ISO Rules
Part 200 Markets
Division 207 Demand Curve Parameters
Section 207.1 ~~Gross Minimum Procurement Volume~~Resource Adequacy Model

~~External Consultation~~ Draft Version
~~October 22, 2018~~

Posted January 2019

Applicability

1(1) Section 207.1 applies to:

(a) the **ISO**.

(2) This section 207.1 applies to 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**;

(d) the **base auction** and the **rebalancing auctions** for the 2024/2025 **obligation period**;

(e) the **base auction** and the first **rebalancing auction** for the 2025/2026 **obligation period**;

(f) the **base auction** for the 2026/2027 **obligation period**; and

(g) the **base auction** for the 2027/2028 **obligation period**.

Requirements

Gross Minimum Procurement Volume

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

~~**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~~3**(1)** The **ISO** must, for the purposes of establishing the gross minimum procurement volume referred to in subsection 2, perform a probabilistic model of resource adequacy ~~that considers the following characteristics:~~.

(~~a~~) **2)**The **ISO** must consider the following variables that impact supply and demand fundamentals in Alberta when developing the inputs for the probabilistic model referred to in subsection 3(1):

(a) the load forecast referred to in subsection ~~5~~4;

(b) ~~(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) ~~(i)~~ **maximum capability** greater than or equal to 5 MW; or

(j) ~~(ii)~~ **uniform capacity value** that is greater than or equal to 1 MW;

(c) ~~(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~~ the **ISO** determines;

(d) ~~(d)~~ historical performance of existing intermittent resources, including wind and solar, and any projected changes the **ISO** determines;

(e) ~~(e)~~ anticipated performance of new intermittent resources, including wind and solar;

(f) ~~(f)~~ historical performance of hydroelectric generation and any projected changes~~;~~ the **ISO** determines;

(g) ~~(g)~~ historical performance of cogeneration sites in Alberta and any projected changes the **ISO** determines;

(h) ~~(h)~~ the correlation of load and generation at cogeneration sites in Alberta where the **ISO** determines correlation exists;

~~(h)~~(i) historical performance of a load asset supplying **capacity** in the capacity market and any projected changes the **ISO** determines;

~~(i) the correlation of load and generation at cogeneration sites in Alberta, as applicable;~~

~~(i)~~(j) ~~(j)~~ the **available transfer capability** and ~~gross~~ import **offers** ~~on the **interties**~~; and

~~(k) **capacity** to maintain **regulating reserve**.~~

(k) ~~(2~~the amount of **regulating reserve**s required during energy emergency events as defined in **ISO rules** or **reliability standards**.

(3) The **ISO** ~~must, as applicable,~~may make assumptions as necessary about the model ~~characteristics~~variables identified in subsection 4~~(1~~3(2) in order to minimize model error and the risk of over procuring or under procuring **capacity** to the extent practicable.

(~~3~~4) The **ISO** must add or subtract volumes of ~~installed~~ **capacity** from the probabilistic model referred to in subsection 43(1) to determine the gross minimum procurement volume that meets the **resource adequacy standard**.

Load Forecast

~~5~~4 The **ISO** must, for the purpose of performing the probabilistic model in subsection 43, complete a forecast of ~~Alberta gross~~ load for a 5-year forward looking period~~, considering~~ that considers 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 the **ISO** determines;

(e) performance data from load assets that~~.~~:

(i) are qualified to participate in the capacity market to supply **capacity**~~;~~ and any projected changes the **ISO** determines; or

(ii) have historically demonstrated price responsive behaviour and any projected changes the **ISO** determines;

(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~~improve the ~~performance~~accuracy of the load forecast model.

Filing of ~~Base Auction~~ Gross Minimum Procurement Volume

~~6~~**5** The **ISO** must, no later than ~~6~~4 **months** prior to the ~~publication~~commencement of the ~~*Capacity Market Auction Guidelines*~~qualification process for a **base auction**~~,~~ or **rebalancing auction** file the gross minimum procurement volume for such **base auction** or **rebalancing auction** that is determined in accordance with this section 207.1 with the **Commission** for approval.

~~**Applicable Auctions**~~

~~**7** This Section 207.1 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**.~~

~~**Appendices**~~

~~*Appendix 1 – 2021-2022 Obligation Period Gross Minimum Procurement Volume Asset Breakout*~~

~~*Appendix 2 – 2022-2023 Obligation Period Gross Minimum Procurement Volume Asset Breakout*~~

Revision History

Date	Description
yyyy-mm-dd	Initial release

~~Appendix 1 – 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~~

~~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~~
~~GWW1~~	~~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~~

~~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~~
~~VVW1~~	~~Simple Cycle~~	~~50~~
~~VVW2~~	~~Simple Cycle~~	~~50~~
~~WCD1~~	~~Simple Cycle~~	~~20~~
~~WEY1~~	~~Other~~	~~48~~
~~WST1~~	~~Other~~	~~18~~
~~WWD1~~	~~Other~~	~~50~~
~~Generic Build~~	~~Generic Build~~	~~156~~

~~Appendix 2 – 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~~
~~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~~

~~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~~
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~~HAL1~~	~~Wind~~	~~150~~
~~HMT1~~	~~Cogen~~	~~45~~
~~HSM1~~	~~Simple Cycle~~	~~6~~
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~~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~~

~~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~~
~~VVW1~~	~~Simple Cycle~~	~~50~~
~~VVW2~~	~~Simple Cycle~~	~~50~~
~~WCD1~~	~~Simple Cycle~~	~~20~~
~~WEY1~~	~~Other~~	~~48~~
~~WST1~~	~~Other~~	~~18~~
~~WWD1~~	~~Other~~	~~50~~
~~Generic Build~~	~~Generic Build~~	~~237~~

ISO Rules
Part 200 Markets
Division 207 Demand Curve Parameters
Section 207.~~2~~2A Gross Minimum Procurement Volume

~~External Consultation~~ Draft Version

~~November 29, 2018~~

Posted January 2019

Applicability

1(1) Section 207.~~2~~2A applies to:

(a) the **ISO**.

(2) This section 207.2A applies to the **ISO** for the following auctions:

(a) the **base auction** for the 2021/2022 **obligation period**; and

(b) the **base auction** for the 2022/2023 **obligation period**.

Requirements

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

2 The **ISO** must establish the gross minimum procurement volumes as follows:

(a) 18,305 MW of **maximum capability** for the **base auction** for the 2021/2022 **obligation period** based on the assets listed in Appendix 1; and

(b) 18,400 MW of **maximum capability** for the **base auction** for the 2022/2023 **obligation period** based on the assets listed in Appendix 2.

Revision History

Date	Description
yyyy-mm-dd	Initial release

Appendix 1 – 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
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
CRS2	Simple Cycle	39
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
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
GWW1	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	207
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
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
VVW1	Simple Cycle	50
VVW2	Simple Cycle	50
WCD1	Simple Cycle	20
WEY1	Other	48
WST1	Other	18
WWD1	Other	50

Appendix 2 – 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
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
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
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
GWW1	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	207
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
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
VVW1	Simple Cycle	50
VVW2	Simple Cycle	50
WCD1	Simple Cycle	20
WEY1	Other	48
WST1	Other	18
WWD1	Other	50
Generic Build	Generic Build	38

~~External Consultation~~ Draft Version
~~October 22, 2018~~

Posted January 2019

Applicability

1(1) Section 207.~~2~~3 applies to:

(a) the **ISO**.

(2) This section 207.3 applies to the **ISO** 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**;

(d) the **base auction** and **rebalancing auctions** for the 2024/2025 **obligation period**;

(e) the **base auction** and **rebalancing auctions** for the 2025/2026 **obligation period**; and

(f) the **base auction** and **rebalancing auctions** for the 2026/2027 **obligation period**.

Requirements

~~**Establish Gross-CONE, Energy Offset and Net-CONE**~~

~~**2** The **ISO** must establish for each **obligation period**:~~

~~(a) a gross-CONE value in $/kW-year in accordance with subsections 3 and 4, as applicable;~~

~~(b) an energy offset value in $/kW-year in accordance with subsection 5; and~~

~~(c) a net-CONE value in $/kW-year in accordance with subsection 6.~~

~~Initial~~ Gross-CONE Value for 2021/2022 Obligation Period

~~3~~2 The **ISO** must establish an initial gross-CONE value for the 2021/2022 **obligation period** of $244.2/kW-year.

Calculation of Gross-CONE for Subsequent Obligation Periods

~~4~~3**(1)** The **ISO** must calculate ~~the~~a gross-CONE value for each **obligation period** following the 2021/2022 **obligation period** in accordance with the following formula:

$$gross\text{-}CONE_t = gross\text{-}CONE_{t=2021/2022} \times \sout{composite\ index_t} escalation\ rate_t$$

where:

(a) $gross\text{-}CONE_{t=2021/2022}$ is the initial gross-CONE value in subsection 2 above; and

(b) $escalation\ rate_t$ is the escalation rate for **obligation period** *t* calculated in accordance with subsection 3(2).

(2) The **ISO** must, in calculating the gross-CONE$_t$ value under subsection (1), calculate the escalation rate for the **obligation period** in accordance with the following formula:

$$escalation\ rate_t =$$

$$\frac{0.25 \times labour\ index_t}{60.7} + \frac{0.35 \times\ materials\ index_t}{108.8} + \frac{0.40 \times turbine\ index_t \times exchange\ rate_t}{268.7}$$

where:

(a) ~~*t* equals the **obligation period** for which the gross-CONE is being determined;~~

~~(b) *gross-CONE* $_{t=2021/2022}$ is the initial gross-CONE value in subsection 3 above; and~~

~~(c) *composite index* $_t$ is the composite index value for **obligation period** *t* calculated in accordance with subsection 4(2) below.~~

~~**(2)** The **ISO** must, in calculating the gross-CONE $_t$ value under subsection 4(1), calculate the composite index $_t$ using the following formula:~~

$$composite\ index_t =$$
$$\frac{0.25 \times labour\ index_t}{60.7} + \frac{0.35 \times\ materials\ index_t}{118.5} + \frac{0.40 \times tubrine\ index_t \times exchange\ rate_t}{268.7}$$

~~where:~~

~~(a) *t* equals the **obligation period** for which the gross-CONE value is being determined;~~

~~(b) *composite index* $_t$ is the composite index value for **obligation period** *t*;~~

~~(c)~~ *labour* ~~*index*~~ *index*$_t$ is the average of the most recent 12 ~~**month** average of published Statistics Canada Construction Union Wage Rates (Electrician), Monthly for~~ **months** of construction union wage rates, including selected pay supplements, for electricians in Edmonton, Alberta from Construction union wage rates, monthly, Table 18-10-~~0046~~0139-01 most recently published by Statistics Canada;

(~~d~~b) *materials* ~~*index*~~ *index*$_t$ is the average of the most recent 4 quarters ~~average published Statistics Canada~~of gross final domestic expenditure, implicit price index 2012=100 from Gross ~~National~~national income and gross domestic income, indexes and ~~Gross Domestic Income, Indexes and Related Statistics, Annual~~related statistics, quarterly, Table 36-10-0105-01 most recently published by Statistics Canada;

(~~e~~c) *turbine* ~~*index*~~ *index*$_t$ is the average of the most recent 12 **month** ~~average of published Federal Reserve Economic Data (St. Louis)~~of the Producer Price Index by Industry: Turbine and Turbine Generator Set Units Manufacturing (PCU333611333611~~);~~), Index June 1982=100 most recently published by Federal Reserve Bank of St. Louis; and

(~~f~~d) *exchange* ~~*rate*~~ *rate*$_t$ is the average of the most recent 12 **month** ~~average of published Statistics Canada Monthly Average Exchange Rates in Canadian Dollars,~~of U.S. ~~Dollar~~dollar, monthly average from Monthly average foreign exchange rates in Canadian dollars, Bank of Canada, Table 33-10-0163-01 most recently published by Statistics Canada.

Calculation of Energy Offset

~~5~~**4(1)** The **ISO** must, for ~~every~~each **obligation period**, calculate ~~the~~an energy offset value for each **obligation period** in accordance with the following formula:

$$energy\ offset_t = \frac{(forward\ power\ price_t - energy\ market\ expense_t) \times forward\ product\ energy_t}{maximum\ capability \times 1000}$$

where:

~~(a) *t* equals the **obligation period** for which the energy offset is being determined;~~

~~(b)~~ *forward power ~~price~~ price$_t$* is the weighted average of the settlements matching the **obligation period** *t*, where the settlements are the average over a period determined by the **ISO**, for the published NGX forward power product in Appendix 1 that yields the highest energy ~~offset~~ offset$_t$ for **obligation period** *t*;

~~(c) *energy market expense*$_t$ is the energy market expense value for **obligation period** *t* calculated in accordance with subsection 5(3);~~

~~(d) *forward product energy*~~ (b) *forward product energy$_t$* is the forward product energy value for **obligation period** *t* calculated in accordance with subsection ~~54~~(2); ~~and~~

(~~e~~c) *energy market expense$_t$* is the energy market expense value for **obligation period** *t* calculated in accordance with subsection 4(3); and

(d) *maximum capability* is ~~equal to~~ 93 MW.

(2) The **ISO** must, in calculating the energy ~~offset~~ offset$_t$ under subsection ~~54~~(1~~) above,~~), calculate the forward product energy~~$_t$~~ in accordance with the following formula:

$$forward\ product\ energy_t = average\ capacity \times (1 - forced\ outage\ rate) \times forward\ product\ hours_t$$

where:

~~(a) *t* equals the **obligation period** for which the generation is being determined;~~

(a) ~~(b)~~ *average capacity* is ~~equal to~~ 87 MW;

(b) ~~(c)~~ *forced outage rate* is ~~equal to~~ 2.5%; and

(c) ~~(d)~~ *forward product ~~hours~~ hours$_t$* is the number of **hours** defined in the ICE NGX Contracting Party Agreement for the forward power product associated with the forward power price in subsection ~~54~~(1)(~~iii~~a), for **obligation period** *t*.

(3) The **ISO** must, in calculating the energy offset $_t$ under subsection ~~54~~(1), calculate the energy market ~~expense~~ expense$_t$ in accordance with the following formula:

$$energy\ market\ expense_t =$$

~~$[forward\ gas\ price_t \times (1 + commodity\ fuel\ charge_t)]$~~ $[forward\ gas\ price_t \times (1 + commodity\ fuel\ charge_t)]$ ~~$\times\ heat\ rate_t +$~~ $\times\ heat\ rate + variable\ operations\ and\ maintenance_t -$ ~~$+ (emission\ intensity - established\ benchmark_t) \times carbon\ price_t$~~ $+ greenhouse\ gas\ exposure_t \times carbon\ price_t + transmission\ losses_t + trading\ charge_t$

where:

~~(a) *t* equals the **obligation period** for which the energy offset is being determined;~~

(a) ~~(b)~~ *forward gas ~~price~~ price$_t$* is the weighted average of the settlements matching the **obligation period** *t*, where the settlements are the average over the period determined by the **ISO** in subsection ~~54~~(1)(~~b~~a), of NGX Phys, FP (CA/GJ), AB-NIT;

(b) ~~(c)~~ *commodity fuel ~~charge~~ charge$_t$* is the average of the most recent 12 ~~**month** average of published NOVA Gas Transmission Ltd~~**months** of total usage plus MVAR from the NGTL Fuel Usage and Measurement Variance table from NOVA Gas Transmission Ltd;

(c) ~~(d)~~ *heat rate* is ~~equal to~~ 9.677 GJ/MWh;

(d) ~~(e)~~ *variable operations and ~~maintenance~~ maintenance$_t$* is the variable operations and maintenance value for **obligation period** *t* calculated in accordance with subsection ~~54~~(4);

~~(f) *emission intensity* is equal~~*greenhouse gas exposure$_t$* is the greenhouse gas exposure to a carbon price levied by a public authority, based on 0.50 tonnes of CO_2 equivalent/MWh~~;~~

(e) ~~(g) *established benchmark$_t$* is the weighted average of the calendar year values matching for~~ **obligation period** *t* ~~for an established benchmark for electricity published by a public authority~~;

(f) ~~(h)~~ *carbon ~~price~~ price$_t$* is the weighted average of the calendar year values matching **obligation period** *t* for the carbon price relevant to Alberta published by a public authority;

(g) ~~(i)~~ *transmission ~~losses~~ losses$_t$* is the ~~transmission loss~~ value ~~for **obligation period** *t*~~ calculated in accordance with subsection 4(5~~(5);~~) for **obligation period** *t*; and

(h) ~~(j) *energy market*~~ *trading ~~charge~~ charge$_t$* is the ~~most recent~~ energy market trading charge most recently published on the AESO website.

(4) The **ISO** must, in calculating the energy market ~~expense~~ expense$_t$ under subsection ~~54~~(3), calculate the variable operations and ~~maintenance~~ maintenance$_t$ value in accordance with the following

formula:

$$variable\ operations\ and\ maintenance_t =$$

$$variable\ operations\ and\ maintenance_{t=2021/2022} \times \frac{\sout{materials\ index_t}\ materials\ index_t}{\sout{118.5.}\ 108.8}$$

where:

~~(a) *t* equals the **obligation period** for which the *variable operations and maintenance* is being determined;~~

(a) ~~(b) *variable operations and maintenance*~~ $_{t=2021/2022}$ is ~~equal to~~ $4.60/ MWh; and

(b) ~~(c) *materials index*~~ $_t$ *index*$_t$ is the value in subsection 43(2)(~~d).~~b) for **obligation period** *t*.

(5) The **ISO** must, in calculating the energy market ~~expense~~ $_t$ expense$_t$ under subsection ~~5~~(24(3), calculate the transmission ~~losses~~ $_t$ losses$_t$ value in accordance with the following formula:

$$transmission\ losses_t = \frac{\sout{\sum_{i=1}^{n} loss\ factor_t}\ \sum loss\ factor_i}{\sout{n}\ n} \times forward\ power\ price_t$$

where:

~~(a) *t* equals the **obligation period** for which the transmission losses is being determined;~~

(a) ~~(b) *i…n* are facilities located~~*loss factor*$_i$ is the final **loss factor** for asset *i* that is located in the Fort Saskatchewan area most recently published on the AESO website;

~~(a)~~(b) *n* is the number of assets in the Fort Saskatchewan area identified in the most recent **loss factors** published on the AESO website; and

~~(c) *loss factor*~~ $_i$ ~~is the most recent published loss factor values published on the AESO website; and~~

~~(b)~~(c) ~~(d) *forward power price*~~ $_t$ *price*$_t$ is the value in subsection ~~5~~4(1)(~~b~~a).

Calculation of Net-CONE

~~6~~5**(1)** The **ISO** must, subject to subsection ~~6~~5(2), calculate the net-CONE value for ~~every~~each **obligation period** in accordance with the following formula:

$$net\text{-}CONE_t = gross\text{-}CONE_t - \ energy\ \ offset_t$$

where:

~~(a) *t* equals the **obligation period** for which the net-CONE value is being determined;~~

(a) ~~(b) *gross-CONE*~~ $_t$ *CONE*$_t$ is the gross-CONE value~~:~~

(a) in subsection ~~3~~ 2 if **obligation period** *t* is the 2021/2022 **obligation period**; or

(ii) calculated in accordance with subsection 3 if **obligation period** *t* is an **obligation period** subsequent to the 2021/2022 **obligation period**;

and

~~(a)~~(b) ~~the gross-CONE value~~*energy offset*$_t$ is energy offset calculated in accordance with subsection 4 for **obligation period** *t*~~, as applicable; and~~.

~~(c) *energy offset*$_t$ is energy offset value calculated in accordance with subsection 5 for **obligation period** *t*.~~

(2) The **ISO** must, if the net-CONE value calculated in subsection ~~6~~5(1) is:

(a) below zero, set the net-CONE value at zero; or

(b) above the gross-CONE value in subsection ~~3~~2 or ~~4~~3 for the **obligation period**, as applicable, set the net-CONE value at the gross-CONE value.

Publication of Net-CONE, Data and Indices

~~7~~6 The **ISO** must~~,~~ publish the net-CONE value determined in accordance with this section 207.~~2~~3 and the following data and indices in the *Capacity Market Auction Guidelines* for each **base auction** and **rebalancing auction**:

~~(a) composite index$_{t=2021/2022}$;~~

~~(b) composite index$_t$;~~

(a) ~~(c)~~ escalation rate$_t$;

~~(a)~~(b) labour ~~index$_t$;~~index$_t$

~~(b)~~(c) ~~(d)~~ material ~~index$_t$~~ index$_t$;

~~(c)~~(d) ~~(e)~~ turbine ~~index$_t$~~ index$_t$;

~~(f) USD/CAD Foreign Exchange Rate$_t$;~~

(e) ~~(g)~~ exchange rate$_t$;

(f) gross-CONE$_t$;

~~(d)~~(g) energy market ~~expense$_t$~~ expense$_t$;

~~(e)~~(h) ~~(h)~~ forward power ~~price$_t$~~ price$_t$;

~~(f)~~(i) ~~(i)~~ forward product ~~hours$_t$~~ hours$_t$;

~~(g)~~(j) ~~(j)~~ forward product ~~energy$_t$~~ energy$_t$;

~~(h)~~(k) ~~(k)~~ the period determined by the **ISO** ~~refer~~referred to in subsections ~~5~~4(1)(~~b), 5(2)(d) and 5(3)(b)~~;a)

~~(i)~~(l) ~~(l)~~ forward gas ~~price$_t$~~ price$_t$;

~~(j)~~(m) ~~(m)~~ commodity fuel ~~charge$_t$~~ charge$_t$;

~~(k)~~(n) ~~(n)~~ variable operations and ~~maintenance$_t$~~ maintenance$_t$;

~~(o) emission intensity;~~

~~(p) established benchmark $_t$;~~

(o) ~~(q)~~ *greenhouse gas exposure$_t$;*

~~(l)~~(p) carbon ~~price $_t$~~ price$_t$;

~~(m)~~(q) ~~(r)~~ transmission ~~losses $_t$~~ losses$_t$;

~~(s) loss factor $_t$; and~~

(r) ~~(t)~~ trading ~~charge $_t$~~ charge$_t$;

~~(n)~~(s) energy offset$_t$.

Substitute Index or Benchmark

~~9~~8 The **ISO** must, notwithstanding this section 207.3:

(a) use another comparable industry index or benchmark if any of the indices or benchmarks referred to in this section 207.~~2~~3 are unavailable or not ~~applicable~~appropriate for ~~use in~~ the calculation of ~~the~~ net-CONE ~~value, use another comparable industry index or benchmark and~~ ; and

~~(a)~~(b) publish the index or benchmark ~~in the *Capacity Market Auction Guidelines*~~ for each **base auction** and **rebalancing auction.**

~~**Applicable Auctions**~~

~~**10** This section 207.2 is in effect for the following auctions:~~

~~(a) the **base auction** and **rebalancing auction** for the 2021/2022 **obligation period**;~~

~~(a) the **base auction** and **rebalancing auction** for the 2022/2023 **obligation period**;~~

~~(a) the **base auction** and **rebalancing auction** for the 2023/2024 **obligation period**; and~~

~~(a) the **base auction** and **rebalancing auctions** for the 2024/2025 **obligation period**.~~

Appendices

Appendix 1 – List of Forward Power Products

Revision History

Date	Description
xxxx-xx-xx	Initial release

Appendix 1 – List of Forward Power Products

Forward Power Product Names on NGX:

- NGX Fin FUT FF, FP for AESO Flat
- NGX Fin FUT FF, FP for AESO Ext Off Peak
- NGX Fin FUT FF, FP for AESO Ext Peak
- NGX Fin FUT FF, FP for AESO Off Peak
- NGX Fin FUT FF, FP for AESO On Peak
- NGX Fin FUT FF, FP for AESO Super Peak
- NGX Fin FUT FF, FP for AESO Hourly

ISO Rules
Part 200 Markets
Division 207 Demand Curve Parameters
Section 207.~~3~~4 Shape of Demand Curve

~~External Consultation~~ **Draft Version**
~~**October 22, 2018**~~

Posted January 2019

Applicability

1(1) Section 207.~~3~~4 applies to:

(a) the **ISO**.

(2) This section 207.4 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**;

(d) the **base auction** and **rebalancing auctions** for the 2024/2025 **obligation period**;

(e) the **base auction** and **rebalancing auctions** for the 2025/2026 **obligation period**;and

(f) the **base auction** and **rebalancing auctions** for the 2026/2027 **obligation period.**

Requirements

Establish Preliminary Demand Curve

2(1) The **ISO** must, for each **base auction** and **rebalancing auction**, establish a preliminary downward-sloping convex demand curve with the following parameters:

(a) a horizontal section from 0 MW to the estimate of the net minimum procurement volume in subsection 3(1), at a price cap that is the greater of:

(i) 1.75 times the adjusted net-CONE in subsection 4; or

(ii) 0.5 times gross-CONE established for the **obligation period** in accordance with Section 207.~~2~~3 of the **ISO rules**, *Calculation of Net-CONE* divided by the performance factor in subsection 4(~~ii~~b);

(b) a downward-sloping section from the estimate of the net minimum procurement volume in subsection 3(1) at the price cap in subsection 2(1)(a) to an inflection point set at a multiple of 0.875 times the adjusted net-CONE in subsection 4 ~~below~~ at a quantity 7% above the estimate of the net minimum procurement volume~~;~~, in subsection 3(1); and

(c) a downward sloping section from the inflection point in subection 2(1)(b) to a price floor of zero dollars at a quantity 18% above the estimate of the net minimum procurement volume~~.~~ in subsection 3(1).

(~~3~~2) The **ISO** must publish the preliminary demand curve ~~in the *Capacity Market Auction Guidelines*~~ for the relevant **base auction** or **rebalancing auction** prior to the commencement of the qualification process for such **base auction** or **rebalancing auction**.

Net Minimum Procurement Volume

3(1) The **ISO** must, in establishing the preliminary demand curve under subsection 2(1), calculate an estimate of the net minimum procurement volume in accordance with the formula in subsection 3(2) using the ~~most recent~~best estimate of **uniform capacity values** ~~calculated by~~that the **ISO** determines.

(2) The **ISO** must, after **uniform capacity values** are assigned in accordance with Section 206.3 of the **ISO rules**, *Uniform Capacity Value Determination*, adjust the gross minimum procurement volume established for each **base auction** or **rebalancing auction** ~~in accordance with Section 207.1 of the **ISO rules**, *Gross Minimum Procurement Volume*~~ to a net minimum procurement volume in accordance with the following formula:

$$Net\ minimum\ procurement\ volume_t = \sum_i^n uniform\ capacity\ value_{Actual(i)}$$

$$= \sum (maximum\ capability_i \times performance\ factor_i)$$

where:

(a) ~~(a) t~~*maximum capability*$_i$ is the **maximum capability** of asset *i* modelled in the probabilistic model for the **obligation period** ~~for the **base auction**~~*t*;

(b) *performance factor*$_i$ is for asset *i* modelled in the probabilistic model:

(i) the average availability factor or ~~**rebalancing auction**~~the average capacity factor of asset *i* calculated in accordance with Section 206.3 of the **ISO rules**, *Uniform Capacity Determination* for asset *i* modeled in the probabilistic model;

~~(i)~~(ii) the best estimate of the performance factor for asset *i* modelled as determined by the **ISO** in the event that ~~the gross minimum procurement volume~~a performance factor was ~~established for;~~not calculated for asset *i* pursuant to Section 206.3 of the **ISO rules**, *Uniform Capacity Determination*;

(iii) ~~(b) *i…n* are all the~~ 0, for:

(A) assets modelled in the probabilistic model that ~~established the gross minimum procurement volume for the **obligation period**; and~~

~~(c) *uniform capacity value*$_{Actual(i)}$ is the final **uniform capacity value** for such asset or the most recent estimate of the **uniform**~~are not eligible to participate in the capacity ~~**value** for such asset.~~market; and

(B) for a **generating unit** or an **aggregated generating facility** connected to the **interconnected electric system** that supplies electric energy for one or more onsite load assets, and where such site has an associated **source asset**.

Adjusted Net-CONE

4 The **ISO** must~~, using the following formula,~~ adjust the net-CONE established for each **obligation period** ~~in accordance with~~ pursuant to Section 207.~~2~~3 of the **ISO rules**, *Calculation of Net-CONE* in accordance with the following formula:

$$adjusted\ net\text{-}CONE_t = \frac{net\text{-}CONE_t}{performance\ factor}$$

where:

~~(a) *t* equals the **obligation period** for which the adjusted *net-CONE* value$_t$ is being determined;~~

(a) ~~(b) *net-CONE*$_t$ is~~ the net-CONE value established ~~in accordance with~~pursuant to Section 207.~~2~~3 of the **ISO rules**, *Calculation of Net-CONE* in $/kW-year for **obligation period** *t*; and

(b) ~~(c)~~ *performance factor* is ~~equal to~~ 0.8.

Establish Final Demand Curve for Base Auction and Rebalancing Auction

5(1) The **ISO** must, for each **base auction** and **rebalancing auction**, establish a final downward-sloping convex demand curve with the following parameters:

(a) a horizontal section from 0 MW to the net minimum procurement volume in subsection 3(2), at a price cap that is the greater of:

(i) 1.75 times the adjusted net-CONE in subsection 4; or

(ii) 0.5 times gross-CONE established for the **obligation period** in accordance with Section 207.~~2~~3 of the **ISO rules**, *Calculation of Net-CONE* divided by the performance factor in subsection 4(~~iii~~b);

(b) a downward-sloping section from the net minimum procurement volume in subsection 3(2) at the price cap in subsection 5(1)(a) to an inflection point set at ~~a multiple of~~ 0.875 times the adjusted net-CONE in subsection 4 ~~below~~ at a quantity 7% above the net minimum procurement volume; and

(c) a downward sloping section from the inflection point referred to in subsection 5(1)(b) to a price floor of zero dollars at a quantity 18% above the net minimum procurement volume in subsection 3(2).

(2) The **ISO** must publish the final demand curve no later than 1 month prior to the opening of the offering window for each **base auction** or **rebalancing auction**.

~~**Applicable Auctions**~~

~~**6** This Section 207.3 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