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RESOURCES
ALBERTA'S ENERGY FUTURE
AN ENVIRONMENTAL PERSPECTIVE
OCTOBER 4, 2022
8:30AM - 11:30AM
CALGARY, AB

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Scott Hierath

Executive Director

Alberta Chamber of Resources

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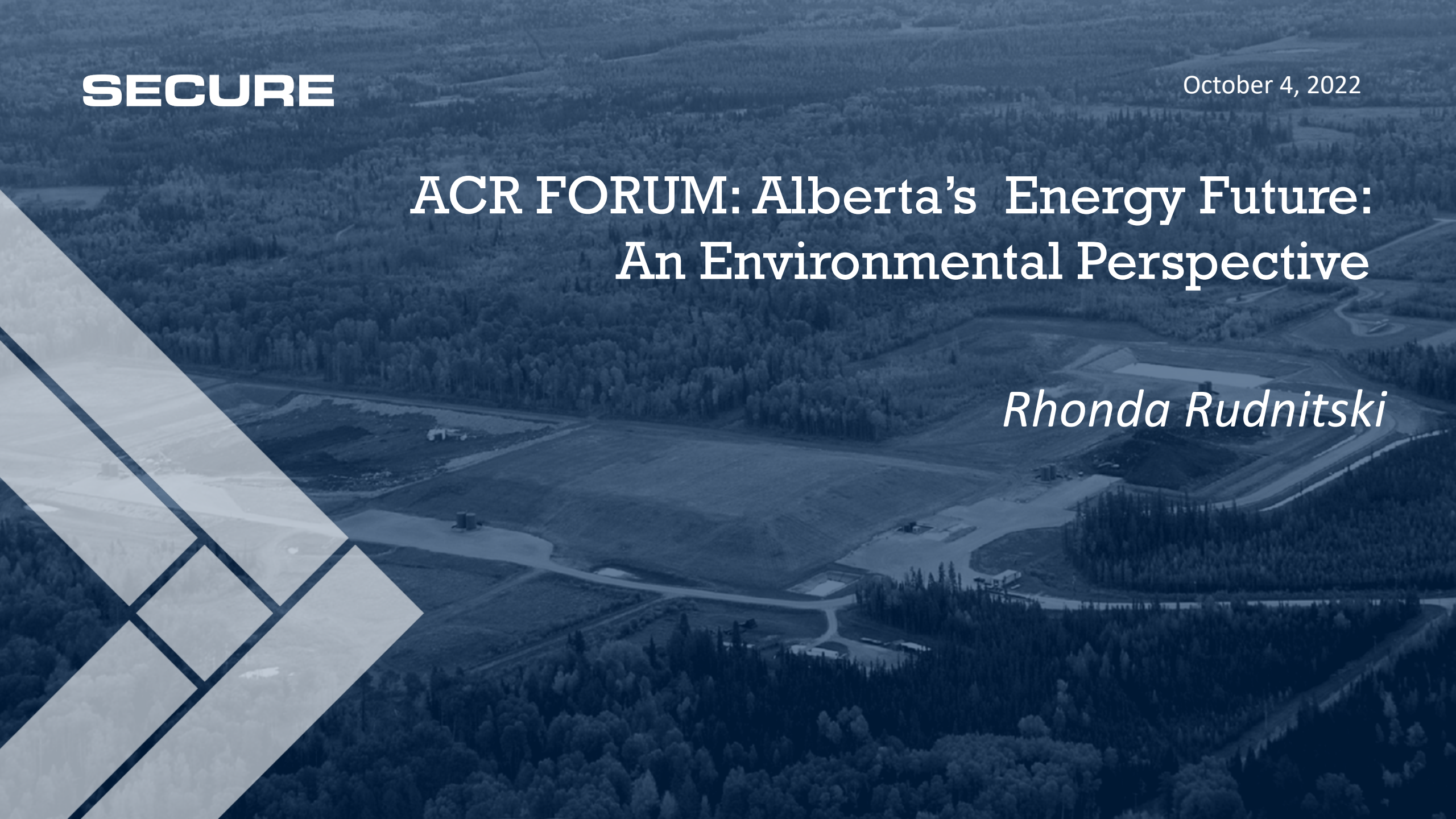
Rhonda Rudnitski

Vice President ESG

Secure Energy



SECURE

October 4, 2022

ACR FORUM: Alberta's Energy Future: An Environmental Perspective

Rhonda Rudnitski

Importance of ESG

Why Does it Matter?

- At its core, ESG is focused on non-financial measures with a goal of improving visibility, supporting good values and driving positive business practices
- Corporate reputation impact
- Investors, bankers and insurers increased focus on ESG
- Perceived barrier between social and market value of a company is breaking down more and more
- Helps build business resilience

Creating a Strong ESG Program

Building your Foundation

Materiality Assessment

Define your pillars within E, S and G

ESG framework is supported by policy and guidance

Build a plan focused on driving performance improvements

Align with business strategies and goals

Data capture and management

Right size for your business

Budget accordingly

A topic is material if can impact your ability to create value and is of interest to key stakeholders

Creating your Culture

Educate and Create Awareness

» Knowledge and awareness will foster inclusion and encourage “buy in”

» Start with what you have already accomplished

» Journey mindset

Engagement

» Most senior leaders need to support the program and be present

» Opportunities for all employees to engage

Communicate

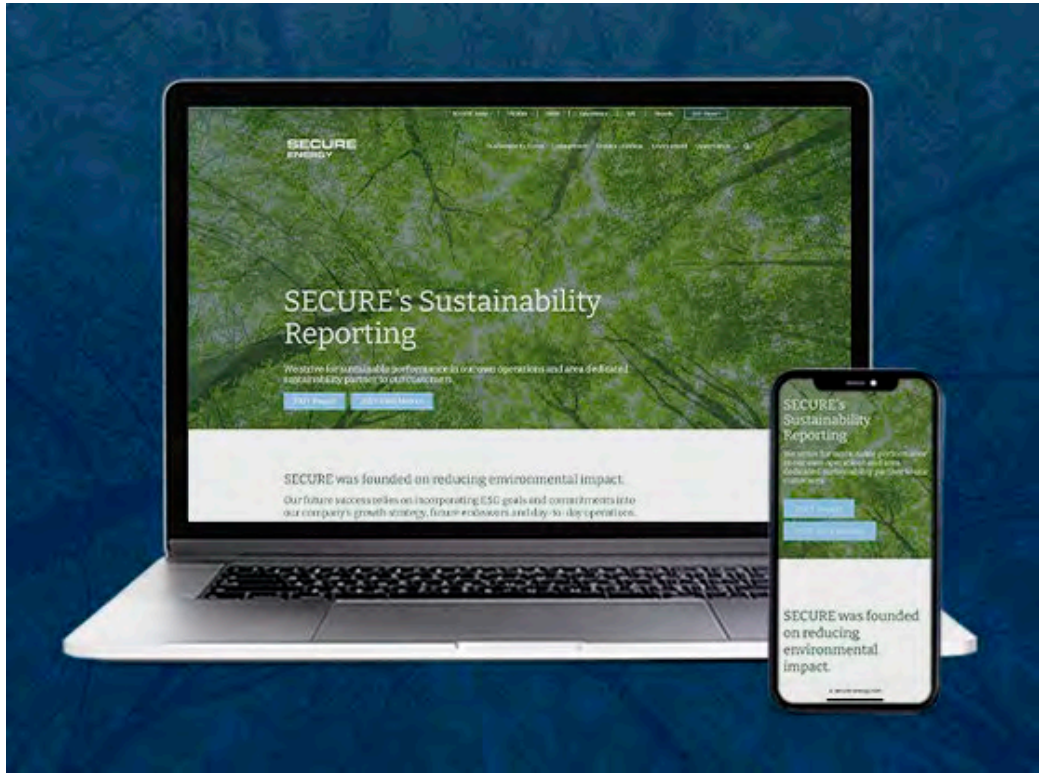
» Share wins

» Learn from losses

» Tell your story internally

» Communicate externally (blog, website, fact sheets, report)

» Constant communication – initially over communicate



Being Accountable

Set Goals and Targets

» Monitor progress

» Course correct when needed

» Commit to progress and transparency

Report

» Report results

» Explain short comings

» Capture what may be “second nature”

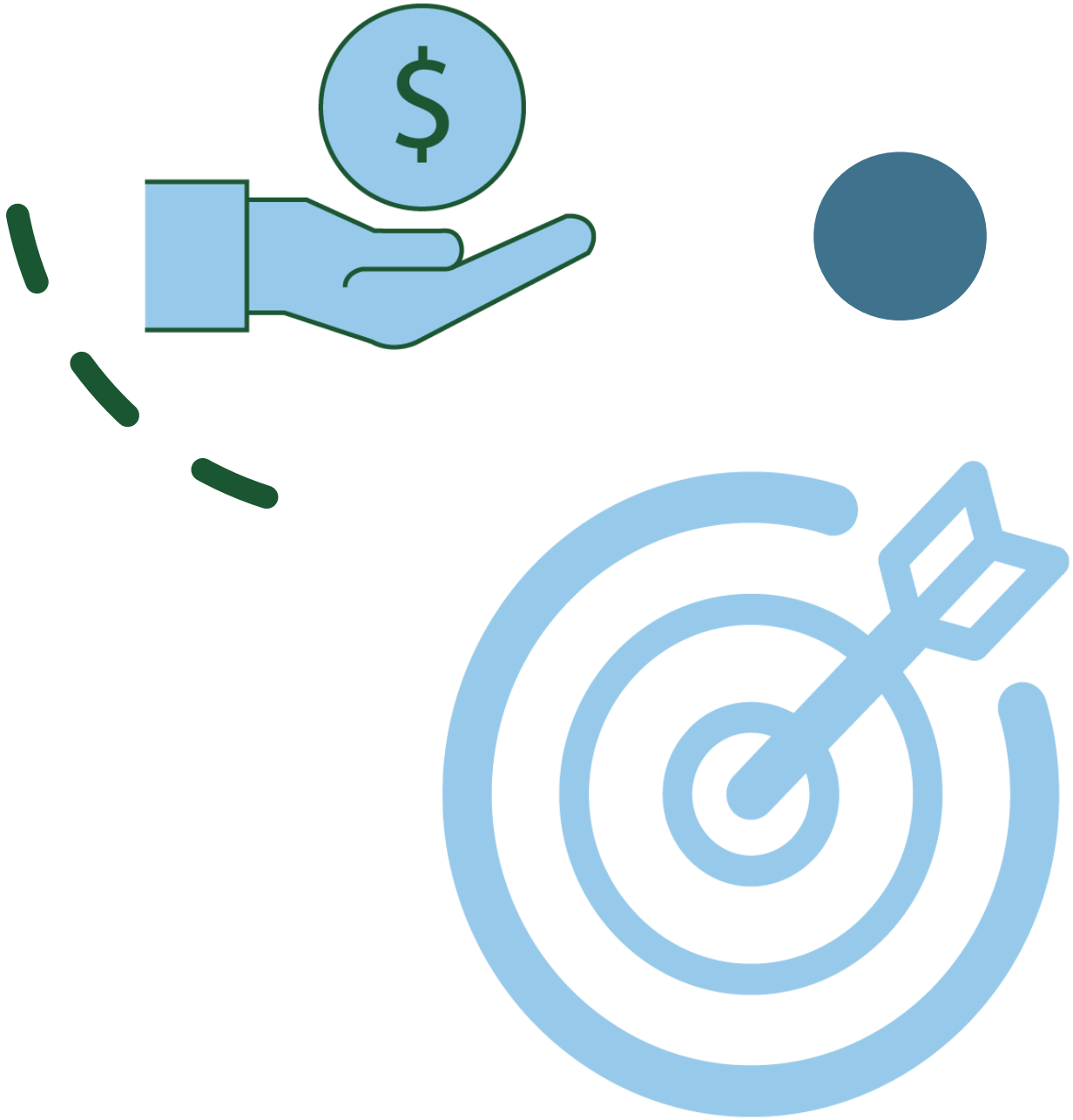
» Achievements are real and relevant

Compensation

» Link ESG targets to compensation

Verification and Auditing

» Adds credibility



How to Stand Out

- Include non-negotiables/table stakes
  - Climate Change & GHG emissions
  - Diversity and Inclusion
- Link ESG activities to your business
- Demonstrate business resilience
- Show how you are making a difference
- Challenge is to turn soft qualitative measures into hard quantitative ones that can be verified

True ESG is consistent with a judicious, well-considered strategy that advances a company's purpose and business model

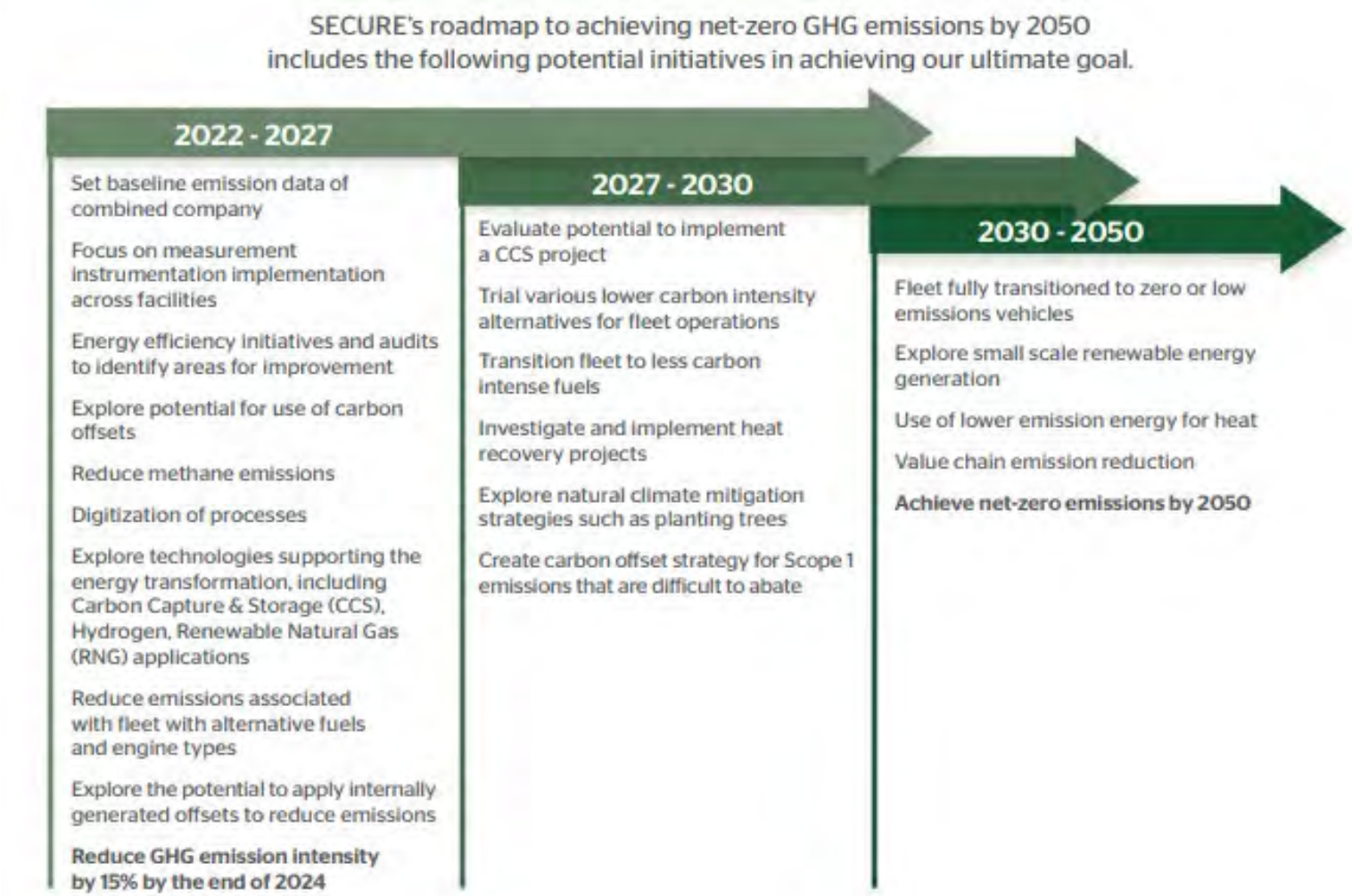
SECURE's 5 Year ESG Strategy

Five Year ESG Strategy and Roadmap

	2020	2021	2022	2023	2024
ESG Maturity Profile*	Basic	Established	Advanced	Advanced	Leading
ESG Phases	Preparation	Refinement	Sustainment	Maturation	Maturation
ESG Report	Early reports	Expanded metrics reporting, target setting	Includes improvement and aspirational targets	Report progress	Annual update
ESG Frameworks	Report Midstream Infrastructure reporting segment in SASB framework Report in GRI framework	Report in SASB Report UN SDG Report in GRI Prepare to report in Task Force on Climate-Related Financial Disclosures (TCFD)	Assurance readiness for reporting	Reliability and accuracy in data, systems, controls and methodologies to satisfy public disclosure	Undertake third party reasonable assurance audit
GHG Emissions/ Climate Change	Reporting with data available. Establish ultimate goal of net-zero GHG emissions by 2050	Scope 1 and 2 emission reporting, establishing a baseline for combined company Set short-term GHG emission reduction targets on the path to net-zero by 2050	Scope 1 and 2 reporting – data accuracy and systems (IT) Release Climate Action Plan	Evaluate Scope 3 emission reporting	Report on progress Consider third -party verification of emissions
ESG Strategy	Create strategy Materiality assessment completed Tie executive compensation to ESG targets	Employee awareness and ESG culture building, establishment of ESG committees Implement ESG ID opportunity Select 1-3 ESG operations or business initiatives to pursue (staged capping) Set fresh water reduction target	ESG culture building Governance gap analysis & action plan Assess government funding opportunities to support ESG initiatives Investigate and assess the potential to develop an investor strategy related to ratings and green bonds Select 1-3 ESG operations or business initiatives to pursue Explore carbon offset opportunities	ESG culture embedded ESG goals and targets are outcome based ESG operations and business initiatives for upcoming year are fully integrated into capital plans ESG integrated into supply chain Begin the Progressive Aboriginal Relations certification process through the Canadian Council for Aboriginal Business	Recognized as a leader in ESG in Canada (top decile for ESG maturity profile or similar benchmark)

*Source: EY's ESG Maturity Model

Roadmap to Achieving Net-Zero GHG Emissions by 2050



SECURE'S ESG Program

Current Internal Priorities

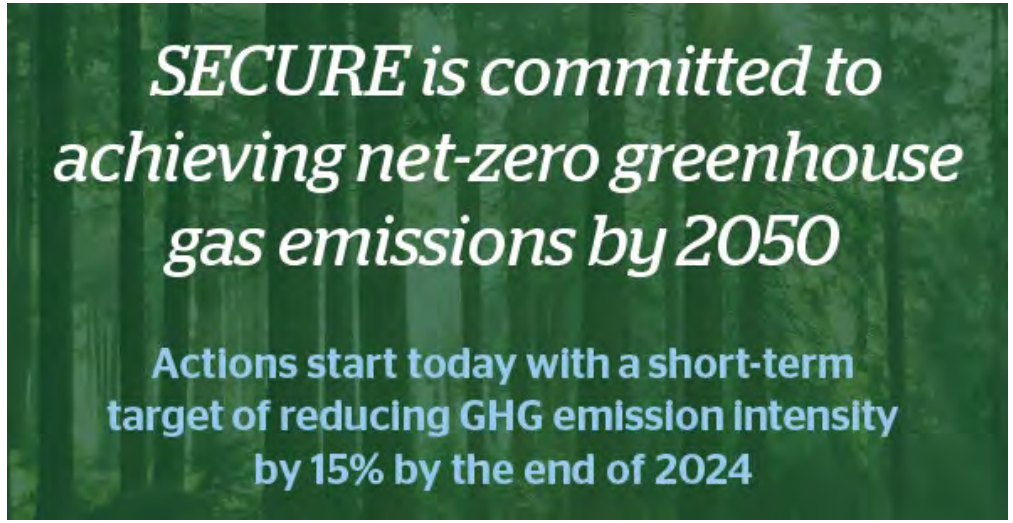
ENVIRONMENT

Climate Change

- Data capture and analysis
- Reducing Scope 1 emissions in our fleet and midstream operations

» Water

- Reduce consumption
- Return more to the water shed



SECURE'S ESG Program

Current Internal Priorities

SOCIAL

» Indigenous Business
- Economic benefits
- Employment opportunities
- Canadian Council for Aboriginal Business "PAR" certification

» Diversity
- Metric and data capture

GOVERNANCE

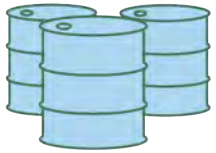
» Policy review

» Enterprise risk management

ESG Progression

For Our Customers

61 Midstream Processing Facilities



1.6 million

Barrels of **crude oil recovered** from customer waste

160 thousand

Tonnes of CO_2e generation avoided since 2018, from recovering crude oil from waste

101 thousand

Trucks displaced as a result of pipelines, **reducing CO_2e emissions by 9,474 tonnes** through our **31 pipeline connected facilities**

3.6 million

Tonnes of contaminated soil **safely contained** for customers

86 thousand

Tonnes of CO_2e generation avoided through metal recycling at our 5 facilities

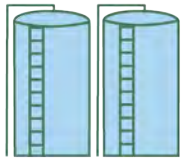
From Our Business

$10.5 million

Spent with **89 Indigenous Businesses**

36%

Employees living in **rural locations**



47%

Less leachate generated at our 27 landfills vs. 2020

9%

Decrease in Scope 1 and Scope 2 emission intensity vs. 2020

718 thousand

Cubic metres of **clean water returned to the environment**

0.79

Total Recordable Injury Rate **a 7% improvement vs. 2020**

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THANK YOU

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Olexandr Vasetsky

Director Of The Electric and Gas Distribution Group Alberta Utilities Commission

AUC
Alberta Utilities Commission

Key takeaways from the Distribution System Inquiry final report

Grid modernization – barriers and opportunities

Olex Vasetsky, CFA
Director, Electric and Gas Distribution Rates

What we do

AUC
Alberta Utilities Commission

Conduct evidence-based regulatory reviews in a fair and open process to consider what is in the public interest.

Balance the requirement to ensure safe and reliable service at just and reasonable rates.

Regulate investor-owned natural gas, electric and water utilities and certain municipally owned electric utilities.

Ensure electric facilities are built, operated and decommissioned in an efficient and environmentally responsible way.

Provide regulatory oversight of the wholesale electricity market and retail gas and electricity markets in Alberta.

Disclaimer

When talking about the Distribution System Inquiry undertaken by the Alberta Utility Commission, I will do my best to accurately summarize and present the views of the parties as well as what the Commission said on related subjects in its decisions. However, I do not represent the views of the Commission when expressing my thoughts as part of today's discussion.

Industry in transition

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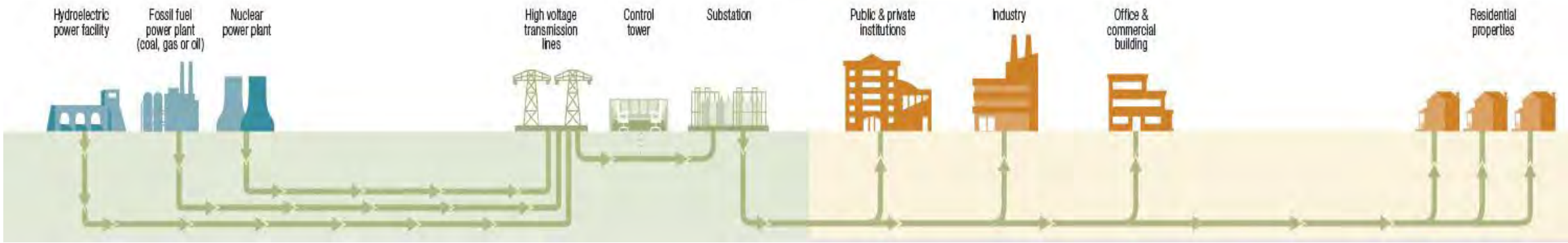
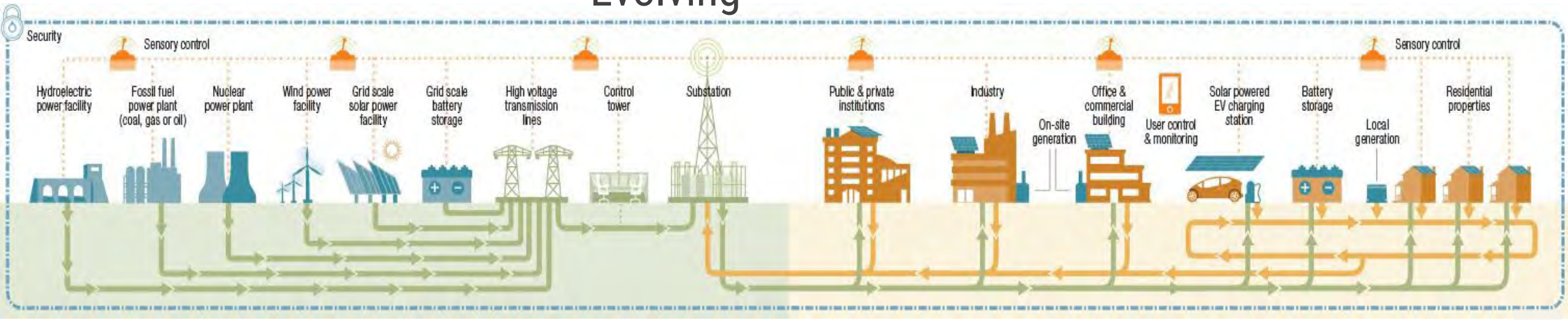
Historical



Evolving



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What are Distributed Energy Resources - “DERs”

- **Supply-side** – generate electricity and supply it to distribution customers, either for a customer’s own use through behind-the-meter generation (self-supply), distribution-connected generation (export only), or a combination of the two (self-supply with export)
- **Demand-side** – load shedding and/or load shifting technologies (e.g., energy efficiency, smart appliances, demand response and electric vehicles)
- **Energy storage resources** – technologies that allow energy to be stored and used at a later time, such as batteries and pumped hydro

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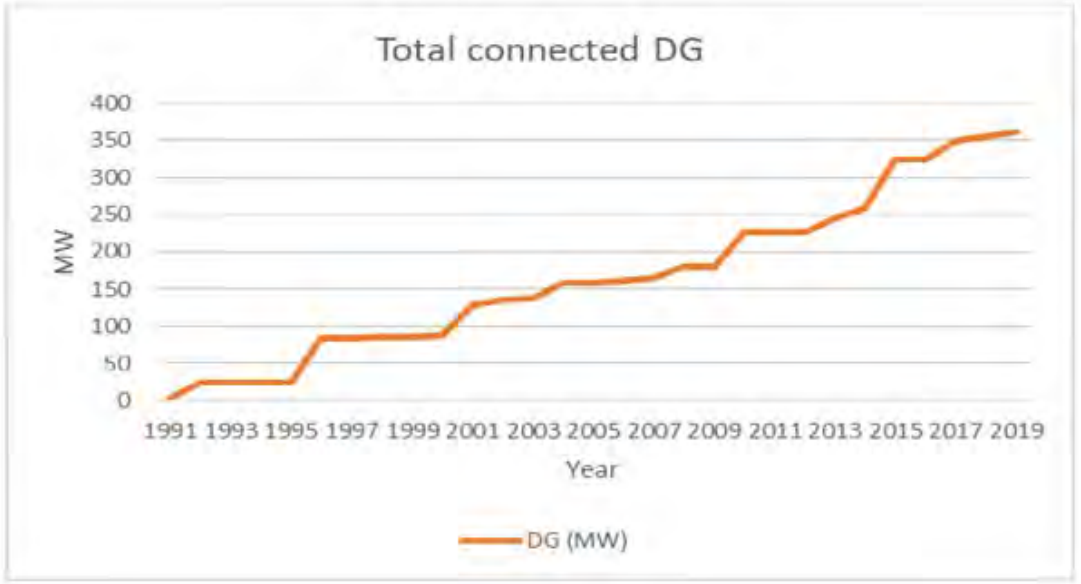
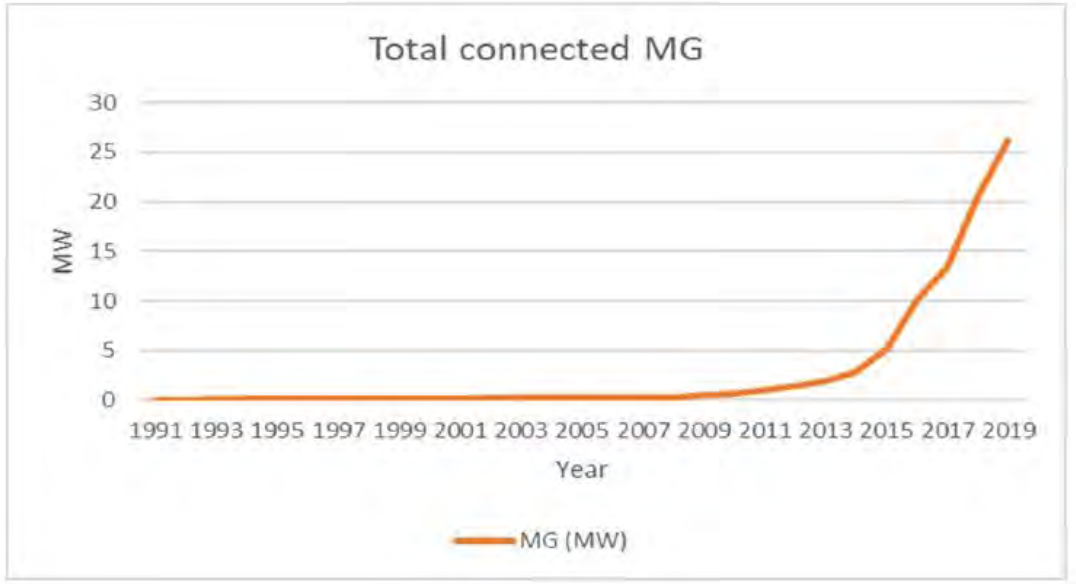
Growth of DERs

Data from Fortis service territory indicates a steady growth in DERs >5 MW (top chart) and rapid growth in DERs <5 MW (bottom chart)





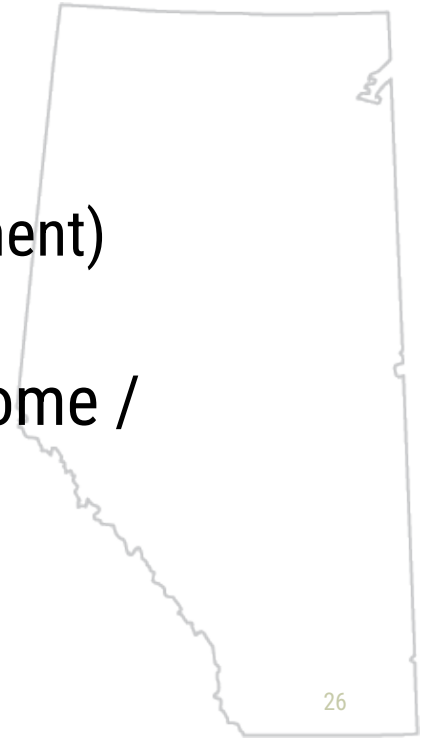
Purpose and scope of the inquiry

The Distribution System Inquiry was launched to hear from industry and stakeholders on how we manage the oncoming technological change to the electricity grid. We have learned from other jurisdictions that these changes can be disruptive. To help Alberta through this transition the inquiry looked to answer three main questions:

1. How will technology affect the grid and incumbent distribution utilities, and how quickly?
2. Where alternative approaches to providing electrical service develop, how will the incumbent electric distribution utilities and regulators be expected to respond?
3. What rate structures and price signals are needed to encourage utilities, consumers, producers, prosumers and alternative technology providers to use the grid and related resources in an efficient, cost-effective way?

Benefits of a modernized grid

- More customer choice for residential and commercial customers
- More competition in all aspects of the industry, minimizing costs for customers:
  - Generators – batteries to support renewables and offerings in market
  - Utilities – DERs as non-wires alternatives (NWAs)
  - Energy solution providers (alternatives to incumbent utilities)
    - Physical installation of assets (solar, batteries, demand-side management)
    - Service providers (microgrids, aggregators, load managers)
  - Property developers – residential and commercial solar and smart home / smart building offerings for customers
  - Retail – customized products tailored to customers' needs

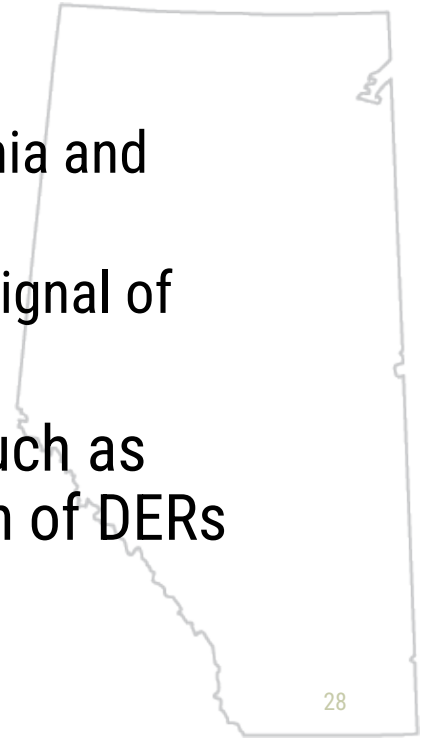


Issues to guard against

- Modernizing the grid is very costly. If not managed proactively, industry changes may lead to higher costs
- Potential for inefficient outcomes (uneconomic bypass, duplication of facilities, stranded assets, utility “death spiral”, lack of symmetry b/w T-connected and D-connected generation)
- Prosumers (DERs owners) may have skewed expectations of grid costs avoidance, which are hard to remedy (i.e., grandfather) when embedded
- Uncertain treatment (tariff, permits) as some DERs may not be defined in the current regulatory framework
- Data privacy and IT security issues

Uneconomic Bypass (cost shifts)

- Uneconomic bypass describes a situation where a customer's bypass decision (i.e., supplying its needs through other means) shifts fixed cost recovery, whether in whole or in part, to other customers.
  - Principally driven by rate design inadequacies (ability to avoid system fixed costs), making DERs a very attractive proposition
- Examples:
  - Distribution system: net energy metering for solar panels in early plans of California and Hawaii
  - Transmission system: the current 12CP demand charge in Alberta sends a price signal of approximately $10/kW to install on-site generation to bypass the system
- This does not in any way suggest that customers should not be using DERs (such as solar PV) to satisfy their energy needs. The point is to ensure that the adoption of DERs by customers does not result in cost shifting to other customers.



Managing the cost of modernizing the grid

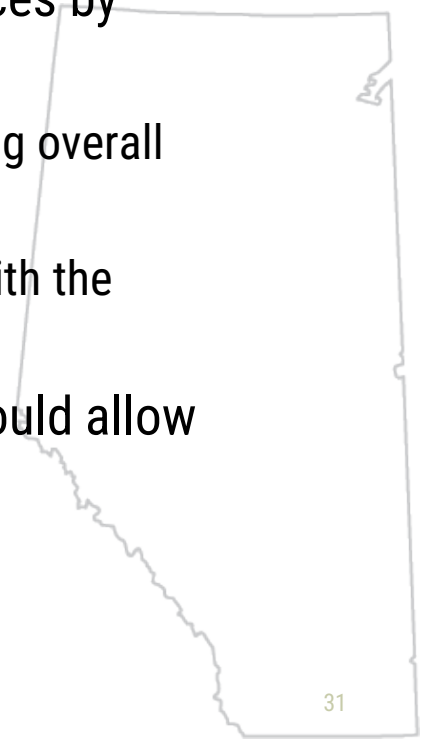
- Stakeholders stated that proactive, organized and collaborative efforts to address the following should be prioritized:
  1. Advanced metering infrastructure (AMI)
  2. Effective price signals
  3. Broad access to data and information
  4. Improved integration of DERs (including energy storage)
- Grid modernization requires intensive capital investments, to reduce long-term operating cost of the grid
- Proactively addressing metering, pricing, and access to information will improve integration of DERs and reduce cost escalations

Advanced Metering Infrastructure (AMI)

- Creates granular and (closer to) real-time data, which is required to:
  - Improved utility decision making (planning and operations)
  - More choice in how to price electricity and its delivery, leading to improved customer decision making (through effective price signals)
  - Expanded opportunities for business and private investments to further modernize the grid
  - Enhanced retail choice offerings
- Short-term job creation (to replace meters) and longer term economic development opportunities (in retailing electricity, installing DERs, and smart grid deployment)
- Two methods to deploy:
  - Mandated roll-out; most effective but more cost upfront (although cheaper in the long run)
  - Market-driven adoption; less cost upfront but will not result in full system deployment

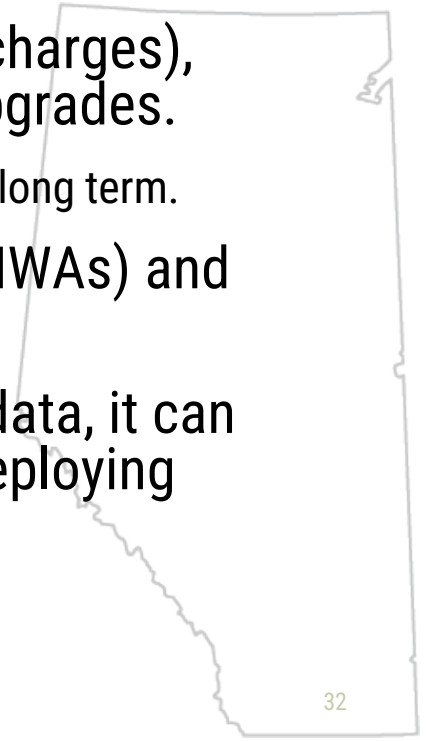
Minimizing long-term system cost through integration of DERs

- The current regulatory framework does not incent or require utilities to consider the potential system benefits DERs could provide
  - Currently recognized: Energy
  - Not recognized: system capacity, reliability services, and avoiding or deferring wires
- Broader recognition of system benefits could allow the use of DERs in system planning practices by utilities
  - DERs could act as a non-wire alternative (NWA) and assist in mitigating reliability concerns, reducing overall system costs
  - This would require a more integrated approach to system planning and operation will be required with the growth of DERs, including between the AESO, utilities, load customers and third-part developers
- Incenting or requiring utilities to better integrate DERs (and their potential system benefits) would allow greater utility choice in providing Albertans wires services



Managing the cost: example

- EPCOR did a study with the U of A, showing that:
  - As few as one or two EV's using a Level 2 charger (7.2 kW) on a single 37.5 kVA transformer could potentially overload the transformer (assuming typical residential loading on that transformer)
  - Transformer replacements and capacity upgrades on a single residential feeder would cost ~$20 million in capital upgrades (assuming the feeder has approximately 300 37.5 kVA transformers, each servicing 12 households, of which there are three households with EV charging)
- Alternatively, install AMI, which enables targeted pricing (time variant rates, demand charges), which *may* incent charging at non-peak times to postpone or eliminate the need for upgrades.
  - also provides more robust data for utilities to plan and maintain their systems, thus reducing costs in the long term.
- Improved integration of DERs (e.g., batteries, PV) to use as non-wire alternatives (or NWAs) and assist in mitigating reliability concerns, reducing overall system costs
- If customers, retailers and energy solutions providers are also given access to these data, it can enhance customer choice, decision making, and more efficient decisions regarding deploying capital to install DERs.

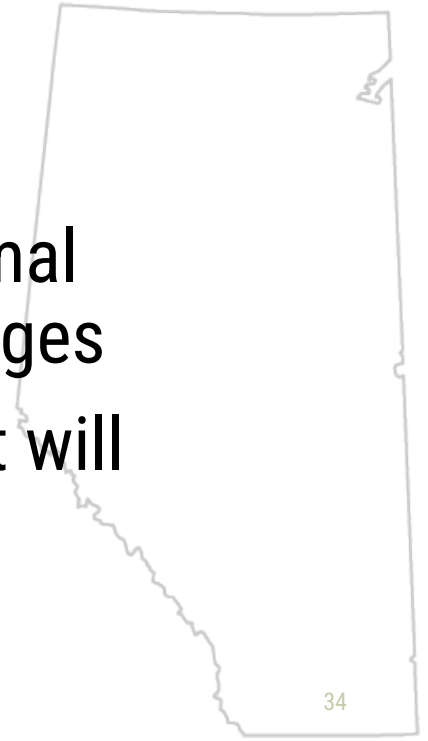


Collaborative approach

- Stakeholder forum led by Government on longer term approaches and associated reforms for the electricity industry
  - Modernizing Alberta's Electricity Grid Amendment Act, 2022
- Working in coordination with other agencies (AESO, MSA).
- Short to medium-term initiatives within the AUC's normal scope of work:
  - Modernize the regulatory framework for electricity storage
  - Distribution and transmission tariffs (incl. passing on more effective price signals)
  - Distribution system planning and reliability criteria
  - Distribution connection practices for distributed resources

Conclusion

- Grid modernization requires better: metering, pricing, access to information, and integration of DERs
- Current regulatory framework does not incent or require utilities to consider the system benefits DERs could provide, potentially leading to a more costly grid
- Prosumers may have skewed expectations on grid costs avoidance
- Some of identified issues can be addressed through the AUC's normal processes; other will need to be addressed through legislative changes
- Proactive, organized and collaborative efforts outlined in this report will support development of the least cost grid for Albertans



Appendix

Who did we hear from?

Headquarters location	Number of participants		Stakeholder type	Number of participants
Alberta	75		Utility	13
British Columbia	1		Generator	12
Ontario	5		Solution provider	10
Manitoba	1		Energy retailer	2
Quebec	1		Special interest advocacy group	14
United States	8		Government (municipal, county, agency, etc.)	9
			System operator	1
			Commercial and industrial customer groups	3
			First Nation group	1
			Finance	2
			Rural landowner group	3
			Informed citizen	4
			Regional innovation centre	1
			Expert consultancy	16
Total	91			91

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Jerry Demchuck

ESG Advisory Services Director

SLR Consulting

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Fall Forum

Alberta Chamber of Resources

October 4, 2022

Managing Corporate Risk through ESG Performance

ESG **Environmental, Social, Governance** | helping clients achieve their sustainability goals

Presentation Overview

- Introduction
- Current Playing Field
- ESG Risk Management
- Project Example
- Summary

Introduction

We have not seen an issue or topic that has impacted Corporate decision-making process as much as ESG over the last decade.

The focus of this presentation is to examine how ESG risk has become a significant component of the corporate risk profile and the strategies required to effectively manage ESG Risks and Opportunities.

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Current Playing Field

Risk

- Organizations have been quantifying corporate risk through their Enterprise Risk Management (ERM) activities for years, some do a good job others do not.
- Risk is not static. This has become increasingly more evident given:
  - Market volatility
  - Local, National and Global politics
  - Supply chain bottlenecks
  - Environmental factors
    - Climate resilience
    - Decarbonization
  - Requirements around Social Licence
    - Stakeholder concerns
  - Investor confidence

In an ideal world companies would have all the information required to effectively manage and mitigate disruptions and risks – This information would be shared across multi functional groups empowered to make quick and informed decisions.

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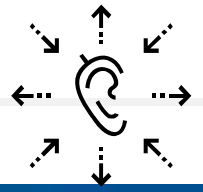
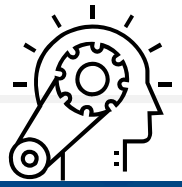
Composition of Corporate Risk

Progressive organizations know that risk is inherent in the business but is not confined to any single business function.



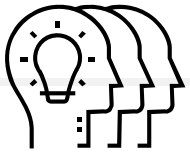
Operational

- EH&S
- Asset protection and security
- Supply chain resilience
- Staffing/personnel



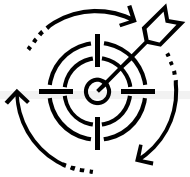
Reputational

- Industry reputations
- Corporate brand attacks
- Company controversy
- Social responsibility



Business

- Investor relations
- Political environment
- Market conditions
- Business resilience
- Supply Chain resilience



Cyber

- IT issues (Data breaches, Leaked Credentials, Phishing, Ransomware)
- Advanced persistent threats

The Current Playing Field

ESG Risk Landscape

ESG is dynamic, no single set of topics or metrics covers all ESG issues for organizations.

ESG is about risk management - identifying risks and opportunities within your corporate and operational envelope to build both internal and external relationships into a competitive advantage (with a focus on investor/employee and community priorities) that drives long term value for the corporation.

Key steps in developing your ESG strategy.

1. Define your ESG objectives and vision
2. ESG Materiality Assessment
3. Break down material ESG issues into individual risks and opportunities
4. Establish ESG Baseline, KPI's, targets and execution strategies
5. Integrate these objectives and vision with your corporate strategy.
6. Develop a disclosure roadmap
7. Monitor ongoing performance.

Successful companies build on their existing foundation to showcase ESG performance while continuing to develop opportunities for further improvements in the long run.

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The Importance of ESG

ESG represents a direct link & accountability from environmental management, sustainability to corporate governance.

ESG Risk Management

The New Risk Paradigm - ESG

Companies are all being faced with a myriad of ESG KPI or target challenges;

- Government of Canada, Net Zero Electricity by 2035
- The Net Zero Advantage
- Decarbonizing with Renewable Natural Gas
- Hydrogen Pathways to Net Zero
- A New Era of Sustainability
- Energy for Net Zero Agriculture
- Decarbonizing Big Data

Like GHG Emissions (scope 1-3), How far down the value chain do companies need to go to adequately evaluate ESG Risk?

ESG Risk Management is about identifying the risks and deciding which risks are material and which are not.

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ESG Risk Management

The New Risk Paradigm - ESG

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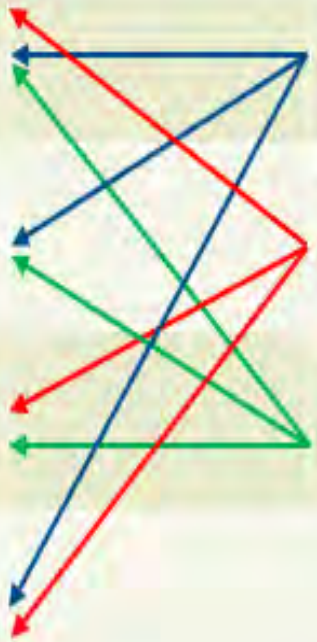
Expanded Risk Profile

ESG continues to become a larger component of the corporate risk profile

Corporate ERM		Cross over	ESG Materiality	
Operational	EH&S, Asset protection and security, Supply chain resilience, Staffing/personnel		Governance	Business ethics and transparency, Investor relations
Business	Investor relations, Political environment, Market conditions, Business resilience, Supply Chain resilience		Social	Indigenous relationships, Human rights, H&S, Human capital management, Community relations
Reputational	Industry reputations, Corporate brand attacks, Company controversy, Social responsibility		Environment	Climate Change/resiliency, Decarbonization, Water Management, Waste Management, Biodiversity and Reclamation
Cyber	IT issues (Data breaches, Leaked Credentials, Phishing, Ransomware), Advanced persistent threats			

ESG Risk Management

The ESG Battlefield

Issue – Too many companies are trying to manage a diverse and evolving issues like ESG through their existing structure which can be very narrow (silos).

- Everyone wants to own/control the ESG function
- What makes sense for your company?

Solution - Companies need to embrace a cross functional team approach that enables a cradle to grave approach to managing ESG Risk.

- 1st line – Operations (Ops, Engineering, environment)
- 2nd line – Compliance (regulatory, stakeholder engagement, Investor relations)
- 3rd line - Assurance (internal audit, finance)

- This approach should be led by someone who has a strong cross functional background and understands not only the ESG landscape but how to operationalize ESG targets and KPI's

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Case Study

Project Example

Renewable Energy, Battery Metals Company

Current Conditions – Developing a renewable electricity storage project and battery metals mine

Issue:

- Current sustainability program is not comprehensive enough to satisfy ESG requirements.
- Current internal risk analysis does not adequately capture and integrate ESG risks.

Challenges:

- Build an integrated risk registry that incorporates all material ESG risks
- Improve internal structure and communication to ensure accountability and cross functional team performance
- Manage external expectations from investors, indigenous communities and other stakeholders.

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Case Study

Project Example

Renewable Energy, Battery Metals Company

Solution:

- Define Corporate commitment to develop comprehensive internal ESG management platform
- Define integrated ESG risk management team (to include Executive oversight, regulatory/environment, operations, finance, stakeholder engagement, government relations) and accountabilities.
- Complete materiality assessment to identify all ESG risks and opportunities
- Develop corporate targets and KPI's.
- Create an active risk register to track specific KPI's (Director of ESG)
- Integrate ESG risk evaluation into the existing corporate strategy
- Develop the ESG Disclosure strategy

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Global leaders in environmental and advisory solutions: *helping clients achieve their sustainability goals*

We provide advice and guidance to clients across seven key industry sectors, helping them drive ESG value.

Key Contacts

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ALBERTA CHAMBER OF RESOURCES

Coffee & Networking

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Panel Discussion

Brian Van Vliet
Panel Moderator
Environmental Solutions Leader
Spartan Controls

Olexandr Vasetsky
Director of Electric and Gas Distribution Group, Alberta Utilities Commission

Rhonda Rudnitski
Vice President ESG
Secure Energy

Jerry Demchuck
ESG Advisory Services Director
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Thank you