

Information Documents are not authoritative. Information Documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an Information Document and any Authoritative Document(s)<sup>1</sup> in effect, the Authoritative Document(s) governs.

### 1 Purpose

This Information Document relates to the following Authoritative Document:

- Section 201.5 of the ISO rules, Energy Market Block Allocation (“Section 201.5”);
- Section 201.7 of the ISO rules, *Dispatches* (“Section 201.7”);
- Section 202.3, *Issuing Dispatches for Equal Prices* (“Section 202.3”);
- Section 203.1 of the ISO rules, *Offers and Bids for Energy* (“Section 203.1”);
- Section 203.3, *Energy Restatements* (“Section 203.3”);
- Section 203.4, *Delivery Requirements for Energy* (“Section 203.4”);
- Section 306.3, *Load Planned Outage Reporting* (“Section 306.3”); and
- Section 306.8, *Load Asset with a Capacity Commitment Outage Reporting and Coordination* (“Section 306.8”)

The purpose of this Information Document is to provide information with respect to the participation of load assets in the Alberta energy market.

### 2 Energy Market Block Allocation

A pool participant with a load asset that is subject to a capacity commitment, and that will offer in the energy market, will request 7 price-quantity pairs in accordance with subsection 2(3) of Section 201.5. To request 7 price-quantity pairs, the pool participant fills out an asset addition request form and submits it to the AESO. Once the AESO has processed the request, the pool participant receives a pool ID and access to the Energy Trading System.

### 3 Offers and Bids for Energy

#### 3.1 Maximum Capability

Maximum capability for load is the capacity that the load asset is capable of providing during an obligation period, and is determined as follows:

- (a) for load assets providing firm consumption level, the difference between the qualified baseline and the declared firm consumption level for an obligation period in the capacity market; and
- (b) for load assets providing guaranteed load reduction, the declared reduction volume for an obligation period in the capacity market.

Maximum capability will remain unchanged for the entirety of an obligation period, but may change between obligation periods. For example, if a load asset providing firm consumption level has a qualified baseline of 100 MW and a declared firm consumption level of 50 MW, the maximum capability will be 50 MW. In the following obligation period, if the qualified baseline is 110 MW and the declared firm consumption level stays at 50 MW, the maximum capability will be 60 MW.

#### 3.2 Offer Requirements

“Must offer” requirement in the energy market applies to a load asset providing:

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<sup>1</sup> “Authoritative Documents” is the general name given by the AESO to categories of documents made by the AESO under the authority of the *Electric Utilities Act* and associated regulations, and that contain binding legal requirements for either market participants or the AESO, or both. AESO Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.

- (a) firm consumption level with a capacity commitment and maximum capability that is greater than or equal to 5 MW; and
- (b) guaranteed load reduction with a capacity commitment.

“May offer” in the energy market applies to a load asset providing firm consumption level with a capacity commitment and a maximum capability that is greater than 1 MW and less than 5 MW.

If a pool participant with a “may offer” load asset elects to offer in the energy market, the pool participant requests a pool asset with 7 price-quantity pairs from the AESO as per subsection 2 of this Information Document. The pool participant will be required to submit offers for the load asset for each settlement interval.

If a pool participant no longer wants their “may offer” load asset to offer in the energy market, it must notify the AESO. The AESO will terminate their pool ID with 7 price-quantity pairs, and the pool participant will no longer be able to submit offers for the load asset in the energy market.

#### 4 Dispatches

All load assets that offer or bid will be subject to the dispatch requirements under Section 201.7. If there are equal priced operating blocks in the merit order, as per the process under Section 202.3:

- (a) when issuing dispatches for an increase in supply, the AESO will attempt to issue dispatches for load assets last; and
- (b) when issuing dispatches for a decrease in supply, the AESO will attempt to issue dispatches for load assets first.

##### Equal Price Dispatch Example 1

- (i) A generating source asset has a 100 MW flexible operating block priced at \$100.
- (ii) A load asset has a 100 MW flexible operating block priced at \$100.
- (iii) The AESO is issuing dispatches in the merit order for an increase in supply, reaches the \$100 price block, and requires 100 MW of additional MW to manage supply and demand balance.
- (iv) Dispatch: The AESO will issue a dispatch for the generating source asset for 100 MW.

##### Equal Price Dispatch Example 2

- (i) A generating source asset has a 100 MW inflexible operating block priced at \$100.
- (ii) A load asset has a 100 MW flexible operating block priced at \$100.
- (iii) The AESO is issuing dispatches in the merit order for an increase in supply, reaches the \$100 price block, and requires 50 MW of additional MW to manage supply and demand balance.
- (iv) Dispatch: The generating source asset's offer is inflexible while the load asset's offer is flexible. The AESO will issue a dispatch to the load asset for 50 MW.

#### 5 Restatements

The “acceptable operational reason” definition has been revised to include load assets, including the addition of subsection (viii) which specifically applies to load, and allows load assets to restate their available capability to their capacity commitment volume. For example, if a load asset has a maximum capability of 50 MW and a capacity commitment of 45 MW, the pool participant may restate their available capability to 45 MW at any time with an acceptable operational reason.

#### 6 Delivery Requirements

##### 6.1 Load assets that provide firm consumption level

Load assets that provide firm consumption level are providing a reduction in consumption to a pre-

specified level, i.e. they will reduce their load consumption “down-to” a specified level. For a load asset that provides firm consumption level (FCL), a dispatch is an instruction to not consume over a specific level, which is determined as the qualified baseline minus the dispatch volume.

The AESO determines the allowable dispatch variance (ADV) for a load asset providing firm consumption level as follows:

- (a) For a 0 MW dispatch:
  - (i) There is no limit on consumption and load can consume at any level.
- (b) For a dispatch greater than 0 MW:
  - (i) Upper limit = qualified baseline, minus the dispatch volume, plus the dispatch tolerance
  - (ii) Lower limit = 0 MW

### FCL Load Example:

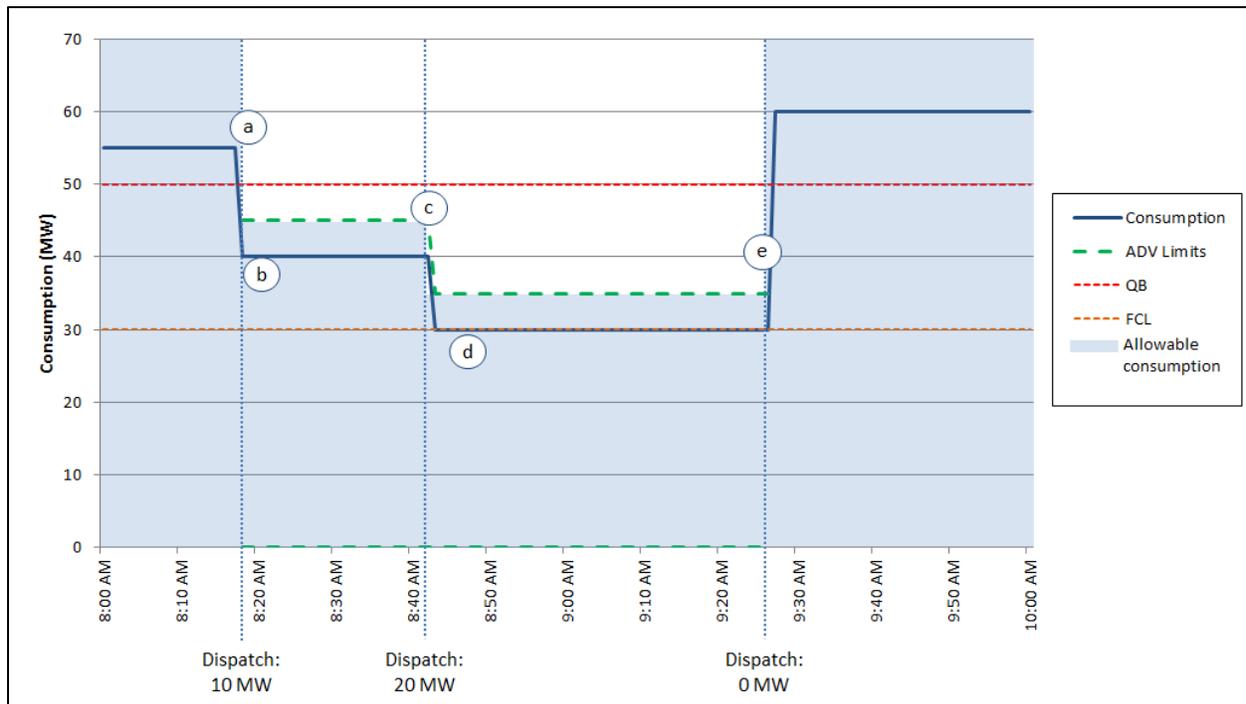
MC = 20 MW

AC = 20 MW

Qualified baseline = 50 MW

FCL = 30 MW

- (a) Asset receives a dispatch for 10 MW at 8:18 am
  - (i) Consumption = 55 MW
  - (ii) Upper ADV = 50 MW – 10 MW + 5 MW = 45 MW
  - (iii) Lower ADV = 0 MW
- (b) Consumption dropped to 40 MW in response to dispatch
- (c) Asset receives a new dispatch for 20 MW at 8:42 am
  - (i) Consumption = 40 MW
  - (ii) Upper ADV = 50 MW – 20 MW + 5 MW = 35 MW
  - (iii) Lower ADV = 0 MW
- (d) Consumption dropped to 30 MW in response to dispatch
- (e) Asset receives a new dispatch for 0 MW at 9:26 am
  - (i) ADV = no limit on consumption



## 6.2 Load assets that provide guaranteed load reduction

Load assets that provide guaranteed load reduction are providing a reduction in consumption from their current consumption level, i.e. they will reduce their load consumption “down-by” a specified volume. For a load asset that provides guaranteed load reduction, a dispatch is an instruction for a change in consumption, which is measured from the real-time consumption level at the instruction time of the dispatch.

The allowable dispatch variance for a guaranteed load reduction asset is determined as follows:

- (a) For a 0 MW dispatch:
  - (i) Upper limit = unlimited consumption
  - (ii) Lower limit = available capability
- (b) For a dispatch greater than 0 MW:
  - (i) Upper limit = the instantaneous consumption volume at the instruction time of the dispatch, plus the change in dispatch (previous dispatch minus current dispatch), plus the dispatch tolerance
  - (ii) Lower limit = available capability minus dispatch volume

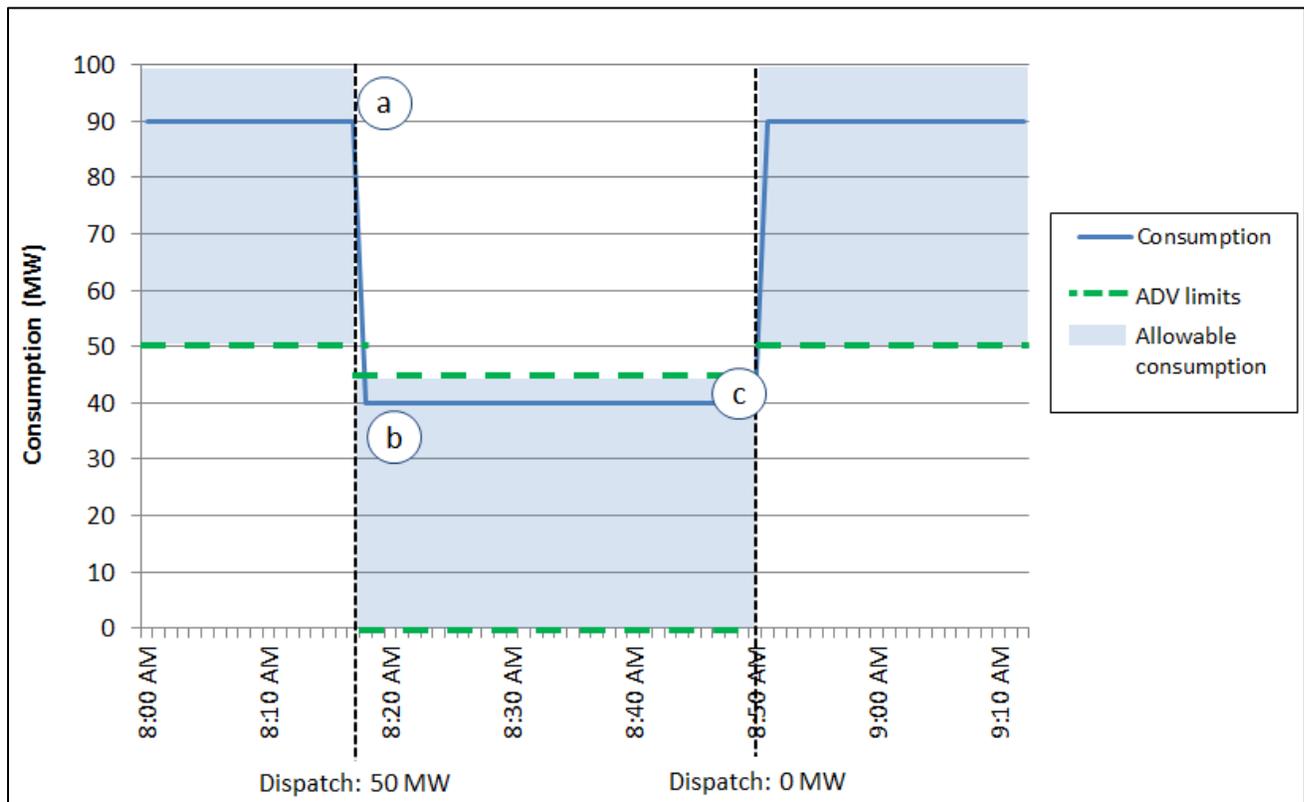
### GLR Load Example 1 – Full AC Dispatched:

$$MC = 50 \text{ MW}$$

$$AC = 50 \text{ MW}$$

- (a) Asset receives a dispatch for 50 MW at 8:17am
  - (i) Consumption = 90 MW
  - (ii) Change in dispatch = 0 MW – 50 MW = -50 MW
  - (iii) Upper ADV = 90 MW + (-50 MW) + 5 MW = 45 MW

- (iv) Lower ADV = 50 MW – 50 MW = 0 MW
- (b) Consumption dropped to 40 MW
- (c) Asset receives a new dispatch for 0 MW at 8:50 am
  - (i) Consumption = 40 MW
  - (ii) Change in dispatch = 50 MW – 0 MW = 50 MW
  - (iii) Upper ADV = unlimited (dispatch = 0 MW)
  - (iv) Lower ADV = 50 MW



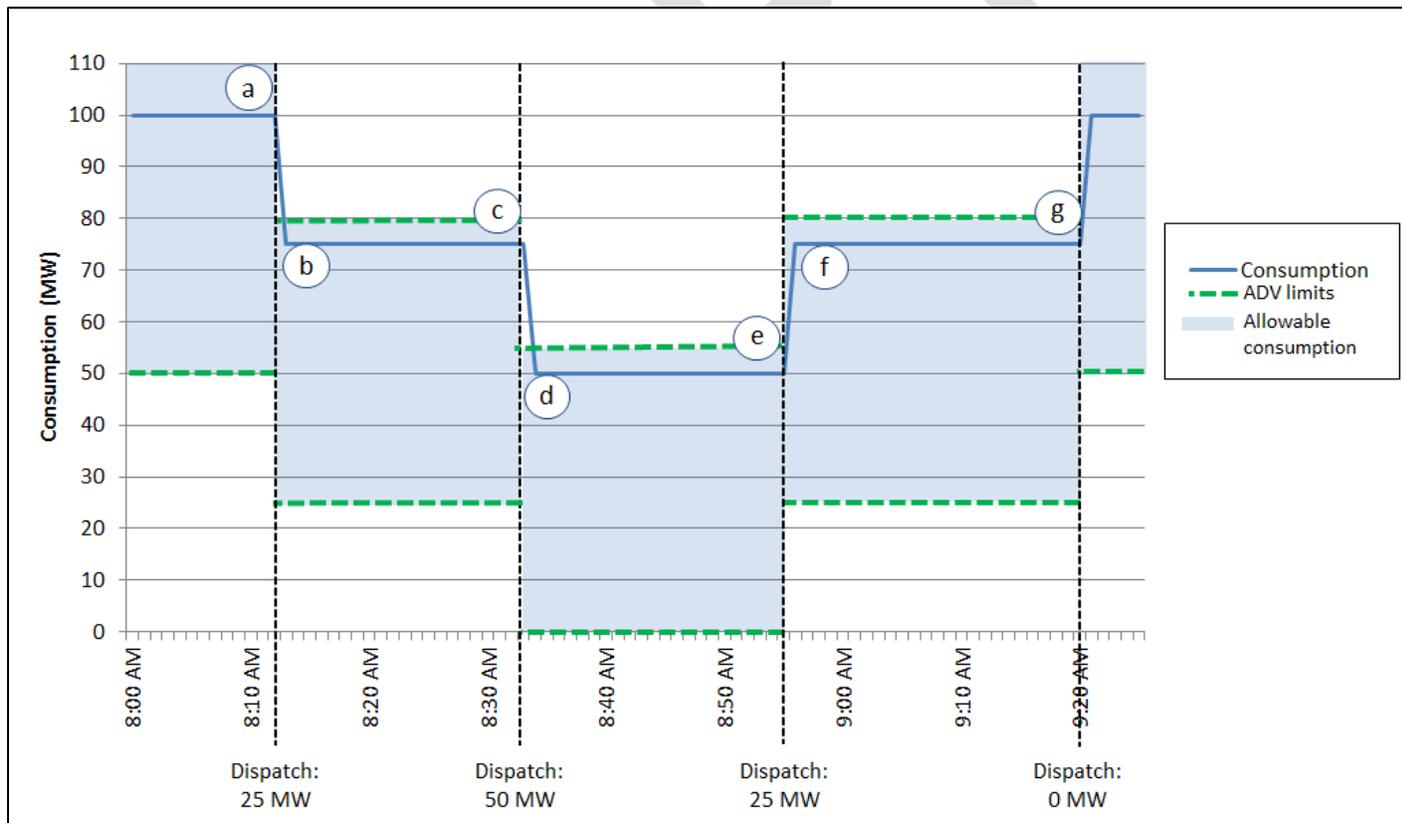
### GLR Load Example 2 – Multiple Block Dispatch:

MC = 50 MW

AC = 50 MW

- (a) Asset receives a dispatch for 25 MW at 8:13am
  - (i) Consumption = 100 MW
  - (ii) Change in dispatch = 0 MW – 25 MW = -25 MW
  - (iii) Upper ADV = 100 MW + (-25 MW) + 5 MW = 80 MW
  - (iv) Lower ADV = 50 MW – 25 MW = 25 MW
- (b) Consumption dropped to 75 MW in response to dispatch
- (c) Asset receives a new dispatch for 50 MW at 8:33 am
  - (i) Consumption = 75 MW
  - (ii) Change in dispatch = 25 MW – 50 MW = -25 MW

- (iii) Upper ADV =  $75 \text{ MW} + (-25 \text{ MW}) + 5 \text{ MW} = 55 \text{ MW}$
- (iv) Lower ADV =  $50 \text{ MW} - 50 \text{ MW} = 0 \text{ MW}$
- (d) Consumption dropped to 50 MW in response to dispatch
- (e) Asset receives a new dispatch for 25 MW at 8:55 am
  - (i) Consumption = 50 MW
  - (ii) Change in dispatch =  $50 \text{ MW} - 25 \text{ MW} = 25 \text{ MW}$
  - (iii) Upper ADV =  $50 \text{ MW} + (25 \text{ MW}) + 5 \text{ MW} = 80 \text{ MW}$
  - (iv) Lower ADV =  $50 \text{ MW} - 25 \text{ MW} = 25 \text{ MW}$
- (f) Consumption increased to 75 MW in response to dispatch
- (g) Asset receives a new dispatch for 0 MW at 9:20 am
  - (i) Consumption = 75 MW
  - (ii) Change in dispatch =  $50 \text{ MW} - 0 \text{ MW} = 50 \text{ MW}$
  - (iii) Upper ADV = unlimited (dispatch = 0 MW)
  - (iv) Lower ADV = 50 MW



## 7 Outage Reporting

All load assets are subject to the requirements in Section 306.3, regardless of whether or not the pool participant submits offers for them in the energy market. A pool participant that submits offers for a load asset in the energy market is also subject to the outage reporting requirements in Section 306.8.

For example, if a pool participant submits offers for a load asset with a maximum capability of 40 MW and 100 MW of total load consumption, and the entire 100 MW load is going on outage, the pool participant will provide notification of:

- (a) 100 MW planned outage as per the requirements under Section 306.3, and
- (b) 40 MW planned outage (i.e. a 40 MW reduction of available capability) as per the requirements under Section 306.8.

### Revision History

Posting Date	Description of Changes
	Initial release

DRAFT