TransAlta Corporation
Box 1900, Station "M"
110 - 12th Avenue SW
Calgary, Alberta
T2P 2M1

T (403) 267-7110
www.transalta.com

Marcy Cochlan
Manager, Market Regulation
Direct Line: 403-267-4664
Email: Marcy_cochlan@transalta.com

September 16, 2016

Alberta Electric System Operator
2500, 330 - 5th Ave SW
Calgary, Alberta
T2P 0L4

Dear Mr. William Chow:

TransAlta would like to thank the AESO for the opportunity to comment on the mothball outages rule. We believe that these mothballing rules will lead to a more efficient market and are supportive of the AESO's efforts in consulting with stakeholders.

On August 23, 2016, the AESO requested comments from stakeholders regarding its Mothball Outages Rule. The AESO asked that stakeholders address the following questions:

1. Can mothball outages be included in the market design framework in a manner that adheres to the principles?
2. What considerations need to be made to ensure that mothball outages adhere to the principles?
3. Are there elements of the principles that are inconsistent or do not align with mothball outages?
4. Are there requirements that could be implemented to mitigate the inconsistencies that mothball outages present in relation to the principles?

TransAlta will address all of these questions below, by first addressing the issue of Alberta's market design, and then addressing considerations which need to be taken into account to ensure that mothball outages meet the principles of fairness, efficiency, openly competitive/ transparent, and reliability. TransAlta Is of the view the AESO can adjust the mothballing rule to address our concerns and ensure its consistency with FEOC principles.

Alberta's Market Design

Mothball outages fully conform with Alberta's market design, and the requirements for fairness, efficiency, open competitiveness and transparency, and reliability.

Alberta has a unique energy-only market structure, where the energy price is the only economic signal that producers can use to plan investments and to recoup the costs of their investments. This free-market structure is clearly reflected in Alberta's legislative framework, beginning with the purpose section of the *Electric Utilities Act*, which includes the following:

"5. The Purposes of this Act are:

(b) to provide for a competitive power pool so that an efficient market for electricity based on fair and open competition can develop, where all persons wishing to exchange electric energy through the power pool may do so on non-discriminatory terms and may make financial arrangements to manage financial risk associated with the pool price;
(c) to provide for rules so that an efficient market for electricity based on fair and open competition can develop in which neither the market nor the structure of the Alberta electric industry is distorted by unfair advantages of government-owned participants or any other participant; and
(d) to continue a flexible framework so that decisions of the electric industry about the need for and investment in generation of electricity are guided by competitive market forces."[1]

The requirement that investment in generation is dictated by market forces is also found in the *Hydro and Electric Energy Act,* which prohibits the AUC from considering the economics of a generating unit or the need for electric energy when considering an application for a generating unit:

"Guidance to Commission

3(1) Where the Commission is considering:

(a) an application under section 11 for the construction or operation of a generating unit as defined in the *Electric Utilities Act*, or
(b) an application under section 18 for connection of a generating unit as defined in the *Electric Utilities Act*,

the Commission, for the purposes of the consideration required to be given by the Commission under section 17 of the *Alberta Utilities Commission Act* and in order to determine whether the purposes of this Act will be achieved,

(c) shall not have regard to whether the generating unit is an economic source of electric energy in Alberta or to whether there is a need for the electric energy to be produced by such facility in meeting the requirements for electric energy in Alberta or outside Alberta, and
(d) must have regard for the purposes of the *Electric Utilities Act*."[2]

---

[1] *Hydro and Electric Energy Act*, RSA
[2] *Hydro and Electric Energy Act*, RSA

Economics dictate when generators are built in this province, and this free-market approach is at the foundation of the Alberta market structure. These economic principles should also be a primary consideration when considering whether generators should be permitted to turn their units off because they have ceased to be economic in the current market. The entities that own these merchant units are in the best position to determine whether they can continue to run profitably. Where they cannot run profitably, generators should be permitted to place them in a temporary mothball outage. Should market conditions improve, or should these units be required for reliability purposes, they can be brought back online.
Allowing economics to dictate when units need to be removed from the market for economic reasons fully conforms with Alberta's market framework.

In an energy-only market design, the energy price is the only economic signal that producers can use to plan investments and to recoup the costs of their investments. Producers are only compensated for energy, while capacity is not contracted, nor paid for by the market. Thus an investor should be free to enter or exit the market as guided by the energy price. The AESO stipulating entry and exit Is more consistent with a market that provides capacity payments versus the existing energy only market.

Ensuring that Mothball Outages Conform with FEOC Principles

Fairness

The AESO has raised a number of potential FEOC concerns regarding mothball outages as part of its consultation. Market uncertainty, concerns about barriers to entry, as well as concerns about an undue burden on generators in times of high supply cushion were all raised by the AESO as potential issues of fairness.

The issue of market uncertainty is closely linked with concerns about maintaining an openly competitive and transparent market. Rules that make mothball outages transparent, with notification to the market regarding the unavailability of generating capability will ensure that all participants in the market have a clear view of present and future generation capacity, and will allow for market-driven decision making. It is clear that the outage reporting process required by FEOC and implemented by the AESO will provide this market transparency once mothball outages are integrated, and provide for a fair market environment.

As noted by the AESO, the principle of fairness also applies to generators who are struggling to operate in an environment where there is high supply, low prices, and increasing financial regulatory burdens. These generators should not be forced to run uneconomically in such an environment. Constraining generators to run uneconomically, or be forced to make significant investments in old plants in a market environment where such investments cannot be justified is not fair, and does not conform with the fundamental structure of Alberta's energy only market. Fairness dictates that mothball outages should be allowed.

Efficiency

The AESO has also raised concerns about economic efficiency, which include concerns about

(a) price fidelity in the long and short term,
(b) enabling long term economically efficient outcomes that are fair to both generator and load participants, and
(c) enabling rational and predictable business decision making for market participants, based on economic fundamentals.

Basic principles of supply and demand mean that when the price rises, less efficient generating units may come back online, or may not need to be taken offline at all. It is the price that will drive participation in the market, and that is as it should be. If the market is allowed to function, the most efficient units will continue to operate, while the least efficient units will be taken offline, and will only be brought back online when it is profitable to do so, or where they are directed to run for reliability purposes.

There is nothing inefficient about allowing units which are unprofitable to take a mothball outage. Markets are not efficient and will eventually collapse if generators are forced to run their units unprofitably.

Openly Competitive / Transparent

As noted above, ensuring that the market is openly competitive and transparent is key to fairness, and it is also necessary to ensure that the market runs efficiently. The AESO has includes a number of provisions in its current rule to ensure that mothball outages are transparent, and that the market has clear visibility of these outages. TransAlta supports such transparency.

Reliability

The AESO has many duties, but ensuring the reliability of the electric system is the duty which overrides all others. Any mothball rule must ensure that the reliability of the system is maintained.

The AESO has already included a number of provisions in its current Mothball Rule which are designed to maintain system reliability. However, further detailed discussion regarding system reliability will be required. The long lead time for some of these assets is a consideration which needs to be taken into account. A unit that has been offline on a mothball outage for a significant period of time cannot be brought back online as quickly as a fully staffed unit that has only been offline for a short period. While the AESO's key goal is reliability, the critical goal for generating unit operators is safety, and the safety of personnel cannot and will not be compromised in order to bring a unit on a long-term mothball outage quickly back online.

There is also the issue of a mothball outage that needs to be taken because a unit requires significant and expensive maintenance, which cannot be justified in the current environment. Such a unit may need to come offline for economic reasons, where the operator's comparison is between the capital expenditure

to resolve underlying maintenance issues and the unit's expected market returns. The treatment of such units under a future Mothball Rule needs to be carefully considered.

TransAlta is confident that mothball outages can occur without compromising the reliability of the Alberta electric system. However, the details regarding how units will be brought back online to maintain reliability will need to be carefully considered by all parties to this consultation.

Current Mothball Rules

The current rule requires the following adjustments to ensure its consistency with an energy only and FEOC market.

- Maximum flexibility for generators to mothball is needed to ensure generators have the ability to respond to market signals while respecting operational constraints:
    - Alberta's mothballing rule should not have a limited time period for a facility to remain in a mothball state. The economic environment should dictate the time period and should not be administratively set. This is consistent with markets such as ERCOT and PJM.
    - To ensure that all generation units are treated fairly, a 30-day notification period to the AESO to cancel a mothball outage would allow renewable units such as wind to react quickly to market conditions. This is preferable to the 90-day notification period outlined in the current rules.
    - Six-months response time for a directive should be re-evaluated as these are not operationally realistic in some cases. Differences in plant condition, lay up strategy, and equipment technology will require different start up times to ensure a safe return to service.
- Operational readiness during mothballing needs to be relaxed to reflect the realities of mothballing in terms of time to restart and the ability to lower mothballing costs.
    - Some generating unit operators may declare mothball status in order to defer capital costs while others may reduce/redeploy the work force.
    - Reduced compliance obligations while in mothball state would allow units to be exempt from reliability audits and testing as they have minimal impact on the grid. Generation facilities will only need to be compliant with technical standards once they are ready to return to service.
    - This is consistent with other jurisdictions where mothball units have reduced compliance obligations.
- The AESO needs to compensate facility owners all costs associated with being directed online from a mothball state.

The AESO should provide further research and comparison of other jurisdictions and their mothballing rules. We can learn from other regions and how best to incorporate these rules into our market.

Summary Remarks

TransAlta supports mothball outages, and appreciates the opportunity to provide comments on a future AESO Rule. It is submitted that longer-term mothball outages are consistent with Alberta's market structure and FEOC principles, and can occur without compromising system reliability.

We will have additional comments and detail to provide as the AESO continues its consultation process and we look forward to the opportunity to share our views and look for solutions.

Yours truly,

TRANSALTA CORPORATION

Marcy Cochlan
Manager, Market Regulations
Encl