



## From Vision to Action

As we move from vision to action, we will use this plan to enhance work already underway. It will help inform policy development and provide a common approach for all levels of government, industry, and other stakeholders to proactively address social, economic, and environmental issues and opportunities in oil sands development.

A number of factors are key to successfully achieving this plan:

- well-defined and stable regulatory structures;
- investment by governments and industry;
- increased collaboration and clear and responsive communication among stakeholders and all levels of government; and
- innovation fostered through research and technology.

Moving forward, we will build on our existing policy framework and the substantial work done to date. This strategic plan outlines actions based on what we know today. The following strategies, goals, and objectives will be converted into practical and actionable steps to help Alberta achieve its vision for the oil sands.

Our commitment to responsible energy development is clear. We recognize the continued need to be proactive and responsive in identifying and implementing innovative and timely solutions to issues as they arise.

Innovation will continue to transform the oil sands industry. The same resourcefulness that developed the oil sands into the industry that it is today will move us forward.



Page 16



Page 20



Page 24



Page 28



Page 32



Page 36

## **Strategy One**

**Develop Alberta's oil sands in an environmentally responsible way.**





## Strategy One

### **Develop Alberta's oil sands in an environmentally responsible way.**

The *Provincial Energy Strategy* states the Alberta government's commitment to developing our energy resources in an environmentally responsible way. Through clean energy production and wise energy use, Alberta will remain a global leader.

Significant steps have been taken on these fronts—through strategies such as *Water for Life*<sup>9</sup> and the *Climate Change Strategy*<sup>10</sup>—and more can and will be done. Increasing the focus on cumulative effects will help manage and minimize impacts of development. The new regional planning focus of the *Land-use Framework* will further ensure that the environmental, social, and economic implications for each region are considered. There is an increased focus on oil sands extraction processes to use less energy and water, reduce tailing ponds, and improve land reclamation. Sound policy and legislation will further minimize the risks of development to wildlife and the environment.

Strategy one is intended to achieve ecological sustainability in oil sands development while considering impacts on quality of life. Implementation will allow for the further protection of human and ecosystem well-being as well as the modelling of environmental stewardship.

#### **Related Government Strategies and Initiatives**

*Alberta's 2008 Climate Change Strategy*

*Biodiversity Action Plan* (pending)

*Fish Conservation Strategy for Alberta: 2006–2010*

*Land-use Framework*

*Launching Alberta's Energy Future: Provincial Energy Strategy*

*Water for Life: Alberta's Strategy for Sustainability*

<sup>9</sup> <http://www.waterforlife.gov.ab.ca/docs/strategyNov03.pdf>

<sup>10</sup> <http://www.environment.gov.ab.ca/info/library/7894.pdf>



## Goals and Objectives

### 1.1 Through implementation of the *Land-use Framework*, effectively manage the cumulative effects of oil sands development on the environment to protect air, land, water, biodiversity,<sup>11</sup> and human health.

- I.1.1 Conduct regional assessments that include environmental, social, and economic impacts to establish outcomes and thresholds as part of regional planning and management of cumulative effects.
- I.1.2 Protect human health and ecosystems by setting regional outcomes and thresholds for air, water, land, and biodiversity, and by providing public assurance through coordinated monitoring and compliance systems.
- I.1.3 Require industry to use best available technology economically achievable (BATEA).<sup>12</sup>
- I.1.4 Explore common methodologies for evaluating oil sands development that consider economic, social, and environmental impacts.
- I.1.5 Maximize water conservation, efficiency, and productivity in the mineable oil sands sector to the lowest water use achievable, including but not limited to achieving *Water for Life* targets.
- I.1.6 Identify the amount of fresh and saline groundwater available in the oil sands regions to ensure water supplies are managed sustainably for our communities, ecosystems, and economy.

### 1.2 Enhance reclamation<sup>13</sup> and increase enforcement to minimize Crown liability and protect environmental health.

- I.2.1 Require reclamation of tailings<sup>14</sup> to occur at the same rate as (or faster than) the production of new tailings on a regional basis.
- I.2.2 Require disturbed land to be reclaimed<sup>15</sup> and certified<sup>16</sup> in a timely manner across lease boundaries and the entire project footprint.
- I.2.3 Require project reclamation requirements and milestones to be met as a condition of further oil sands development.
- I.2.4 Enhance existing mining liability management programs to further protect Albertans from financial liabilities related to reclamation.

<sup>11</sup> Biodiversity refers to the variety of life on earth—the variety of genetic material in all living things, the variety of species on earth, and the different kinds of living communities and environments in which they occur.

<sup>12</sup> BATEA refers to technology that can achieve superior performance and has been demonstrated to be economically feasible through successful commercial application across a range of regions. (Government of Alberta's Oil Sands Consultations *Multistakeholder Committee Final Report*, [http://www.oilsandsconsultations.gov.ab.ca/docs/FinalReport\\_MSCReport-lowres-july24.pdf](http://www.oilsandsconsultations.gov.ab.ca/docs/FinalReport_MSCReport-lowres-july24.pdf))

<sup>13</sup> Reclamation is the process of converting disturbed land to a state where it is capable of supporting the same kinds of land uses as before the disturbance. Under the *Environmental Protection and Enhancement Act*, operators are required to conserve and reclaim specified land.



1.3

### **Increase conservation and protected areas to maintain biodiversity in the oil sands regions.**

- 1.3.1 Establish a conservation offset program<sup>17</sup> to secure high-value conservation lands in the oil sands regions and throughout Alberta to support provincial biodiversity, wetland and environmental management objectives.
- 1.3.2 Review and establish protected areas in the oil sands regions to achieve biodiversity objectives, and allow for multiple uses such as traditional Aboriginal activities and recreation and tourism experiences.
- 1.3.3 Develop further measures to protect species at risk and maintain viable populations in Alberta.

1.4

### **Meet or exceed Alberta's greenhouse gas reduction objectives.**

- 1.4.1 Slow the rate of growth in oil sands greenhouse gas emissions through leading-edge technologies as outlined in the *Provincial Energy Strategy* (e.g., carbon capture and storage through an integrated CO<sub>2</sub> network).
- 1.4.2 Recognize and account for the impacts of climate change when developing outcomes and thresholds for air, water, and land as reflected in Alberta's *Climate Change Strategy*.

1.5

### **Strengthen organizations to collaboratively manage and monitor environmental performance.**

- 1.5.1 Strengthen the effectiveness of multi-stakeholder groups and associations to assist government with achieving environmental management outcomes across oil sands regions.
- 1.5.2 Strengthen government leadership and participation in multi-stakeholder groups and associations.

<sup>14</sup> Tailings include fluid fine tailings that are composed of approximately 70 percent water. The rest is made of fine clays and bitumen left over from extraction after all coarse sands have been removed. These tailings settle over several years, forming mature fine tailings that release water that is recycled by companies for extraction.

<sup>15</sup> Progressive reclamation is the continuous and timely reclamation of disturbed lands as they become available after industrial use. The practice of progressive reclamation can reduce the active footprint (e.g., disturbed land) associated with industrial activities, reduce the amount of land requiring reclamation at the end of industrial operations, and provide for more rapid recovery of reclaimed lands to acceptable end land-use states.

<sup>16</sup> Reclamation certification is the process of evaluating whether reclamation has met the regulatory and policy requirements in place over the period that a landform was constructed and reclaimed. Under the *Environmental Protection and Enhancement Act*, operators are required to obtain a reclamation certificate.

<sup>17</sup> A conservation offset program includes conservation actions intended to compensate for the unavoidable residual harm to biodiversity caused by development projects.

## Strategy Two

Promote healthy communities and a quality of life that attracts and retains individuals, families, and businesses.



## Strategy Two



### **Promote healthy communities and a quality of life that attracts and retains individuals, families, and businesses.**

Substantial growth in the oil sands industry relies on support for people and communities in Alberta. Fast-paced oil sands development has put pressure on infrastructure and essential services. Although the Government of Alberta has addressed all of the immediate priorities reflected in the report *Investing in our Future: Responding to the Rapid Growth of Oil Sands Development*, additional focus is required to sustain growth and plan for future development in Fort McMurray and other communities in the oil sands regions.

Communities need additional capacity to absorb growth and support the pace of development. As well, all levels of government, local authorities, communities, and industry must work together to address the pressures related to growth. Strategy two further supports the Government of Alberta's priorities by promoting the development of sustainable, healthy, safe, and vibrant communities through coordinated efforts to build community capacity, invest in social resources, and develop physical infrastructure.

#### **Related Government Strategies and Initiatives**

*Alberta Children and Youth Initiative*

*Alberta Heritage Savings Trust Fund*

*Alberta's Safe Communities Secretariat*

*Alberta's 2008 Climate Change Strategy*

*First Nations Protocol Agreement on Government to Government Relations*

*Land-use Framework*

*Métis Settlements Long-Term Funding Agreement*

*Strengthening Relationships: The Government of Alberta's Aboriginal Policy Framework*

*Supporting Immigrants and Immigration to Alberta*

*The Spirit of Alberta: Alberta's Cultural Policy*

*The 20-Year Strategic Capital Plan to Address Alberta's Infrastructure Needs*



## Goals and Objectives

### 2.1 Support further planning and development of healthy communities in the oil sands regions.

- 2.1.1 Identify social and infrastructure needs associated with oil sands development.
- 2.1.2 Address the cultural needs specific to the oil sands regions through initiatives under *The Spirit of Alberta: Alberta's Cultural Policy*.<sup>18</sup>
- 2.1.3 Consider the shadow population in planning and funding allocations for physical and social infrastructure.
- 2.1.4 Develop additional community approaches for coordinating planning, reducing the environmental footprint, and building long-term community capacity<sup>19</sup> in the oil sands regions.
- 2.1.5 Explore financial models to help coordinate and address immediate infrastructure needs and cyclical growth variances in communities.
- 2.1.6 Investigate opportunities to regionalize municipal service delivery and financing to facilitate effective allocation of resources to high-growth areas.

<sup>18</sup> *The Spirit of Alberta: Alberta's Cultural Policy* reflects the importance of creating a better quality of life for all Albertans through increased access to cultural activities. (<http://culture.alberta.ca/culturalpolicy/pdf/SpiritofAlberta.pdf>)

<sup>19</sup> Community capacity is a collection of resources including skills, knowledge, human resources, and organizational structures which, when combined, improve the ability of a community to recognize and address key problems and realize their community's full potential. ([http://www.health.nsw.gov.au/public-health/health-promotion/capacity-building/community/comm\\_cap\\_index.pdf](http://www.health.nsw.gov.au/public-health/health-promotion/capacity-building/community/comm_cap_index.pdf))



2.2

**Improve public safety and security in the oil sands regions.**

- 2.2.1 Increase emergency preparedness in the oil sands regions through enhancing opportunities for industry and community involvement and providing additional transportation routes.
- 2.2.2 Establish partnerships to support the development of regional or local strategies that focus on law enforcement, traffic safety, and prevention and treatment initiatives to reduce crime at the community level.
- 2.2.3 Build on the provincial Occupational Health and Safety Program to help industry implement workplace safety training targeted at foreign labour, workers who are inexperienced, and workers with low literacy.

2.3

**Enhance timely investment in physical infrastructure in the oil sands regions.**

- 2.3.1 Work with industry in the oil sands regions to develop contribution strategies for public infrastructure.
- 2.3.2 Support communities in managing immediate growth pressures through expediting the release of Crown lands, promoting affordable housing options and utilizing alternative financing approaches where appropriate.

A photograph of an industrial facility, likely a refinery or chemical plant, featuring large cylindrical storage tanks in the foreground and tall distillation towers in the background. The scene is bathed in a warm, orange light, suggesting either sunrise or sunset. The tanks in the foreground have some handwritten markings on them.

## Strategy Three

**Maximize long-term value for all Albertans through economic growth, stability, and resource optimization.**



## Strategy Three

### **Maximize long-term value for all Albertans through economic growth, stability, and resource optimization.**

The oil sands present many economic opportunities for Alberta. As outlined in the *Provincial Energy Strategy*, Alberta's energy future will only be realized by balancing economic opportunities with environmental, social, and infrastructure challenges. Through this responsible approach, Alberta will optimize oil sands development and the full economic value for all Albertans while also addressing environmental and social needs.

Both the *Provincial Energy Strategy* and *The New Royalty Framework*<sup>20</sup> recognize that to build a stable and prosperous future, the province must get the best possible economic return on the long-term development of its energy resources. Extending our role along the value chain through upgrading and refining bitumen to transportation fuels and other products will further expand our economy. The *Provincial Energy Strategy* identifies, as an aspirational goal of the Government of Alberta's Hydrocarbon Upgrading Task Force, an ultimate portfolio mix of one-third bitumen sales, one-third synthetic crude oil sales, and one-third sales of finished products and petrochemicals. Attracting and retaining a highly skilled and knowledgeable workforce is also a key element in sustaining a competitive advantage in our economy and ensuring future prosperity. This approach, along with diversifying our markets and selling more than products, will maximize the value of the resource for Albertans and mitigate potential risks posed by an economic downturn in any one region.

Following the direction outlined in the *Provincial Energy Strategy*, strategy three is intended to actively increase the economic return to Albertans from the oil sands and ensure long-term benefits of development through partnerships, regulations, appropriate royalty structures, and other means.

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#### **Related Government Strategies and Initiatives**

*Aboriginal Workforce Action Plan* (pending)

*Building and Educating Tomorrow's Workforce: Alberta's 10-Year Strategy*

*Building Confidence: Improving Accountability and Transparency in Alberta's Royalty System*

*Launching Alberta's Energy Future: Provincial Energy Strategy*

*Securing Tomorrow's Prosperity*

*The New Royalty Framework*

*The Premier's Council for Economic Strategy*

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<sup>20</sup> [http://www.energy.gov.ab.ca/Org/Publications/royalty\\_Oct25.pdf](http://www.energy.gov.ab.ca/Org/Publications/royalty_Oct25.pdf)



## Goals and Objectives

3.1

### **Ensure that Albertans continue to receive appropriate economic benefit from extraction of oil sands.**

- 3.1.1 As addressed in *The New Royalty Framework*, continue to ensure the oil sands royalty structure remains responsive to changing conditions and maintains investor certainty.
- 3.1.2 Use bitumen royalty-in-kind transactions to facilitate and expand an Alberta bitumen market.
- 3.1.3 Facilitate establishment of a transparent market for bitumen.
- 3.1.4 Establish a government-led organization to manage Alberta's bitumen royalty-in-kind volumes to maximize the long-term benefits for Albertans.

3.2

### **Optimize the economic benefit of the bitumen resource for Alberta through upgrading and value-added petrochemical development.**

- 3.2.1 Leverage bitumen royalty-in-kind volumes to develop value-added oil sands products.<sup>21</sup>
- 3.2.2 Use regulatory and fiscal approaches to foster and encourage value-added development to achieve the value chain's full potential.
- 3.2.3 Promote heavy oil tolls that accurately reflect the costs of shipment.

3.3

### **Diversify Alberta's oil sands-related products and services into other international markets.**

- 3.3.1 Internationally market and promote Alberta's energy and environmental expertise to realize a knowledge-based economy.
- 3.3.2 Identify and target key global markets that offer attractive opportunities for Alberta's oil sands products to achieve a more diverse and resilient customer base.
- 3.3.3 Encourage the development of outbound pipeline systems to open new markets for Alberta's oil sands products.

<sup>21</sup> Value-added processing of bitumen refers to the production of refined petroleum products such as gasoline and diesel as well as petrochemical products.



**3-4**

**Maximize industrial infrastructure and address workforce needs to support economic development of the oil sands.**

- 3.4.1 Encourage the creation of new products through integration and cluster development approaches.<sup>22</sup>
- 3.4.2 Expedite development of integrated transportation and utility corridor plans for the oil sands regions and Alberta's Industrial Heartland to appropriately facilitate growth and minimize the environmental impact.
- 3.4.3 Establish innovative partnerships with industry, the federal government, and municipalities to facilitate timely investment in infrastructure.
- 3.4.4 Work toward meeting labour demands, enhancing productivity, and building expertise through removing barriers to workforce participation and enhancing educational opportunities in partnership with employers and educational organizations.
- 3.4.5 Increase the participation of Aboriginal communities and individuals in all areas of the workforce and support their participation in economic development of the oil sands.

<sup>22</sup> Integration refers to the combination of bitumen upgrading, refining, and petrochemical facilities in a single plant complex to reduce costs and the environmental footprint. Cluster refers to the attraction of specialized service firms and by-product users where one company's waste stream becomes another company's feedstock, in order to maximize efficiency in raw materials usage.

## **Strategy Four**

**Strengthen our proactive approach to Aboriginal consultation with a view to reconciling interests.**





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## Strategy Four

### **Strengthen our proactive approach to Aboriginal consultation with a view to reconciling interests.**

Building relationships and sharing knowledge and experiences through dialogue will enable Aboriginal communities, industry, government, and other stakeholders to make informed decisions that will further support sustainable growth in their communities. Consulting Aboriginal communities on oil sands development, particularly those aspects that have the potential to adversely impact their constitutionally protected rights, and reconciling interests are essential to achieving the provincial vision for the oil sands.

Strategy four is intended to lead a proactive approach to managing development, in order to further strengthen and build understanding and relationships between all levels of government and Aboriginal communities.

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#### **Related Government Strategies and Initiatives**

*Alberta's First Nations Consultation Guidelines on Land Management and Resource Development*

*First Nations Protocol Agreement on Government to Government Relations*

*Strengthening Relationships: The Government of Alberta's Aboriginal Policy Framework*

*The Government of Alberta's First Nations Consultation Policy on Land Management and Resource Development*

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## Goals and Objectives

### 4.1 Promote clarity and consistency in consultation processes with First Nations.

- 4.1.1 Work with First Nations to understand the potential cumulative environmental impacts on rights and traditional uses in order to inform regional planning and consultation approaches.
- 4.1.2 In collaboration with industry, the federal government, and First Nations, assess and strengthen First Nations' capacity to engage in consultation.
- 4.1.3 Continue to meet Alberta's legal duty to consult Aboriginal communities whose constitutionally protected rights, under section 35 of *The Constitution Act, 1982 (Canada)*, may be adversely impacted by development in the oil sands regions.
- 4.1.4 Continuously improve and adapt existing consultation processes to promote mutually acceptable mechanisms for resolving disputes, sharing data, and implementing consultation guidelines appropriate to the oil sands regions.

### 4.2 Enhance collaborative government-to-government relationships.

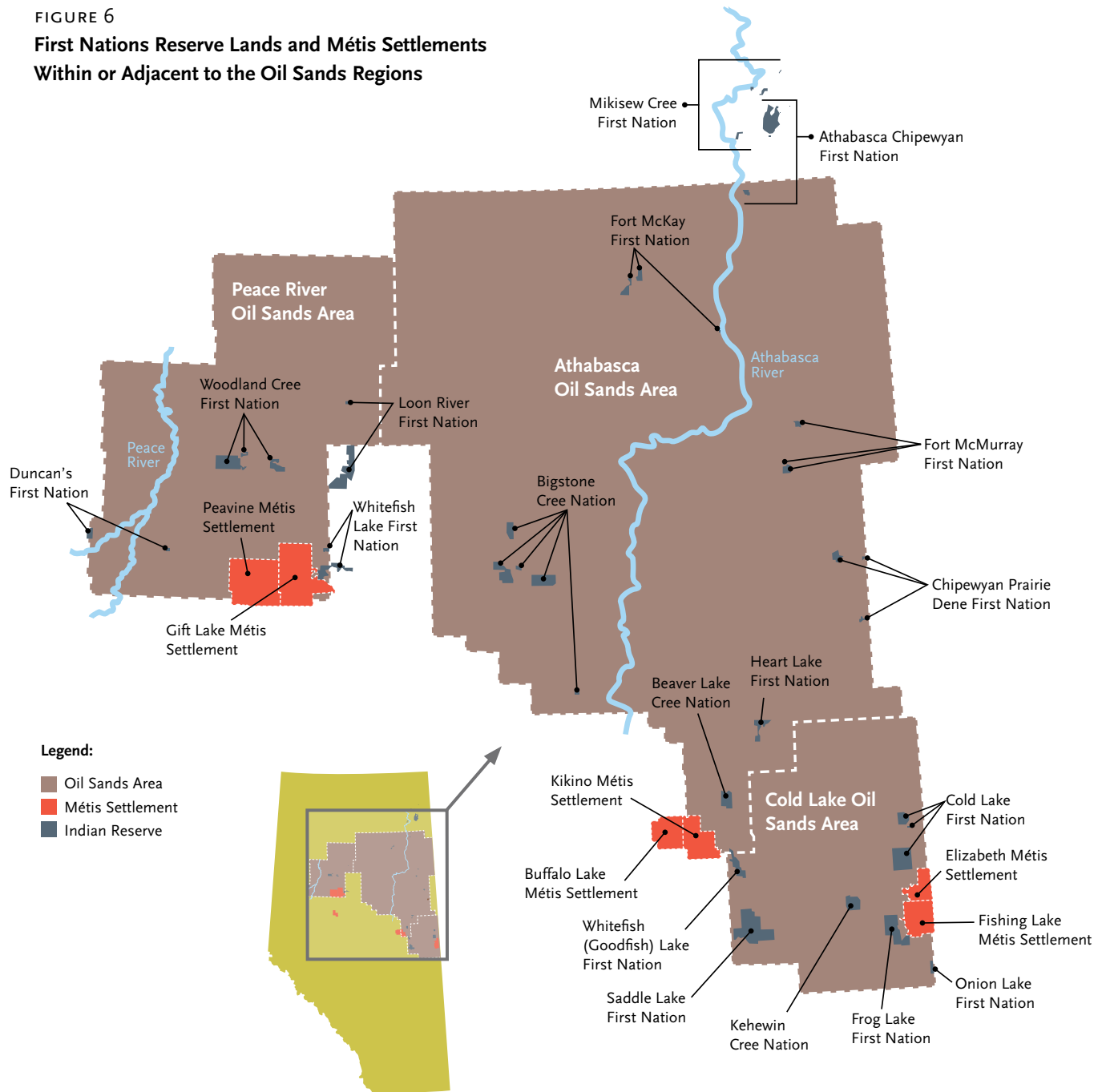
- 4.2.1 Establish a memorandum of understanding with the federal government to coordinate consultation on projects that may adversely impact the constitutionally protected rights of Aboriginal people.
- 4.2.2 Continue to strengthen government-to-government relationships through developing and maintaining appropriate agreements.
- 4.2.3 Strengthen communication and education to increase understanding among Aboriginal people, the Government of Alberta, and the federal government.

### 4.3 Continue to work with the Métis Settlements in the oil sands regions<sup>23</sup> on matters affecting Settlement lands.

- 4.3.1 Collaborate with the Métis Settlements in the oil sands regions on a pilot project to obtain baseline data to measure how cumulative impacts of development may impact Settlement lands.
- 4.3.2 Promote consistency and clarity in communications and engagement with the Métis Settlements in the oil sands regions.

<sup>23</sup> There are six Métis Settlements within or directly adjacent to the oil sands regions: Buffalo, Kikino, Gift Lake, Peavine, Elizabeth, and Fishing Lake.

**FIGURE 6**  
**First Nations Reserve Lands and Métis Settlements**  
**Within or Adjacent to the Oil Sands Regions**



## **Strategy Five**

**Maximize research and innovation to further support sustainable development and unlock the deposit's potential.**





## Strategy Five

### **Maximize research and innovation to further support sustainable development and unlock the deposit's potential.**

As outlined in the *Provincial Energy Strategy*, research and innovation are key to Alberta's clean-energy future. That document lays out a strategy for the province to engage in concerted efforts to address the full curve of technology development, from conception to commercial deployment including investment in long-term innovations. The *Provincial Energy Strategy* acknowledges that research and development efforts need to be focused and coordinated on key areas, enabling Alberta to become a leader on those fronts.

Further advancements in research and technology are critical to minimizing the environmental impacts of oil sands development, improving access to the deposit, and further driving down the costs of development. Innovation and collaboration among stakeholders will contribute directly to Alberta's leadership role in research and capitalize on opportunities.

Strategy five is intended to increase long-term and stable investments in research, promote world-class innovation, leverage technology to address development of the resource, and proactively address environmental challenges.

#### **Related Government Strategies and Initiatives**

*Alberta Access Planning Framework – A Context for Access and Demand*

*Alberta Energy Research Strategy*

*Alberta Heritage Fund for Science and Engineering*

*Alberta's Action Plan: Bringing Technology to Market*

*Alberta's 2008 Climate Change Strategy*

*Roles and Mandates Framework for Alberta's Provincially Funded Research and Innovation System (pending)*

*Roles and Mandates Policy Framework for Alberta's Publicly Funded Advanced Education System*



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## Goals and Objectives

- 5.1 Further develop Alberta as a world-class centre of clean-energy research excellence.**
- 5.1.1 Evaluate current research structures and mechanisms to identify gaps and optimize an integrated, efficient, and coordinated approach to oil sands development.
  - 5.1.2 Strengthen and intensify research and innovation in Alberta's strategic priority areas through coordinated funding for demonstration projects and laboratory facilities and to attract worldwide expertise and recruit highly qualified science and engineering researchers into applied learning programs.
  - 5.1.3 Create networks of inventors, entrepreneurs, experts, fabricating shops, and service providers to promote Alberta's grassroots culture of innovation.
- 5.2 Develop policy and regulatory tools to encourage, motivate, or require industry to invest in sustainable development and use of technologies.**
- 5.2.1 Develop additional government/industry partnerships to leverage and encourage increased investments by industry to support research and innovation.
  - 5.2.2 Develop and demonstrate breakthrough and next-generation innovations<sup>24</sup> for commercial readiness through government/industry partnerships.
  - 5.2.3 Provide incentives for technology acquisition, development, and implementation related to oil sands extraction and processing while minimizing air, water, and land impacts.
  - 5.2.4 Require research agencies to share government-funded research findings with provincial departments and agencies and to publicize research objectives and achievements.

<sup>24</sup> Breakthrough describes an abrupt change in preference from one technology to another. Next-generation describes a family of breakthrough technologies that change the whole industry.



5.3

**Facilitate long-term and responsive investment in a balanced research and innovation portfolio.**

- 5.3.1 Establish mechanisms for coordinated, long-term, and responsive investment in research and innovation.
- 5.3.2 Develop comprehensive mechanisms for monitoring research and innovation in relation to specific outcomes.
- 5.3.3 Further support research efforts that improve cumulative effects management and achievement of environmental outcomes.

## Strategy Six

Increase available information, develop measurement systems, and enhance accountability in the management of the oil sands.



## Strategy Six



### **Increase available information, develop measurement systems, and enhance accountability in the management of the oil sands.**

Significant efforts are being made to balance protection of the environment with oil sands development. Improved communication processes, transparent accountability systems, and consistent measurement and monitoring are all important components of the current policy and regulatory framework. The regional planning process under the *Land-use Framework* will further strengthen this framework and promote more regional measures and reports.

In addition to contributing to an annual report card, as outlined in the *Provincial Energy Strategy*, sustainability reporting will be a valuable tool for conveying information and engaging stakeholders. Universal benchmarking, monitoring, and reporting will also allow for accurate and effective planning, decision-making, and funding.

Strategy six is intended to address challenges in relaying information on oil sands development to the public and ensuring accountability for the successful, long-term management of this resource.

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#### **Related Government Strategies and Initiatives**

*Land-use Framework*

*Office of Statistics and Information*

*Sustainable Resource and Environmental Management Information-Sharing Initiative*  
(pending)

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## Goals and Objectives

### **6.1 Develop transparent and effective performance measurement systems that foster continuous improvement to achieve outcomes.**

- 6.1.1 Develop sustainability indicators at the community, regional, and provincial level to measure social, economic, and environmental performance, and report to the public annually to ensure continuous improvement.
- 6.1.2 Develop and issue performance reports reflecting the performance of individual companies and partnerships based on social, economic, and environmental outcomes.
- 6.1.3 Increase available information to improve stewardship and accountability and to facilitate and support research and innovation.

### **6.2 Create effective data-management systems to facilitate consistent and uniform planning in the oil sands regions.**

- 6.2.1 Strengthen processes to enable the Government of Alberta and its partners to use official government statistics, particularly population metrics, for planning, forecasting, and budgeting purposes.
- 6.2.2 Develop data-sharing protocols for the oil sands regions with industry, all levels of government, Aboriginal communities, and other stakeholders.