

**2<sup>nd</sup> Session**  
**12-Coincident Peak (CP) Bulk Recovery**  
**Methodology**  
**Issue #1 in Proceeding 22942**

April 9, 2018  
BP Main Boardroom, AESO Offices

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# AESO Inventory of Data/Analysis Requests

# Requests for Raw or Processed Data

## Engineering data

- Flow levels on major bulk system lines
- Drivers of need for all system projects to date
- Bulk and Regional system cost reduction due to various forms of load reductions

## Forecasting data

- Alberta Internal Load (AIL) peak and co-incident peak
- Forecast generation during AIL peak
- Installed capacity of on-site generation and distributed generation by type by year
  - On-site generation and distributed generation by hour
- Gross system load by hour

## Cost of Service data

- Allocator (i.e., bulk system cost billing determinant) using mean of 12 highest peak demands per month

## Planning analysis

- Future flow/scenario analysis on major bulk system lines
- Drivers for future system projects
- MW of bypass during co-incident peak (CP)
- List of assets that could have been deferred through reduction in CP

## Forecasting analysis

- Forecast flow analysis with increasing net demand variability
- Forecast probability of flow peak occurring at CP

## Cost of Service analysis

- Adjust bulk and regional functionalization using alternate definitions (i.e., should all 240 kV lines be considered bulk)
  - Utilize this alternate functionalization with existing rate design and billing determinants
  - Assess the reaction of load to the shift of costs to non-coincident peak (NCP) (i.e., will this result in a reduction in load)

## 1. Is CP response “uneconomic bypass”?

- Analysis required to reasonably answer this question
- If uneconomic bypass exists then development and assessment of remedial options (along with bill impact mitigation)

## 2. Assess the impact of moving from net load to gross load treatment

## 3. Reassess the appropriateness of existing functionalization, rate design and determinants in meeting future needs

- Assess alternate functionalization definitions
- Assess alternate rate designs
- Assess alternate billing determinants
- Assess impact a new rate price signal will have on future transmission costs and on existing and future loads

# Common Themes in Submissions

## Complexity

- This is a very complex topic that will require significant analysis and stakeholder engagement
- A proper/thorough analysis is critical
- There are diverse perspectives amongst the parties and the process/scope for this exercise will require significant effort
  - Will more detailed studies lead to any sort of agreement or consensus?

## Timing

- The data, analysis and re-work that may be required cannot be finished within the existing proceeding
- Should not be rushed
- Set schedule/timeline if managed through a separate process



## Scope

- Transmission tariff reform will have to include a review of effectiveness of the current bulk and regional design (not just 12-CP)
- New structures should be evaluated
- Cost of service needs to be re-evaluated

## Separate Process

- If the scope of work/analysis cannot be completed in a timely fashion then the Bulk and Regional components should be removed from the current AUC proceeding
- A separate process or module with a set timeline/schedule should be developed that is outside the current AUC proceeding

## Alignment with Capacity Market

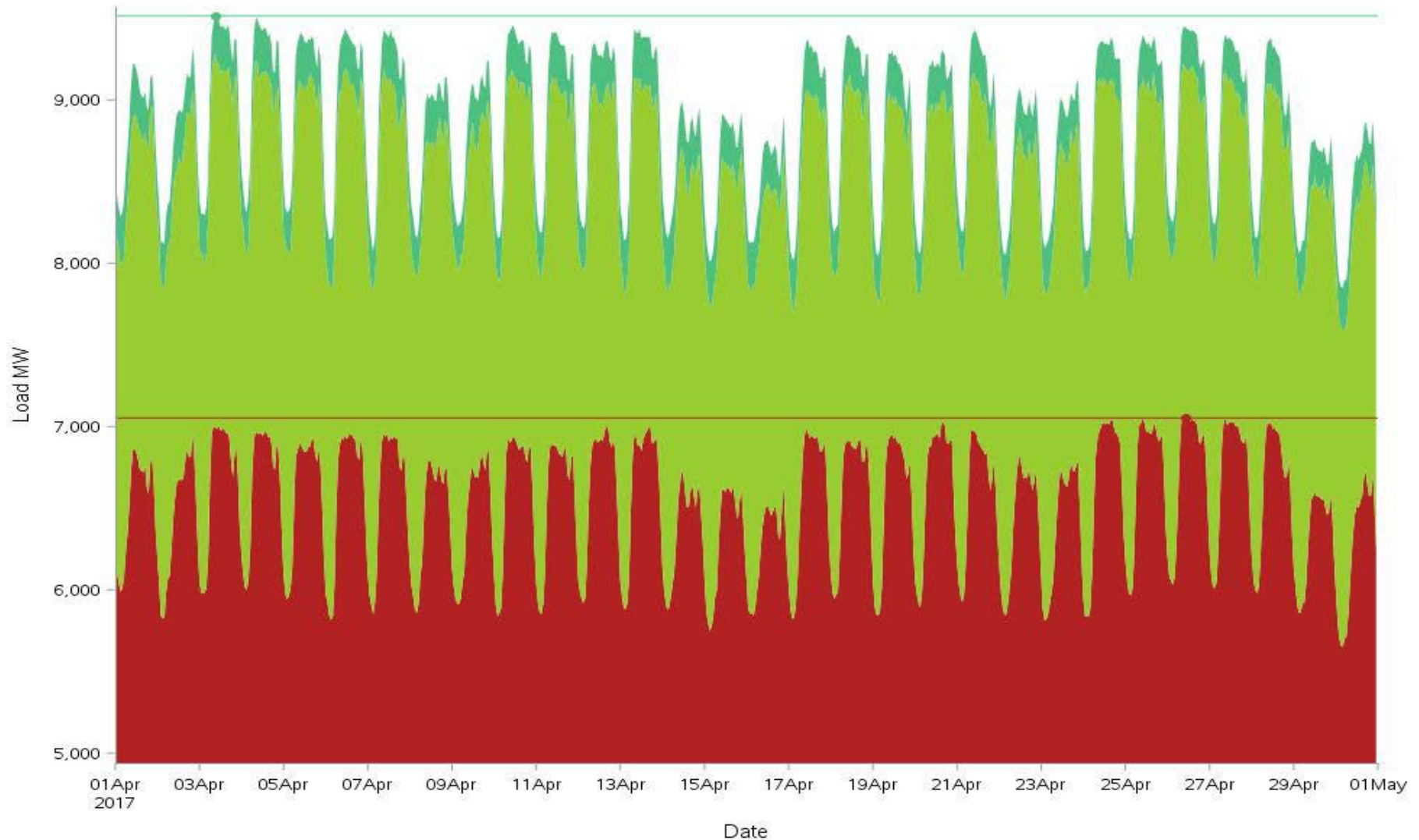
- Capacity market tariff design should be done in parallel or through a joint initiative with this transmission cost tariff design process
- There are other significant processes underway that may impact the transmission tariff and impact the recommendations

### Other comment:

- Implement a temporary measure/rate to prevent un-economic bypass by new BTF generation until a more thorough review can be completed

# AESO Information Presentation

# Many Potential Co-incident Peak Periods Occur in Each Month



# Monthly CMD peaks for 2017

Month	CMD (MW)	MW difference between CMD and 10 <sup>th</sup> highest	MW difference between CMD and 150 <sup>th</sup> highest	# of 15 min intervals within 200 MWs of the CMD	# of 15 min intervals within 500 MWs of the CMD
2017-01-09 17:15	8,439	44	277	81	465
2017-02-06 18:00	8,196	66	263	87	462
2017-03-08 19:15	7,837	<u>82</u>	192	159	791
2017-04-26 10:45	7,069	<u>11</u>	<u>66</u>	<u>844</u>	<u>1,642</u>
2017-05-31 16:15	7,598	70	<u>442</u>	<u>25</u>	208
2017-06-26 15:30	7,744	68	370	<u>25</u>	432
2017-07-27 15:45	8,107	51	285	76	387
2017-08-28 17:00	7,881	31	197	155	619
2017-09-07 17:15	7,962	71	434	34	<u>194</u>
2017-10-30 7:45	7,384	52	210	136	1,164
2017-11-21 17:30	8,223	60	291	60	579
2017-12-28 17:15	8,401	49	256	83	574

**Thank you**