

Research and Analysis Support for the Blue Ribbon Panel on Alberta's Finances

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1 INTRODUCTION

1.1 Study Purpose

Canada is considered to have become less globally competitive in recent years, which has affected the level of business attraction and capital investment in the country.¹ Competitiveness determines the level of productivity of a jurisdiction, and thus the potential for an economy to grow sustainably and inclusively.² Canada's challenges include: an aging population; limited ability to retain homegrown talent; limited attention to later career training and development; and lagging growth in high-value innovation and technology application compared with other jurisdictions.³ In light of this national context, opportunities exist for provinces that are able to improve their competitiveness and attract business investment.

On May 7, 2019 the Government of Alberta established "The Blue Ribbon Panel on Alberta's Finances" ("the Panel"), to conduct a "deep dive" into Alberta's fiscal situation, recommend a path to balance, and propose a realistic plan to start paying down the debt. The Panel is to conclude its work and deliver its final report and recommendations to the President of Treasury Board and Minister of Finance by August 15, 2019, together with any follow-up clarifications, explanations or other advice as may be requested by the Province. The final report and recommendations of the Panel will serve as input into the Province's 2019 Budget and future budgets.

The Panel commissioned MNP LLP ("MNP") to carry out research and analysis in support of its mandate. The scope of the research and analysis consisted of the following:

- **Scope One:** Identification of best practices from comparable jurisdictions believed to have successful business attraction and capital investment regimes.
- **Scope Two:** Review of the Report on Competitiveness: Alberta 2016 ("the MMK Report"),⁴ with a focus on identifying additional measures of competitiveness that were not included in the MMK Report.
- **Scope Three:** Analysis and advice on the competitiveness of Alberta's oil and gas sector, relative to key competing jurisdictions in Canada and the United States ("US").
- **Scope Four:** Review of the competitiveness implications of carbon pricing and climate change policies in Alberta relative to other key jurisdictions in Canada and the US.

Across the four research areas listed above, the following were considered comparison jurisdictions: BC; Saskatchewan; Ontario; Quebec; Colorado; Texas; Washington; North Dakota; and Australia.

¹ Public Policy Forum. "A New North Star: Canadian Competitiveness in an Intangibles Economy". April 2019.

² World Economic Forum. "What is competitiveness?". September 27, 2016. Available here: <https://www.weforum.org/agenda/2016/09/what-is-competitiveness/>

³ Public Policy Forum. "A New North Star: Canadian Competitiveness in an Intangibles Economy". April 2019.

⁴ MMK Consulting Inc. "Report on Competitiveness: Alberta 2016". August 2017.

1.2 Report Limitations

We have relied upon the completeness, accuracy and fair presentation of all information and data obtained from the Government of Alberta and public sources, believed to be reliable. The accuracy and reliability of the findings and opinions expressed in the presentation are conditional upon the completeness, accuracy and fair presentation of the information underlying them. As a result, we caution readers not to rely upon the findings or opinions expressed in the report for personal or corporate business or investment decisions and disclaim any liability to any party who relies upon them as such.

2 SCOPE 1: REVIEW OF BEST PRACTICES RELATED TO BUSINESS ATTRACTION AND CAPITAL INVESTMENT

2.1 Background

Government authorities may pursue a number of strategies to attract businesses and capital investments to their respective jurisdictions. This section includes a summary of the key findings from MNP's identification of best practices from jurisdictions believed to have successful business attraction and capital investment regimes.

For Scope 1 MNP's approach consisted of:⁵

- Secondary research on best practices of business attraction and capital investment.⁶ A total of 10 reports on best practices for business attraction and capital investment were reviewed. For a detailed list of reports reviewed, please refer to Appendix A.
- Identification of common best practices across reports reviewed as part of the secondary research.
- Identification of examples of initiatives where best practices were demonstrated. Where possible, initiatives were identified in the jurisdictions believed to be of most relevance to Alberta (i.e., BC, Saskatchewan, Ontario, Quebec, Colorado, Texas, Washington, North Dakota, Norway, and Australia).
- Each best practice was assessed at a high-level by reviewing its alignment with the Alberta government's stated priorities; expected time frame to implement the best practice; and, expected level of government involvement, in terms of fiscal policy, legislation and co-ordination between various departments. For further details on MNP's assessment of the best practices, please refer to Appendix B.

2.2 Themes of Best Practices

The best practices for business and investment attraction identified in MNP's review can be classified into five broad themes:

- **Existence of a clear and well-supported investment attraction strategy.** A clear and focused investment attraction strategy is essential for successful attraction of investors to a jurisdiction. An effective strategy includes a long-term vision and direction for business attraction efforts, outlines the target market for investment (e.g., key industries) and describes the intended approach to reach and secure investors. To instil confidence in investors, the strategy should be supported by all levels of government in the jurisdiction, as well as by senior leadership from the local business community.^{7,8,9} Best practices associated with such an investment attraction strategy include:
 - Development of a well-crafted place branding strategy based on a clearly articulated vision.
 - Development of a compelling place value proposition for investors.
 - Collaboration with multiple stakeholder groups and different levels of government.

⁵ Please note that due to the short timeframe of the project, MNP's review did not include primary research through interviews.

⁶ Please note that the scope of the review did not include tax incentives for business attraction and capital investment.

⁷ Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

⁸ Ivey, Lawrence National Centre for Policy and Management. "Investment Attraction: Learning from "Best Practice" Jurisdictions". 2016. Available here: <https://www.ivey.uwo.ca/cmsmedia/2758461/investment-attraction-learning-from-best-practice-jurisdictions.pdf>

⁹ Advisory Council on Economic Growth. "Bringing Foreign Investment into Canada". 2016. Available here: <https://www.budget.gc.ca/aceg-ccce/pdf/foreign-investment-investisseurs-etranagers-eng.pdf>

- Consultation with existing investors to identify gaps and opportunities.
- Leveraging existing networks to generate investment leads.
- **Provision of investor-centric service offerings.** Such service offerings are important to ensure that investors can start operations as quickly and seamlessly as possible, and further grow operations in the jurisdiction. To be effective, investor-centric service offerings should help guide investors through the investment process, remove obstacles, and provide access to assets and resources in the jurisdiction.¹⁰ Best practices associated with provision of investor-centric service offerings include:
 - Facilitation of a soft-landing for investors through a one-stop shop experience.
 - Development and delivery of a holistic after-care approach.
 - Development and support of industry clusters.
- **Regulatory efficiency, transparency and predictability.** These activities balance the need for regulatory and compliance procedures with the cost, time, and risk to investors.¹¹ As well, they provide transparency and predictability to investors regarding regulatory processes. Best practices associated with supporting regulatory efficiency, transparency and predictability include:
 - Reduction of the regulatory burden for investment.
 - Provision of transparency and predictability by sharing regulatory requirements, timelines and responsibilities with investors.
- **Enhancement of the local labour force.** Having access to skilled labour is a key factor in attracting new investments and in growing recent investments in a jurisdiction.¹² This should involve collaboration between government, industry and academic institutions in a jurisdiction. Best practices associated with enhancing the labour force include optimizing the local workforce and attracting talent.
- **Measurement of investment attraction.** Measurement of investment attraction efforts is important to provide accountability and to use past knowledge to improve future investment attraction activities and efforts.¹³ Measuring investment attraction should involve clear targets, systematic tracking, and consistent use of metrics such as return on investment or economic impact.¹⁴ Best practices associated with measuring investment attraction include monitoring and evaluation of investment attraction efforts.

It is important to note that these best practices for business and investment attraction require their effective implementation. Key to effective implementation is a government culture that prioritises business and investment attraction and ongoing consultation with investors and the business community. This may be demonstrated through involvement of senior government leadership in championing the importance and benefits of investment attraction, design and delivery of efficient and effective government services, and consideration of investors' needs with each decision related to government service strategy and execution.¹⁵

¹⁰ Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

¹¹ OSCE. "Best Practices Guide for a Positive Business and Investment Climate". 2006. Available here: <https://www.osce.org/eea/19768?download=true>

¹² Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

¹³ Ibid.

¹⁴ Inter-American Development Bank. "Innovations in Foreign Direct Investment Attraction". November 2018. Available here: https://publications.iadb.org/en/bitstream/handle/11319/9361/Innovation_FDI_Attraction_FINALconvergence.pdf?sequence=1

¹⁵ PWC. "The road ahead for public service delivery". 2007. Available here: https://www.pwc.com/gx/en/psrc/pdf/the_road_ahead_for_public_service_delivery.pdf

2.3 Following a Clear and Well-Supported Investment Attraction Strategy

Best practices associated with following a clear well-supported investment attraction strategy include the development of a well-crafted place branding strategy based on a clearly articulated vision, the development of a compelling place value proposition for investors, collaboration with multiple stakeholder groups and different levels of government, consultation with existing investors to identify gaps and opportunities, and leveraging existing networks to generate investment leads:

Development of a well-crafted place branding strategy based on a clearly articulated vision

Place branding is considered to be a cornerstone to targeting investment and has become an important strategy for jurisdictions to differentiate themselves. Place branding enables jurisdictions to manage their reputation and attain a unique position in the eyes of investors based on the jurisdiction's identity and strengths.¹⁶

To create a well-crafted place brand, it is important for it to be built based on a clear and compelling vision, leverage the jurisdiction's strengths, and ensure the brand is distinct and bold.¹⁷ Marketing of the brand by senior government officials helps enhance a jurisdiction's reputation for being investor friendly. An example of a successful place branding strategy is the Making Colorado initiative, described below.

In 2012, the Governor of the State of Colorado launched the Making Colorado initiative, which involved the development of a brand for the state that could help boost trade, tourism and economic development.¹⁸ The main purpose of the brand was to “unify Colorado – making its government more efficient while attracting talent and businesses and promoting tourism”.¹⁹ To develop the brand for Colorado, the government recruited a Chief Marketing Officer and gathered input from a wide range of stakeholders including a council of advisors, 64 youth ambassadors from across the state, and hundreds of thousands of residents. In 2019, the brand of the state was updated and is expected for the new brand to be rolled out over the next several years.²⁰

Development of a compelling place value proposition for investors

Place value proposition is defined as a “targeted investment offering that is based on the jurisdiction's competitive edge, culture or values in order to differentiate the offer in a highly competitive market”.²¹ Developing a strong place value proposition is considered a best practice for investment attraction, as most investors require an offering from the jurisdictions that highlights how their needs are going to be met by a location before they make an investment decision.²²

Important components in the development of a compelling place value proposition include addressing investor's needs and desires, aligning it with the jurisdiction's areas of specialization, considering market and technology trends, highlighting the jurisdiction's overall attraction and quality of life, and considering the offerings of

¹⁶ Nordic Place Academy. “Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities”. January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

¹⁷ Ibid.

¹⁸ Huffington Post. “Making Colorado Unveils First Logos for State Branding Initiative”. Available here: https://www.huffpost.com/entry/making-colorado-logos-state-branding-initiative_n_3618001

¹⁹ State of Colorado. “The Brand Guidelines”. 2019. Available here: <https://drive.google.com/file/d/1fmlGwQzKCpmHZvYDJQrW3kB9OqOo4gj/view>

²⁰ State of Colorado, Division of Central Agencies. “State Branding”. Available here: <https://www.colorado.gov/pacific/dcs/state-branding>

²¹ Nordic Place Academy. “Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities”. January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

²² Ibid.

competitor jurisdictions.²³ An example of a jurisdiction that focuses on developing compelling value propositions for investment attraction is Australia.

As part of a broader regional tourism infrastructure investment attraction strategy, Tourism Australia and Austrade developed value propositions for eight regions in Australia that were selected to attract investment into tourism infrastructure. The value proposition of each region includes information to assist investors in understanding the tourism infrastructure and investment landscape in such regions, including visitation trends, airport infrastructure, accommodation and investment trends.²⁴

Furthermore, in 2014/15, Australia undertook a review of its value proposition across three key priority sectors; advanced manufacturing, services and technology; resources and energy; and agribusiness and food. The purpose of the review was to better promote and attract investment into these sectors. The review entailed gathering views from global investors on their investment drivers and the role of Australia within these drivers. The review provided Australia with a better understanding of the country's value proposition for investors and the ability to refine that value proposition based on up-to-date investment drivers. The review also improved the ability of Australia's investment promotion team to articulate investment opportunities within Australia and bring in new investment into the country's sectors of priority.²⁵

Collaboration with multiple stakeholder groups and different levels of government

Business and capital attraction efforts require long-term co-ordination and collaboration between various stakeholder groups, including the private business sector; academic institutions; non-governmental organizations, and governments at the local; regional and national levels.²⁶ Since many different groups and levels of government are involved in responding to and servicing potential investors and existing businesses, a team approach is essential.²⁷ This allows investment and attraction activities to be conducted in parallel, effectively reducing lead times, an important consideration for businesses. These efforts may include dedicated local authorities, public-private partnerships and partner organizations. Support and involvement of senior government officials may help augment a culture in which collaboration for business and investment attraction is prioritised.

Consultation with existing investors to identify gaps and opportunities

Consulting with existing investors to understand their supply chain and workforce needs is considered a best practice for business attraction.²⁸ This requires identifying key sectors and conducting a needs assessment with major existing investors in the sectors.²⁹

Understanding the supply chain needs of existing investors, and then facilitating supply chain linkages with local businesses has several benefits: it helps embed investors to the local economy and reduces the risk of closure

²³ Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf.

²⁴ Australian Government, Australia Trade and Investment and Australia Tourism. "Investment Opportunities in Regional Australia". 2019. Available here: <https://www.austrade.gov.au/Australian/Tourism/Policy-and-Strategy/Infrastructure-and-Investment/regional-tourism>

²⁵ Australian Trade Commission. "Annual Report: Part 02 Report on Performance, 2014/15". Available here: <https://www.austrade.gov.au/austrade-2015/part-02-report-performance/programme-11-promotion-australias-export-and-other-international-economic.html>

²⁶ Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

²⁷ Ibid.

²⁸ OECD. "Policy Framework for Investment: A Review of Good Practices". 2006. Available here:

<https://www.oecd.org/daf/inv/investmentfordevelopment/policyframeworkforinvestmentareviewofgoodpractices.htm>

²⁹ Inter-American Development Bank. "Innovations in Foreign Direct Investment Attraction". November, 2018. Available here: https://publications.iadb.org/en/bitstream/handle/11319/9361/Innovation_FDI_Attraction_FINALconvergence.pdf?sequence=1

or relocation; it increases the indirect, multiplier impact of the investment; and it makes the jurisdiction an attractive location for investors that are seeking a strong supply chain.³⁰ The example below describes the use of industry consultation in developing the North Development Company's supply chain and investor development program in the UK, which has served as a model for other jurisdictions.

Understanding the workforce needs of investors and addressing these needs by providing skills and training programs also has several benefits: it attracts new investors, as the availability of a skilled workforce is among the top three determinants in the decision of where to invest; and it may influence an investor's decision to expand or upgrade operations in a jurisdiction.³¹ An example of the use of industry consultation to understand and address work force needs of investors is included under the theme Enhancing the Local Labour Force.

The North Development Company (now called Invest North East England) in the UK is considered to have developed the world's first comprehensive supply chain and investor development program in the 1990s. The investor development program identified 100 existing investors considered to be key accounts and assigned them a key account manager. This supply chain program entailed the recruitment of a team of eight supply chain managers with expertise in procurement and production engineering, to create a bridge between key investors and local small and medium-sized enterprises (SMEs). Each supply chain manager was responsible for reviewing the supply chains of 10 key investors and identifying 20 potential local suppliers and assess their competence. Weaknesses identified in the suppliers were shared with local training agencies for them to address with SMEs. The overarching objective of this initiative was to improve the capabilities of local SMEs to be able to supply key investors, as well as entrench key investors in the local economy to avoid future closure or relocation. As a result of this program, investment arising from its supply chain development efforts was approximately 50 percent of the value of inward investment. This program has served as a model for other jurisdictions, including leading investment promotion agencies such as CzechInvest in the Czech Republic.³²

Leveraging existing networks to generate investment leads

Leveraging existing networks to generate investment leads is considered a key best practice for business attraction. Members of such networks can provide introductions, speak at events, help develop investment propositions, and provide a "voice of experience" for potential investors.³³ Existing networks may include:

- Existing or on-going investors, that can be connected with other businesses to expand the existing investment or to maximize the ongoing investment.
- Advisors, professional service providers and brokers, that have wide networks and client bases (e.g. site selection consultants, major accounting and law firms).³⁴
- Business individuals with a connection to the jurisdiction and that have national and international outreach, that can act as formal or informal representatives for a jurisdiction.

³⁰ Inter-American Development Bank. "Innovations in Foreign Direct Investment Attraction". November, 2018. Available here: https://publications.iadb.org/en/bitstream/handle/11319/9361/Innovation_FDI_Attraction_FINALconvergence.pdf?sequence=1.

³¹ Ibid.

³² Ibid.

³³ Adam Smith International. "Best Practices for Investment Promotion and Facilitation in ASEAN: General Paper". 2014. Available here: <http://aadcp2.org/wp-content/uploads/ASIInvestmentPromotion-ProjectGeneralPaper.pdf>

³⁴ Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

Members of an overseas diaspora, who are often highly educated and highly skilled individuals from a jurisdiction that live and work overseas and may have established businesses in their adopted location. Diaspora members themselves are also a potential pool of investors.³⁵

Examples of jurisdictions that are considered to successfully leverage existing networks to generate leads are Hong Kong and Scotland.

In Hong Kong, InvestHK has successfully utilized “investment promotion ambassadors” to be advocates for business investment in Hong Kong. InvestHK identifies, selects and recruits prominent individuals in Hong Kong, both residents and foreigners, to communicate Hong Kong’s attractiveness as an investment location. They provide introductions, are key speakers at events organized by InvestHK, and share practical experience about conducting business in Hong Kong. These investment promotion ambassadors are considered an “invaluable resource to InvestHK and the business community in Hong Kong”.³⁶

In Scotland, Scottish Enterprise has successfully utilized a global ambassador network, GlobalScot, which is considered one of the leading and most extensive network. GlobalScot selectively recruits business leaders, entrepreneurs, and senior executives with ties to Scotland and Scottish businesses. There are over 600 “GlobalScots” across 50 countries, that are active in conducting introduction meetings abroad and in helping with investment propositions.³⁷

2.4 Providing Investor-Centric Service Offerings

Best practices associated with providing investor-centric service offerings include the facilitation of a soft-landing for investors through a one-stop shop experience, development and delivery of a holistic after-care approach, and the development and support of industry clusters:

Facilitation of a soft-landing for investors through a one-stop shop experience

Soft-landing efforts help businesses establish operations in the location through positive interactions and access to professional and social networks.³⁸ While many jurisdictions generally provide some soft-landing services, a comprehensive offering of administration and support services is considered a best practice in attracting business and investment.³⁹ Examples of soft-landing tools and services include assistance with securing office space, expedition of work permits, provision of legal or regulatory advice and supplier matching.⁴⁰

As investors generally prefer one point of contact in the host location, many jurisdictions are facilitating soft-landing services through a “one-stop shop” approach.⁴¹ By offering a sole entity through which all necessary information can be communicated, “one-stop shops” reduce delays and costs often associated with new

³⁵ Adam Smith International. “Best Practices for Investment Promotion and Facilitation in ASEAN: General Paper”. 2014. Available here: <http://aadcp2.org/wp-content/uploads/ASIInvestmentPromotion-ProjectGeneralPaper.pdf>

³⁶ Adam Smith International. “Best Practices for Investment Promotion and Facilitation in ASEAN: General Paper”. 2014. Available here: <http://aadcp2.org/wp-content/uploads/ASIInvestmentPromotion-ProjectGeneralPaper.pdf>

³⁷ Nordic Place Academy. “Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities”. January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ OECD. “Policy Framework for Investment: A Review of Good Practices”. 2006. Available here: <https://www.oecd.org/daf/inv/investmentfordevelopment/policyframeworkforinvestmentareviewofgoodpractices.htm>

⁴¹ Advisory Council on Economic Growth. “Bringing Foreign Investment into Canada”. 2016. Available here: <https://www.budget.gc.ca/aceg-ccce/pdf/foreign-investment-investisseurs-etranagers-eng.pdf>

investment ventures. “One-stop shops” aim to facilitate the investment process by providing soft-landing tools and services under one roof. Effective co-ordination with multiple stakeholders, including a variety of government agencies and departments is essential for a “one-stop shop”.

In 2008 Saskatchewan began delivering a one-stop-shop approach under Enterprise Saskatchewan^{42a} a coordinating agency and the main economic development agency for the Government of Saskatchewan at the time. The approach continues to be delivered up through the International Engagement Branch (the Branch) of the Ministry of Trade and Economic Development (the Ministry). Under the Branch, there are 11 Deputy Directors that focus on helping investors become established in the province. Each Deputy Director has a sector of focus and supports investors in a wide range of areas, including expediting their approvals and processes and making introductions to other government agencies within the province, ultimately becoming one point of contact for businesses.

According to the Branch Director, part of the success of this approach has been having Deputy Directors that have a strong track record working in their respective sectors of focus. For example, the Deputy Director responsible for supporting oil and gas investors, has many years of working experience and a strong network in the Saskatchewan oil and gas industry. Another factor of success cited by the Branch Director has been that “trade and investment” have identified as top priorities from higher levels of Government. This has helped the Ministry obtain the necessary support from other Ministries within the province to attract investors and help them become established in Saskatchewan.

In addition, the Branch works in conjunction with other areas within the Ministry to provide a rounded service approach to investors. The Ministry has 38 full time team members under four key areas including economic development planning, international relations and trade, marketing and communications and strategic policy and competitiveness.⁴³

In Utah, the Governor's Office of Economic Development adopted a one-stop shop approach to working with investors as well as businesses wanting to become established in the State. Its one-stop shop approach is delivered through the collaboration of various stakeholder groups including educational institutions, community players, environmental groups, and indigenous tribal leaders as well as multiple levels of government and economic development agencies.

Development and delivery of a holistic after-care approach

After-care refers to post-investment services and initiatives offered to businesses once they have made the decision to become established in a particular location.⁴⁴ A jurisdiction's approach to after-care is important in encouraging existing investors to expand operations in the location.⁴⁵ According to a survey of international investment promotion agencies, after-care services are the most effective technique for attracting foreign direct investment.⁴⁶ After-care initiatives generally focus on retaining and entrenching existing investment through ongoing improvements of the general business climate. This may include strategic development of the local

⁴² Senate of Canada. “Proceedings of the Standing Senate Committee on Energy, the Environment and Natural Resources”. 2011. Available here: <https://sencanada.ca/en/Content/Sen/committee/411/enev/13eva-49254-e>

⁴³ MNP's Interview Findings with David Conacher, Director of Saskatchewan's Ministry of Trade and Economic Development.

⁴⁴ Inter-American Development Bank. “Innovations in Foreign Direct Investment Attraction”. November, 2018. Available here: https://publications.iadb.org/en/bitstream/handle/11319/9361/Innovation_FDI_Attraction_FINALconvergence.pdf?sequence=1

⁴⁵ Ibid.

⁴⁶ Ibid.

workforce and supply chain to meet investor needs,⁴⁷ regulatory reform to streamline approval processes, infrastructure development, and investment in research, development and innovation.⁴⁸ While after-care initiatives are typically undertaken by investment promotion agencies, government support and facilitation of such initiatives is likely to increase the benefit to investors, and enhance the reputation of the jurisdiction as being investor-centric.

As part of its after-care services, in 2008, Louisiana Economic Development launched “FastStart”, a workforce training program designed to help recruit and train workers in Louisiana.⁴⁹ The program provides customized employee recruitment, screening, training development and training delivery based on the current and future workforce needs of expanding and new companies.⁵⁰ FastStart services are designed specifically for each company with each project focused on the company's target performance measures. FastStart has also collaborated with the state's higher education system to coordinate facility and talent initiatives to help retain and attract global IT companies such as IBM, CenturyLink and GE Digital.⁵¹ FastStart is considered to be one of the best workforce development programs in the US and has been ranked as the top state workforce training program for nine years running by Business Facilities Magazine. Since 2008, FastStart has completed 233 projects and delivered 463,000 training hours to over 29,000 employees.⁵²

Development and support of industry clusters

Cluster development is considered an important strategy for attracting investment. Companies benefit from being physically close to other businesses operating in a similar industry in terms of exchange of knowledge, collaboration, access to a labour pool, market intelligence, participation in technology transfer, shared R&D services, and access to supplier networks.^{53,54} These collaborations can lead to innovation and can boost economic competitiveness in a region.⁵⁵ Government support and involvement is important to the development of industry clusters, in terms of identifying target industries and providing fiscal incentives to attract businesses to the cluster. An example of a jurisdiction that has developed and supported industry clusters effectively is Texas.

In 2005, the Texas Refining and Chemicals Industry Cluster was initiated as part of a broader mandate of the State of Texas to identify, bolster and exploit Texas' competitive advantage through the development of clusters on six key areas, one of which is petroleum refining and chemical products.⁵⁶ Today, Texas is known to have the largest petrochemical cluster in the world with approximately 32 companies on the Fortune 500 list and 100,000 workers employed in the industry.⁵⁷

⁴⁷ Adam Smith International. “Best Practices for Investment Promotion and Facilitation in ASEAN: General Paper”. 2014. Available here: <http://aadcp2.org/wp-content/uploads/ASIInvestmentPromotion-ProjectGeneralPaper.pdf>

⁴⁸ Ibid.

⁴⁹ Louisiana Economic Development. “Louisiana FastStart”. Available here: <https://www.opportunitylouisiana.com/faststart>

⁵⁰ Ibid.

⁵¹ Business Facilities Magazine. “Workforce Training & Talent Acquisition”. April 10, 2019. Available here: <https://businessfacilities.com/2019/04/workforce-training-talent-acquisition/>

⁵² Ibid.

⁵³ Harvard Business Review. “Clusters and the New Economies of Competition”. Available here: <https://hbr.org/1998/11/clusters-and-the-new-economies-of-competition>

⁵⁴ Nordic Place Academy. “Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities”. January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf

⁵⁵ Georgia Tech Enterprise Innovation Institute. “Best Practices in Foreign Direct Investment and Exporting Based on Regional Industry Clusters”. 2013. Available here: http://www.fdiibestpractice.org/pdf/Exporting_FDI%20Final%20Report.pdf

⁵⁶ Texas Workforce Commission. “Texas Industry Cluster Initiative”. Available here: <https://twc.texas.gov/partners/texas-industry-cluster-initiative>

⁵⁷ State of Texas, Office of the Governor, Economic Development and Tourism Division “Petroleum Refining and Chemical Products”. Available here: <https://businessintexas.com/sites/default/files/06/25/15/petroleum.pdf>

2.5 Supporting Regulatory Efficiency, Transparency and Predictability

Best practices associated with supporting regulatory efficiency, transparency and predictability include the reduction of the regulatory burden for investment and the provision of transparency and predictability by sharing regulatory requirements, timelines and responsibilities with investors:

Reduction of the regulatory burden for investment

Reducing the regulatory burden for investment is considered a best practice for investment attraction. Excessive regulations, lengthy and complicated permitting and licensing systems, and ad hoc regulatory changes impose costs and delays on investors. This may result in delayed timelines for potential new investments and increased cost of compliance or uncertainty for on-going investments.⁵⁸ As such, jurisdictions across the world have sought to reduce the cost, time and risk of investment by adopting initiatives to streamline or reduce regulations and assess the impacts and costs of regulations. Examples of jurisdictions that have carried out initiatives that aim to decrease the regulatory burden for businesses are Saskatchewan, Colorado, and BC.

The government of Saskatchewan has established a government-wide standard to ensure all regulations are relevant, needed and cost-effective for stakeholders. In 2017-18, the government recommended mandatory use of the Direct Cost Estimator for all regulatory proposals and amendments. This has made Saskatchewan one of the first jurisdictions in Canada to measure and track the net impact that changes to regulations have on stakeholders. The Canadian Federation of Independent Business' Red Tape Report Card for 2018 gave Saskatchewan an A- grade for its continuous efforts in decreasing red tape burden and being able to cost the impact of regulatory compliance.⁵⁹ BC was given an A grade, Ontario was given a C+ grade, and Alberta was given an F grade.⁶⁰

In 2011, the Saskatchewan Ministry of Environment (MOE) moved away from a "command and control" compliance structure towards a results-based regulatory framework, the Saskatchewan Environmental Code. In this new framework, the onus was put on the applicant to remain in compliance with environmental protection standards. According to MOE, this approach eliminates ineffective processes, especially for routine, well-understood and low-risk activities and allows governments to focus on activities deemed high-risk to the environment and public safety.⁶¹ The Saskatchewan Environmental Code aimed to consolidate and simplify environmental protection objectives while promoting efficiency and a uniform application of policies.⁶² To meet these goals, the MOE made use of qualified persons to facilitate regulatory transactions and deliver environmental protection as a regular business process.⁶³ Qualified persons are "those qualified to perform the tasks through a combination of education, experience, and certification" and include persons with professional designations such as engineers. According to the MOE, the use of qualified persons to sign-off on low-risk activities and review environmental assessments are believed to have led to improved submission quality and a reduction in regulatory delays.⁶⁴ Considerations associated with the new regulatory framework may include

⁵⁸ OSCE. "Best Practices Guide for a Positive Business and Investment Climate". 2006. Available here: <https://www.osce.org/eea/19768?download=true>

⁵⁹ Government of Saskatchewan. Ministry of the Economy. "Annual Regulatory Modernization Progress Report for 2017-18". Available here: https://pubsaskdev.blob.core.windows.net/pubsask-prod/107617/107617-2017-18Regulatory_Modernization_Progress_Report.pdf

⁶⁰ Canadian Federation of Independent Business. "Red Tape Report Card 2018". 2018. Available here: https://www.cfib-fcei.ca/sites/default/files/2018-01/2018-Red-Tape-Report-Card_0.pdf

⁶¹ Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Journal. "Saskatchewan Moves to Results-Based Regulation". Vol.3, No.2. 2012.

⁶² CIM Journal. "Saskatchewan Moves to Results-Based Regulation". Vol.3, No.2. 2012.

⁶³ Ibid.

⁶⁴ Ibid.

risks associated with reduced government oversight and increased dependence on the individual judgement of the qualified persons.

In Colorado, the “Cut the Burden” initiative directs each state department to review and reduce regulatory burden among businesses under their authority. By reducing compliance burden, businesses realize a direct impact of time and cost savings which encourages business expansion in the state.⁶⁵ In fiscal year 2017, the program resulted in cost savings of \$7.9 million and time saved totaled nearly 2.3 million hours⁶⁶

In BC, ministries count each instance where a business, citizen or the provincial government must take an action or step to access services, carry out business or meet legal responsibilities. The number of requirements in statutes, regulations, associated policies and forms is recorded and tracked in a database. The current baseline for the regulatory requirements count was set in 2004 to be below 197,242. The regulatory requirements count in 2018/19 was 15.5 percent below the 2004 baseline, at 166,727.⁶⁷

Provision of transparency and predictability by sharing regulatory requirements, timelines and responsibilities with investors

Providing transparency and predictability to investors by sharing regulatory requirements, timelines and responsibilities has been identified as a key best practice. Information about the environment in which they will have to operate enables investors to assess opportunities in an informed and timely manner. This may shorten the investment decision period as well as the period before which the investment becomes productive.⁶⁸ Mechanisms to increase transparency and predictability include use of well-designed government websites and plain language text to make regulations and legislation accessible to target audiences.⁶⁹

The BC government has recently developed the BC Mine Information website, in which, for the first time, mine-related information from three government agencies on the Province's oversight of major mines has been made available online in one place.⁷⁰

⁶⁵ State of Colorado. “Cut the Burden Of Government Regulations”. Available here: <https://www.colorado.gov/pacific/performance/cut-burden-government-regulations>

⁶⁶ Ibid.

⁶⁷ BC Ministry of Jobs, Trade and Technology. “Regulatory and Service Improvements for British Columbians: Annual Report 2017/18”. Available here: https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/regulatory-reform/pdfs/better_regulations_2019_annualreport_web.pdf

⁶⁸ OSCE. “Best Practices Guide for a Positive Business and Investment Climate”. 2006. Available here: <https://www.osce.org/eea/19768?download=true>

⁶⁹ OECD. “Policy Framework for Investment: A Review of Good Practices”. 2006. Available here: <https://www.oecd.org/daf/inv/investmentfordevelopment/policyframeworkforinvestmentareviewofgoodpractices.htm>

⁷⁰ <https://mines.nrs.gov.bc.ca/>

2.6 Enhancing the Local Labour Force

A best practice associated with enhancing the local labour force includes the optimization of the local workforce and talent attraction:

Optimization of the local workforce and talent attraction

The quantity and quality of education or training contributes to the skills, competencies and productivity of a workforce.⁷¹ Jurisdictions that can offer skilled workers at affordable rates are more likely to attract investments.⁷² As a result, many jurisdictions are making the development and attraction of a skilled local workforce a priority.

For a jurisdiction to remain globally competitive, its workforce must be able to accommodate changing technologies and supply chain structures.⁷³ This means that formal education programs should be regularly updated and adequately financed to stay in line with evolving demands for specific skills.⁷⁴ This may be achieved through government-facilitated collaboration between academic institutions and major employers, at regular intervals.

In BC, attracting more skilled talent to the province was a key part of the BC government's comprehensive 10-year BC Tech Strategy.⁷⁵ As such, the BC government provided about \$600,000 for a partnership with major technology industry partners to study labour market needs in the technology sector, through the Sector Labour Market Partnerships Program. The program helps employers understand labour market changes and ensures that education and training programs in BC are aligned with industry's needs and priorities. With this support from the BC government, the BC Technology Association and the Vancouver Economic Commission engaged with technology employers, educational stakeholders and the broader technology community to gain a better understanding of labour needs in the sector.⁷⁶ The findings of their study were reported in the 2016 TechTalentBC Report. Recommendations in the report included: increasing the capacity of higher education programs to produce more graduates per year in tech-relevant programs; increasing the supply of immigrants and foreign workers for mid, senior, and specialized roles; increasing investment in retraining initiatives for local non-tech workers to move into the tech sector; increasing investment to expand co-op and experiential learning opportunities; and increasing investment in skills development programs for foreign talent.⁷⁷

TalentScotland is a program created by the economic development agency for Scotland aimed to attract skilled workers to Scotland that will make the country more attractive to business and investment.⁷⁸ Since 2001, TalentScotland has been promoting Scotland as a place of choice to live, work and invest, as well as helping Scottish companies that want to expand their operations and employ foreign workers. Its website provides information on industries, employers and job opportunities in Scotland for skilled professionals in science, technology, engineering, mathematics, and business growth and leadership. TalentScotland also offers

⁷¹ World Economic Forum. "The Global Competitiveness Report 2018". 2018.

⁷² OSCE. "Best Practices Guide for a Positive Business and Investment Climate". 2006. Available here: <https://www.osce.org/eea/19768?download=true>

⁷³ OECD. "Policy Framework for Investment: A Review of Good Practices". 2006. Available here: <https://www.oecd.org/daf/inv/investmentfordevelopment/policyframeworkforinvestmentareviewofgoodpractices.htm>

⁷⁴ Ibid.

⁷⁵ Burnaby Board of Trade. "BC Announces \$100 Million BC Tech Fund and Tech Strategy — BBOT Applauds Initiative. January 2016. Available here: <http://bbot.ca/bc-announces-100-million-bc-tech-fund-tech-strategy-bbot-applauds-initiative/>

⁷⁶ Vancouver Economic Commission. "The Province and B.C.'s technology industry join forces to meet labour needs". July 2016.

⁷⁷ BC Tech Association. "2016 TechTalentBC Report". Available here: https://www.workbc.ca/getmedia/8d38ac6f-82d4-4db1-b0bf-40f77d78af5/2016_TechTalentBC_Report.pdf.aspx

⁷⁸ Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf.

opportunities to connect with Talent Ambassadors, i.e. international workers that have moved to Scotland and that can provide practical advice and answer questions based on their personal experience.⁷⁹

2.7 Measuring Investment Attraction

A best practice associated with measuring investment attraction includes the monitoring and evaluation of investment attraction methods:

Monitoring and evaluation of investment attraction efforts

Monitoring and evaluating the performance and impact of investment attraction efforts has been identified as a key best practice. Being able to report back on what a particular investment attraction effort has achieved as well as identify lessons learned to improve on future investment efforts are two of the main reasons why monitoring and evaluating performance and impact of investment attraction is imperative. Examples of jurisdictions that are considered to track and report back effectively on their investment attraction efforts are Hong Kong, the UK and Dubai.

InvestHongKong (InvestHK) is a governmental agency responsible for overseeing and managing the investment process for investing firms.⁸⁰ Through rigorous assessment and tracking of its efforts,⁸¹ InvestHK is able to report on which firms have invested as a result of engagement with their services.⁸² As part of this evaluation, InvestHK also seeks performance ratings from client firms.⁸³

UK Trade and Investment (UKTI) is known for effectively tracking and reporting back on its foreign investment efforts. UKTI publishes a report on an annual basis where it outlines its activities and results and provides weekly newswire service to update global investors on recent investments in the UK, which is used a tool to promote the jurisdiction.⁸⁴

In 2015, Dubai decided to begin to systematically track its investment activities and results. To support these efforts, it created a public-private partnership to leverage the technology and expertise of private sector to implement a comprehensive investment attraction system. Though this system, it tracks investment attraction efforts daily and measures the economic impact of the investment attracted, including the technology intensiveness of the investment, which serves Dubai as an indicator for economic development.⁸⁵

⁷⁹ TalentScotland. Available here: <https://www.talentscotland.com/>

⁸⁰ Ivey, Lawrence National Centre for Policy and Management. "Investment Attraction: Learning from "Best Practice" Jurisdictions". 2016. Available here: <https://www.ivey.uwo.ca/cmsmedia/2758461/investment-attraction-learning-from-best-practice-jurisdictions.pdf>

⁸¹ Ibid.

⁸² Ivey, Lawrence National Centre for Policy and Management. "Investment Attraction: Learning from "Best Practice" Jurisdictions". 2016. Available here: <https://www.ivey.uwo.ca/cmsmedia/2758461/investment-attraction-learning-from-best-practice-jurisdictions.pdf>

⁸³ Ibid.

⁸⁴ Inter-American Development Bank. "Innovations in Foreign Direct Investment Attraction". November 2018. Available here: https://publications.iadb.org/en/bitstream/handle/11319/9361/Innovation_FDI_Attraction_FINALconvergence.pdf?sequence=1

⁸⁵ Ibid.

3 SCOPE 2: REVIEW OF THE REPORT ON COMPETITIVENESS: ALBERTA 2016

3.1 Background

The Report on Competitiveness: Alberta 2016 (“the MMK Report”)⁸⁶ benchmarks Alberta against a number of comparable jurisdictions, evaluating each jurisdiction’s performance on a set of 63 measures. This section provides MNP’s review of the MMK Report, with a focus on identifying additional measures of competitiveness that were not included in the MMK Report (Scope 2).

For Scope 2 MNP’s approach consisted of:

- Participation in a call with Glenn Mair, Director of MMK to gather additional information regarding the approach taken by MMK to identify measures and any issues faced with collecting the data and/or reporting.
- Review of the MMK report “Report on Competitiveness: Alberta 2016” released in 2017, as well as previous reports completed by MMK on the competitiveness of Alberta. Based on direction received from the Panel, MNP focused on identifying potential uses of competitiveness reports rather than on identifying additional measures of competitiveness.
- Review of competitiveness reports from other jurisdictions to determine their use and effectiveness. The review included reports on competitiveness scorecards in Greater Vancouver, Ontario, Washington State (Washington), Texas, Ireland, and Sweden.
- Identification of common themes in similar reports in other jurisdictions.

3.2 Overview of the MMK Report

In 2010, the Alberta Competitive Council was established “to look at ways to improve Alberta’s ability to compete in a global economy”.⁸⁷ Later that year, the Council released the “Report on Competitiveness: Alberta 2010”, which benchmarked Alberta’s performance on 60 competitiveness-related measures against 14 other national and international jurisdictions.⁸⁸ Further editions of the report on competitiveness in Alberta were completed for 2013 and 2014, with the latest edition, “Report on Competitiveness: Alberta 2016”, released in 2017.⁸⁹ The most recent edition benchmarks Alberta’s performance on 63 measures. Depending on the measure, Alberta is compared against up to 14 national and international jurisdictions (MMK confirmed that the 2016 report contains the most recent information, no work on an updated report has commenced).⁹⁰

In 2011, building on the 2010 benchmarking report (i.e. “Report on Competitiveness: Alberta 2010”), the Alberta Competitive Council released a report titled “Moving Alberta Forward”, which identified priority areas along with action items for government and industry.⁹¹ It is MNP’s understanding that this was the only instance of such a

⁸⁶ MMK Consulting Inc. “Report on Competitiveness: Alberta 2016”. August 2017.

⁸⁷ Government of Alberta. “Highlights of the Alberta Competitiveness Council’s report on competitiveness: Alberta 2010”. 2010. Available here: <https://open.alberta.ca/publications/9780778559009>

⁸⁸ Alberta Competitiveness Council. “Report on Competitiveness: Alberta 2010”. 2010. Available here: <https://open.alberta.ca/dataset/a9f01452-5858-4023-949b-0383bde0cb3c/resource/f4aa6bb9-2f5c-403a-803d-37025f849a50/download/4993386-2010-report-on-competitiveness.pdf>

⁸⁹ MMK Consulting. “Report on Competitiveness: Alberta 2016”. 2019. Internal to Government of Alberta.

⁹⁰ Ibid.

⁹¹ Alberta Competitiveness Council. “Moving Alberta Forward”. 2011. Available here: <https://open.alberta.ca/dataset/befe8ac3-3aa6-4a9c-9f27-9ba3ac9fae29/resource/e195bbe6-953f-4271-9076-d414447f3e5d/download/2011-0518-report-competitiveness.pdf>

report with specific action items being developed by the Government of Alberta on the basis of a benchmarking report.

3.3 Findings from Reviewing Competitiveness Reports from Other Jurisdictions

To determine how the reports on Alberta's competitiveness can be used more effectively, research was conducted on the use of similar reports in other jurisdictions. The review included reports on competitiveness scorecards in Alberta, Greater Vancouver, Ontario, Washington State (Washington), Texas, Ireland, and Sweden.^{92,93,94,95,96,97,98,99,100} MNP's review focused on the following:

- The ways in which these reports are used.
- The stakeholders developing and funding the reports.
- The channels used for distribution.
- The measures used.
- The frequency of the reports.

The following sub-sections elaborate on each of the areas mentioned above.

Use of Competitiveness Scorecards

The following section outlines how jurisdictions make use of reporting on competitiveness. The different types of uses include:

- Use of the jurisdiction's performance on the scorecards to provide policy recommendations and action items.
- Use of the scorecards to measure progress towards formal policies and goals.
- Use of the jurisdiction's performance on the scorecards as an economic development tool.

Further details on each of these points are included below.

Use of the Jurisdiction's Performance on The Scorecards to Provide Policy Recommendations and Action Items

Five out of the seven jurisdictions' reports reviewed (i.e., Greater Vancouver, Ontario, Washington State, Ireland, and Sweden) contain specific policy recommendations and/or areas for prioritization for government and

⁹² MMK Consulting. "Report on Competitiveness: Alberta 2016". 2019. Internal to Government of Alberta.

⁹³ Greater Vancouver Board of Trade and The Conference Board of Canada. "Greater Vancouver Economic Scorecard". 2018. Available here: <https://www.boardoftrade.com/scorecard2018/assets/pdf/summary-report.pdf>

⁹⁴ Ontario's Panel of Economic Growth & Prosperity. "Unfinished Business: Ontario Since the Great Recession". 2018. Available here: https://www.competeprosper.ca/uploads/Annual_Report_17_Unfinished_Business_Ontario_since_the_Great_Recession_Dec_2018.pdf

⁹⁵ Opportunity Washington. "2017 Report: A Roadmap for Expanding Washington's Culture of Opportunity to Individuals, Families, Employers, and Communities". 2018. Available here: https://opportunitywa.org/wp-content/uploads/2017/04/OPWA_FoundationReport_2017.pdf

⁹⁶ Texas Comptroller of Public Accounts. "50-State Scorecard". 2019. Available here: <https://comptroller.texas.gov/economy/50state/>

⁹⁷ National Competitiveness Council. "Ireland's Competitiveness Scorecard 2018". 2018. Available here: <http://www.competitiveness.ie/Publications/2018/Ireland-s-Competitiveness-Scorecard-2018.pdf>

⁹⁸ National Competitiveness Council. "Ireland's Competitiveness Challenge 2018". 2018. Available here: <http://www.competitiveness.ie/Publications/2018/Competitiveness-Challenge-2018.pdf>

⁹⁹ Christian Ketels. "The Swedish Competitiveness Scorecard 2017". 2017. Available here: http://eng.entrepreneursforum.se/wp-content/uploads/2017/12/SEF_Ch2_Ketels.pdf

¹⁰⁰ In addition to these reports, several other national and international competitiveness reports were also reviewed. The jurisdictions listed were chosen because they were the most relevant for comparison with Alberta's reporting on competitiveness.

industry. For example, Ontario's annual report which measures and monitors the province's "productivity, competitiveness and economic progress", provided two sets of recommendations in the most recent 2017 report.

¹⁰¹ The first set of recommendations were on how to improve the province's "productivity and prosperity" (e.g. Increase international exports from the service sector) and the second set were around improving "the welfare and equity of Ontario" (e.g. Simplify regulations restricting the construction of new residential units). In addition to reporting on 170 measures, in a separate interpretational report, Ireland also considers "the latest research to outline the main challenges to Ireland's competitiveness and the policy responses required to meet them". ¹⁰²

In contrast to the five of the seven jurisdictions with recommendations, Alberta's 2016 competitiveness report does not provide specific direction. Instead, it concludes that while the report "identifies key measures where Alberta performs well" and "where Alberta trails comparator jurisdictions", the determination of "whether or not these represent areas for improvement is a strategic issue for consideration in potential policy changes and action plans".¹⁰³ In addition to Alberta, the other jurisdiction without specific recommendations or findings on areas for prioritization is the Texas "50-State Scorecard".¹⁰⁴ The purpose of this competitiveness scorecard, which is listed publicly on the Texas Comptroller's website, is to inform "Texans, our policymakers and taxpayer" how Texas "stacks up across the country".¹⁰⁵

Use of the Scorecards to Measure Progress Towards Formal Policies and Goals

Some jurisdictions use scorecards to measure progress towards meeting formal policies or different types of goals. For example, the measures included within Sweden's scorecard were based on the formal policy documents (e.g., "Europe 2020", the EU's agenda for growth and jobs for the current decade, and the "EU's Macroeconomic Imbalances Procedure", "a surveillance mechanism that aims to identify potential macroeconomic risks early on").^{106,107,108} As a result, Sweden's scorecard also demonstrates whether the country is making progress towards the formal policies it has agreed to implement. Another example is Washington's scorecard, which measures the state against all 50 states. Opportunity Washington, which oversees the development of the scorecard for Washington, has the goal of seeing the state in the top 10 states within each of the 16 indicators which are assigned to three priority areas: "achieve" (i.e., eight measures of education quality and outcomes), "connect" (i.e., three measures of transportation efficiency and reliability) and "employ" (i.e., five measures of economic vitality).¹⁰⁹

Use of the Jurisdiction's Performance on The Scorecards as an Economic Development Tool

The public nature of the competitiveness reports from the various jurisdictions allows for broader use of their contents. For example, the Greater Vancouver Board of Trade uses Vancouver's standings with the findings of the scorecard to promote the strengths of the region.¹¹⁰ In addition to this, local media have also shared the

¹⁰¹ National Competitiveness Council. "Ireland's Competitiveness Challenge 2018". 2018. Available here: <http://www.competitiveness.ie/Publications/2018/Competitiveness-Challenge-2018.pdf>

¹⁰² Ibid.

¹⁰³ MMK Consulting. "Report on Competitiveness: Alberta 2016". 2019. Internal to Government of Alberta.

¹⁰⁴ Texas Comptroller of Public Accounts. "50-State Scorecard". 2019. Available here: <https://comptroller.texas.gov/economy/50state/>

¹⁰⁵ Ibid.

¹⁰⁶ Christian Ketels. "The Swedish Competitiveness Scorecard 2017". 2017. Available here: http://eng.entrepreneursforum.se/wp-content/uploads/2017/12/SEF_Ch2_Ketels.pdf

¹⁰⁷ European Commission. "Europe 2020 strategy". 2019. Available here: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy_en

¹⁰⁸ Eurostat. "Macroeconomic Imbalance Procedure (MIP) - Overview". 2019. Available here: <https://ec.europa.eu/eurostat/web/macroeconomic-imbalances-procedure>

¹⁰⁹ Opportunity Washington. "The Scorecard Methodology & FAQ". 2018. Available here: https://opportunitywa.org/wp-content/uploads/2018/05/OppScorecard_FAQs_Spring2018.pdf

¹¹⁰ Greater Vancouver Board of Trade. "Sounding Board". 2018. Available here: <https://www.boardoftrade.com/files/sounding-board/2018/june-2018.pdf>

results of the findings within articles.¹¹¹ Similarly, Washington's scorecard is used by both industry and media to highlight the performance on the state within the variety of measures covered.^{112,113,114}

Development and Funding of Competitiveness Reporting

There are four main groups of stakeholders that contribute to the development of the scorecards for the various jurisdictions reviewed. These main stakeholder groups include:

- Governments (e.g., federal, provincial, state).
- Industry (e.g., private and publicly traded companies, industry associations).
- Economic Development Organizations (e.g., boards of trade, chambers of commerce).
- Research Organizations (e.g., research think tanks, universities).

The following graphic summarizes the different stakeholders involved in the development of the economic scorecards for the 6 jurisdictions reviewed along with Alberta.

Stakeholders	Jurisdictions						
	Alberta ¹¹⁵	Vancouver	Ontario	Washington	Texas	Ireland	Sweden
Government(s)	✓		✓		✓	✓	✓
Industry		✓	✓	✓	✓*	✓	✓
Economic Development Organization(s)		✓		✓	✓*	✓	✓
Research Organization(s)		✓	✓	✓	✓*	✓	✓

**The involvement of these stakeholders is through a survey that can be accessed through the webpage of the Texas Comptroller's website which publicly lists all the measures of the state's competitiveness scorecard. This survey acts as a feedback loop for the various stakeholders accessing the measures on the website.¹¹⁶*

The table above demonstrates that generally, there is a mix of stakeholders that drive the development of competitiveness reports. For example, Ontario's Panel on Economic Growth & Prosperity produces the

¹¹¹ Simon Little. "Greater Vancouver earns "B" grade on board of trade economic scorecard". 2018. Available here: <https://globalnews.ca/news/4200680/greater-vancouver-economic-score-card/>

¹¹² Association of Washington Business. "New Opportunity Washington Scorecard shows how state is faring against the rest of America". 2017. Available here: https://www.awb.org/newsletter/index.php?article_id=37056

¹¹³ Association of Washington Business. "Washington ranked No. 1 in Best States Rankings". Available here: https://www.awb.org/newsletter/index.php?article_id=66021

¹¹⁴ Mike Richards. Washington State Looks To Up Its Game On College Completion, And Job Training". 2016. Available here: <https://thelens.news/2016/09/29/washington-state-looks-to-up-its-game-on-college-completion-and-job-training/>

¹¹⁵ This column was developed based on Alberta's 2016 Report on Competitiveness. The participation of other stakeholder groups (e.g. industry, economic development organizations) is not listed.

¹¹⁶ Texas Comptroller of Public Accounts. "50-State Scorecard". 2019. Available here: <https://comptroller.texas.gov/economy/50state/>

province's report.¹¹⁷ The panel is an advisory body to the Institute for Competitiveness & Prosperity, which is funded by the Government of Ontario through the Ministry of Economic Development, Job Creation and Trade. The panel has representation from industry (e.g., eBay Canada, BMO Financial Group) and the Rotman School of Management within the University of Toronto. Another example is Ireland's report which is created by the National Competitiveness Council Members comprised of representatives from industry (e.g. CEO of Microsoft in Ireland), economic development organizations (e.g. Chambers Ireland), and research organizations (e.g. University College Dublin).¹¹⁸ There is also a set of Council Advisers representing 10 federal government ministries which support the work of the council.¹¹⁹

It is possible that the collaboration and involvement of the different stakeholders allows for greater relevance of the report to a wider audience.

Report Distribution Channels

All the jurisdictions reviewed provide their reports publicly.¹²⁰ In addition to this, the scorecards completed for Washington, Vancouver, and Texas each have a public website dedicated to summarizing the scorecards against the respective jurisdictions used in their comparison.^{121,122,123} Texas' "50-State-Scorecard" website also includes a survey that provides an opportunity for the users of the measures to share the categories of data they have found to be the most important, how they use the data, and any additional data not listed that they may find to be helpful.¹²⁴

Measures Used within Reporting

The number of measures used within the competitiveness reports of the different jurisdictions varies. The following chart summarizes the number of measures for each jurisdiction.

¹¹⁷ "Ontario's Panel on Economic Growth & Prosperity is an arms-length, independent body that reports directly to the public. Its purpose is to measure and monitor Ontario's productivity, competitiveness and economic progress, reporting its findings on a regular basis. The Panel is the advisory body to the Institute for Competitiveness & Prosperity. The Institute is an independent not-for-profit organization that deepens public understanding of macro and microeconomic factors behind Ontario's economic progress."

Ontario's Panel of Economic Growth & Prosperity. "Unfinished Business: Ontario Since the Great Recession". 2018. Available here: https://www.competeprosper.ca/uploads/Annual_Report_17_Unfinished_Business_Ontario_since_the_Great_Recession_Dec_2018.pdf

¹¹⁸ National Competitiveness Council. "Ireland's Competitiveness Challenge 2018". 2018. Available here:

<http://www.competitiveness.ie/Publications/2018/Competitiveness-Challenge-2018.pdf>

¹¹⁹ Ibid.

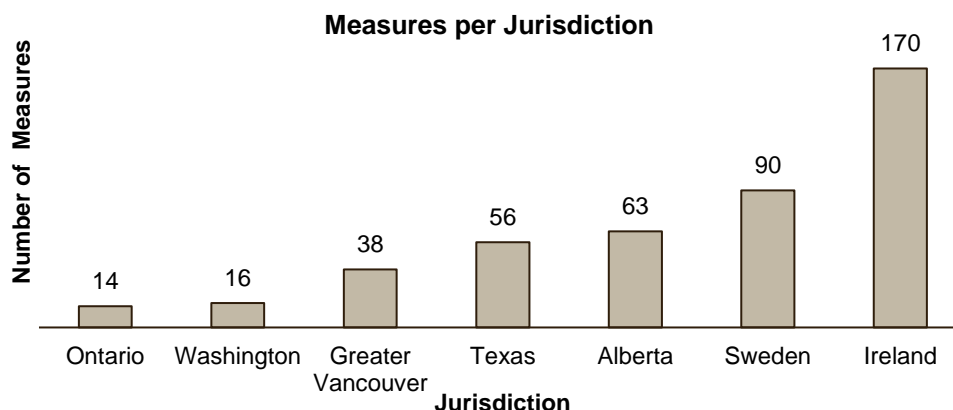
¹²⁰ While Alberta's competitiveness reports from previous years (i.e. 2010, 2013, 2014) are publicly available through the Government of Alberta's Open Government Publications (<https://open.alberta.ca/publications/1925-2137>), the most recent 2016 report is internal to the Government of Alberta.

¹²¹ Greater Vancouver Board of Trade and The Conference Board of Canada. "Greater Vancouver Economic Scorecard". 2018. Available here: <https://www.boardoftrade.com/scorecard2018/assets/pdf/summary-report.pdf>

¹²² Opportunity Washington. "2017 Report: A Roadmap for Expanding Washington's Culture of Opportunity to Individuals, Families, Employers, and Communities". 2018. Available here: https://opportunitywa.org/wp-content/uploads/2017/04/OPWA_FoundationReport_2017.pdf

¹²³ Texas Comptroller of Public Accounts. "50-State Scorecard". 2019. Available here: <https://comptroller.texas.gov/economy/50state/>

¹²⁴ Texas Comptroller of Public Accounts. "50-State Scorecard Survey". 2019. Available here: https://www.surveymonkey.com/r/50_State_Scorecard_Survey



The two scorecards with the greatest number of measures (i.e. 170 and 90) were that of the two countries included within this review, Ireland and Sweden. After the two countries reviewed and Alberta, the next largest number of measures (i.e. 56) was that of Texas which provides the scorecard as an information repository, without any substantial analysis. The remaining jurisdictions (i.e. Greater Vancouver, Washington, and Ontario) have fewer than 40 measures.

Frequency of Reporting

All jurisdictions reviewed produce reports at least biennially (i.e. once every two years). Please note that this does not include Sweden, which first released a report in 2017 and has not yet released further reports. There is no indication of when this may take place as the first report only notes that they intend “to refine the choice of specific indicators over time”.¹²⁵

3.4 Recommendations

Based on MNP's review, we suggest that future studies on Alberta's competitiveness would benefit from the following:

- Involving stakeholder groups, such as industry members, economic development organizations and research organizations, in developing the measures to be tracked and the ongoing analysis of results.
- Using the report to facilitate ongoing government consultations with industry members and economic development organizations.
- Using the ongoing analysis of the report to provide recommendations on policy considerations and/or areas for prioritization by the Government of Alberta.
- Sharing the report publicly to support economic development efforts.
- Reviewing the measures being tracked to determine those most relevant to the Government of Alberta.

¹²⁵ Christian Ketels. “The Swedish Competitiveness Scorecard 2017”. 2017. Available here: http://eng.entreprenorskapsforum.se/wp-content/uploads/2017/12/SEF_Ch2_Ketels.pdf

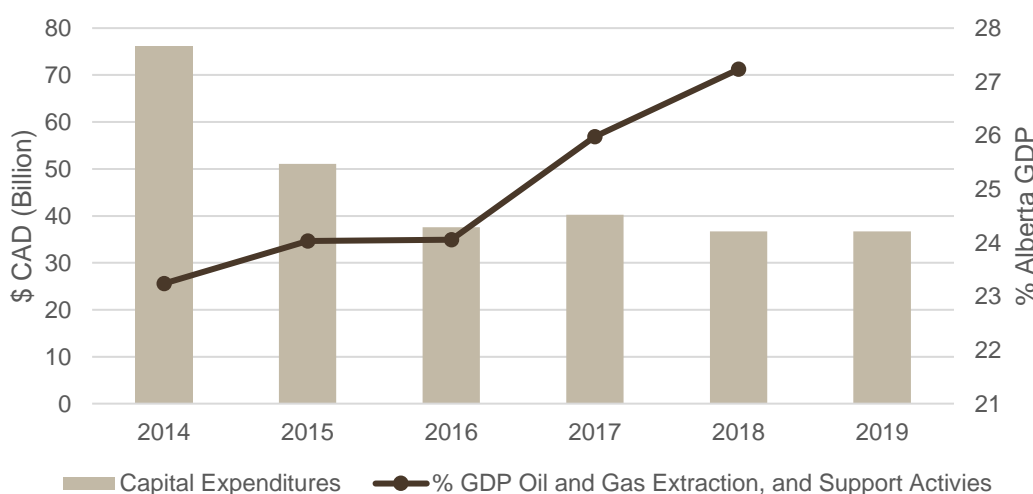
4 SCOPE 3: COMPETITIVENESS OF ALBERTA'S OIL AND GAS SECTOR

4.1 Background

Alberta's oil and gas industry is a major contributor to the provincial gross domestic product ("GDP") and economy. In 2018, Alberta's oil and gas extraction sector and supporting activities comprised 27 percent of the total provincial GDP.¹²⁶ While the contribution of Alberta's oil and gas sector as a share of GDP increased between 2014 and 2018, there was a 52 percent decrease in oil and gas sector annual capital expenditures over this timeframe, with total expenditures showing no growth since 2016 (Figure 1).¹²⁷

Although the 2014 oil price downturn had a significant impact on global investment and capital expenditures in the oil and gas industry, there has been a recent increase in investment in oil and gas extraction in other jurisdictions. In the US, investment in oil and gas extraction increased 40 percent between 2016 and 2017,¹²⁸ and other jurisdictions, such as South America, Africa, and the Middle East, are also expected to increase upstream investment in the next few years.¹²⁹ As international investment in the energy sector is increasing, upstream oil and gas capital spending in Alberta has been stagnant.

Figure 1: Alberta Oil and Gas Extraction (% GDP and Capital Expenditures)¹³⁰



To help address the investment climate in Alberta's oil and gas sector the following aspects of competitiveness were considered as part of our assessment:

- Regulatory environment, including application timelines and consultation requirements.
- Infrastructure, including transportation capacity and market access.
- Cost competitiveness.

¹²⁶ In 2018, Alberta's total GDP was \$335.1 billion (chained 2012 dollars). Alberta's oil and gas sector contributed \$80.5 billion to the provincial GDP, and support activities for oil and gas extraction contributed to \$10.7 billion. Source: Statistics Canada. Table 36-10-0402-01 Gross domestic product (GDP) at basic prices, by industry, provinces and territories.

¹²⁷ Statistics Canada. Table 34-10-0035-01 Capital and repair expenditures, non-residential tangible assets, by industry and geography.

¹²⁸ U.S. Bureau of Economic Analysis. Table 3.7ESI Investment in Private Fixed Assets by Industry.

¹²⁹ International Energy Agency. "World Energy Investment 2019". 2019. Available here: <https://www.iea.org/wei2019/>

¹³⁰ Note that capital expenditures for 2018 and 2019 reflect preliminary actuals and intentions.

- Royalty structure and other fiscal policy.

The following sections summarize information gathered through discussions with Alberta provincial ministries and agencies and secondary research of public information. Although federal government regulations and policies have an overall impact on Canada's oil and gas sector, this section focuses on considerations that are specific to Alberta. Please note that due to the scope and timeframe for the study, our review and assessment of key competitiveness issues affecting the oil and gas sector did not include broad consultation with industry.

4.2 Alberta's Regulatory Environment

An effective regulatory system promotes economic growth, equity, innovation and competitiveness, and manages risk while considering the public interest. The regulatory process to explore for and develop Alberta's oil and gas resources is administered by the Alberta Energy Regulator ("AER").

Alberta's regulatory process has recently undergone significant change. In 2013, the *Responsible Energy Development Act*¹³¹ was enacted, streamlining the regulatory framework for oil and gas resource projects in Alberta by creating a single regulator (the AER) to jointly administer regulatory processes and conduct project authorizations. The AER's mandate is:

- To provide for the efficient, safe, orderly and environmentally responsible development of energy resources in Alberta through its regulatory activities; and,
- In respect of energy resource activities, to regulate the disposition and management of public lands, the protection of the environment, and the conservation and management of water, including the wise allocation and use of water.¹³²

The AER works closely in partnership with the Alberta government, the Aboriginal Consultation Office ("ACO"), Indigenous peoples, and the oil and gas industry. Alberta Energy and Alberta Environment and Parks ("AEP") provide policy direction and govern the AER's statutory powers, mandates and functions. The ACO coordinates consultation with First Nations and Metis settlements across Alberta government departments, and directs project applicants to consult with First Nations and Metis settlements that may be impacted by the proponent's project. The AER works closely with the ACO to determine if consultation is required, the level of consultation needed, who should be consulted, and if consultation adequacy has been met. The ACO makes their recommendation to the AER, who makes the final decision on project approval.

Proponents must also work with AEP and the AER for greenhouse gas emissions management and reduction, public lands dispositions, conservation and reclamation activities, and if industrial activity falls under provincially approved caribou zones.

Key Themes, Challenges and Opportunities

As part of our assessment, MNP reviewed studies and secondary research regarding the regulatory environment as it applies to Alberta's oil and gas sector, and engaged with senior leadership at the AER, Alberta Energy, AEP, and the ACO. The focus of the discussions was on regulatory challenges in Alberta and what government can do (or is currently doing) to improve the regulatory process and, by extension, competitiveness. This section presents key themes, challenges and opportunities from these discussions and review of secondary research.

¹³¹ *Responsible Energy Development Act*, Statutes of Alberta 2012, c.R-17.3. <http://www.qp.alberta.ca/documents/Acts/r17p3.pdf>

¹³² *Responsible Energy Development Act*, s2(1).

Key Themes

- Alberta has stronger environmental protection compared with many of its key competing jurisdictions. Environmental policies are complex, as air, water, land, and biodiversity are interconnected. As such, environmental compliance requirements affect approval timelines and competitiveness.
- There are difficulties with comparing regulatory and consultation timelines to other jurisdictions. For example:
 - Alberta has large undeveloped oil and gas reserves compared with other jurisdictions (including BC, Saskatchewan, North Dakota, and Oklahoma). As such, Alberta has high volumes of applications based on the province's large reserve holdings and regulatory processes and timeline comparisons need to match reservoir geology, fuel properties and resource economics.
 - Alberta has a unique legal landscape as it relates to treaty rights, land claims, development, and governance. In Alberta, most of the land is covered by treaty agreements between First Nation groups and government. However, it is recognized that First Nations and the Crown have different perspectives on what was agreed to during the treaty negotiation process.¹³³ In addition, Alberta is the only province with recognized Metis land-based settlements.

Challenges

- Alberta's regulatory process to explore for and develop oil and gas resources is viewed by industry groups as complex, contributing to investor uncertainty in the oil and gas industry.¹³⁴
 - For example, in a 2018 Fraser Institute survey, the cost of regulatory compliance was viewed by 73 percent of respondents as a deterrent to investment in the oil and gas sector.¹³⁵ To drill a well in Alberta, a proponent generally requires exploration approval and permits, pre-assessment from the ACO, First Nations and Metis consultation, public notice, third party approvals, *Water Act* approvals, *Pipeline Act* approvals, land use applications, and licence applications for wells and their associated pipelines and facilities.
 - For in situ oil sands projects, the regulatory process is much more complex, where additional approvals under the *Environmental Protection and Enhancement Act*, the *Public Lands Act*, and the *Oil Sands Conservation Act* are required. For in situ oil sands project development, over 560 approvals, licences and permits are often required by the proponent.¹³⁶
 - The regulator is challenged by policies that have frameworks in place, but were never fully completed by previous governments (e.g., land use frameworks).¹³⁷ This creates a grey area in the implementation of policies and can lead to uncertainty in the application process.¹³⁸
- There are challenges with respect to public consultation that may cause unexpected and/or unnecessary delays in the project approval process. For example, according to the AER:
 - There is a mandatory 28-day public notice period that applies to each of the 40,000 applications received by the AER each year. The AER does not see this process as being particularly helpful for achieving the objectives of stakeholder engagement, nor does the process support the timely approval of projects for industry that may have minimal impact to stakeholders.

¹³³ Canada's First Peoples, "Treaties & Cultural Change: What are the Treaties? Two Different Views, " accessed June 26, 2019. http://firstpeoplesofcanada.com/fp_treaties/fp_treaties_two_views.html

¹³⁴ Canadian Association of Petroleum Producers. "Update: A Competitive Policy and Regulatory Framework for Alberta's Upstream Oil and Natural Gas Industry". 2019.

¹³⁵ Stedman, A. and K. Green. "Fraser Institute Global Petroleum Survey". 2018. Available here: <https://www.fraserinstitute.org/sites/default/files/global-petroleum-survey-2018.pdf>

¹³⁶ Canadian Association of Petroleum Producers. "Update: A Competitive Policy and Regulatory Framework for Alberta's Upstream Oil and Natural Gas Industry". 2019.

¹³⁷ MNP interview with AER.

¹³⁸ Ibid.

- Currently, stakeholder concerns with respect to cumulative effects in a particular area are addressed for each project in isolation (often leading to a Statement of Concern (“SOC”) hearing resulting in project delays). The AER believes that establishing thresholds for industrial development through a stakeholder engagement process would be a more pro-active approach and would reduce project delays. As the SOC process often leaves stakeholders unsatisfied with the results, AER believes this would be beneficial to both parties (i.e. industry and the public).
- It is viewed by the ACO that there is a lack of understanding from industry, as well as First Nations and Metis settlements, on their respective roles and consultation responsibilities. The ACO acknowledges that the consultation process involving multiple stakeholders (i.e., industry, government, regulators, Indigenous groups and municipalities) is complex, and a better understanding of the roles of the involved stakeholders is needed. For example, according to the ACO:
 - Approximately 30 to 40 percent of applications received by the ACO are returned to the proponent because of incorrect or incomplete information.
 - Projects are often delayed as result of misunderstanding the legal duty to have meaningful consultation.
 - Some consultation delays are beyond the control of the ACO. This includes community evacuations due to wildfires, deaths in the community and traditional events.
 - For projects that require extensive consultation (i.e., Level 3, as determined by the ACO), project approval by the AER is required on a case-by-case basis. Level 3 consultation is typically required for in situ oil sands projects.
- While there appear to be strong working relationships across the various government ministries and agencies, the regulatory process could benefit from greater coordination. For example, according to the AER:
 - The AER should be closely involved with government in the development of new policies to ensure they can be implemented and regulated as intended.
 - It was noted by the AER that in some cases, feedback received through the ACO consultation process does not feed into the AER decision, as the role of the ACO is to determine whether the consultation was adequate, but not to inform the decision or mitigation of impacts.
- Federal regulatory policies and decisions impose additional challenges to the regulatory process and competitiveness in Alberta. For example:
 - Under the federal *Species at Risk Act*, woodland caribou in Alberta are listed as threatened, and the Central Mountain caribou population are listed as endangered. As a result, Alberta is currently drafting recovery plans to restore caribou herds and rangeland to meet federal guidelines.
 - Approval processes are further delayed by Joint Provincial-Federal Panel Reviews for large projects and Environmental Impact Assessment (EIA) reports, and the new federal power under Bill C-69 to regulate in situ oil sands development. The effects of the proposed regulatory scheme for major projects is unclear.
 - The June 2019 federal enactment of the *Oil Tanker Moratorium Act*¹³⁹ prohibits oil tankers that are carrying more than 12,500 tonnes of oil from stopping or unloading crude along BC's north coast, and is viewed as a hindrance to Canadian oil exports, and conversely as a benefit to the US energy market.¹⁴⁰

¹³⁹ Bill C-48, Oil Tanker Moratorium Act, 1st session, 42nd Parliament, 2019, c.26. <https://www.parl.ca/DocumentViewer/en/42-1/bill/C-48/third-reading>

¹⁴⁰ British Council of British Columbia. “Submission to the Standing Senate Committee on Transport and Communications on Bill C-48, An Act respecting the regulation of vessels that transport crude oil or persistent oil to or from ports or marine installations located along British

- Following the January 2019 Supreme Court of Canada decision on Redwater¹⁴¹, the estate of an insolvent company is deemed liable for the environmental abandonment, reclamation, and end-of-life obligations of its assets ahead of any payout to secure creditors. Although considered a win to liability management by the province and the AER, there are concerns that the decision may lead to uncertainty, reduced lending and a depressed investment environment for the energy industry.^{142, 143}

Opportunities

- The AER recommended that the list of red tape reduction initiatives be prioritized by assessing greatest benefit to the public, rather than having a long list of projects competing for scarce resources. Potential areas for red tape reduction and regulatory efficiency identified through MNP's engagement with stakeholders and secondary research include:
 - Revisiting policy frameworks that have been drafted but are currently incomplete, to allow for clear and transparent tools and guidelines for industry and regulators to follow.¹⁴⁴ According to the AER, the Government of Alberta should prioritize policy development including the setting of targets or thresholds on items such as land use, regional plans and cumulative effects to allow industry the choice on how to manage its activity and impacts under the set thresholds.
 - Conducting stakeholder engagement pro-actively when a policy or regulation threshold is set to avoid delays caused by issues that are raised on a project-by-project basis. For example, during the SOC process when the Hearing Commissioner makes a decision, a new policy is created based on the project decision. The AER would rather see a more open and proactive approach to policy development that is led by Government with input from a broad spectrum of affected stakeholders.
 - Modernizing regulations to reflect current technology and practices used by industry. For example, in CAPP's report "Update: A Competitive Policy and Regulatory Framework for Alberta's Upstream Oil and Natural Gas Industry", it was mentioned that many energy development applications are being submitted as technically non-routine, as current regulations may be technically outdated or obsolete. Non-routine applications have longer application processing times by the AER.
 - Expanding the practice of reporting and publishing of application timelines and achievement of targets. The AER currently reports publicly on application timelines and the percentage of applications that achieve set targets. This practice should be continued and expanded on with other regulatory bodies (e.g. AEP, ACO) to allow for greater certainty and transparency for proponents within the regulatory process.
 - Increasing knowledge (of both industry and community stakeholder groups) with respect to expectations surrounding consultation requirements.
- According to the AER, Government at senior levels and the regulator should work collaboratively as one team in support of an integrated approach to natural resource policy development and implementation. AER noted that it is important that it continues to be a valued partner in these discussions as this helps to ensure operational impacts to the energy sector are appropriately

Columbia's north coast" 2019. Available here: https://www.bcbc.com/dist/assets/submissions-and-presentations/submission-bill-c-48-oil-tanker-moratorium-act/20190411_BCBCComments_BillC-48.pdf

¹⁴¹ *Orphan Well Association v. Grant Thornton Ltd* [2019] SCC 5. <https://scc-csc.lexum.com/scc-csc/scc-csc/en/17474/1/document.do>

¹⁴² Borden Ladner Gervais Law Firm, *Redwater Decision*, February 4 2019, https://blg.com/en/News-And-Publications/Publication_5556?utm_source=Mondaq&utm_medium=syndication&utm_campaign=View-Original

¹⁴³ Dentons Global Law Firm, *Redwater – Impacts*, February 1 2019, <https://www.dentons.com/en/insights/alerts/2019/february/1/redwater>

¹⁴⁴ Examples provided by the AER include: Land use framework regional plans such as Environmental Management Frameworks that form the basis for cumulative effects management, Moose Lake Access Management Plan, Caribou Range Plans, Liability Management, Wetland Policy Implementation in the green area and clarity of processes, and Tailings management (e.g., mine water return).

considered and mitigated. Similarly, the AER would like to see continued support and proactive action from Government to address areas that require jurisdictional clarity, especially between AER and AEP.

Actions Taken to Date

The Alberta Energy Regulator

The AER receives approximately 40,000 applications per year for energy development projects or activities. If there are outstanding concerns as identified through implementation of participant involvement requirements, applications for wells, pipelines, facilities and oil sands recovery are considered non-routine.¹⁴⁵ As indicated by the AER's target timelines, non-routine applications with participant involvement take longer for the AER to reach a decision compared with routine or technical applications.¹⁴⁶ Additional delays occur if a statement of concern (SOC) is filed during the notice of application, and if a hearing is held to hear concerns.

In October 2018, the AER reduced all application timeline targets by 50 percent and met these targets in April 2019. To increase transparency, the AER published online estimated application processing times, and clarified the SOC and hearing process for stakeholders. The AER is also implementing an Integrated Decision Approach ("IDA") through an online application system called "OneStop" for proponents to submit one application based on the entire lifecycle of a project, rather than separate applications for project activities. IDA helps the AER prioritize where to allocate resources during the project review process, and helps mitigate challenges a proponent may face during the application review.

To date, the IDA model has been viewed positively by industry stakeholders with the benefit of "upfront approval for all project components, reduced regulatory burden for stakeholders and the company and reduced risk of regulatory delays".¹⁴⁷ The AER is currently applying the IDA approach with industry for the construction, operation and reclamation of an in situ oil sands project. CAPP has estimated that IDA has the potential to reduce approval timelines from 5 years to 15 months, and reduce capital expenditure by 3 percent.¹⁴⁸

The AER identified the following actions that it has initiated or is considering:

- Working to add additional applications to OneStop, with low-risk applications moving towards automatic approval.
 - Pipeline licence applications (2017) and Water Act approvals (2018) were implemented in OneStop and have seen significant improvement in application timelines.
 - The AER is adding *Public Lands Act* disposition renewals, amendments, and applications to OneStop in the near future.
 - A version of OneStop was jointly developed by the AER and AEP for AEP Water Approvals process (released in 2018).

¹⁴⁵ AER Directive 056: *Energy Development Applications and Schedules* and AER Directive 023: *Guidelines Respecting an Application for a Commercial Crude Bitumen Recovery and Upgrading Project* set the notification requirements for when participant involvement or a technical review are necessary.

¹⁴⁶ Alberta Energy Regulator, "Application Process Estimated Processing Times", accessed June 27, 2019.

<https://www.aer.ca/documents/applications/application-processes/AERTargetTimelines.xlsx>

¹⁴⁷ Alberta Oil Sands Industry. "Quarterly Update – Summer 2018". 2018. Available here: <https://open.alberta.ca/dataset/b70a79b3-387f-475a-be38-6fe4cd5bb007/resource/8f69b617-c3b8-4c67-a713-d7d55c864634/download/aosid-quarterlyupdate-summer2018.pdf>

¹⁴⁸ Canadian Association of Petroleum Producers. "Update: A Competitive Policy and Regulatory Framework for Alberta's Upstream Oil and Natural Gas Industry". 2018.

- Working with AEP and Service Alberta on the data sharing elements of the AER's Public Lands OneStop product. This is required to ensure all regulators are aware of what is happening on the shared land base to ensure informed decisions are being made.
- Working with AEP to pilot test a single application for a Project Area Disposition (PAD) for in situ oil sands development.
- Improving the participant involvement process, through the release of a draft Directive for Public Involvement on June 25, 2019.¹⁴⁹ The Directive sets requirements for engaging and informing the public throughout the life cycle an energy project.
- Providing more transparency when timelines are not met to show why there are delays. Application delays may be the result of risk to the environment and public safety, if the decision is held by a hearing, or if the project is delayed by the proponent.
- Building a better understanding of data trends within SOC's that can inform AER decision making activities.
- Advancing transparency by making more information regarding the SOC process available to stakeholders.

The Aboriginal Consultation Office

Below is a summary of actions being undertaken or considered by the ACO to improve regulatory efficiency in Alberta:

- Partnering with the Alberta Digital Innovation Office to develop new consultation software to collect consultation information, merge duplicative databases, reduce timelines and simplify the application process for proponents.
- Providing incentives to proponents for good performance in their efforts of completing accurate applications.
- Undertaking active measures to improve strategic relations, training, consultation guidelines for proponents, education guidelines for First Nations and Metis settlements, and public education.
- Implementation of 36 recommendations to improve internal processes by August 2019, based on the recommendations of a 2018/2019 internal audit.

4.3 Infrastructure and Market Access

One of the biggest challenges facing Canada's oil and gas industry has been cited as market access and the lack of pipelines.¹⁵⁰ Major pipeline projects such as Enbridge Inc.'s Northern Gateway and TransCanada Corp's Energy East were rejected by the federal Government, then subsequently cancelled by their proponents in 2017. The TransMountain expansion project approval has been subjected to lengthy delays since Kinder Morgan applied to the NEB to expand the pipeline in December 2013. Approval of the pipeline expansion occurred nearly 5 and a half years later in May 2019, after the federal government purchased the TransMountain pipeline and expansion project. TC Energy's Keystone XL and Enbridge's Line 3 replacement continue to undergo delays.

¹⁴⁹ Alberta Energy Regulator. "Draft Directive XXX: Public Involvement". 2019. Available here: <https://www.aer.ca/regulating-development/rules-and-directives/directives/directive-XXX-draft>

¹⁵⁰ Michaud, J. and Belzile, G. "The cumulative impact of harmful policies: The case of oil and gas in Alberta". 2019. Available here: https://www.iedm.org/sites/default/files/web/pub_files/cahier0119_en.pdf

It has been reported that the costs of delaying pipelines impose substantial economic costs on the Canadian economy and pose constraints to production.^{151, 152, 153} Western Canada's oil and gas resources are extracted onshore and need to be transported to other markets, at a cost of approximately \$10 to \$12 USD per barrel for pipeline transport to the US, or \$20 USD per barrel or more by rail.¹⁵⁴ Currently, nearly all of Canada's crude oil and natural gas are transported to the US.^{155,156} As a result of pipeline constraints in Canada, and accounting for transportation costs and crude quality differences, a 2019 report from the Fraser Institute found that the Canadian energy industry has lost \$20.62 billion CAD in revenue in 2018.¹⁵⁷

Similarly, a report by the C.D. Howe Institute concluded that pipeline constraints have greatly reduced the price that oil producers receive, which has had the largest effect on the cost competitiveness of energy producers of all policy-related issues examined in the study.¹⁵⁸ The lack of transport capacity has meant many producers in Alberta have had to accept much lower prices for their oil, with the Western Canada heavy oil differential averaging \$27 USD per barrel below the WTI price in 2018 (more than double what it was in 2017).¹⁵⁹ Furthermore, lack of market access resulting from capacity constraints for oil products is estimated by the Alberta Treasury Board and Finance to cost Alberta \$6.5 million CAD per day in government revenue.¹⁶⁰

It has been reported that the Alberta government curtailment on oil production in December 2018 has narrowed the discount that producers receive on their product.¹⁶¹ However, according to the Fraser Institute, substantial incremental revenue could result from allowing access to world crude oil prices through the export of Canadian crude from ocean ports.¹⁶² While the recent federal approval of the TransMountain pipeline is a positive sign for the Alberta oil and gas industry, it could be two to three years until the pipeline is built and results in expanded transportation capacity for Alberta's oil products.¹⁶³ Any action to expedite the construction timelines, or to improve interim measures including rail car capacity, would help improve the competitiveness of the sector including Alberta's ability to attract investment.

¹⁵¹ Scotiabank. "Pipeline Approval Delays: the Costs of Inaction". February 20, 2018. Available here :

https://www.gbm.scotiabank.com/content/dam/gbm/scotiaeconomics63/pipeline_approval_delays_2018-02-20.pdf

¹⁵² Canadian Association of Petroleum Producers. "Crude Oil Forecast, Markets, and Transportation". 2019. Available here:

<https://www.capp.ca/-/media/capp/customer-portal/documents/338843.pdf?modified=20190613133342&la=en&hash=B6BEA8D8B8E69ABA792289776D4C1FB2DF74BAE6>

¹⁵³ Aliakbari, E. and Stedman, A. "The Cost of Pipeline Constraints in Canada". 2019. Available here:

<https://www.fraserinstitute.org/sites/default/files/cost-of-pipeline-constraints-in-canada-2019.pdf>

¹⁵⁴ Scotiabank. "Pipeline Approval Delays: the Costs of Inaction". February 20, 2018. Available here :

https://www.gbm.scotiabank.com/content/dam/gbm/scotiaeconomics63/pipeline_approval_delays_2018-02-20.pdf

¹⁵⁵ Canadian Association of Petroleum Producers. "Crude Oil Forecast, Markets, and Transportation". 2019. Available here:

<https://www.capp.ca/-/media/capp/customer-portal/documents/338843.pdf?modified=20190613133342&la=en&hash=B6BEA8D8B8E69ABA792289776D4C1FB2DF74BAE6>

¹⁵⁶ National Energy Board, "Natural Gas Annual Trade Summary – 2018," updated March 15, 2019, accessed June 28, 2019.

<https://www.neb-one.gc.ca/nrg/sttsc/ntrlgs/rprt/ntrlgssmmr/ntrlgssmmr-eng.html>

¹⁵⁷ Aliakbari, E. and Stedman, A. "The Cost of Pipeline Constraints in Canada". 2019. Available here:

<https://www.fraserinstitute.org/sites/default/files/cost-of-pipeline-constraints-in-canada-2019.pdf>

¹⁵⁸ Dachis, B. "Death by a Thousand Cuts? Western Canada's Oil and Natural Gas Policy Competitiveness Scorecard". 2018.

¹⁵⁹ Business Wire. Costs of Canadian Oil Sands Projects Fell Dramatically in Recent Years; But Pipeline Constraints and other Factors Will Moderate Future Production Growth, IHS Markit Analysis Says. May 1, 2019.

¹⁶⁰ Alberta Oil Sands Industry. "Quarterly Update – Summer 2018". 2018.

¹⁶¹ Aliakbari, E. and Stedman, A. Fraser Research Bulletin. "The Costs of Pipeline Constraints in Canada". 2019. Available here:

<https://www.fraserinstitute.org/sites/default/files/cost-of-pipeline-constraints-in-canada-2019.pdf>

¹⁶² Angevine, G. and K. Green, *The Costs of Pipeline Obstructionism*, July 2016, 1. <https://www.fraserinstitute.org/sites/default/files/costs-of-pipeline-obstructionism.pdf>

¹⁶³ CBC. "Oilpatch feels 'crushed' as it moves one step forward, two steps back." 2019. Available here :

<https://www.cbc.ca/news/canada/calgary/oilsands-oil-gas-mood-transmountain-c48-c69-calgary-1.5188266>

4.4 Cost Competitiveness of Alberta's Oil Sands

Alberta's oil sands produce approximately 83 percent of all oil production in Alberta,¹⁶⁴ and account for 64 percent of oil production in Canada.¹⁶⁵ As of 2017, the capital investment in Western Canada's oil sands was approximately \$301 billion.¹⁶⁶ However, the costs to develop and operate oil sands projects are typically higher compared with crude oil production from drilling wells. In 2018, the estimated supply costs¹⁶⁷ for oil sands in situ and mining projects ranged from \$45 to \$55 per barrel (USD WTI).¹⁶⁸ While not a direct product substitute, for comparison purposes the cost of supply for drilling and operating unconventional shale plays in the US was approximately \$35 per barrel (USD WTI) in 2017.¹⁶⁹

A recent report by IHS Markit noted that the cost of building and operating oil sands projects has fallen dramatically in recent years with the costs associated with new oil sands projects being 25 percent to one-third lower than they were in 2014.¹⁷⁰ The report notes that it is external factors, such as price uncertainty caused by pipeline constraints, that is slowing production growth.

Other market-based factors that impact oil sands economics include: the price of natural gas to generate heat and steam for extraction, the price of condensate used to dilute bitumen, exchange rates between Canadian and US dollars, and the differential price between crude oil in Western Canada compared with the crude oil price in other jurisdictions.¹⁷¹ Since 2014, market variables such as a weakened Canadian dollar and the lower price of natural gas and condensate have benefited producers. However, volatility in oil price differentials have negatively impacted oil sands economics.¹⁷²

4.5 Royalty Structure and Other Fiscal Policy

In January 2016, Alberta's royalty review panel released a modernized royalty framework that is viewed as competitive against direct competitors such as British Columbia, Saskatchewan, North Dakota, Oklahoma, Pennsylvania, and Texas.¹⁷³ Notwithstanding the positive outcome of the review, the timing of it being undertaken, in a period when commodity prices were collapsing during a serious downturn, was viewed to have negatively impacted investor confidence in Alberta.¹⁷⁴ In an aim to restore long-term investor confidence, the Alberta government recently introduced *Bill 12: the Royalty Guarantee Act*¹⁷⁵, which amends the *Mines and Minerals Act*¹⁷⁶ to disallow any restructuring of the royalty framework for a period of at least ten years. In addition, any new and existing producing wells would be "under the same royalty structure for that period of time".¹⁷⁷

¹⁶⁴ Government of Alberta. "Economic Dashboard – Oil Production, April 2019". 2019. Available here: <https://economicdashboard.alberta.ca/OilProduction#type>

¹⁶⁵ Natural Resources Canada. "Crude Oil Facts". Available here: <https://www.nrcan.gc.ca/energy-facts/crude-oil-facts/20064>

¹⁶⁶ Ibid.

¹⁶⁷ Supply Costs are defined as "the minimum constant dollar price needed to recover all capital expenditures, operating costs, royalties, and taxes, as well as to earn a specified return on investment".

¹⁶⁸ Alberta Energy Regulator. "ST98 Crude Bitumen Supply Costs". Updated May 2019, accessed July 7, 2019. Available here: <https://www.aer.ca/providing-information/data-and-reports/statistical-reports/st98/crude-bitumen/supply-costs>

¹⁶⁹ ConocoPhillips. "Eagle Ford Investor Field Tour, 2017 November Investor Deck". 2018. Available here:

<https://static.conocophillips.com/files/resources/eagle-ford-investor-field-tour-final-040318.pdf>

¹⁷⁰ Birn, K. "Four Years of Change – Oil Sands Cost and Competitiveness in 2018". 2019.

¹⁷¹ Ibid.

¹⁷² Ibid..

¹⁷³ Wood MacKenzie. "Alberta at a Crossroads, Royalty Review Advisory Panel Report". 2016, 52.

¹⁷⁴ Van Wielingen, M. "Canada's Energy Leadership Opportunity". 2019.

¹⁷⁵ Bill 12, *The Royalty Guarantee Act*, 1st session, 30th legislature, 2019.

https://www.assembly.ab.ca/ISYS/LADDAR_files/docs/bills/bill/legislature_30/session_1/20190521_bill-012.pdf

¹⁷⁶ *Mines and Minerals Act, Revised Statutes of Alberta* 2000, c. M-17. <http://www.qp.alberta.ca/documents/Acts/m17.pdf>

¹⁷⁷ Government of Alberta. "Royalty Guarantee Act, Bills and Legislation". Available here: <https://www.alberta.ca/royalty-guarantee-act.aspx>

A 2018 study by the C.D. Howe Institute noted that recent tax reform in the US highlighted the need to re-examine the cost of taxation in Canadian provinces to maintain the competitiveness of the oil and gas sector.¹⁷⁸ The recently announced reductions in the corporate income tax rate in Alberta, as well as the accelerated capital cost allowances announced in the 2018 federal fall economic update, are steps in the right direction for improving Alberta's ability to attract oil and gas investment relative to competing jurisdictions in Canada and the US. With respect to carbon pricing that is applied to oil and gas production in Western Canada, the C.D. Howe Institute concludes that this is not currently a major driver of cost competitiveness.¹⁷⁹

¹⁷⁸ Dachis, B. "Death by a Thousand Cuts? Western Canada's Oil and Natural Gas Policy Competitiveness Scorecard". 2018.

¹⁷⁹ Ibid..

5 SCOPE 4: COMPETITIVENESS IMPLICATIONS OF CARBON PRICING AND CLIMATE CHANGE POLICIES

5.1 Background

Overview of Climate Policy Environment in Alberta

The following are a number of major pieces of carbon pricing or climate change legislation (current or planned) at the provincial level in Alberta:

- *Oil Sands Emissions Limit Act*, which establishes a GHG emissions limit for all of Alberta's oil sands sites at a combined 100 million tonnes of CO₂e per year.¹⁸⁰
- *Carbon Competitiveness Incentive Regulation* ("CCIR"), which sets a price on large industrial facilities' greenhouse gas ("GHG") emissions above a benchmark established on the basis of sector-wide performance.¹⁸¹
- *Renewable Fuel Standards*, which requires commercial fuel producers and importers to blend renewable products into their fuels.
- *Phasing Out Coal*, which called for the decommissioning of all coal-fired electric power plants in Alberta by 2030 (under review by current government).
- *Reducing Methane Emissions*, which calls for a 45 percent reduction in methane emissions in oil and gas operations by 2025.
- Proposed *Technology Innovation and Emissions Reduction* ("TIER") program, which partially replaces the CCIR, setting a price on the GHG emissions of large industrial facilities (aside from power plants) above a benchmark established on the basis of the facility's historical emissions.

At the federal level, there are a number of additional pieces of carbon pricing or climate change legislation (current or planned) that have implications for Alberta:

- *Greenhouse Gases Pollution Pricing Act*, which provides the legislative basis for the federal backstop in provinces that did not meet the federal benchmark for a sufficient carbon pricing policy. The federal backstop is expected to apply to fuel sales in Alberta, due to the provincial government's repeal of its carbon levy on fuel.
- Proposed *Clean Fuel Standard*, which will incent the use of renewable and low carbon fuels, and the switch from internal combustion to electric vehicles.

Carbon Levy

Alberta's repeal of its tax on fuel ("the carbon levy") has led to conclusions that the federal government will impose its own carbon levy on fuel, as part of the federal backstop.¹⁸² If the federal government proceeds as announced, it will also be responsible for distributing the revenue collected from the levy. The federal government estimates that 90 percent of carbon levy revenues would be distributed to Albertans in the form of rebates, while the remainder would be applied towards building energy efficiency programs. This stands in contrast to Alberta's existing policy for redistributing income from the carbon levy, prior to its repeal, in which

¹⁸⁰ Government of Alberta. "Capping oil sands emissions". Available here: <https://www.alberta.ca/climate-oilsands-emissions.aspx>

¹⁸¹ CCIR was retained only for electricity generation, and was replaced by the Technology Innovation and Emissions Reduction ("TIER") regulation for all other sectors.

¹⁸² The Star Edmonton. "Federal carbon tax set to take effect in Alberta on Jan. 1". 2019. Available here: <https://www.thestar.com/edmonton/2019/06/13/federal-carbon-tax-set-to-take-effect-in-alberta-on-jan-1.html>

approximately 60 percent of Albertans earn a partial or full rebate under the system.¹⁸³ The remaining carbon levy revenues funded a variety of programs, including economic diversification initiatives, public transportation infrastructure projects, and energy efficiency and research and development programs.¹⁸⁴

While the expected transition to a federally-administered system would entail Alberta's loss of control over the distribution of carbon levy revenues¹⁸⁵ and a decrease in funding for other programs, it is expected to result in increases in household rebates for consumers. In addition, the Government of Alberta expects that cutting the carbon levy will lead to lower costs for businesses and increased job creation.¹⁸⁶

Outside of businesses operating facilities that are regulated under Alberta's large emitter carbon pricing regulation and absent the federal backstop, a repeal of Alberta's carbon levy would be expected to result in lower costs for fuel, leading to lower production costs for businesses. While the federal government has announced its intention to apply the federal backstop in Alberta as of January 1, 2020, it is uncertain whether this will be the case given the upcoming federal election (scheduled for October 2019) as well as the Government of Alberta's legal challenge to the federal government's carbon tax.¹⁸⁷

Large Emitters

Alberta's Carbon Competitiveness Incentive Regulation ("CCIR") will be replaced by the Technology Innovation and Emissions Reduction ("TIER") program in January 2020. The new policy is expected to introduce substantial changes to Alberta's climate policy for large industrial emitters. This includes a lowering of the carbon price from \$30 to \$20 per tonne of CO₂e, and a move from industry-wide benchmarks to facility-specific benchmarks.

Under the CCIR, combined with the province's carbon levy on fuel, the coverage of Alberta's carbon pricing system came just short of meeting the benchmark set by the federal government to assess whether provincially-determined climate policies were sufficient in scope and stringency.¹⁸⁸ The shortfall is due to temporary exemptions on combustion and venting GHG emissions granted to conventional oil and gas producers, amounting to approximately 13 percent of Alberta's GHG emissions. Despite this, the federal government announced in October 2018 that the CCIR mechanism was sufficient.¹⁸⁹

Under the new TIER regulation, large industrial GHG emitters will be benchmarked against their facilities' historical performance, in terms of GHG emissions per unit of output. As a result, facilities will be faced with the same level of costs or benefits, depending on their performance, regardless of how they compare to other facilities in the same sector. This is expected to level the playing field amongst large industrial emitters. Based on discussions with AEP, the TIER program is expected to meet all requirements of the federal government with the exception of the carbon price (i.e. the proposed \$20/tonne of CO₂e, versus the minimum \$30/tonne of CO₂e that is required).

¹⁸³ CBC News. "A tale of 2 taxes: how carbon pricing and revenue rolls out in Alberta versus Sask.". 2019. Available here: <https://www.cbc.ca/news/canada/saskatchewan/alberta-saskatchewan-comparison-carbon-tax-1.5093864>

¹⁸⁴ Canada's Ecofiscal Commission. "Gear shift: Alberta's climate policies poised for big changes". 2019. Available here: <https://ecofiscal.ca/2019/05/22/gear-shift-alberta/>

¹⁸⁵ The Star Edmonton. "Alberta's carbon tax : What is it and what happens if it's scrapped?". 2019. Available here: <https://www.thestar.com/edmonton/2019/04/02/albertas-carbon-tax-what-is-it-and-what-happens-if-its-scrapped.html>

¹⁸⁶ CBC News. "Alberta's carbon tax brought in billions. See where it went". 2019. Available here: <https://www.cbc.ca/news/canada/calgary/carbon-tax-alberta-election-climate-leadership-plan-revenue-generated-1.5050438>

¹⁸⁷ Edmonton Journal. "See you in court: Alberta government launches federal carbon tax challenge". 2019. Available here: <https://edmontonjournal.com/news/local-news/see-you-in-court-alberta-government-launches-federal-carbon-tax-challenge>

¹⁸⁸ Dobson, S., Winter, J., Boyd, B. "The Greenhouse Gas Coverage of Carbon Pricing Instruments for Canadian Provinces". 2019. Available here: <https://www.policyschool.ca/wp-content/uploads/2019/02/Carbon-Pricing-Dobson-Winter-Boyd-final2.pdf>

¹⁸⁹ Ibid.

The TIER regulation earmarks the first \$100 million in annual revenues earned and 50 percent of revenues above the first \$100 million to support greenhouse gas reduction technologies.¹⁹⁰ The remaining 50 percent of revenues earned above the first \$100 million will be used, among others, to reduce the government deficit.¹⁹¹ In fiscal year 2019/20, the combined CCIR and TIER revenues are expected to amount to \$630 million while in 2020/21, revenues under the TIER program alone are expected to amount to \$570 million.¹⁹²

5.2 Jurisdictional Review

In Canada, the federal government has chosen to implement a carbon levy on fuels in provinces whose climate policies did not meet or exceed the federal benchmark, and as a result the governments of Saskatchewan, Ontario and Alberta have initiated legal proceedings to challenge the constitutionality of this decision.¹⁹³ Conversely, in the United States the federal government has moved away from emission reduction commitments made by the previous administration; and, in response, certain states, local governments and the democratically controlled Congress are initiating their own laws and resolutions to affect a reduction in GHG emissions.

The timeline on the following page highlights recent developments that have had a significant effect on today's carbon pricing and climate change policy environment in North America. As indicated in the timeline, the political landscape in both Canada and the US has resulted in shifts in policy direction over time, creating a level of uncertainty for both consumers and businesses.

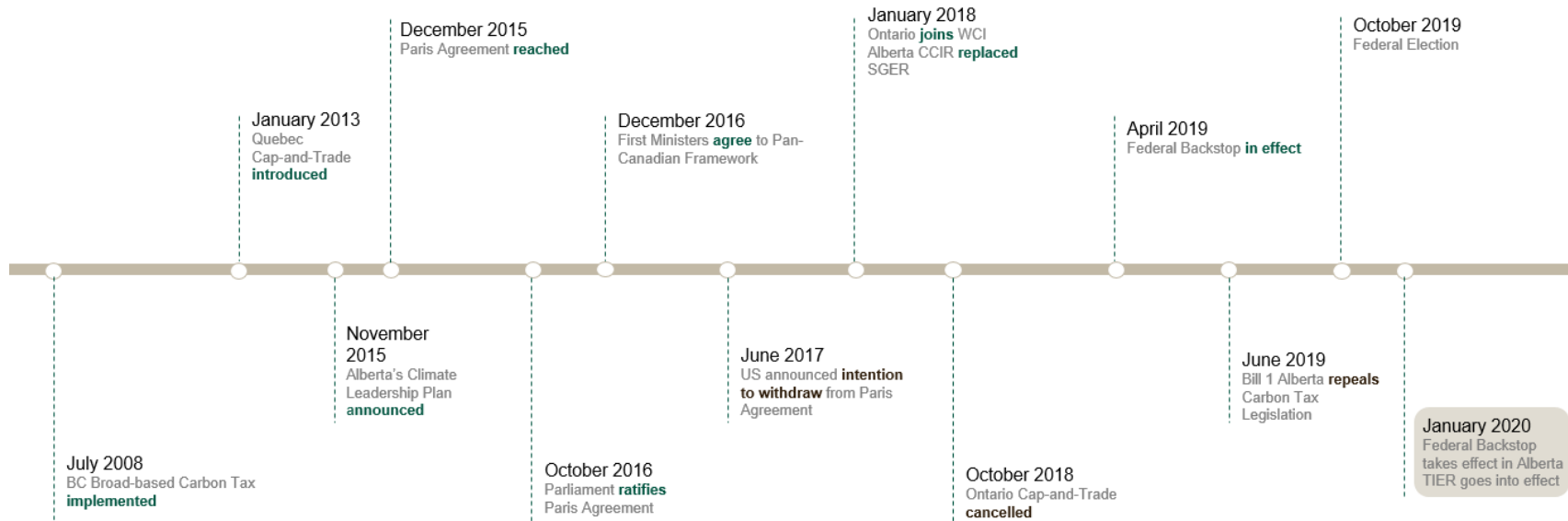
¹⁹⁰ United Conservatives, Alberta Strong & Free. "UCP Platform: Getting Alberta Back to Work". 2019. Available here: <https://www.albertastrongandfree.ca/policy/>

¹⁹¹ Ibid.

¹⁹² Ibid.

¹⁹³ The Provincial Court of Appeal in Saskatchewan and Ontario both ruled, in May and June 2019 respectively, that the federal government's carbon levy was constitutional. The Saskatchewan government has filed notice of its appeal to the Supreme Court of Canada, and the Ontario government has announced that it would appeal the provincial court's decision to the Supreme Court of Canada.

Figure 2: Recent Developments in the North American Carbon Mitigation Policy Environment



Given the shifting carbon pricing and climate change policy landscape in North America, as well as the upcoming Canadian federal election in the fall of 2019, it is difficult to fully assess the competitiveness implications of both existing and proposed carbon pricing and climate change policies across jurisdictions. Table 1 and Table 2, however, provide a high-level comparison of key features with respect to carbon pricing and climate change policies in select jurisdictions in Canada and the US.

Table 1: Comparison of Carbon Pricing and Climate Policies in Select Canadian Jurisdictions

	Alberta ¹⁹⁴	BC	Quebec	Federal Backstop (Ontario and Saskatchewan)	
Policy instrument	CCIR/TIER	Carbon Levy	Cap-and-Trade	Carbon Levy	Output-Based Pricing System ("OBPS")
Coverage	OBPS – 50% TIER: Industrial emitters (including oil and gas and electricity) - ~60% ¹⁹⁵	Covers approximately 70% of GHG emissions ¹⁹⁶	85% of emissions covered as of 2015 ¹⁹⁷	Applying to 62% of CO ₂ e emissions ¹⁹⁸	~21% (in addition to the 62% included under the levy) ¹⁹⁹ For SK: transmission of natural gas and electricity generation are the only covered industrial activities ²⁰⁰
Inclusion Thresholds	>100,000 tonnes CO ₂ /year ²⁰¹	>10,000 tonnes/year for reporting purposes ²⁰²	>25,000 tonnes CO ₂ /year ²⁰³	>50,000 tonnes CO ₂ /year	
Stringency	Reduction of emissions intensity by 10% (based on average performance 2016-2018), then decreasing 1% each year ²⁰⁴	Applies to all combustion emissions, excludes process emissions	Reduction of emission cap each year – government reduces Emission Units by 1% to 2% annually ²⁰⁵	70% to 90% protection for industry based on determined industry benchmarks	

¹⁹⁴ Note that Alberta has recently repealed its broad-based carbon levy and expects to implement a new decarbonization policy as of January 2020. At this same time, aspects of the federal backstop not met by provincial legislation will come into force in Alberta. The information contained in this section reflects the anticipated decarbonization policies to be effective January 2020.

¹⁹⁵ United Conservative Party. "Implementing the Technology Innovation and Emissions Reduction (TIER) Fund". 2019.

¹⁹⁶ The Conference Board of Canada. "It's Not Easy Being Green: The Challenge of Carbon Competitiveness". 2019.

¹⁹⁷ Woods, A. "Quebec's cap-and-trade system". 2015.

¹⁹⁸ Boyd, B., Dobson, S., Winter, J. "The Greenhouse Gas Emissions Coverage of Carbon Pricing Instruments For Canadian Provinces". 2019.

¹⁹⁹ Ibid.

²⁰⁰ Environment and Climate Change Canada. "Engagement Session on the Federal Output-Based Pricing System". 2019.

²⁰¹ United Conservative Party. "Implementing the Technology Innovation and Emissions Reduction (TIER) Fund". 2019.

²⁰² Government of British Columbia. "Greenhouse Gas Emission Reporting Regulation". 2014.

²⁰³ Government of Quebec. "A Brief Look at the Quebec Cap-and-Trade System for Emission Allowances". 2013.

²⁰⁴ Ibid.

²⁰⁵ Government of Quebec. "A Brief Look at the Quebec Cap-and-Trade System for Emission Allowances". 2013.

	Alberta ¹⁹⁴	BC	Quebec	Federal Backstop (Ontario and Saskatchewan)	
Compliance Costs	\$20/tonne CO ₂ ²⁰⁶	\$40/tonne CO ₂ e ²⁰⁷ , rising \$5/year until cost is \$50/tonne in 2021 ²⁰⁸	Based on emissions trading price	Carbon levy: \$30/tonne CO ₂ e, rising \$10/year to \$50/tonne CO ₂ / year by 2022 ²⁰⁹	
EITE Provisions	Facilities regulated under CCIR that are experiencing economic hardship due to compliance costs may be eligible for cost relief under the Cost Containment Program (CCP)	CleanBC Program "directs an amount equal to the incremental carbon tax paid by industry above \$30/tonne into rebates and incentives for cleaner operations" ²¹⁰	Free allocations of emissions credits make up approximately 30% of all EITEs (reducing 1% to 2% annually) ²¹¹	Exemption from broad-based levy	EITEs considered to be highest risk (cement, lime, nitrogen facilities, iron and steel manufacturing adjusted to 90% output standard; other industrial sectors 70 – 80% of the sector's average GHG emissions intensity) ²¹²
Primary Electricity Source	Coal, natural gas	Hydropower	Hydropower	Coal, natural gas (SK) Uranium, hydropower (ON)	

²⁰⁶ United Conservative Party. "Implementing the Technology Innovation and Emissions Reduction (TIER) Fund". 2019.

²⁰⁷ Government of British Columbia. "Climate Action Legislation". Available here: <https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/legislation>

²⁰⁸ Ibid.

²⁰⁹ Pan-Canadian Approach to Pricing Carbon Pollution: Background. Environment and Climate Change Canada. Accessed June 24, 2019.

²¹⁰ Government of British Columbia. "British Columbia's Carbon Tax". Available here: <https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/carbon-tax>

²¹¹ Boothe, P., Boudreault, F. A., Frankel, C. "Squaring the Circle: Canadian GHG Emissions". 2016.

²¹² Government of Canada. "Update on the output-based pricing system: technical background". 2018. Available here:

<https://www.canada.ca/en/services/environment/weather/climatechange/climate-action/pricing-carbon-pollution/output-based-pricing-system-technical-background.html>

Table 2: Comparison of Carbon Pricing and Climate Policies in Select US Jurisdictions

	Colorado	Washington	North Dakota	Texas
Policy instrument	TBD: Law passed May 30, 2019 ²¹³	Cap-and-Trade ²¹⁴ (Pending)	N/A ²¹⁵	TBD: GHG Emission Levy in the House
Coverage	TBD	EITEs included under pending legislation until 2020, with reductions not required until 2023 ²¹⁶ Excluded from emission regulation: agriculture, jet fuel, exported petroleum products, and remaining coal plant in WA ²¹⁷	N/A	TBD
Inclusion Thresholds	TBD	>100,000 tonnes CO ₂ / year ²¹⁸ (Pending) Will increase to emitters >70,000 tonnes by 2035 ²¹⁹ (Pending)	N/A	TBD
Stringency Outlook	26% reduction of GHG emissions by 2030 and 50% by 2050 ²²⁰	Covered parties must achieve an annual reduction of 1.7% against their benchmark ²²¹	N/A	TBD
Compliance Costs	TBD	TBD	N/A	TBD
EITE Provisions	5% coverage of EITEs ²²² Emissions must match "best available emission control technologies" ²²³	Calculation of benchmarks (sector-specific) and stringency unique to EITEs ²²⁴	N/A	TBD
Primary Electricity Source	Coal, natural gas	Hydropower, coal	Coal ²²⁵	Solar, shale gas, wind

²¹³ Colorado General Assembly. "House Bill 19-1261: Climate Action Plan to Reduce Pollution". 2019.

²¹⁴ Washington State Legislature. "Senate Bill 5981 (Pending)". 2019.

²¹⁵ Climate Xchange. "State Carbon Pricing Network". 2019. Available here: <https://climate-xchange.org/network/>

²¹⁶ Wightman, S. "Washington Breaks New Ground with Greenhouse Gas Regulation". 2016.

²¹⁷ Melton, M. "Willing to Face Legal Obstacles, Washington State Persists in Climate Policy Efforts". 2019.

²¹⁸ Washington State Legislature. "Washington Administrative Code 173-442-070: GHG emission reduction pathway and emission reduction requirement for EITE parties". 2016.

²¹⁹ Melton, M. "Willing to Face Legal Obstacles, Washington State Persists in Climate Policy Efforts". 2019.

²²⁰ Colorado General Assembly. "House Bill 19-1261: Climate Action Plan to Reduce Pollution". 2019.

²²¹ Wightman, S. "Washington Breaks New Ground with Greenhouse Gas Regulation". 2016.

²²² Where EITEs are considered by the State of Colorado HB19-1261 to be as follows: "means an entity that principally manufactures iron, steel, aluminum, pulp, paper, or cement and that is engaged in the manufacture of goods through one or more emissions-intensive, trade-exposed processes, as determined by the commission."

²²³ Colorado General Assembly. "House Bill 19-1261: Climate Action Plan to Reduce Pollution". 2019.

²²⁴ Washington State Legislature. "Washington Administrative Code 173-442-070: GHG emission reduction pathway and emission reduction requirement for EITE parties". 2016.

²²⁵ North Dakota State Profile and Energy Estimates: North Dakota Net Electricity Generation by Source. U.S. Energy Information Administrator, 2019.

5.3 Competitiveness Implications

There are a number of key considerations with respect to the competitiveness implications of carbon pricing and climate change policies in Alberta:

- Alberta is home to the largest share of emissions-intensive and trade-exposed (“EITE”) industries in Canada:
 - The oil and gas sector comprises the largest share of federal emissions (27% of total domestic GHG emissions in 2017).²²⁶
 - As previously noted, the oil and gas sector, and its support activities, comprise the largest share of Alberta’s provincial GDP (approximately 27%).²²⁷
 - Fertilizer, chemical manufacturing and petrochemical manufacturing are considered to be the most vulnerable sectors in Alberta. Although they contribute a smaller share to Alberta’s GDP, they are considered key industries in the context of the diversification of Alberta’s economy.
- Electricity generation in Alberta is primarily coal-fired (unlike other provinces, including BC and Quebec, where electricity generation comes predominantly from hydropower).
- Mature projects and facilities employing older and less efficient technologies are at a greater risk of being uncompetitive.

As a result, relative to other jurisdictions in Canada and the US, carbon pricing and climate regulations may disproportionately affect Alberta’s economy, unless measures are taken to mitigate competitiveness impacts.

While economists widely agree that the most cost-effective solution for reducing GHG emissions is via a carbon pricing system^{228,229,230,231,232,233}, there is also agreement that one way to minimize competitiveness issues and to further grow the economy is through the recycling of carbon tax revenues. According to Murray and Rivers, “economists often favor revenue-neutral carbon taxation because it has the potential to enhance economic growth by lowering distortions from the current tax system”.²³⁴

Table 3 demonstrates ways in which governments can mitigate the competitiveness impacts of carbon pricing through various forms of revenue recycling.²³⁵

Table 3: Summary of Revenue Recycling Options²³⁶

Revenue Recycling Option	Description of Option	Economic Impact	Environmental Effectiveness
Household Transfers	Provision of rebates directly to households	<ul style="list-style-type: none"> • Closest “net neutral” option for a broad-based carbon pricing model 	<ul style="list-style-type: none"> • Effective (not introducing significant

²²⁶ Macklem, T. et al. “Final Report of the Expert Panel on Sustainable Finance: Mobilizing Finance for Sustainable Growth”. 2019.

²²⁷ In 2018, Alberta’s total GDP was \$335.1B (chained \$2012). Alberta’s oil and gas sector contributed \$80.5B to the provincial GDP, and support activities for oil and gas extraction contributed to \$10.7B. Statistics Canada. Table 36-10-0402-01 Gross domestic product (GDP) at basic prices, by industry, provinces and territories.

²²⁸ Beale, E. et al. “Provincial Carbon Pricing and Competitiveness Pressures”. 2015.

²²⁹ Beugin, D. et al. “Supporting Carbon Pricing: How to identify policies that genuinely complement an economy-wide carbon price”. 2017

²³⁰ Eisen, B., Green, K. G., Merkley, E. “The Economic, Environmental, and Political Consequences of Carbon Pricing”. 2012.

²³¹ McKittrick, R. “A Practical Guide to the Economics of Carbon Pricing”. 2016.

²³² Dobson, S., Fellows, K. G., Tombe, T., Winter, J. “The Ground Rules for Effective OBAs: Principles for Addressing Carbon-Pricing Competitiveness Concerns Through the Use of Output-Based Allocation”. 2017.

²³³ Marsh, K. and Henry, A. “A Competitive Transition: How smarter climate policy can help Canada lead the way to a low carbon economy.”

²³⁴ Murray, B., Rivers, N., “British Columbia’s Revenue-Neutral Carbon Tax: A Review of the Latest “Grand Experiment” in Environmental Policy”. 2015.

²³⁵ Revenue recycling is the process by which revenues collected through carbon pricing strategies are returned to the economy from which they were taxed.

²³⁶ Canada’s Ecofiscal Commission. “Choose Wisely: Options and Trade-offs in Recycling Carbon Pricing Revenues”. 2016.

Revenue Recycling Option		Description of Option	Economic Impact	Environmental Effectiveness
			<ul style="list-style-type: none"> Highest economic cost (lowest GDP growth), does not reduce distortion in the economy i.e. does not mitigate competitiveness challenges for EITEs 	distortions or adverse incentives)
Income Tax Cuts	Personal	Broad-based reduction of income tax rates for personal and/or corporate	<ul style="list-style-type: none"> Can be a regressive model, given already-low income tax rates for low income earners Can cause behaviour change shift toward "greater work effort and greater saving" 	<ul style="list-style-type: none"> Stimulation of economic growth results in net new emissions Carbon price (as opposed to revenue recycling option) would be driver of emissions reductions
	Corporate		<ul style="list-style-type: none"> Can incentivize general investment in Alberta that may offset impacts of carbon pricing Effective in stimulating economic growth and productivity Generalized nature ineffective against competitiveness challenges for EITEs 	
Infrastructure Investments		Government investment in public infrastructure	<ul style="list-style-type: none"> Generalized economic growth (i.e. jobs, support for long-term and ongoing projects) Reduce the cost of economic activity, depending on the user group (i.e. low-income earners might have access to lower cost public transportation, industry may experience productivity gains through roadway development) 	<ul style="list-style-type: none"> Emissions reductions dependent on type of infrastructure (e.g. light rail transit systems reduce vehicle emissions, retrofitting public buildings reduces energy use,)
Clean Technology Investments		Government-supported investment and research into low-carbon technologies	<ul style="list-style-type: none"> Improve competitiveness of industry long-term by decreasing carbon emissions, and therefore carbon-related costs, of industry Balance between the cost of the carbon-reduction technology and the cost of emitting 	<ul style="list-style-type: none"> Can reduce emissions in low-stringency policy environments – this allows for more stringent policy to follow in the long-term, at a lower cost to industry (i.e. emitters ease themselves into a low-emission model)

Revenue Recycling Option	Description of Option	Economic Impact	Environmental Effectiveness
Transitional Support to Industry	Direction of revenues toward EITEs to ease impact on industries most impacted by carbon pricing and associated costs (either through free permits in a cap and trade model, or through rebates / subsidies in a hybrid or broad-based model)	<ul style="list-style-type: none"> • Mitigates competitiveness challenges for EITE heavy emitters • Reduces the average cost of compliance with carbon pricing policy • Distorts free market competition, leading to potential inefficiencies 	<ul style="list-style-type: none"> • Firms continue to pay a marginal price under carbon pricing and are therefore incentivized to reduce emissions • Incentive to industry to reduce emissions in slowed due to cost compensation •
Reduction of Government Debt	Repayment of the government's creditors	<ul style="list-style-type: none"> • No impact on competitiveness pressures of carbon pricing • Indirect positive economic impact through perceived government stability – investment attraction • Tax rates typically lower with a less leveraged government 	<ul style="list-style-type: none"> • N/A

Considerations for TIER Program

The impacts of moving from CCIR to TIER on the competitiveness of Alberta's economy depend not only on the design of the policy, but on the choices made with respect to redistributing the revenue generated through carbon taxes. The following are some of the main options for recycling carbon tax revenues from the TIER program, and their applicability to Alberta:

- Corporate Income tax cuts:
 - In general, a lowered corporate tax rate will stimulate economic growth and attract business to Alberta.²³⁷
- Infrastructure and clean technology investments:
 - Strategic infrastructure investments could improve competitiveness through reduced costs or improved market access.
 - Innovations and technological advancements targeted at the oil and gas sector could help to simultaneously reduce GHG emissions while improving efficiency/performance.²³⁸
 - Shifting to “cleaner” oil extraction and refining could re-position Alberta's oil and gas exports for longer term competitiveness against lower-emitting jurisdictions.²³⁹
- Transitional support to industry:

²³⁷ Canada's Ecofiscal Commission. “Choose Wisely: Options and Trade-offs in Recycling Carbon Pricing Revenues”. 2016.

²³⁸ Ibid.

²³⁹ Chan, G., Reily, J. M., & Chen Y. H. H. “The Canadian oil sands industry under carbon constraints”. 2012.

- Given that 18% of Alberta's economy is generated by EITEs (compared with the 5% Canadian average) that produce approximately 50% of Alberta's emissions, it is very likely that carbon pricing would significantly impact heavy emitters in Alberta and affect their competitiveness against other jurisdictions; therefore, transitional support to industry would likely be a priority for revenue recycling.²⁴⁰
- An output-based pricing system would help to ease the transition to new carbon pricing policies for heavy emitters.²⁴¹
- Reduction of government debt:
 - Alberta's budget surpluses have meant the province was debt-free for much of the past 20 years²⁴². The province has since seen steadily growing budget deficits, mainly due to a downturn in the oil and gas industry.
 - While Alberta's government debt is still small relative to other provinces²⁴³, reducing it could help signal that the province's economy is stable, thereby attracting investment.

5.4 Other Climate Policies and Regulations

Clean Fuel Standard

The federal Clean Fuel Standard ("CFS") is intended to reduce GHG emissions by 30 million tonnes by 2030²⁴⁴ through "use of lower carbon fuels, energy sources, and technologies".²⁴⁵ While still in development, this regulation is specifically targeting liquid, gaseous, and solid fossil fuel producers, importers, and distributors.²⁴⁶ The regulation is intended to give compliance flexibility to regulated parties through either adding renewable and low carbon fuels (e.g. ethanol to gasoline, biodiesel to diesel), switching fossil fuels to clean fuels (e.g. electric vehicles), or by investing in technology that is more fuel efficient, hence producing less.²⁴⁷

The regulation is expected to be rolled out in two phases, first implemented for liquid fuels in 2022, then for gaseous and solid fuels in 2023.²⁴⁸ Expected cost implications of CFS compliance include:

- "Extra costs that may result from the need to switch fuels in operations leading to significant capital investments and/or initial capital costs and equipment upgrades.
- Increase in demand for low-carbon fuels could lead to an increase in cost for industrial and transportation fuels, which could hurt industries.
- Costs associated with switching to electricity to reduce carbon emissions might not be financially sustainable.
- Limited fuel-switching options in certain regions, especially in isolated regions, or those without required infrastructure.

²⁴⁰ Canada's Ecofiscal Commission. "Choose Wisely: Options and Trade-offs in Recycling Carbon Pricing Revenues". 2016.

²⁴¹ Leach, A., Adams, A., Cairns, S., Coady, L., & Lambert, G. "Climate leadership: Report to the Minister". 2015.

²⁴² BOE Report. "The History of Alberta's Debt Position in Charts". 2016. Available here: <https://boereport.com/2016/01/21/the-history-of-albertas-debt-position/>

²⁴³ RBC. "Canadian Federal and Provincial Fiscal Tables". 2019. Available here: http://www.rbc.com/economics/economic-reports/pdf/canadian-fiscal/prov_fiscal.pdf

²⁴⁴ Government of Canada. "Clean Fuel Standard." 2019. Available here: <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-standard.html>

²⁴⁵ Ibid.

²⁴⁶ Government of Canada, Department of the Environment. "Notice to interested parties — Clean Fuel Standard regulatory framework". 2017. Available here: <http://gazette.gc.ca/rp-pr/p1/2017/2017-12-23/html/notice-avis-eng.html>

²⁴⁷ Ibid.

²⁴⁸ Government of Canada. "Clean Fuel Standard: Timelines, Approach, and Next Steps". 2018.

- Increased demand for feedstock as a fuel could result in price increases, putting operations of some users in Canada at risk.²⁴⁹
- Additional transport-specific conversion and investment costs.²⁵⁰

Under the CFS system, there are methods for generating compliance credits (known as “voluntary credits”):

1. “Actions that reduce the carbon intensity of the fossil fuel throughout its lifecycle;
2. The supply of renewable and other low-carbon intensity fuels; and,
3. Some end-use fuel switching.”²⁵¹

Under the CFS system, compliance credits can be purchased in lieu of reducing emissions or credit generation (above). These credits vary by sector: the price of transportation credits range between \$150 to \$180/tonne and stationary credits are estimated to be \$40/tonne.²⁵² What differentiates the CFS from a straight carbon levy is that it is based on carbon intensity, rather than GHG emissions; though compliance credits essentially function as a “levy”, the revenue generated from the credits is returned to industry when credits are “granted” back to industry for alternative fuel use.²⁵³

Cost estimates for alternative fuel sources (provided by industry stakeholders) to achieve emissions targets under the CFS were estimated to be up to \$185/tonne for ethanol alternatives and \$130 to \$165/tonne for biofuel alternatives. However, these costs are highly dependant on the finalized design of the CFS framework, and would vary significantly between industries, jurisdictions, revenue recycling, and incentive policies.²⁵⁴

Due to competitiveness concerns, transitional support, credits, incentives and funding for clean technology alternatives have been recommended to accompany CFS implementation.²⁵⁵

Reducing Methane Emissions

Alberta is the second largest contributor to Canada's GHG emissions, with 70 percent of provincial methane emissions coming from the oil and gas sector through venting and leaks. Given that the oil and gas sector is the largest emitter of methane gas in Alberta, regulation has been targeted at industrial emitters within this sector. As only 10 percent of methane emissions are covered under CCIR²⁵⁶, the regulatory requirements for methane emissions are included in *Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting*, as well as *Directive 017: Measurement Requirements for Oil and Gas Operations*.²⁵⁷ Both requirements are centred around fugitive emissions and venting (the “primary sources of methane emissions” for upstream oil and gas

²⁴⁹ International Institute for Sustainable Development. “Clean Fuel Standard: Summary of stakeholder written comments on the Discussion Paper”. 2017. Available here: <https://www.iisd.org/library/clean-fuel-standard-summary-stakeholder-written-comments-discussion-paper>

²⁵⁰ Ibid.

²⁵¹ Government of Canada. “Clean Fuel Standard Regulatory Design Paper”. 2018. Available here: <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/clean-fuel-standard-regulatory-design-paper-2018-en-1.pdf>

²⁵² International Institute for Sustainable Development. “Clean Fuel Standard: Summary of stakeholder written comments on the Discussion Paper”. 2017. Available here: <https://www.iisd.org/library/clean-fuel-standard-summary-stakeholder-written-comments-discussion-paper>

²⁵³ Government of Canada. “Clean Fuel Standard Regulatory Design Paper”. 2018. Available here: <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/clean-fuel-standard-regulatory-design-paper-2018-en-1.pdf>

²⁵⁴ Ibid.

²⁵⁵ International Institute for Sustainable Development. “Clean Fuel Standard: Summary of stakeholder written comments on the Discussion Paper”. 2017. Available here: <https://www.iisd.org/library/clean-fuel-standard-summary-stakeholder-written-comments-discussion-paper>

²⁵⁶ Gorski J., Kenyon, D. “Policy Briefing: Achieving methane reductions through carbon pricing in Alberta”. 2018.

²⁵⁷ Alberta Energy Regulator. “Methane Reduction”. Available here: <https://www.aer.ca/providing-information/by-topic/methane-reduction>

operations) using technological improvement, maintenance and monitoring of methane equipment, and reporting requirements.²⁵⁸

Directive 060 has recently been revised in light of upcoming Federal legislation as the Government of Canada announced that effective January 1, 2020, *Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds*²⁵⁹ will come into effect with the goal of reducing Canada's methane emissions by between 40 and 45 percent below 2012 levels by 2025.²⁶⁰ As such, the revised *Directive 060* will also come into effect January 2020 and will be based on meeting equivalency with the federal regulation.²⁶¹

While there is economic value in reducing methane that is "wasted" through venting and leaks, Environment and Climate Change Canada estimates that there will be a net compliance cost to industry to comply with the methane regulations of approximately \$17/tonne of CO₂e reduction.²⁶²

²⁵⁸ Alberta Energy Regulator. "Methane Reduction". Available here: <https://www.aer.ca/providing-information/by-topic/methane-reduction>

²⁵⁹ Government of Canada. "About methane emissions". Available here: <https://www.canada.ca/en/environment-climate-change/services/climate-change/global-methane-initiative/about-methane-emissions.html>

²⁶⁰ Issawi, H. Alberta, Ottawa and industry at odds over how to regulate methane emissions. The Star, 2018.

²⁶¹ Alberta Energy Regulator. "Methane Reduction". Available here: <https://www.aer.ca/providing-information/by-topic/methane-reduction>

²⁶² Environment and Climate Change Canada. "Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector). Regulatory Impact Analysis Statement." Available here: <http://gazette.gc.ca/rp-pr/p2/2018/2018-04-26-x1/html/sor-dors66-eng.html>

APPENDIX A: DATA SOURCES

SCOPE 1

Reports on Best Practices of Business Attraction and Capital Investment

- Nordic Place Academy. "Business Attraction Management for Cities and Regions – Handbook of Strategies, Tools and Activities". January 2016. Available here: https://futureplaceleadership.com/wp-content/uploads/2017/05/BAM-handbook_final.pdf
- Inter-American Development Bank. "Innovations in Foreign Direct Investment Attraction". November 2018. Available here: https://publications.iadb.org/en/bitstream/handle/11319/9361/Innovation_FDI_Attraction_FINALconvergence.pdf?sequence=1
- Ivey, Lawrence National Centre for Policy and Management. "Investment Attraction: Learning from "Best Practice" Jurisdictions". 2016. Available here: <https://www.ivey.uwo.ca/cmsmedia/2758461/investment-attraction-learning-from-best-practice-jurisdictions.pdf>
- OECD. "Policy Framework for Investment: A Review of Good Practices". 2006. Available here: <https://www.oecd.org/daf/inv/investmentfordevelopment/policyframeworkforinvestmentareviewofgoodpractices.htm>
- Adam Smith International. "Best Practices for Investment Promotion and Facilitation in ASEAN: General Paper". 2014. Available here: <http://aadcp2.org/wp-content/uploads/ASIInvestmentPromotion-ProjectGeneralPaper.pdf>
- Georgia Tech Enterprise Innovation Institute. "Best Practices in Foreign Direct Investment and Exporting Based on Regional Industry Clusters". 2013. Available here: http://www.fdiestpractice.org/pdf/Exporting_FDI%20Final%20Report.pdf
- OSCE. "Best Practices Guide for a Positive Business and Investment Climate". 2006. Available here: <https://www.osce.org/eea/19768?download=true>
- Advisory Council on Economic Growth. "Bringing Foreign Investment into Canada". 2016. Available here: <https://www.budget.gc.ca/aceg-ccce/pdf/foreign-investment-investisseurs-etranagers-eng.pdf>
- World Bank. "Global Investment Promotion Best Practices". 2012. Available here: <https://openknowledge.worldbank.org/bitstream/handle/10986/20423/907580WP0v20Bo0n0Best0Practices0web.pdf?sequence=1&isAllowed=y>
- Asia-Pacific Economic Cooperation and United Nations. "Best Practices in Investment for Development". 2010. Available here: https://unctad.org/en/Docs/diaepcb20091_en.pdf

Other Reports

- Standing Senate Committee on Banking, Trade and Commerce. "Canada Still Open for Business?". 2018. Available here: https://sencanada.ca/content/sen/committee/421/BANC/reports/BANCReportImportersExporters_E.pdf
- PWC. "The road ahead for public service delivery". 2007. Available here: https://www.pwc.com/gx/en/psrc/pdf/the_road_ahead_for_public_service_delivery.pdf

SCOPE 2

- MMK Consulting. "Report on Competitiveness: Alberta 2016". 2019. Internal to Government of Alberta.
- Greater Vancouver Board of Trade and The Conference Board of Canada. "Greater Vancouver Economic Scorecard". 2018. Available here:
<https://www.boardoftrade.com/scorecard2018/assets/pdf/summary-report.pdf>
- Ontario's Panel of Economic Growth & Prosperity. "Unfinished Business: Ontario Since the Great Recession". 2018. Available here:
https://www.competeprosper.ca/uploads/Annual_Report_17_Unfinished_Business_Ontario_since_the_Great_Recession_Dec_2018.pdf
- Opportunity Washington. "2017 Report: A Roadmap for Expanding Washington's Culture of Opportunity to Individuals, Families, Employers, and Communities". 2018. Available here:
https://opportunitywa.org/wp-content/uploads/2017/04/OPWA_FoundationReport_2017.pdf
- Texas Comptroller of Public Accounts. "50-State Scorecard". 2019. Available here:
<https://comptroller.texas.gov/economy/50state/>
- National Competitiveness Council. "Ireland's Competitiveness Scorecard 2018". 2018. Available here:
<http://www.competitiveness.ie/Publications/2018/Ireland-s-Competitiveness-Scorecard-2018.pdf>
- National Competitiveness Council. "Ireland's Competitiveness Challenge 2018". 2018. Available here:
<http://www.competitiveness.ie/Publications/2018/Competitiveness-Challenge-2018.pdf>
- Christian Ketels. "The Swedish Competitiveness Scorecard 2017". 2017. Available here:
http://eng.entreprenorskapsforum.se/wp-content/uploads/2017/12/SEF_Ch2_Ketels.pdf

APPENDIX B: ASSESSMENT OF BEST PRACTICES

For the purpose of this report, best practices for business attraction and capital investment were taken to be those practices reported in multiple studies that had been used by several jurisdictions to attract businesses and foreign investment successfully.

A total of 12 best practices were identified by MNP. These 12 best practices were assessed at a high-level by considering:

- Alignment with the Alberta government’s priorities in the following six areas:²⁶³
 1. Restoring investor confidence.
 2. Reducing red tape.
 3. Re-energizing the oil and gas industry.
 4. Bill 2: The Open for Business Act.
 5. Attracting skilled immigrants.
 6. Innovation for investment in new technologies.
- The expected time frame to implement the best practice (i.e., “short term”; “short-to-medium term”; “medium term”; and “long term”).
- The expected level of government involvement, in terms of fiscal policy, legislation and co-ordination between various departments (i.e., “low involvement”; “medium involvement”; and “high involvement”).

The following table outlines MNP’s high level assessment.

²⁶³ United Conservatives, Alberta Strong & Free. “UCP Platform: Getting Alberta Back to Work”. 2019. Available here: <https://www.albertastrongandfree.ca/policy/>

Table 4: Assessment of Identified Best Practices

Best Practice	Alberta Government Priorities						Expected Time Frame to Implement	Expected Level of Government Involvement
	Restoring investor confidence	Red Tape Reduction	Re-energize the Oil and Gas Industry	Bill 2: The Open for Business Act	Attracting Skilled Immigrants	Innovation for Investment in New Technologies		
1. Development of a place branding strategy based on a clearly articulated vision.		✓		✓			Short-to-Medium Term	Medium Involvement
2. Development of a compelling value proposition for investors.	✓	✓	✓		✓	✓	Medium Term	Low Involvement
3. Collaboration with multiple stakeholder groups and different levels of government.			✓		✓	✓	Medium Term	Low Involvement
4. Consultation with existing businesses to identify gaps and opportunities.	✓	✓	✓		✓	✓	Short Term	Medium Involvement
5. Leveraging existing networks to generate investment leads.					✓		Medium Term	Low Involvement
6. Facilitation of a soft-landing for investors through a one-stop shop experience.	✓	✓	✓		✓	✓	Short-to-Medium Term	Medium Involvement
7. Development and delivery of a holistic after-care approach.	✓		✓		✓	✓	Short Term	Medium Involvement
8. Development and support of industry clusters.	✓		✓		✓	✓	Long Term	High Involvement
9. Reduction of the regulatory burden for investment.	✓	✓	✓			✓	Short-to-Medium Term	High Involvement

Best Practice	Alberta Government Priorities						Expected Time Frame to Implement	Expected Level of Government Involvement
	Restoring investor confidence	Red Tape Reduction	Re-energize the Oil and Gas Industry	Bill 2: The Open for Business Act	Attracting Skilled Immigrants	Innovation for Investment in New Technologies		
10. Provision of transparency and predictability by sharing regulatory requirements, timelines and responsibilities with investors.	✓	✓	✓			✓	Medium Term	High Involvement
11. Establishment and support of a skilled local workforce to meet investor's needs.				✓	✓	✓	Long Term	Medium Involvement
12. Monitoring and evaluation of investment attraction efforts.	✓						Medium Term	Low Involvement

APPENDIX C: ABOUT MNP

MNP is the fastest growing major chartered accountancy and business advisory firm in Canada. Founded in 1958, MNP has grown to more than 70 offices and 4,000 team members across Canada. The map below shows our office locations.

MNP provides a wide range of accounting, finance and business advisory services to clients. These include:

- Assurance
- Taxation
- Corporate Finance
- Mergers and Acquisitions
- Enterprise Risk Services
- Forensic Accounting
- Consulting
- Insolvency and Corporate Recovery
- Succession
- Valuations and Litigation Support



The table below outlines our Alberta office locations.

Full-time Alberta Office Locations:

- | | |
|------------------|----------------|
| ▪ Airdrie | ▪ Lacombe |
| ▪ Calgary | ▪ Leduc |
| ▪ Drumheller | ▪ Lethbridge |
| ▪ Edmonton | ▪ Medicine Hat |
| ▪ Fort McMurray | ▪ Peace River |
| ▪ Grande Prairie | ▪ Red Deer |
| ▪ High Prairie | ▪ Rimbey |

Part-time Alberta Office Locations:

- | | |
|-----------------|-----------------|
| ▪ Brooks | ▪ Sherwood Park |
| ▪ North Calgary | ▪ Stettler |
| ▪ West Edmonton | ▪ Taber |

About MNP’s Economics and Research Practice

Economic and industry studies are carried out by MNP’s Economics and Research practice. Based in Vancouver, the Economics and Research practice consists of a team of professionals that has a successful track record of assisting clients with a wide variety of financial and economic impact studies. Our work has encompassed a wide range of programs, industries, company operations and policy initiatives, and has helped clients with decision-making, communication of economic and financial contributions, documentation of the value of initiatives and activities, and development of public policy.