any projected changes;
 - (h) the correlation of load and generation at cogeneration sites in Alberta, as applicable;
 - (i) the **available transfer capability** and gross import **offers** on the **interties**; and
 - (j) **capacity** to maintain **regulating reserve**.

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(2) The **ISO** must, as applicable, make assumptions about the model characteristics identified in subsection 4(1) in order to minimize model error and the risk of over procuring or under procuring **capacity** to the extent practicable.

(3) The **ISO** must add or subtract **capacity** from the probabilistic model referred to in subsection 4(1) to determine the gross minimum procurement volume that meets the **resource adequacy standard**.

Load Forecast

5 The **ISO** must, for the purpose of performing the probabilistic model in subsection 4, complete a forecast of Alberta gross load for a 5-year forward looking period, considering the following variables:

- (a) economic growth indicators in Alberta including real gross domestic product, population, employment, and natural resource production;
- (b) weather and temperature data selected from multiple locations across Alberta;
- (c) load variations in Alberta based on calendar variables, including month of the year, day of the week, hour of the day, daylight savings, and holidays;
- (d) historical load behaviour in Alberta and any projected changes;
- (e) performance data from load assets that are qualified to participate in the capacity market to provide demand response;
- (f) load forecast uncertainty reflecting variability in the load forecast due to weather and economic forecasts; and
- (g) any other variables that, in the **ISO**'s determination, may maximize the performance of the load forecast model.

Filing of Base Auction Gross Minimum Procurement Volume

6 The **ISO** must file the gross minimum procurement volume for a **base auction** determined in accordance with this section 207.1 with the **Commission** for approval a minimum of 6 months prior to the publication of the *Capacity Market Auction Guidelines* for the applicable **base auction**.

Applicable Auctions

7 This Section 207.2 is in effect for the following auctions:

- (a) the **base auction and rebalancing auction** for the 2021/2022 **obligation period**;
- (b) the **base auction and rebalancing auction** for the 2022/2023 **obligation period**;
- (c) the **base auction and rebalancing auction** for the 2023/2024 **obligation period**; and
- (d) the **base auction and rebalancing auctions** for the 2024/2025 **obligation period**.

Revision History

Date	Description
yyyy-mm-dd	Initial release

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Appendix A – 2021-2022 Obligation Period Gross Minimum Procurement Volume Asset Breakout

Capacity Resource Asset	Technology Type	Maximum Capability (MW)
AFG1	Other	131
AKE1	Wind	73
ALP1	Simple Cycle	7
ALP2	Simple Cycle	10
ALS1	Cogen	96
ANC1	Simple Cycle	63
APS1	Cogen	195
ARD1	Wind	68
BCR2	Cogen	36
BCRK	Cogen	64
BIG	Hydro	120
BOW1	Hydro	320
BR3	Coal	0
BR4	Coal	155
BR5	Coal	385
BRA	Hydro	350
BSC1	Solar	15
BSR1	Wind	300
BTR1	Wind	66
BUL1	Wind	13
BUL2	Wind	16
CAL1	Combined Cycle	320
CCMH	Other	42
CHIN	Hydro	15
CL01	Cogen	100
CMH1	Combined Cycle	255
CNR5	Cogen	203
CR1	Wind	39
CRG1	Cogen	10
CRR1	Wind	77
CRS1	Simple Cycle	48
CRS2	Simple Cycle	48
CRS3	Simple Cycle	48
CRW1	Wind	20
DAI1	Other	52
DKSN	Hydro	15
DOWG	Cogen	326
DRW1	Simple Cycle	6
EAGL	Other	25
EC01	Combined Cycle	120
EC04	Cogen	98
EGC1	Combined Cycle	860
ENC1	Simple Cycle	48
ENC2	Simple Cycle	101
ENC3	Simple Cycle	101

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FH1	Cogen	199
FNG1	Combined Cycle	73
GEN5	Simple Cycle	15
GEN6	Simple Cycle	15
GN1	Coal	400
GN2	Coal	400
GN3	Coal	466
GPEC	Other	27
GW1	Wind	71
HAL1	Wind	150
HMT1	Cogen	45
HSM1	Simple Cycle	6
ICP1	Hydro	7
IEW1	Wind	66
IEW2	Wind	66
Intertie	Intertie	1,263
IOR1	Cogen	180
IOR2	Cogen	195
IOR3	Cogen	84
JOF1	Cogen	474
KH1	Coal	395
KH2	Coal	395
KH3	Coal	463
KHW1	Wind	63
ME02	Simple Cycle	8
ME03	Simple Cycle	7
ME04	Simple Cycle	6
MEG1	Cogen	202
MFG1	Simple Cycle	16
MKR1	Cogen	202
MKRC	Cogen	205
NAT1	Simple Cycle	20
NEP1	Wind	82
NPC1	Simple Cycle	11
NPC2	Simple Cycle	9
NPP1	Simple Cycle	105
NRG3	Other	16
NX01	Combined Cycle	120
NX02	Cogen	220
OMRH	Hydro	32
OWF1	Wind	46
PEC1	Cogen	16
PH1	Simple Cycle	48
PR1	Cogen	100
PW01	Cogen	5
RB5	Simple Cycle	50
REP Wind	REP Wind	1,296
RL1	Cogen	47
RYMD	Hydro	21

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SCL1	Cogen	510
SCR1	Cogen	899
SCR2	Wind	30
SCR3	Wind	30
SCR4	Wind	88
SD3	Coal	368
SD4	Coal	406
SD5	Coal	406
SD6	Coal	401
SH1	Coal	400
SH2	Coal	390
SHCG	Cogen	19
SLP1	Other	9
TAB1	Wind	81
TAY1	Hydro	14
TC01	Cogen	95
TC02	Cogen	46
TLM2	Cogen	13
UOA1	Cogen	39
UOC1	Cogen	12
VW1	Simple Cycle	50
VW2	Simple Cycle	50
WCD1	Simple Cycle	20
WEY1	Other	48
WST1	Other	18
WWD1	Other	50
Generic Build	Generic Build	156

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Appendix B – 2022-2023 Obligation Period Gross Minimum Procurement Volume Asset Breakout

Capacity Resource Asset	Technology Type	Maximum Capability (MW)
AFG1	Other	131
AKE1	Wind	73
ALP1	Simple Cycle	7
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