

Capacity Market Cost Allocation: Billing and Settlement Technical Meeting

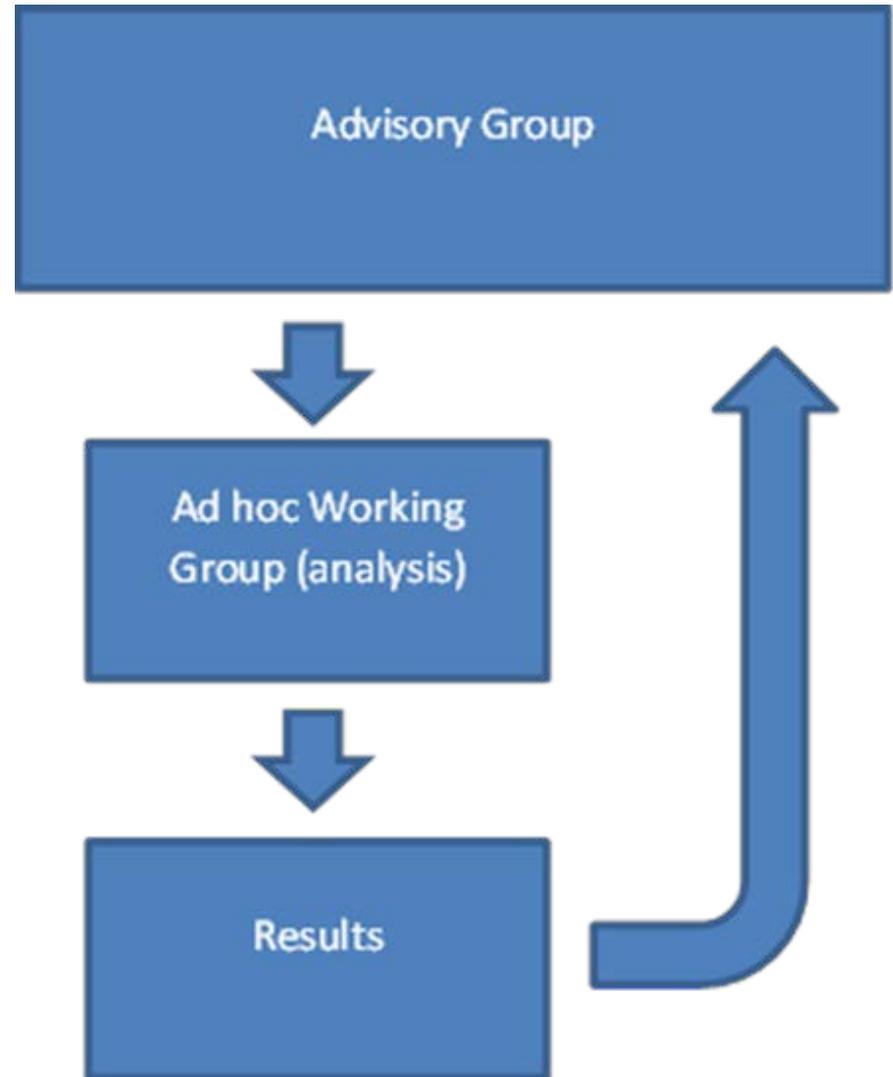
April 30, 2019

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- Meeting overview
- Roundtable introductions
- Session purpose and desired outcome
- Tariff Design Advisory Group initiative
- Capacity market cost allocation tariff design update
- Schedule
- Distribution tariff design overview
- Implementation considerations
- Discussion
- Next steps

- Legislation introduced to enable the capacity market prescribed that capacity market costs be allocated through the ISO tariff
- As a result the ISO tariff will have two parts:
 - Allocation of capacity market costs
 - Allocation of transmission system costs
- AESO recognized the importance of keeping tariff signals aligned and decided to combine these matters into a single consultation
- Tariff Design Advisory Group (TDAG) launched August 2018

- Role of the TDAG is ultimately to develop recommendations for AESO's consideration
- To achieve this, the TDAG establishes work groups, directs their activities, receive updates and reviews and approves any working group recommendations for AESO's consideration



- TDAG identified need to coordinate design and implementation of capacity market cost allocation tariff with distribution system owners
- *Capacity Market Regulation* includes some general provisions applicable to distribution system owners
- AESO also understand expectation is that capacity market cost allocation costs will be passed on the end-use consumers as they are allocated to the distribution system owners, to the extent possible
 - Direct flow-through of costs to transmission-connected and other interval-metered consumers
 - Potential allocation based on time-of-use block meters
 - Allocation based on load profiles to cumulative-metered consumers



Given legislative constraints, timeline and schedule, what technical considerations are key for implementing the capacity cost allocation component of the ISO Tariff? How can these be addressed?

**AUC approval of EPCOR, ENMAX, ATCO and FortisAlberta tariff applications; City council approval for Red Deer, Lethbridge; and REA reporting to AUC on how capacity market charges will be allocated to their customers.*

- Purpose: to create a shared understanding of capacity market cost allocation tariff between AESO and distribution utilities
- Desired outcomes
 - Identify opportunities to optimize cost allocation tariff design for efficient implementation
 - Identify opportunities to increase efficiency of regulatory review and approval process for cost allocation tariffs
 - Coordinate schedule for development and implementation of cost allocation in ISO tariff and in distribution tariffs
 - Identify “critical path” activities for implementation of cost allocation tariffs

Cost allocation rate design currently includes four time blocks



HE	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Nov																								
Dec																								
Jan																								
Feb																								
Mar																								
Apr																								
May																								
Jun																								
Jul																								
Aug																								
Sep																								
Oct																								

Low-weight on all days

**Medium-weight on weekdays
Light-weight on weekends and holidays**

High-weight on weekdays only

Cost allocation rate design currently includes four time blocks (cont'd)

Time Block	Hours	Days	Months
High-weight	HE18-HE19	Weekdays	Nov-Feb
	HE16-HE18	Weekdays	Jul-Oct
Medium-weight	HE08-HE23 excluding high-weight	Weekdays	Year-round
Light-weight	HE08-HE23	Weekends and holidays	Year-round
Low-weight	HE01-HE07 and HE24	All days	Year-round

Rates will depend on weights and on capacity market costs

Time Block	Hours	Potential Rate Ranges (\$/MWh)	
		Multiplier 1x	Multiplier 3x
High-weight	411	\$42-127	\$82-245
Medium-weight	3,573	\$11-32	\$7-20
Light-weight	1,856	\$5-16	\$4-11
Low-weight	2,920	\$0	\$0
Total	8,760	\$8-24	\$8-24

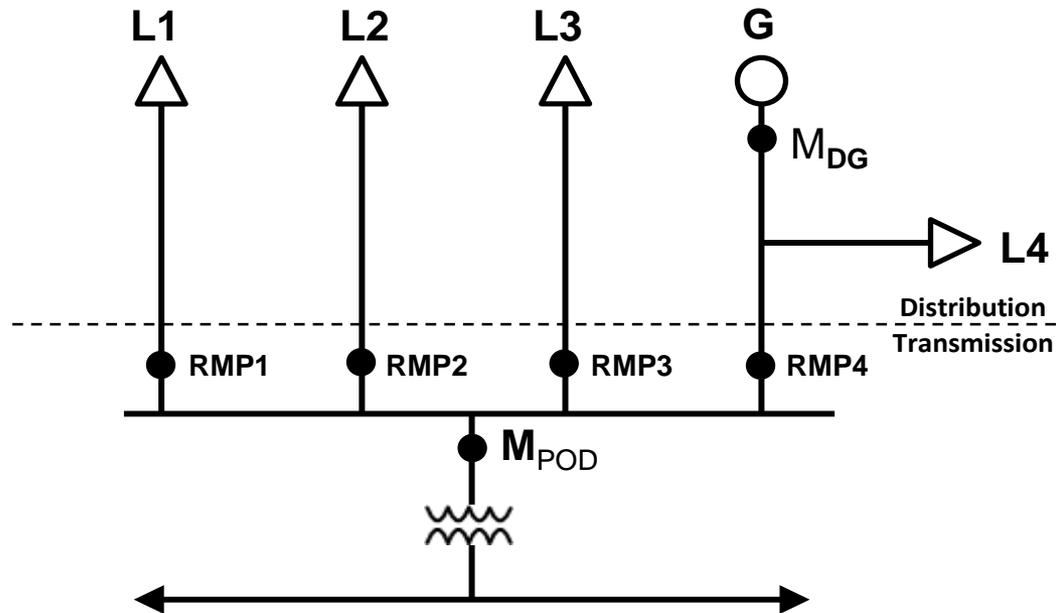
- Rate ranges are based on capacity market costs ranging from \$0.5 billion to \$1.5 billion for first obligation period

Market and settlement process will change for capacity market

- *Capacity Market Regulation* requires costs of capacity market to be allocated to all classes of system access service whose members receive electricity from transmission system
- AESO considers that *Regulation* requires metered volumes for capacity market cost allocation to be different from metered volumes for system access service
 - AESO is procuring capacity on behalf of all non-self-supply loads in Alberta
 - Capacity market costs should be allocated to all non-self-supply loads

AESO proposes to “gross up” point of delivery metered volumes

- Simplified metering configuration for distribution point of delivery with distributed generation:



- M_{POD} = measurement point at point of delivery
- $M_{POD} = RMP1 + RMP2 + RMP3 + RMP4$

AESO proposes to “gross up” point of delivery metered volumes (cont’d)

- AESO considers that capacity market costs should be allocated to **all** distribution loads within the distribution service area that are connected to transmission grid through a point of delivery
- AESO therefore proposes to “gross up” point of delivery metered volumes by adding back volumes for distributed generation – that is:

$$M_{\text{GROSS-UP}} = M_{\text{POD}} + M_{\text{DG}}$$

- In terms of metering points:

$$M_{\text{GROSS-UP}} = \text{RMP1} + \text{RMP2} + \text{RMP3} + \text{RMP4} + M_{\text{DG}}$$

- AESO proposes to complete “gross-up” calculation as part of its capacity market cost allocation process

AESO is developing cost allocation tariff within constraints of *Regulation*

- Costs of capacity market for obligation period are to be allocated to all classes of system access service whose members receive electricity from transmission system and to transmission line losses [§12(4)]
 - Includes demand services and export services
 - Excludes isolated communities
- AESO must establish one set of time blocks for obligation period, with each time block consisting of hours that are reasonably similar in anticipated contribution that demand for and supply of energy has on amount of capacity needed [§12(5)(b)]

AESO is developing cost allocation tariff within constraints of *Regulation* (cont'd)

- AESO must assign weights corresponding to anticipated contributions that demand for and supply of energy in hours in time block have on amount of capacity needed in obligation period to meet resource adequacy standard [§12(5)(c)]
- AESO must derive one rate per megawatt hour for each time block for recovery of costs of capacity market [§12(5)(d)]
- Rate derived for each time block must be charged to all classes of system access service whose members receive electricity from transmission system and to transmission line losses [§12(5)]
 - Rate DTS, FTS, DOS, XOS, XOM
 - Transmission line losses

Regulation also includes two provisions applicable to distribution tariffs

- Owner of electric distribution system must recover costs of capacity market allocated to owner through ISO tariff in distribution tariff prepared by owner under section 102 of *Electric Utilities Act* [§12(9)]
- When considering electric distribution tariff application under section 122(1) of *Electric Utilities Act*, Commission must determine whether any costs and expenses that are included in tariff that are associated with recovering costs referred to in subsection (9) of this section are prudent [§12(10)]

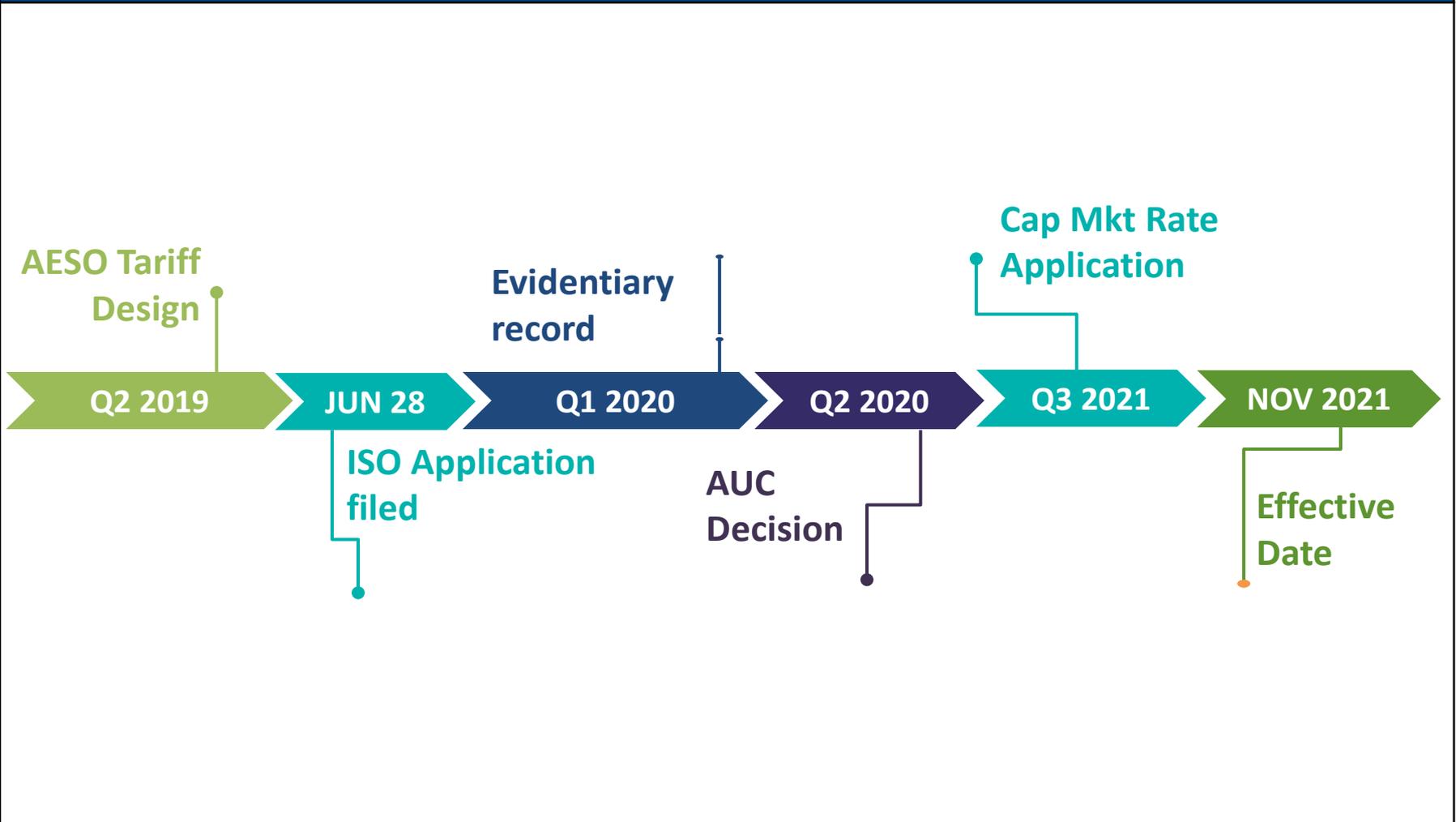
Cost allocation tariff must be in place by first capacity obligation period

- Capacity market is anticipated to be in place in November 2021



Capacity Market Cost Allocation DFO

Schedule / Milestones



Implementation considerations- Discussion

- Data flow (AESO – DFO – Retailers)
- Load settlements – AESO
- Load settlements – distribution utilities
- Time-of-use metering
- Technical limitations

- What are opportunities to optimize cost allocation tariff design for efficient implementation?
- What opportunities to increase efficiency of regulatory review and approval process for cost allocation tariffs?
- What is the coordinated schedule for development and implementation of cost allocation in ISO tariff and in distribution tariffs?
- What are “critical path” activities for implementation of cost allocation tariffs?

Thank you