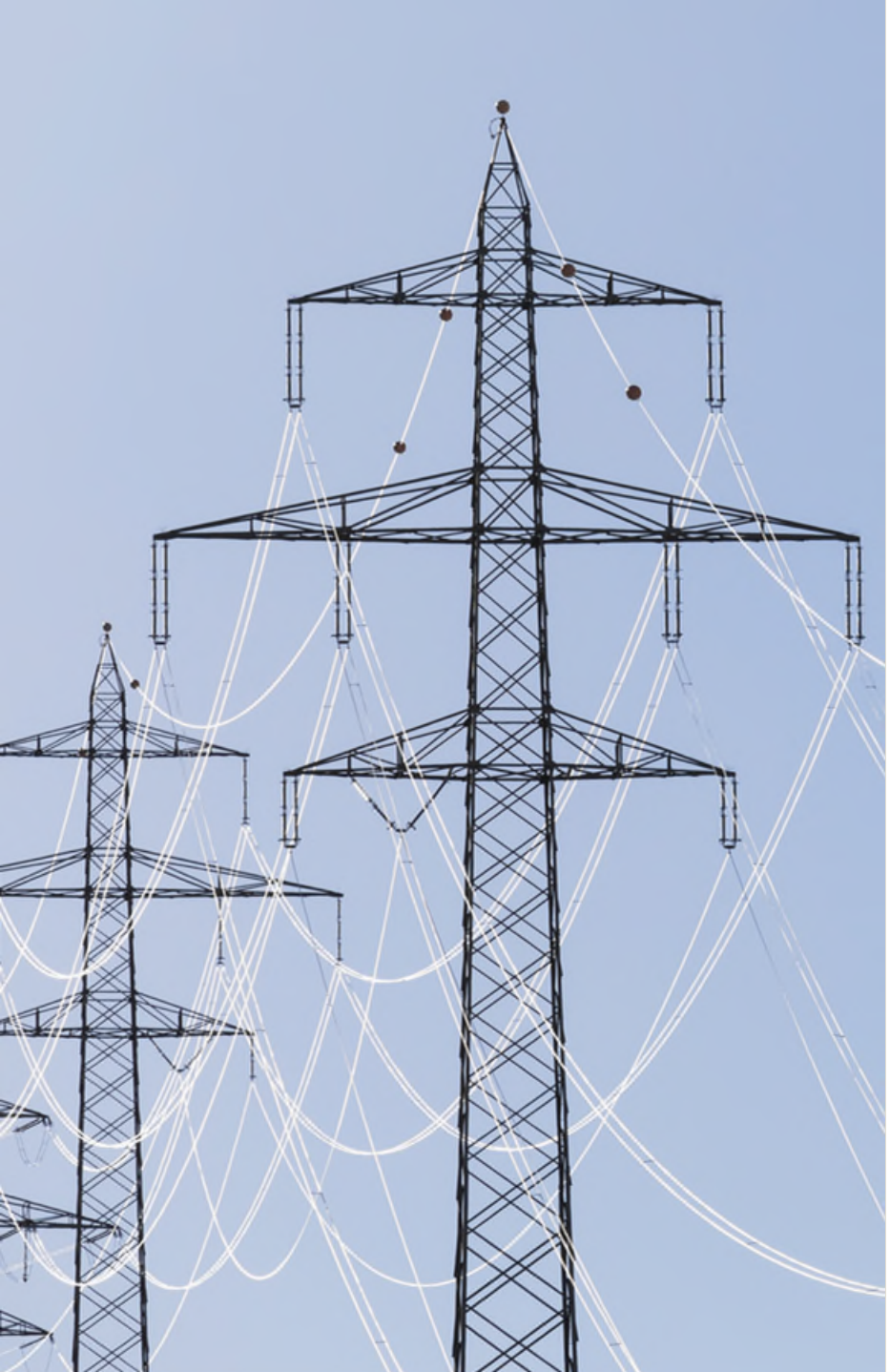


AUC
Alberta Utilities Commission

TVR & Other DSM Enablement

Introductions & Engagement Overview – October 20, 2025

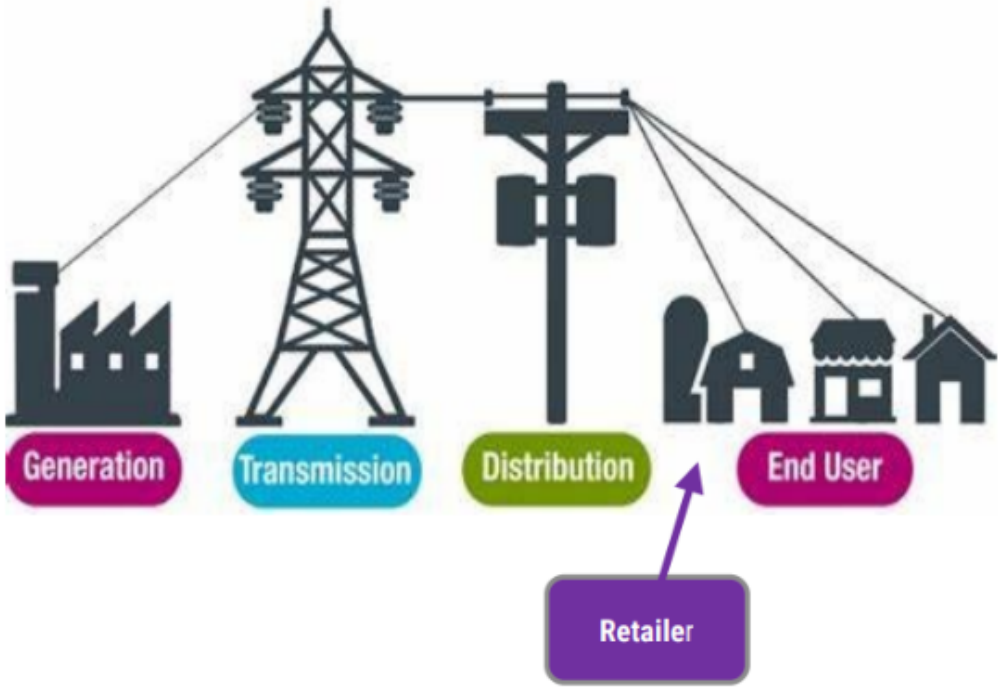
Land Acknowledgement

Table of Contents

Alberta's Electricity Sector and Time-Varying Rates (TVR)

The AUC's role in rate-setting

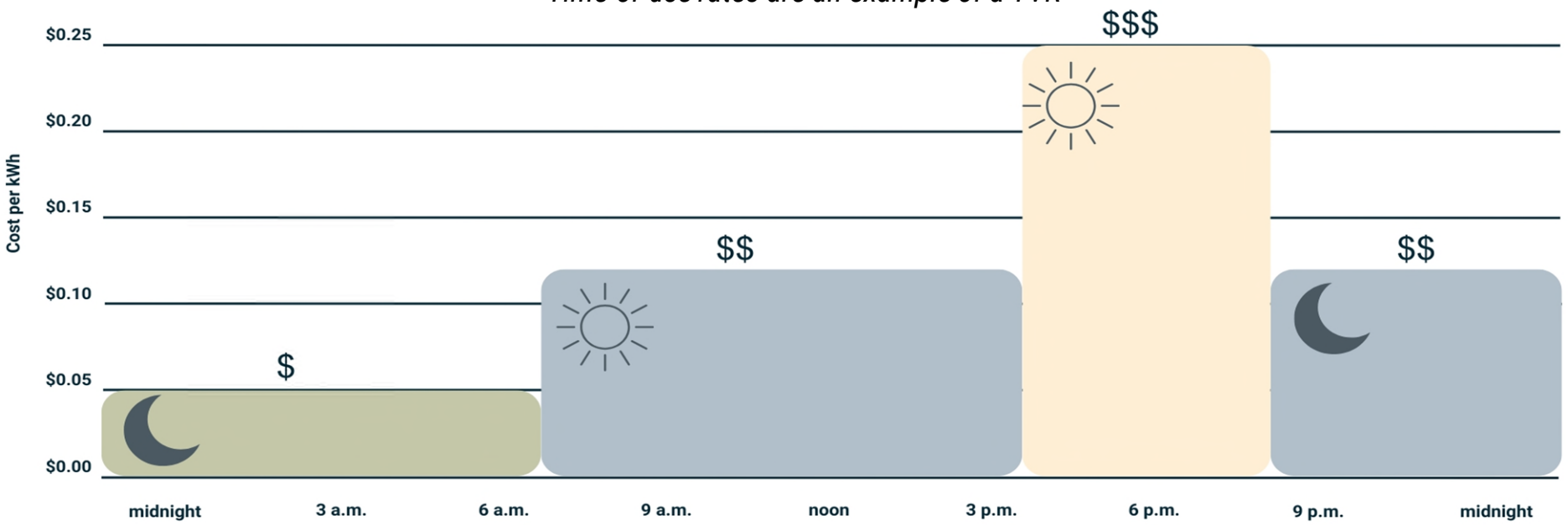
- The Rates division of the AUC supports Commission members in reviewing and approving costs and rates for the delivery (transmission and distribution) of electricity.
  - The Rates division has a more limited role related to electricity generation and retail sales.
- Utilities apply to the AUC to recover costs through a rates proceeding. Once costs are reviewed and approved, they are recovered in the rates charged to the utility's customers.
- The AUC's role is to ensure that customers receive safe and reliable service at just and reasonable rates.
- Retailers will procure energy from generators using different strategies through the AESO which manages the bulk market.



What are Time-Varying Rates?

- **Time-varying rates** capture a **broad category of rates and pricing** where the rate / price can change depending on ***when*** the consumption occurs.
- Differential prices encourage customers to shift electricity consumption to the times of the day with lower rates and / or when the system is less strained.

Time-of-use rates are an example of a TVR

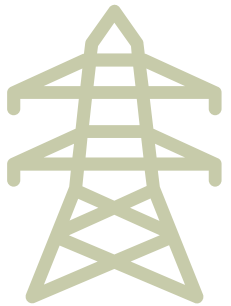


Why Is Alberta Considering Time-Varying Rates and other demand-side opportunities?

AUC
Alberta Utilities Commission

Alberta's grid is evolving and the adoption of electric vehicles, solar and storage are accelerating.

Smart meters are being deployed across the province that can record consumption at intervals throughout the day (e.g. hourly, 15-minute, etc.)



Encouraging off-peak electricity consumption can optimize system performance and delay the need for major capital investments in grid infrastructure.

What did the AUC conclude in the Time-Varying Rate report?

- The Net-Zero Analysis of Alberta's Electricity Distribution System commissioned by the AUC examined the anticipated incremental distribution costs in Alberta related to the transition towards net-zero by 2050.
  - Report estimated that certain optimized solutions could reduce the incremental costs materially (~ $800M).

- The AUC subsequently explored the question: *Would the potential benefits of enabling TVRs in Alberta reasonably be expected to outweigh the costs of implementing them?*
- The AUC concluded that the expected benefits of TVRs significantly outweighed the expected costs.

- **Estimated Costs**
  - PwC developed high level cost estimates for the following two scenarios:
    - The costs of maintaining and building on the existing decentralized systems, estimated to be between **$18 million and $57 million**.
    - The costs of developing a centralized metering system, estimated to be between **$22 million and $75 million**.
  - Potential operating expenses of **$2-4 million annually.**

- **Estimated Benefits**
  - Benefit assessment was informed by the Net-Zero Analysis and work performed on behalf of the AUC by London Economics International (LEI).
  - The benefits include avoided distribution infrastructure investment and avoided costs in Alberta's electricity market.
  - **In 2035 alone,** the benefits are estimated to be between **$118 and $124 million**.

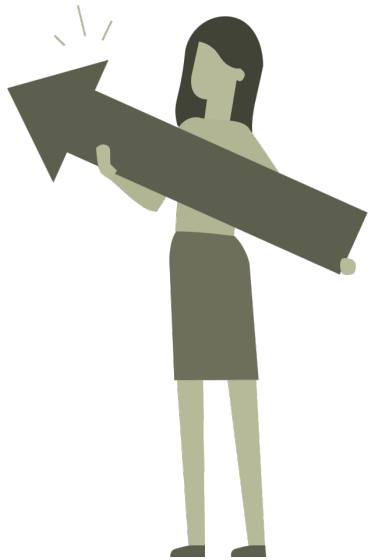
What are the next steps?

The prior assessments support the conclusion that a deliberate and coordinated approach to enabling time-varying rates in Alberta is justified.

Engagement with industry, customers and others will be required to identify and effect the necessary changes to the regulatory framework.

Engagement Overview

Let’s understand the engagement and objective



1 **Share overall approach**

2 **Align on engagement focus and outcomes**

3 **Establish what topics will be covered**

What is the focus of this engagement?

1 Our broader focus

As part of the Alberta Utilities Commission's (AUC) commitment to ensuring the lowest reasonable delivered cost of electricity for all customers, we are taking an in-depth look at how time-varying rates (TVR) and other demand side management (DSM) functions can support Albertans in the coming years.

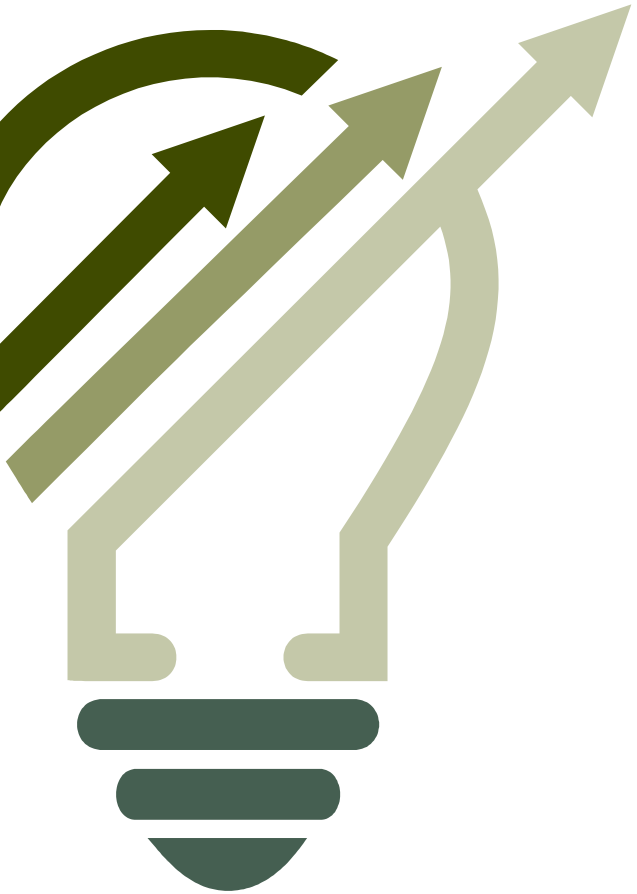
Our goal is to investigate and pursue the approach to enable TVR and DSM that best supports innovation, affordability, efficient operations, and customer benefits as Alberta's electricity system evolves.

2 The focus of this engagement

One of our first critical steps, and the focus of this engagement, is to **inform a recommendation on which meter data management (MDM) structure will best support TVR and DSM enablement** for all customers and stakeholders.

We look to carefully understand and explore different topics such as consumer impacts, costs, implementation feasibility, operational requirements, and data security, while learning from the participants in these workshops.

Our expected outcomes are clear



What does success look like?

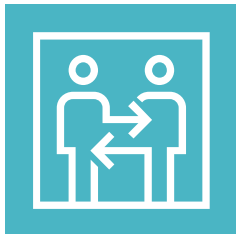
1	**Align** on a common Alberta-specific definition of **centralized** and **decentralized meter data management structures**, and identify the important **advantages and disadvantages of each**
2	**Identify** key **cost components** for MDM structures in Alberta, and how enablement can be accelerated in Alberta
3	Broad, balanced **participation** across stakeholders, as well as documented **feedback** captured through polls and workshop discussions
4	**Review** the engagement **results** with participating stakeholders in the final "**Outcomes & Learnings" workshop**
5	**Incorporate the above** into a **recommendation report** for the Minister of Affordability and Utilities

There are several key topics to explore

AUC
Alberta Utilities Commission

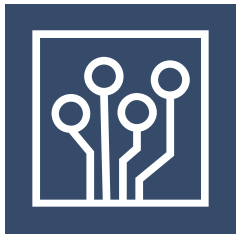
All Workshops
Our goal is to investigate and pursue the approach that best supports innovation, affordability, efficient operations, and customer benefits as Alberta's electricity system evolves.

All workshops will:
- Explore centralized and decentralized meter data management (MDM) structures
- Discuss benefits and challenges
- Capture considerations and feedback



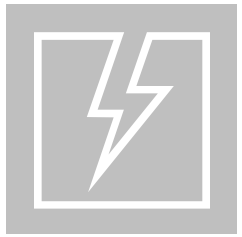
Consumer/Advocacy Groups Forum
Engage with parties that represent consumer interests and evaluate key topics that matter to consumers.

Topics will include*:
- Consumer impacts
- Enabling capabilities
- Time-varying rates
- TVR benefits and challenges
- Billing changes and clarity
- Customer concerns
- Meter data collection and usage
- Data privacy and access
- Customer data access
- MDM structures
- Signals to retailers and aggregators



Innovation Forum
Engage with all parties to explore possibilities of TVR and other DSM functions that could be considered in the future.

Topics will include*:
- Demand forecasting & advanced data analytics
- Integration with DERs, VPPs & energy integrators
- Consumer engagement platforms & IoT connectivity
- Green button data access
- Gamifying energy usage and educating consumers
- Consumer driven energy optimization with smart devices



Utilities Specialists (In-Person)
Engage with utilities specialists to understand MDM structures, how they have been implemented in other jurisdictions, understand Alberta's current maturity, and test different future-state scenarios.

Topics will include*:
- Detailed MDM structure review
- Jurisdictional scan
- Overview of Alberta electricity market
- Current & future-state capabilities
- AMI roll-out
- TVR and other DSM enablement
- Governance & ownership models
- Regulatory impacts & considerations
- Data availability & access

Technical Planning (In-Person)
Engage with utilities technical specialists to understand MDM structures, how they have been implemented in other jurisdictions, validate Alberta's current maturity, and test different future-state scenarios at a technical level.

Topics will include*:
- Detailed MDM structure review
- Jurisdictional Scan
- Overview of Alberta electricity market
- Capability validation
- Future-state scenarios validation

* Topics are subject to change and will be refined as part of this engagement as we collect further information and feedback.

Some topics will be focused on in later phases

This topics may be discussed at a **high-level** and **considerations will be captured** as appropriate**,** but they are **not the primary focus of this engagement**:

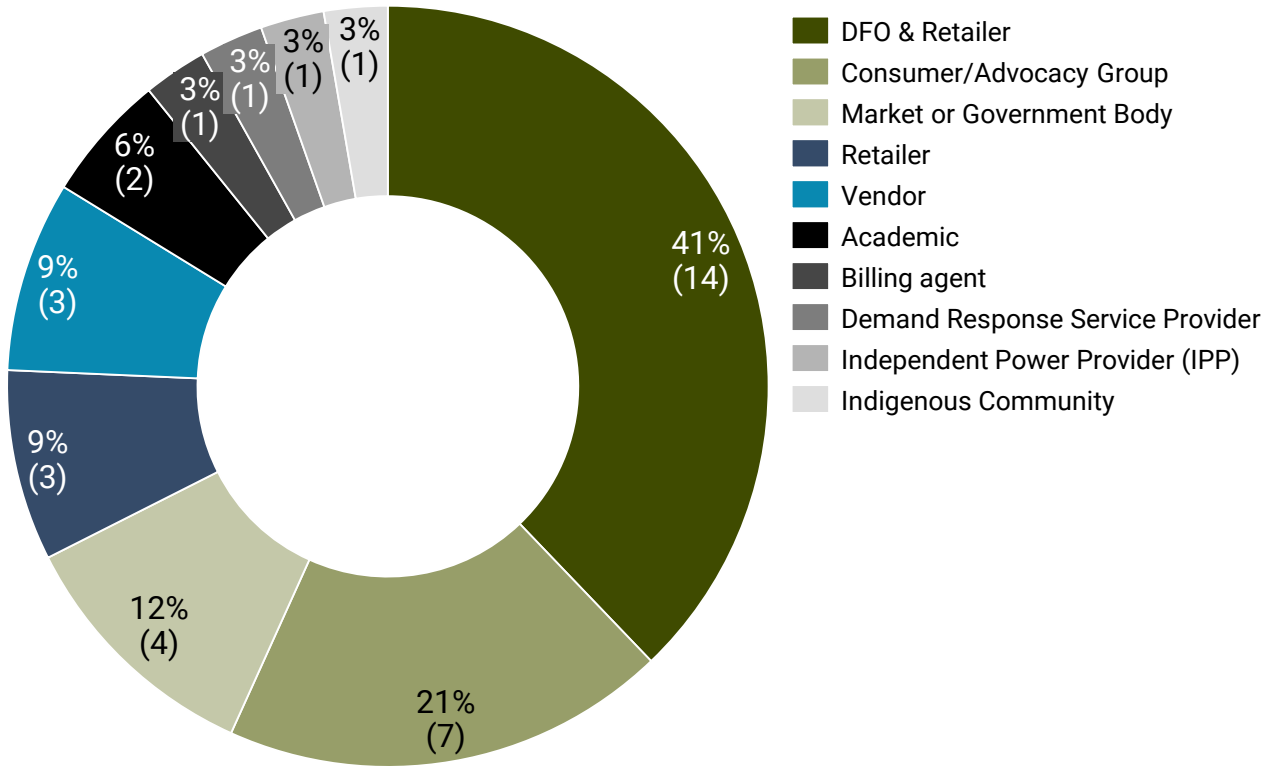
- Rate design or tariff setting
- Cost recovery / funding / regulated revenue setting
- Regulatory changes, decisions and mechanisms impacting enablement
- Detailed technical specifications of MDM systems
- Retailer-specific customer billing systems and processes
- Consumer programs or pilot programs
- Market design or wholesale electricity markets
- Renewable integration or DER incentives
- Detailed cybersecurity standards development
- Vendor procurement & contracting

What We've Heard From You & Next Steps

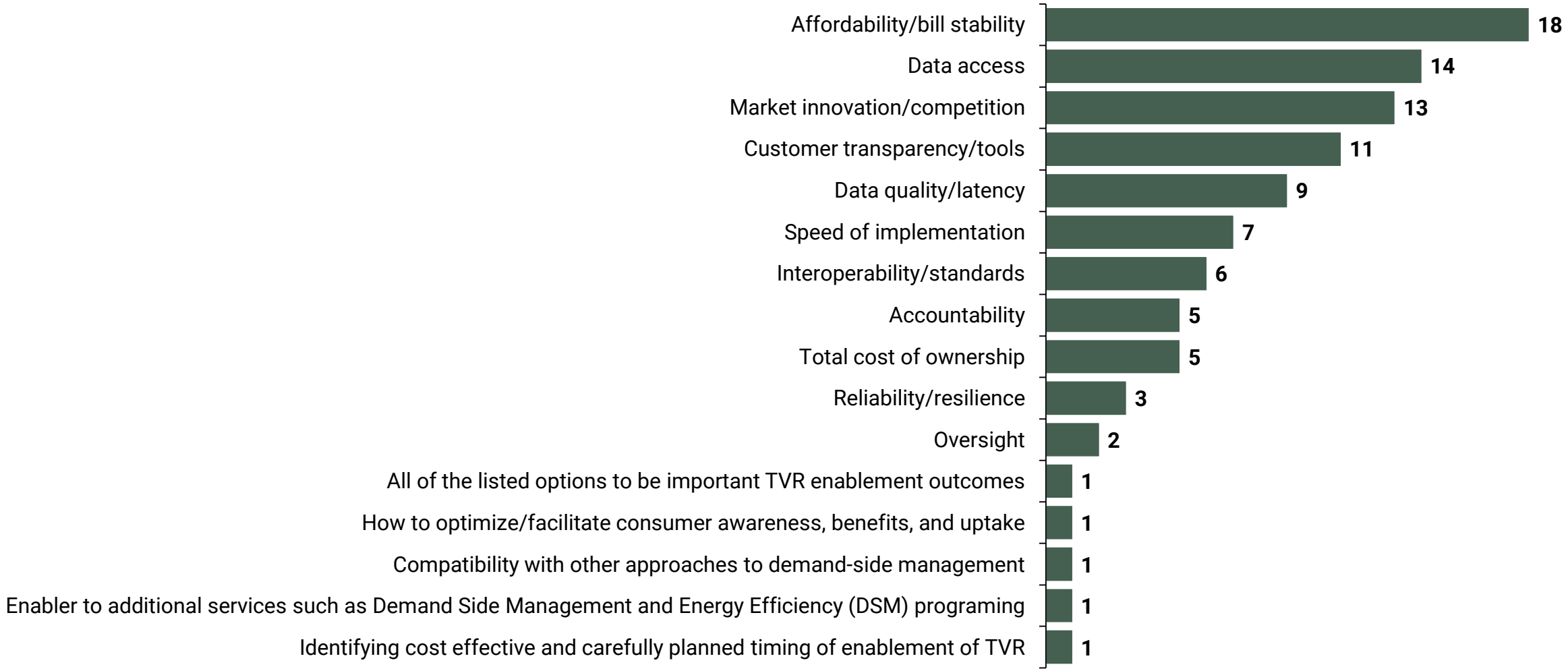
What we heard from stakeholders so far

35 Questionnaire Submissions

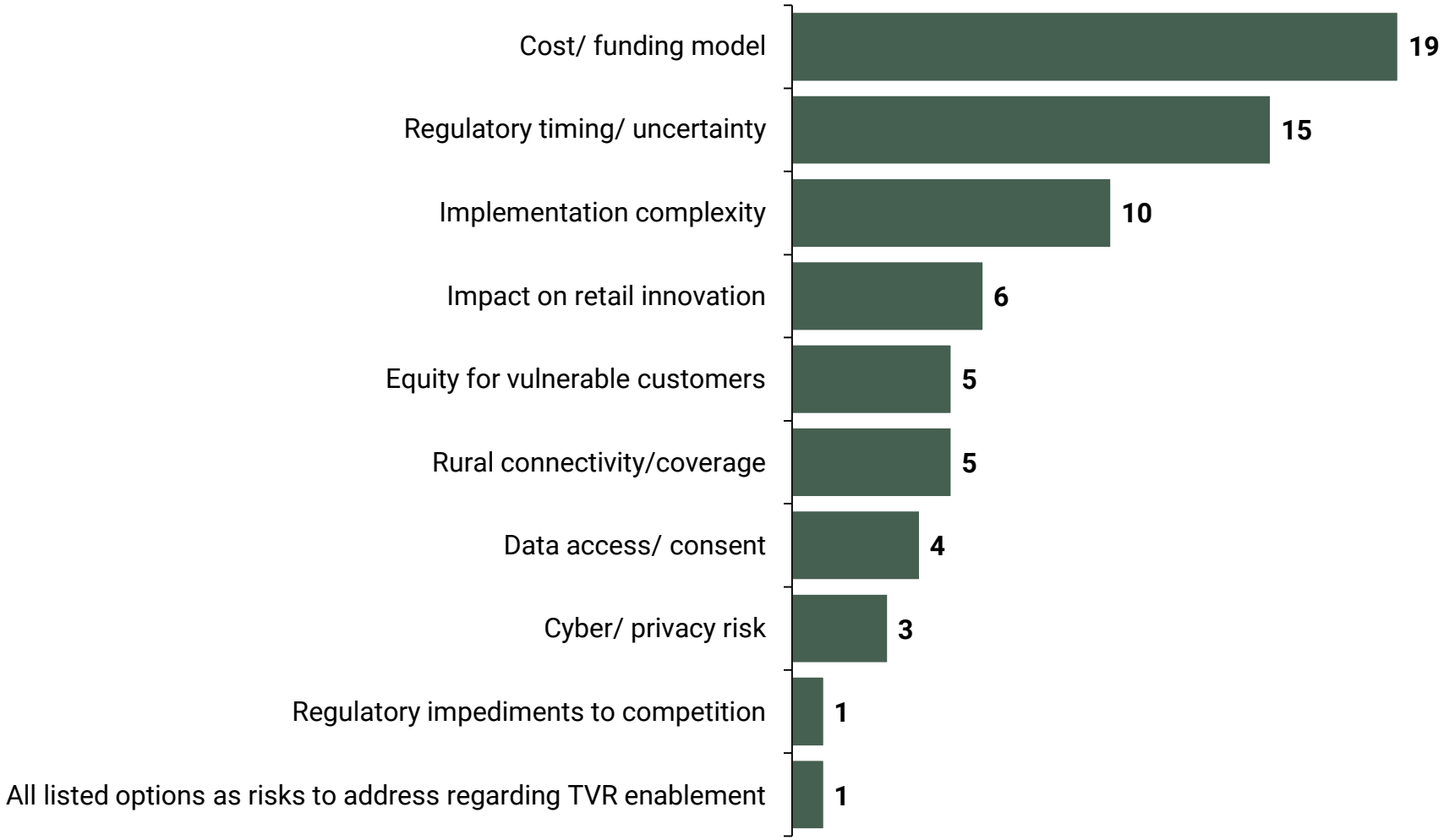
87 Potential Attendees



What are the top priorities we heard?

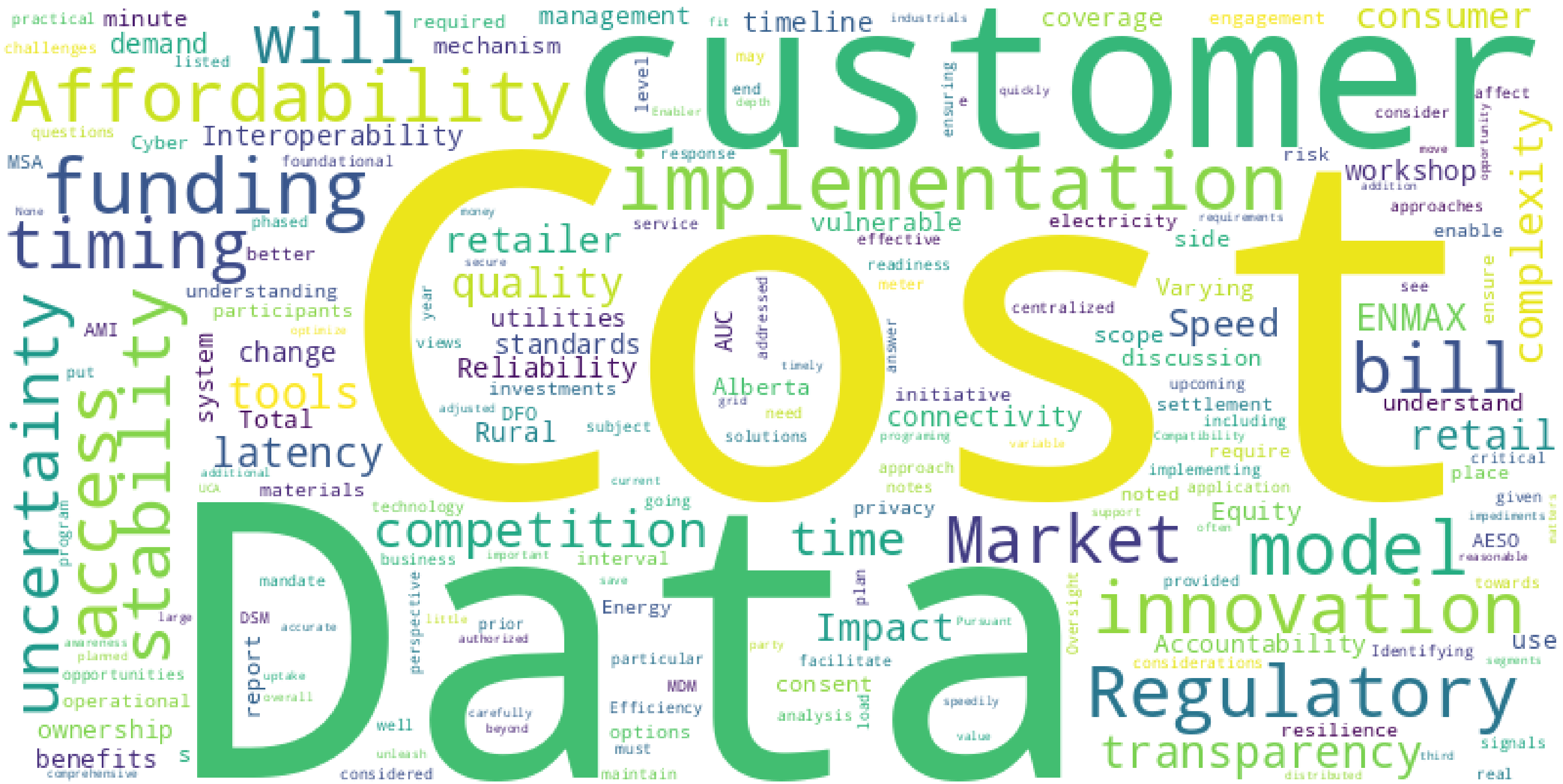


What are the top concerns we heard?



Your feedback will help inform our workshops

AUC
Alberta Utilities Commission



To ensure success your participation is critical

Primary Workshops	Consumer/Advocacy Groups Forum	Innovation Forum	Utilities Specialists Workshop	Technical Planning Workshop
Date	**Thursday, October 23, 2025** 1:00-3:00PM Virtual Attendance	**Thursday, October 30, 2025** 1:00-3:00PM Virtual Attendance	**Tuesday, November 4, 2025** 8:30-4:30PM In-person Attendance Only – Calgary, AB	**Tuesday, November 5, 2025** 8:30-4:30PM In-person Attendance Only – Calgary, AB
Overview	Collect consumer input to shape requirements and considerations in relation to TVR enablement	Explore and discuss feasible, future-proof capabilities	Establish the operational, regulatory, and commercial considerations affecting MDM design alternatives and TVR roll-out	Define technical requirements and architectures for each option, identify gaps and outline roadmap
Attendees	**Requested Participants:** Consumer/Advocacy Groups are requested to join and actively participate in the Consumer/Advocacy Groups Forum **Optional Participants:** Other respondents are invited to join and listen to the topics as well as participate in the open discussion at the end	**Requested Participants:** *All respondents are requested to join and participate in the Innovation Forum* **Optional Participants:** N/A	**Requested Participants:** DFOs, Retailers, Market Bodies, Transmission and IPP respondents are requested to actively participate in the Utilities Specialist Workshop. Additionally, we request **manager/director roles** in the following areas: • MDMS/AMI • Settlement & Retail Operations • DFO/Retailer Representatives • Commercial Strategy/Regulatory • Financial Planning • Data Governance /IT Managers • PM/Implementation Lead **Optional Participants:** Other respondents are invited to join and listen to the topics as well as participate in the open discussion at the end	**Requested Participants:** DFOs, Retailers, Market Bodies, Transmission and IPP respondents are requested to actively participate in the Technical Planning Workshop. Additionally, we request **technical lead roles** in the following areas: • MDM/AMI Architecture • Settlement Systems • IT/Data Architecture • DER/Net Metering • Data Governance/Quality • DFO/Retailer Representatives • Trans./Independent Power Providers • Cybersecurity/Information Security • Implementation / Systems Integ. **Optional Participants:** Other respondents are invited to join and listen to the topics as well as participate in the open discussion at the end

- If you have any questions regarding this engagement, please visit:
  - https://engage.auc.ab.ca/consultations/engagement-on-enabling-time-varying-rates-for-residential-and-other-electricity-customers-in-alberta/
- or send us an email at:
  - Chris Robertshaw
  - chris.robertshaw@auc.ab.ca
  - Kristjana Kellgren kristjana.kellgren@auc.ab.ca
- **Please complete the upcoming attendance form for the in-person workshops if you wish to attend!**

Closing questions and discussion

Questions:

- Are there any questions about the upcoming workshops?
- Is it clear based on the topics, which roles we are looking to have attend?
- Do you have suggestions for other topics related to centralized versus decentralized meter data management that we should consider?