



Diana Gibson  
Parkland Institute,  
University of Alberta  
May 2007

# **Taming the Tempest:**

An Alternate Development Strategy for Alberta





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To obtain additional copies of the report or rights to copy it,  
please contact:

**Parkland Institute**

University of Alberta

11045 Saskatchewan Drive

Edmonton, Alberta T6G 2E1

Phone: (780) 492-8558 Fax: (780) 492-8738

Web site: [www.ualberta.ca/parkland](http://www.ualberta.ca/parkland)

E-mail: [parkland@ualberta.ca](mailto:parkland@ualberta.ca)

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In the spring of 2006 Parkland Institute was approached by public and private sector labour leaders in Alberta, in conjunction with the Alberta Federation of Labour, expressing concern about the mid- and long-term impacts on workers of the current boom, and how those impacts could be mitigated. As a result of that initial conversation, the Parkland Institute embarked on this report and is grateful for the original impetus and the AFL's financial support and commitment to collaboration throughout the process. Don McNeil of the Communication Energy and Paperworkers Union deserves special thanks for his initiation of and strong support for this project. Although the enclosed research and recommendations were developed independently by the Parkland Institute, and peer-reviewed for accuracy and academic merit, it will be the responsibility of workers and the labour movement in Alberta to mobilize and move these ideas and recommendations into the political realm in order to avoid suffering the consequences of maintaining the status quo. We wish them well in that endeavour, as their future, and that of all Albertans, depends on their success.

This report is the culmination of a number of different forums and discussions. Input has been given by academics, community and union researchers, and activists from across the province. Parkland wishes to specially thank those who reviewed drafts though their contribution does not indicate agreement with all of the recommendations made in the report. These include Trevor Harrison, Melville McMillan, Gordon Laxer, Dave Thompson, John Whittaker, Keith Newman and Jason Foster. Also, Ricardo Acuña deserves a special thanks as he contributed various articles and speeches which form much of the basis of this report.

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## About the author

Diana Gibson is the Research Director for the Parkland Institute, a public policy research center based at the University of Alberta. She has an extensive background in social policy research and has engaged nationally and internationally on topics ranging from health care and education to energy and international trade agreements. Prior to joining the Parkland, Diana was on faculty at Capilano College before which she worked in labour relations for a number of years in Ontario, B.C. and Alberta.

## About the Parkland Institute

Parkland Institute is an Alberta research network that examines public policy issues. We are based in the Faculty of Arts at the University of Alberta and our research network includes members from most of Alberta's academic institutions as well as other organizations involved in public policy research. Parkland Institute was founded in 1996 and its mandate is to:

- conduct research on economic, social, cultural, and political issues facing Albertans and Canadians.
- publish research and provide informed comment on current policy issues to the media and the public.
- sponsor conferences and public forums on issues facing Albertans.
- bring together academic and non-academic communities.

## Executive Summary

With over \$169 billion in large scale construction projects on the horizon, Alberta's already overheated economy is only going to get worse. Alberta's inflation rate has reached national highs. Housing prices have increased at rates as high as 50% per year in Edmonton and Calgary. Public infrastructure is being built at enormous premiums. Meanwhile, homeless rates are rising across the province, climate change emissions are increasing dramatically, conventional fuels like natural gas are being depleted, and the government is even considering using nuclear power to fuel tar sands development.

There is no question the bulk of this boom is being driven by fossil fuels and specifically investment in the province's tar sands-over \$100 billion of the \$169 billion in projects slated for development is for the tar sands alone. The desirability of this level of private investment is not being questioned by the Alberta government; it is being seen as an end in itself. However, investment is not a goal; it should be considered a tool to be harnessed towards achieving social goals.

Unlike Alberta, many oil rich regions have a framework to guide their resource development and this report shows that the Alberta government is under-selling the people's resources. Alberta is in a very strong strategic position in terms of global oil dynamics for the following reasons.

1. According to Robin West, chairman of PFC Energy, "national oil companies now control over 80% of the resources...most of the resources are off-limits to investment."
2. Conventional reserves are declining around the world and the industry is being forced to look more and more towards high risk, high cost oil sources such as off shore. Risks are relatively low for exploration and development in the tar sands; we know where the reserves are and how to get them.
3. Combined royalties and taxes are currently disproportionately low in Alberta relative to other oil producing regions. There is room for those to increase without deterring investment.
4. With the real estate market crash in the U.S., there are investment dollars looking for a secure place to earn high returns.

In this context, an alternate development strategy for Alberta is not only feasible, but necessary; Alberta cannot afford to be giving away its non-renewable resources. This reports lays out the framework for a development strategy that would slow the pace of investment to minimize the boom and bust cycle, and put into place policies to maximize returns from Alberta's fossil fuels, maximize the processing

and upgrading of those resources into higher value products, and put into place a long term plan for using the resource revenues to guarantee a future for the province. Though this report is limited in scope, it is meant to stimulate public debate on the variety of options open to the government and show that there are alternatives to the crash course the province is on.

### **Pacing - Lack of Planning and a Framework for Investment**

Alberta's economy is overheated, inflation is the highest in the nation and workers are being brought in temporarily from abroad. Much of the current boom is being driven by an increase in construction, leaving the province dangerously reliant on construction as a driver. The high concentration of investment will guarantee that the construction boom ends quickly, which will leave more than half of the workers currently in the tar sands out of work.

Public sector spending is also fuelling the boom. The provincial government opted during the 1990s to exercise pro-cyclical spending - cutting infrastructure and social program spending in the downturn. The province thus entered the boom with a social and physical infrastructure deficit. The government has finally embarked upon reinvestment in the provincial infrastructure. However, not only does this spending fuel inflation in labour, materials and construction costs across the economy, but it also means that the public is paying a high premium for building at this time

### **Failing to Maximize Fossil Fuel Revenues for Albertans**

Oil prices have almost tripled since the mid 1990s but royalties have not kept pace. Low royalty rates are not due to prices or profits being low. Returns on equity for Canadian upstream oil and gas have risen from the high level of 15.4 percent in 2001 to 22.4 percent in 2005. As the industry makes record profits, the Alberta government received only a 19 per cent share of oil and gas revenues in 2004. And, though already low, the revenues from oil and gas are set to fall. With the shift away from conventional oil and gas, as well as the lower royalties on the tar sands, the provincial government is forecasting that royalty revenues will decline from \$11.7 billion in 2006-07 to \$7.8 billion by 2009-10.

A number of studies by the Parkland Institute and others have shown that Alberta collects much less than other jurisdictions such as Norway and Alaska. Generous estimates are that Alberta collects 58% of available rent from the tar sands while Alaska and Norway collect 88% and 99% of rent respectively. Policies elsewhere include: in Bolivia 82% of all revenues from natural gas go to the government; in Kazakhstan 80% of oil extracted goes to the government in a production sharing

agreement; in Abu Dhabi and the United Arab Emirates, the profit margin for companies is limited to \$1 per barrel; in Russia the government takes 90% of the value of sales above \$25/barrel. In many other countries the rent recovery is 100% because the government does the extraction itself through a national oil company (OPEC countries, Mexico and China).

#### **Failing to Maximize Value Added Jobs**

Canada has suffered from its colonial past with the continued mentality of a resource hinterland. Over the last decade and a half, the province has shifted to a heavy reliance on raw resources and raw exports of fossil fuels, agricultural and forest products. Whether in bitumen, petrochemicals, agriculture or forestry, employment levels are relatively low for primary and first stage derivatives. However, they increase enormously the more the product is upgraded. The same applies to bitumen. For example, studies have found that a higher degree of upgrading will increase marketability of bitumen feed stocks. The job and economic returns increase dramatically the more the bitumen is upgraded and refined. It is in Canada's interest to ensure that those jobs and economic returns accrue to Canadians.

However, five new pipelines are being proposed to export raw bitumen to the United States to be turned into high value products. One estimate of the Keystone pipeline alone includes the loss of 18,000 direct and indirect jobs. Those jobs will be created in the U.S. instead of Canada.

#### **Lack of Planning for the Future**

The provincial government under former Premier Ralph Klein admitted having no plan. The area where this gap was most profound was in resource revenues. This lack of planning has driven the recent government spending spree and enabled the government to cut taxes. This has created an increased dependence on fossil fuel revenues for the province's budget and has increased the province's fiscal vulnerability. It has also exacerbated inflationary pro-cyclical spending by government, exacerbating the boom.

Alberta had a savings mentality in the past. When the Heritage Fund was first established under Premier Lougheed in 1976, 30% of annual resource revenue was to be set aside annually for the fund. However, this was reduced to the point that the fund actually eroded in value. Only in 2006 was the Fund actually protected from erosion by inflation. The current value of the Heritage Fund is approximately \$12 billion US compared to \$38 billion US for Alaska's Permanent Fund, while in Norway the fund has reached almost \$300 billion US.



### **Options and Recommendations**

This strategy identifies key goals which private investment in Alberta should serve:

- to reduce vulnerability to booms and busts;
- to ensure environmental sustainability; and
- to ensure social sustainability.

Using these goals as a framework, options are laid out for pacing development, maximizing royalties, maximizing value added jobs, and using fossil fuel revenues wisely to plan for the future. From amongst the options described in the report, the following recommendations are drawn.

#### *Pacing Development in the Interests of Albertans*

Pacing private sector development will ease the boom now and reduce the boom-bust cycle. It can be done through a combination of opening up a limited number of construction permits for competitive bidding and getting the price right through internalizing environmental costs for industry. The bids will be chosen on the basis of the highest royalties, best environmental treatment and value added. This combination will enable Alberta to meet vital social goals.

This strategy includes counter-cyclical spending recommendations. However, it does not recommend curtailing current public infrastructure spending as there is an infrastructure deficit that needs to be addressed. It is recommended instead that private sector investment be paced to open up some space for that public sector investment to happen without fuelling the boom or forcing taxpayers to pay a premium due to cost escalation.

#### *Maximizing the Return from Fossil Fuels*

Royalties should be maximized through a competitive bidding process. A minimum floor should be set that eliminates the generic royalty regime in the tar sands and includes a windfall profits tax of 90% for profits above a 10% rate of return.

Because the royalties are based on net profits, voluntary regulation of royalties will need to be replaced by a strong regulatory and enforcement branch with skilled auditors.

*Maximizing Value Added Jobs*

The government should put policies into place to maximize value added jobs generated by fossil fuels. The environmental standards should be drastically improved for those industries and adequate regulatory and enforcement bodies put into place by government to ensure that the standards are being met.

Measures to maximize value added should include a moratorium on all additional pipeline export capacity for bitumen, prioritizing natural gas for value added processing reinstating the vital supply safe-guard to limit the export of declining resources and restructure royalties to favour value added.

*Planning for the Future*

The government should ensure that 90% of resource revenues are kept out of general revenues, and are treated separately. The revenue should be targeted as follows: 50% should be put into a newly created renewable energies fund; 40% should be invested through the Alberta Heritage Fund in securing the future for education, health care social services, culture and the arts.

If taking such a large portion of resource revenues out of the budget creates a deficit, the provincial government should restore the progressive tax system for income - both individual and corporate.

There is a wide variety of policy options available to the Alberta government to put the province on a different path. If investment is treated as a means, not an end, fossil fuels can be used to build a future for the province. It is hoped that the strategy outlined in this report will be a starting point for that discussion. This strategy is the first step; future research will be needed to develop the framework for a longer term plan that includes diversification of the economy and a future beyond fossil fuels.

## Introduction

When Ralph Klein left office, the long-time Premier of Alberta claimed to have had no plan when it came to the pace of development for the province. With over \$169 billion in large scale construction projects on the horizon, speculation as to whether the economy is overheated has ended; it is clearly overheated. Housing prices have increased at rates as high as 50% per year in Edmonton and Calgary and even smaller municipalities like Grande Prairie. With the high speed of oil extraction and development, Alberta's inflation rate has reached national highs. Public infrastructure is being built at enormous premiums. Meanwhile, homeless rates are rising across the province, climate change emissions are increasing dramatically, conventional fuels like natural gas are being depleted, and the provincial government is even considering using nuclear power to fuel tar sands development.

There is no question the bulk of this boom is being driven by fossil fuels and specifically investment in the province's tar sands. Over \$100 billion of the \$169 billion in scheduled projects is for tar sands development alone. Thus a large part of this development strategy deals with fossil fuels. Since the 1990s the Alberta government has put into place policies that are predicated on an increasing reliance on fossil fuels and raw resource exports. The resulting deindustrialization has meant a loss of manufacturing and value added jobs across sectors. In doing this, government has replaced reliable tax revenue streams with increasing reliance on volatile resource revenues. The process has created an economy that is in a boom and will eventually experience a bust.

It is time for a thorough public debate on the level and pace of investment in Alberta's tar sands. For too long the extraction of fossil fuels has been viewed by government as an end rather than a means. But investment itself is not a social goal rather it is a tool to be harnessed towards achieving social goals. Albertans need to develop long term societal goals to guide this investment, goals which could include: creating long term quality jobs for Albertans; supporting" (green economy; generating long term revenue and sustainability for social programs; ensuring intergenerational equity; eliminating poverty and reducing inequality; creating sustainable rural economies; and improving the quality of life and environment in communities.

These goals need to look beyond short term electoral windows to the long term, a generation or more down the road. With the lack of a

framework for determining investment levels, quality of life and quality jobs are being needlessly compromised today and into the future in order to maximize short term profits for mostly foreign interests. Creating a framework through a new development strategy allows for the province to look to fossil fuel investments as one of a number of tools that can be used to achieve a level of long term sustainability and equity.

Though the boom was strong during 2006 and into 2007, there are a number of projections that highlight the province's vulnerability. Firstly, the Energy Information Administration (EIA), a U.S. government agency that tracks the energy sector, is projecting a decline in oil prices and predicts instability. In their International Energy Outlook 2006 report the EIA says "Oil prices have been highly volatile over the past 25 years, and periods of price volatility can be expected in the future principally because of unforeseen political and economic circumstances."<sup>i</sup> Analysts also predict that residential and non-residential construction will taper off with declines in construction labour demand in Alberta.<sup>ii</sup> Finally, the Alberta government is projecting considerable declines in fossil fuel revenues in the short and long term.<sup>iii</sup> Given these projections, it is not surprising that, according to an Environics survey, over half of Albertans feel vulnerable to a crash, mostly from the expiration of fossil fuels. The same survey also found that over half of Albertans say they themselves have not benefited from the boom; one-half either feel worse off (17%) or "about the same" (34%).<sup>iv</sup> The government has not generated any sense of security. Instead it has fuelled the boom, failing to plan for the future.

This report shows that the province is currently on a crash course due to the unplanned breakneck pace of development. The province is increasingly reliant on volatile fossil fuel revenues, raw resource exports and on foreign ownership of strategic resources. These actions are putting the economy at severe risk. Without a framework for determining appropriate investment levels, Albertans are sacrificing their quality of life and jobs both today and in the future.

Other oil rich regions are choosing a different path-one that is open to Albertans as well. In this alternate approach, the pace of development is slowed, and revenues and jobs are maximized in the short and long term. This study argues that Alberta should also take that path, creating a framework for slower, paced development as well as long term sustainability and equity.

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- i Though they predict volatility, the Institute made general trend predictions which predict significantly lower prices in the short term. Accordingly, the report states that although oil prices rose by more than \$9 per barrel over the course of 2004 and an additional \$15 per barrel in 2005, these developments are not indicative of the long-term trend. From record nominal high levels throughout 2006, oil prices in the reference case decline gradually to \$47 per barrel in 2014, then rise by about 1.2 percent per year to \$57 per barrel in 2030. International Energy Agency, "International Energy Outlook 2006, Report #:DOE/EIA-0484(2006)," (International Energy Agency, Release Date: June 2006), <http://www.eia.doe.gov/oiaf/ieo/pdf/apphbtls.pdf>, (accessed April 25, 2007).
  - ii Canadian Construction Association and the Construction Sector Council, "Canadian Construction Industry Forecast," (Canadian Construction Association and the Construction Sector Council, December 2006), <http://www.cca-acc.com/factsheet/stats1206.pdf>, (accessed April 25, 2007).
  - iii Alberta Finance, "Budget 2007: Fiscal Plan," (Government of Alberta, April 19, 2007), [http://www.finance.gov.ab.ca/publications/budget/budget2007/fiscal.html#revenue\\_outlook](http://www.finance.gov.ab.ca/publications/budget/budget2007/fiscal.html#revenue_outlook), (accessed April 25, 2007).
  - iv Environics Research Group, "Focus Alberta Survey March 2007," (Environics Research Group, 2007), [http://erg.environics.net/media\\_room/default.asp?alD=629](http://erg.environics.net/media_room/default.asp?alD=629), (accessed April 24, 2007).

### Other countries lead by example:

Unless managed properly, resource wealth can be a curse. According to the OECD, “Oil wealth in many other countries has been used to finance colossal fortunes for the few, or bread and circuses for the many.”<sup>v</sup> Additionally, many oil-rich countries and regions are prone to high economic volatility—something Alberta itself has experienced in the past. But not all countries experience the same problems; some avoid them. Norway for example, is promoting benefits for all through a strong resource revenue and sector management program. To avoid financing colossal fortunes for the few, many nations are maintaining public ownership of their resources, while others are using tax and royalty or rent capture regimes to maximize the return to the owners.

As this report explains, Alberta has not been so forward thinking. Instead, government policy has minimized the income generated from oil extraction and encouraged the exploitation of this resource by foreign investors.

### Canada’s Strong Strategic Position

The Alberta and Federal governments could be taking a much stronger negotiating position on energy. There are many factors within the global energy economy that distinguish this boom from that of the 1970s, putting Canada in a much more strategic position. For private oil corporations, Alberta’s tar sands have a number of significant advantages over opportunities available in other energy producing regions in the world. This creates room for the government to make policy changes that would be in the Canadian interest. The unique circumstances of the current global energy market include:

1. Most other producing nations have maintained control over their energy sectors and many do not allow foreign corporations access at all. Thus, there are fewer and fewer places for private energy corporations and investors to go. According to Robin West, chairman of PFC Energy, ‘national oil companies now control over 80% of the resources...the industry can’t invest. It can’t develop the excess capacity, because most of the resources are off-limits to investment.’<sup>vi</sup> Where access is allowed, it is often in the form of joint partnerships. Canada is one of the few places where private energy corporations may even invest in all aspects of the industry from exploration through retailing. In other words, there are very few other places for them to go.
2. Conventional reserves are declining around the world. Oil industry analyst John S. Herod estimated that, all of the large

v OECD report, quoted in Ivar Ekman, “Trouble brewing in oil-rich Norway,” International Herald Tribune, November 18, 2005, <http://www.iht.com/articles/2005/11/18/business/wbnoil.php>, (accessed April 24, 2007).

vi Council on Foreign Relations, “Conference title: Panacea or Pipe Dream? Energy Policy and the Search for Alternatives: Session I: A Foreign Policy Mandate: Thirty Years of Oil and Gas,” (Washington, D.C. March 13, 2007), [http://www.cfr.org/publication/12863/panacea\\_or\\_pipe\\_dream\\_energy\\_policy\\_and\\_the\\_search\\_for\\_alternatives.html?breadcrumb=%2Fbios%2F4452%2F](http://www.cfr.org/publication/12863/panacea_or_pipe_dream_energy_policy_and_the_search_for_alternatives.html?breadcrumb=%2Fbios%2F4452%2F), (accessed April 30, 2007).

oil companies will hit their peak in the next four years. The French oil giant Total S.A. is expected to peak first in 2007. Exxon Mobil, Conoco Phillips, BP, Royal Dutch Shell, and Eni SpA (an Italian corporation) will all peak in 2008. Chevron Texaco, with the largest reserves, will peak in 2009.<sup>vii</sup> As conventional reserves for oil and gas peak and decline, the industry is looking more and more to high risk, high cost oil sources such as off shore. Exploration is increasingly expensive as oil is harder and harder to find. The tar sands are a very appealing investment in this context as those costs and risks are relatively low; we know where the reserves are and how to get them.

3. Combined royalties and taxes gleaned from oil extraction in Canada are low relative to the other oil producing regions. Meanwhile, extraordinary profits are being made in the oil and gas sectors opening the door for significant changes in the royalty or cost structures without impacting on investment.
4. There are shrinking options for secure high return investments in the global economy. With the collapse of the real estate markets in the United States, there is an investment push; significant investment dollars are looking for places to park themselves.

The experience of other oil producing nations shows that there is a very low risk that investors will leave (investment flight) or refuse to come (capital strike) if Canada were to increase royalties and environmental costs for industry. Countries that collect over 90 percent of their resource rent are not experiencing any lack of investors: quite the opposite in fact.<sup>viii</sup>

### Purpose and Methodology

Albertans have been through a few boom and bust cycles and know all too intimately what happens after the economy overheats. The current economic growth offers a tremendous opportunity for the government to use Alberta's fossil fuel wealth to build a future for the province and reduce the economy's vulnerability to boom and bust cycles. A crash is almost inevitable, either in the short term due to a drop in oil prices or economic impacts after the construction boom, or in the long term when the fossil fuels run out. Assuming current policy is maintained, Albertans are going to experience a hard landing after the inevitable crash. This report sets out an alternate strategy for easing that bust, thus engineering a 'soft landing'.

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<sup>vii</sup> As quoted in Michael G. Livingston, "The urgent case for nationalizing the oil industry," Peoples' Weekly Newspaper Online, May 7, 2005, <http://www.pwww.org/article/view/6966/1/268/>, (accessed April 24, 2007).

<sup>viii</sup> For a good overview of rent capture regimes around the world see John W. Warnock, *Selling the Family Silver: Oil and Gas Royalties, Corporate profits and the Disregarded Public*, (Edmonton: Parkland Institute and Canadian Centre for Policy Alternatives - Saskatchewan Office, 2005).

This report builds on work Parkland Institute has been doing over the past few years to initiate a discussion about what kind of future Albertans want for the province. To date activities have included public events, symposiums and conferences, a dialogue with Albertans across the province, a student essay contest on the subject, and a number of publications. In the process of developing this strategy a number of expert symposiums were held with academic and community researchers. Input from those discussions has been used to generate a set of policy options for the economy that would:

- mitigate the vulnerability to boom and bust cycles;
- maximize long term revenues and jobs from our natural resources;
- ensure that those revenues are used for the long term best interests of Albertans; and
- ensure that current energy resources are used to create a sustainable future not dependent on fossil fuels.

This report examines the problems with Alberta's current model of development. It is structured around four key risk factors that are examined in depth: the lack of framework or plan for investment; the failure to maximize the return from fossil fuels for Albertans; the failure to maximize value added processing and upgrading; and the lack of planning for the future. Section one explores issues related to the current pace of development, describing how concentrated investment is in the construction sector. It exposes how these policies are fueling the boom and placing the province in a vulnerable position. It projects where the current path will lead – the crash course we are on – and briefly describes the negative impacts of the boom.

Section two explores the low value that Albertans are getting for their natural resources. Section three examines the lack of priority that has been given to processing and upgrading Alberta's resources before they are shipped out of the province, and the subsequent problems that result. Section four outlines the lack of savings and lack consideration of the future inherent in the current policies. Section five explores policy options for an alternate path, one that doesn't squander fossil fuel resources but uses investment in those resources to build a future for Albertans. This section also includes a specific set of policy recommendations for an Alberta with a future. The final section summarizes the recommendation made in the report.

This report is about how to manage the boom in the interests of Albertans; it is a strategy for the short and medium term. The scope of the project was limited and did not allow for the exploration of issues

related to economic diversification or offer an in depth policy analysis for sectors such as forestry and agriculture. These are issues much in need of further research and discussion, especially as they relate to reducing the province's heavy reliance on fossil fuels.

Ultimately, of course, a long term strategy must be developed that would focus on moving the province away from a reliance on fossil fuels while ensuring a just transition for workers, and communities. Such a long term vision, while critical, is beyond the scope of this report. This report, however, lays the framework for that vision and puts the province on a path where that future is possible.



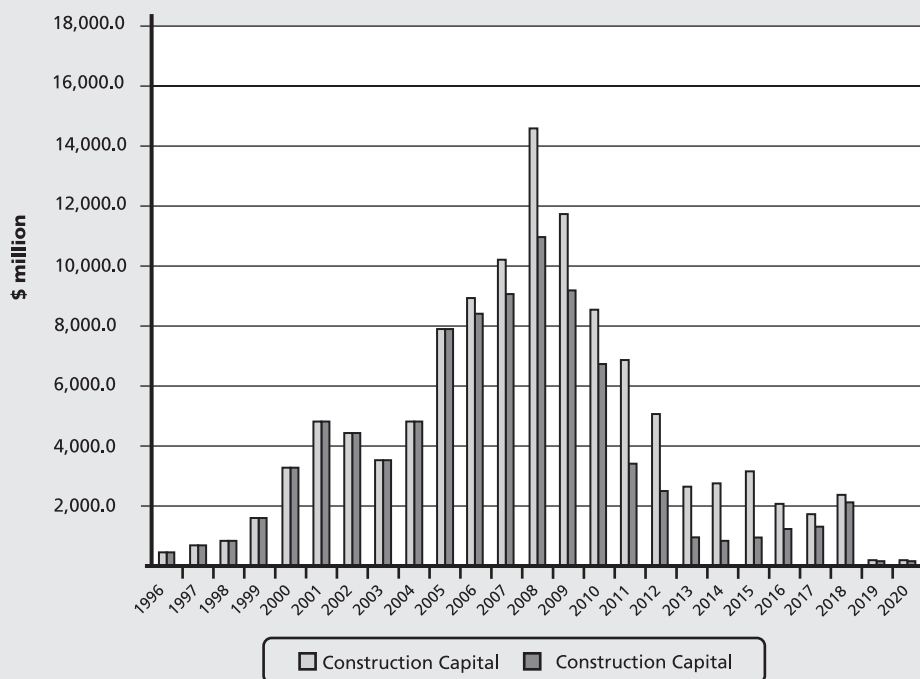
## Section 1.

### **Pacing – Lack of Planning and a Framework for Investment**

Since 2001 oil prices have increased to almost triple the rates of the previous fifteen years. These price scenarios have had a dramatic impact on Alberta. Investment in the tar sands has suddenly become not only economical but extremely profitable, and government has experienced soaring revenues from fossil fuels.

With soaring revenues from fossil fuels and development of the tar sands, the province has been experiencing a construction boom driven by both private and public sector investment levels. Construction of tar sands mega projects is being combined with high levels of activity in the real estate and housing markets. Public sector investments are contributing to the boom with high levels of infrastructure spending at the provincial and municipal levels. The table in Appendix 1 shows \$169 billion dollars worth of major projects that have recently been completed, are currently under construction, or are proposed to start construction within two years.

The present pace of expansion is unsustainable from both an environmental and an economic perspective. The economy is overheated, inflation is the highest in the nation, unemployment is at an all time low and workers are being brought in temporarily from abroad. Alberta has a long history of boom bust cycles and the impacts of both extremes are felt across different sectors of the economy. Dramatic concentrated growth is projected for the short term in and private and public sector investment. Much of the current boom is being driven by an increase in construction, leaving the province dangerously reliant on construction as a driver. Downsides to the boom include deindustrialization as high inflation drives businesses elsewhere, taking quality, long term jobs with them. This situation applies to secondary industries which add value to natural resources, including bitumen upgrading and refining, petrochemicals and even forest products.

**FIGURE 1** Oil sands industry expenditure forecast

Source: Alberta Employment, Immigration and Industry, Oil sands Industry Update, December 2006.

### Private Sector Investment

Tar sands investment is being heavily concentrated in a very short period of time. Figure 1 shows the construction phase of development. Whether discounted for inflation or not, the trend is obviously towards a heavy concentration of construction in a very short period. This graph may shift to the right somewhat as new projects are announced, but from what has been announced to date, there is no indication of any less concentration. Appendix 1 shows that this spending is ramping up, with investment in the tar sands alone over the next two years projected at over \$100 million.

With this concentrated, fast-paced investment, Alberta is experiencing huge impacts across many sectors of the economy. The construction workforce across Alberta is already at an all time high with 175,000 workers and many more will be needed to meet the investment growth in the short term. Figure 2 shows the level of construction workforce required for the tar sands and related expansion projects. It shows a very steep curve. This will dramatically impact other sectors of the economy- hitting the housing markets, homeowners looking for repairs or renovations, other sectors seeking laborers and industries looking to invest or expand in the short term.

### Temporary Foreign Workers

To offset the short term need for construction workers, the Alberta and Federal governments negotiated a special deal that allows for a fast-tracking of foreign workers in the tar sands. There is much controversy in the province around the use of these temporary workers, stemming from two concerns. The first concern is that foreign workers are used to undercut wages of Canadian workers; that is, there are Canadians and landed immigrants available for those jobs, just not at the low rates industry wants to offer. The Canadian Natural Resources (CNRL) Horizons project is a good example: the building trade unions have said they are able to supply the labour needed for the project—but only at regular industry rates, not at the cut wages CNRL is looking for.<sup>ix</sup> This concern is backed up by the statistics that show Alberta's unemployment rate at 3.9% but the construction unemployment rate at 4.4 %.<sup>x</sup>

The second concern is that the foreign workers are being exploited as they are treated differently from immigrants: they have no rights as landed immigrants and cannot apply for status. As the Alberta Federation of Labour points out:

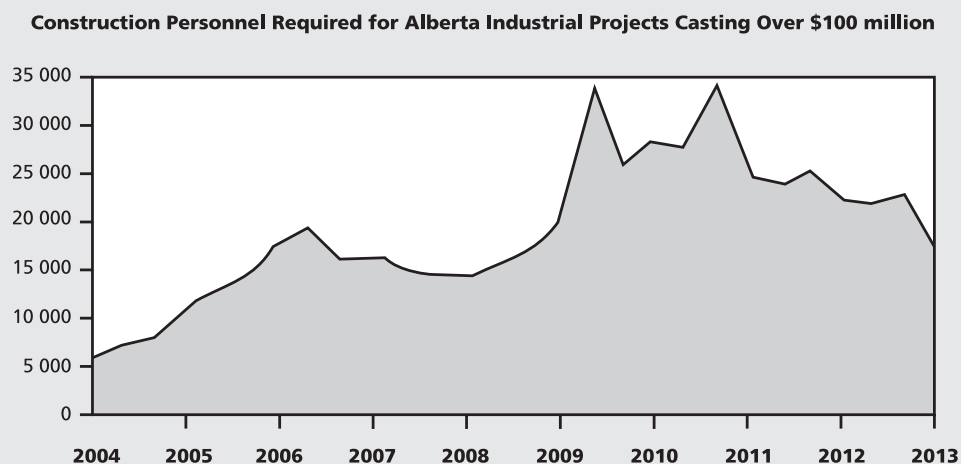
*Foreign workers' is a designation that allows someone from another country to come to Canada to work on a specific worksite. Once the work is complete, they are forced to return home. In many ways foreign workers are much like the 'flags of convenience' in the shipping industry - consider them 'workers of convenience'.<sup>xi</sup>*

<sup>ix</sup> Jason Foster, "What's All the Fuss about Foreign Workers?" (Alberta Federation of Labour, June 2005), <http://www.afl.org/pressroom/op-ed-columns/op-ed-foreign.cfm>, (accessed April 24, 2007).

<sup>x</sup> Government of Alberta, Employment Immigration and Industry, "2006 Annual Alberta Labour Market Review," (Government of Alberta, Employment Immigration and Industry, n.d.), [http://employment.alberta.ca/documents/LMI/LMI\\_LFS\\_2006\\_Imreview.pdf](http://employment.alberta.ca/documents/LMI/LMI_LFS_2006_Imreview.pdf), (accessed April 24, 2007).

<sup>xi</sup> Foster, "What's All the Fuss about Foreign Workers?"

**FIGURE 2 Alberta Industrial construction projects**



Source: Construction Owners Association of Alberta, as referenced in National Energy Board, Canada's Oil Sands Opportunities and Challenges to 2015: An Update, June 2006.

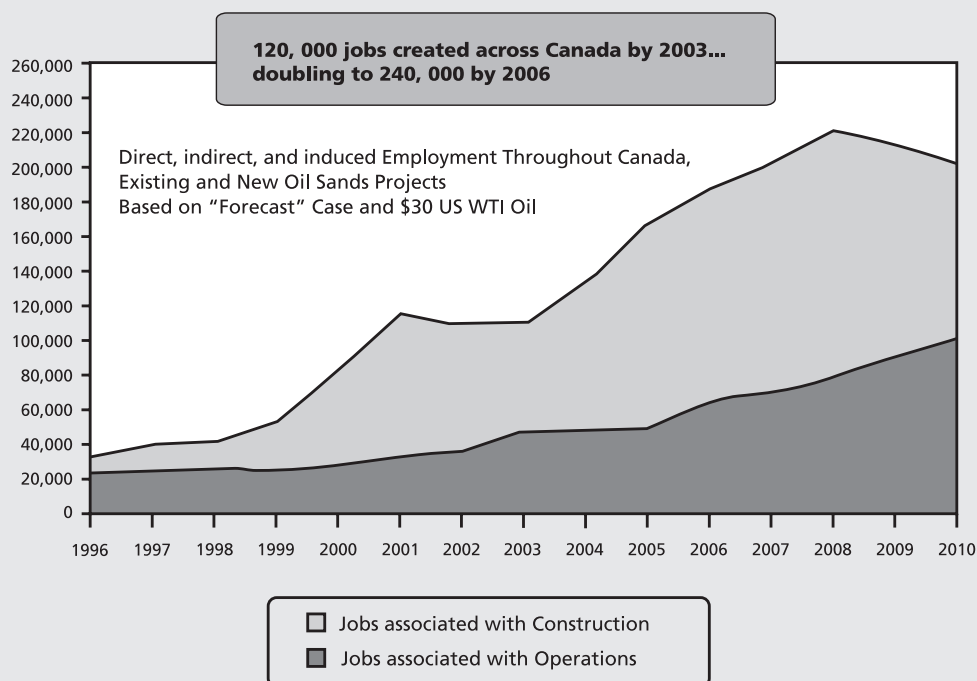
As a further concern, the construction boom is expected to end quickly, leaving a much smaller portion of the labour force employed. Figure 3 shows the ratio of direct and indirect construction to operating jobs. Indirect jobs are considered to be those spin off jobs created by the workers in the communities where they spend money as well as secondary jobs created by purchasing items needed for the construction and operations. These spin off jobs are across Canada. The graph shows that more than half of these workers will be out of work when the tar sands construction phase ends.

xii Statistics Canada, "Latest Release from the Consumer Price Index," *The Daily*, April 19, 2007, <http://www.statcan.ca/english/Subjects/Cpi/cpi-en.htm>, (accessed April 24, 2007).

xiii Douglas Porter, "Alberta Boom: Every Rose Has Its Thorn," (BMO Nesbitt Burns, Special Focus Report, June 2006), <http://www.bmonesbittburns.com/economics/focus/20060623/feature.pdf>, (accessed April 24, 2007).

The incredible demand for labour and construction workforce is driving up inflation rates. In Alberta, prices for the goods and services in the CPI basket were 5.5% higher in March than they were a year earlier while the national rate was only up by 2.3%.<sup>xii</sup> The impacts of this inflation are not only being felt in Alberta. According to Bank of Montreal's Nesbitt Burns, "Alberta's boom has reached the boiling point, popping up in a wide array of national economic statistics .... It seems that it is only a matter of time before the Bank will respond to the spillover effects of Alberta's boom and hike rates again."<sup>xiii</sup>

**FIGURE 3 Direct and Indirect Construction Jobs**



Source: Nichols Applied Management as referenced by CAPP, in Alberta Tar sands Consultations, Environment, Workforce, Infrastructure and Technology in Alberta's Tar sands, submission by Pierre Alvarez September 27, 2006.

### Pro-cyclical public sector spending - fuelling the boom

With a priority on debt elimination over long term economic planning, the provincial government opted during the 1990s to exercise pro-cyclical spending—cutting infrastructure and social program spending in the downturn. This meant that the public service, health care, education system, and social safety net were being cut heavily, resulting in significant job losses. The problem was exacerbated by a lack of available employment in government construction projects. These deep cuts were not necessary. The government could have paid the debt off another way - through cutting corporate subsidies, not cutting taxes, and not giving the royalty holiday to the tar sands. The cuts deepened the downturn. By the time the fiscal debt was actually paid off, the province had amassed an infrastructure debt of \$7 billion—hospitals and schools were severely understaffed, falling apart and desperately in need of repair. <sup>xiv</sup>

This infrastructure and program deficit seriously compromised the province's ability to sustain the boom when it finally hit—meaning the province could not provide the infrastructure necessary to absorb the population growth that accompanied it.

<sup>xiv</sup> 2005 internal government infrastructure documents indicated that the deficit was \$7.2 billion though with cost escalation since then it could be significantly higher. Alberta Teachers Association, "Hi-lights of the Assembly," (Alberta Teachers Association), n.d., <http://www.teachers.ab.ca/Albertas+Education+System/Eye+on+Education+in+Alberta/Highlights+from+the+Assembly/2006/Infrastructure+deficit+unfunded+pension+liability+belie+claim+Alberta+debt+free+Chase.htm>, (accessed April 25, 2007).

<sup>xv</sup> Mark Bain, Pat Maguire and Bennett Jones, "Major Capital Projects," Lexpert 500: American Lawyer Media, <http://www.lexpert.ca/500/lb.php?id=114>, (accessed April 30, 2007).

<sup>xvi</sup> CBC Arts, "Alberta Art Gallery gets \$15M as construction costs soar," CBC News, February 14, 2007, <http://www.cbc.ca/news/story/2007/02/14/edmonton-gallery.html>, (accessed April 30, 2007)

<sup>xvii</sup> Sherri Gallant, "Boom derails some promises," Lethbridge Herald, April 27, 2007, [http://www.lethbridgeherald.com/article\\_6710.php](http://www.lethbridgeherald.com/article_6710.php), (accessed April 30, 2007).

As the boom increased in strength, the government finally embarked upon reinvestment in the provincial infrastructure. However, this spending is adding fuel to an already overheated economy. Instead of maintaining and building public infrastructure when the economy was in the downturn and materials and labour were cheap, taxpayers are building at the height of the boom. Not only does this fuel inflation in labour, materials and construction costs across the economy, but it also means that the public is paying a high premium for building at this time.

In October 2006, then Premier Ralph Klein announced that public infrastructure costs were escalating at 30 to 40 percent and he recommended projects be delayed until they were more affordable. He stated, "I know there is a screaming demand for more infrastructure but, folks, the prices are beyond belief."<sup>xv</sup> More recent examples of cost escalation include provincial museum renovations being placed on hold because costs increased beyond the budget. The art gallery has also seen costs balloon from \$57 million to \$88 million.<sup>xvi</sup> In Fort McMurray the municipality wanted to build a two-part RCMP station and estimated \$30 million for the project. City officials were stunned to get a bid of \$51 million to build just one part.<sup>xvii</sup> Generally, the majority of Construction Association members

in Edmonton report increases between 20-30% on projects of similar size, value and complexity over last year.<sup>xviii</sup> In the 2007 provincial budget, about \$1.3 billion of the \$4.9 billion increase in spending on capital is required to address cost escalation on approved projects.<sup>xix</sup>

Another aspect of building at the height of the boom is difficulty in getting contractors. Leduc, just south of Edmonton, had trouble getting a package of sidewalk and street repair projects done. Mayor Greg Krischke said one part didn't get any bids at all, and another bid was five times higher than expected. Even the province's Infrastructure Department, admits finding this a challenge. The first time it tendered a \$1-million project to build a road into the hospital in Hinton there were no bids.<sup>xx</sup>

**xviii** Office of Resource Planning, "Key Budget Driver Forecasts 2007/08 to 2010/11," (University of Alberta, 2007), <http://www.uofaweb.ualberta.ca/vpfinancerp/pdf/KBD-ConstSuppliesServices07-08FINAL.pdf>, (accessed April 30, 2007).

**xix** Alberta Finance, "Fiscal Plan."

**xx** Office of Resource Planning, "Key Budget Drivers."

**xxi** Statistics Canada, "Canada's Population," The Daily, September 27, 2006, <http://www.statcan.ca/Daily/English/060927/d060927a.htm>, (accessed April 30, 2007).

**xxii** Figures are based on City of Calgary, "Results of the 2005 Count of Homeless Persons in Calgary," (City of Calgary, May 16, 2006), [http://calgary.ca/docgallery/bu/cns/homelessness/2006\\_calgary\\_homeless\\_count.pdf](http://calgary.ca/docgallery/bu/cns/homelessness/2006_calgary_homeless_count.pdf), (accessed April 30, 2007) and Edmonton Joint Planning Council on Housing, "Out in the Cold: Edmonton Homeless Count 2006," (Edmonton: Edmonton Joint Planning Council on Housing, October 2006), <http://www.moresafehomes.net/Homeless%20Count%202006%20Report.pdf>, (accessed April 30, 2007).

**xxiii** United Way of Calgary and Area, YWCA of Calgary, and Calgary Homeless Foundation, The Alberta Advantage to Low-Income Albertans: Recommendations to the Alberta Government Low-Income Program Review Task Force, (United Way of Calgary and Area, YWCA of Calgary, and Calgary Homeless Foundation, n.d). Also available at <http://www.ywcaofcalgary.com/pdf/TaskForce.pdf>, (accessed April 24, 2007).

**xxiv** Edmonton Joint Planning Committee on Housing Homelessness Count Committee, "Out in the Cold".

## Impacts of the boom:

### Population Pressures

Population increases are putting pressures on social and physical infrastructure across the province. Alberta had the strongest growth rate among the provinces and territories, almost three times higher than the national average. This was due to the booming economy and the record level of migration from other parts of Canada—57,100 persons.<sup>xxi</sup>

### Homelessness on the Rise

As populations have increased, housing markets have skyrocketed across the province, causing a housing crisis in almost every urban area. In 2006 homelessness in Edmonton increased by 19% while in Calgary there has been a growth of 458% in the number of homeless people since 1996.<sup>xxii</sup> In Calgary, at least 20,000 people with family incomes of less than \$15,000 are paying more than 50% of their income for housing.<sup>xxiii</sup>

The face of homeless people has also changed significantly. Where front line workers previously reported that the majority of the homeless using their facilities or programs were people with mental health issues, these workers now report that increasing numbers are employed and even families. In the 2004 homeless count there were 276 children under the age of 17 counted in Edmonton alone.<sup>xxiv</sup> The same trends are being reported in food banks.

### Local of infrastructure under pressure

Local carrying capacity is limited in municipalities directly affected by tar sands developments, especially the Fort McMurray region. The

current workforce is made up mostly of construction workers. Industry and community representatives estimate that funding of approximately \$1.2 billion is needed for critical public infrastructure needs in the Wood Buffalo region over the next five years.<sup>xxv</sup> Other communities, however, are not immune and towns like Grande Prairie and Peace River are seeing housing prices jump and are experiencing pressures on existing infrastructure.

### Staff Shortages in the Voluntary Sector

The boom has placed pressure on staffing in many sectors, with the voluntary sector and small businesses being hardest hit. The voluntary sector including daycare and social service providers operate on charitable donations or government grants. With limited revenue streams, their ability to respond to wage increases in other sectors is restricted. As a result, daycares, for example, are having a difficult time attracting and retaining staff that are being drawn to other sectors where the wages are higher.

### Education being compromised

The tight labour market is also having an impact on education. Labour organizations are reporting that training is being watered down and apprenticeships are not being completed. Other educators are concerned that the high school completion and post graduate education rates are being impacted as students are drawn away from education by high wages for laborer and semi-skilled positions and even service sector jobs. Alberta already has a low high school completion rate by national standards.

### Deindustrialization

Inflation is driving industries out of the country, specifically, oil and gas refining is relocating to the U.S. Key reasons for industry locating investment in the U.S. instead of Alberta include high construction and materials costs in Alberta due to the current boom and high transportation costs. EnCana has said that is about half as expensive to add upgrading capacity to an existing refinery outside of the province than to build a new facility in Alberta.<sup>xxvi</sup> However, this is only part of the picture. Petro-Canada, for example, has put its Fort Hills project on hold until 2008 due to cost estimates ballooning to the range of \$19 billion, or over \$130,000 per barrel per day of capacity. Shell Canada has also scaled back expansion plans due to cost estimates more than doubling.<sup>xxvii</sup> Another example is the Canadian National Resources Limited (CNRL) upgrader which has been placed on hold.

<sup>xxv</sup> Athabasca Regional Issues Working Group (RIWG), "Wood Buffalo Business Case 2005: A Business Case for Government Investment in the Wood Buffalo Region's Infrastructure," (RIWG, March 2005), <http://www.oilsands.cc/pdfs/Wood%20Buffalo%20Business%20Case%202005.pdf>, (accessed April 24, 2007).

<sup>xxvi</sup> Byron W. King, "Are Canadian tar sands the answer to our oil needs?" Whiskey and Gunpowder 20.11.2006, <http://www.moneyweek.com/file/21765/are-canadian-tar-sands-the-answer-to-our-oil-needs.html>

<sup>xxvii</sup> Ibid.



Other investors are moving outside Canada to build upgrading and refining capacity where it is cheaper. One example is Synenco, a tar sands company that has chosen to construct their upgrader in Asia and bring it into Alberta by barge from the North. Similarly, Encana signed a deal to export their bitumen to ConocoPhillips plants in the U.S. which would be retrofitted for upgrading and refining tar sands bitumen.<sup>xxviii</sup> These shifts mean a loss of long term quality jobs that Albertans can ill afford—the cost of an over-inflated economy.

### **Investment Driving Increases in Exports**

Another impact of the investment boom is a dramatic increase in exports. Canada's oil and gas production has been on a steady incline, and exports have been making up a growing percentage of that production. Between 1982 and 2002, natural gas consumption increased by 96%, while exports increased by 396%. Crude oil consumption increased by 29%, while exports increased by 595%.<sup>xxix</sup> Almost all Canadian natural gas exports, and over 99% of oil exports, go to the US. This steep increase in exports is driving the depletion of conventional fossil fuels and an expansion of non-conventional fuels with much higher environmental impacts.

One of the risks of an economy based on exports and with high levels of wealth being generated from natural resources is "Dutch Disease". In the 1960s, the Netherlands experienced a vast increase in its wealth after discovering large natural gas deposits in the North Sea. Unexpectedly, this ostensibly positive development had serious repercussions on important segments of the country's economy, as the Dutch guilder became stronger, making Dutch non-oil exports less competitive. This syndrome has come to be known as "Dutch disease." In Canada currency value increases have been hitting manufacturing hard across the country.

### **Conventional Reserves Falling**

The uncontrolled pace of development of fossil fuels has led to steep increases in production levels and exports. Not surprisingly, proved reserves of conventional oil and gas have declined despite increased exploration spurred by high prices. New natural gas finds have not been keeping pace with this high level of production and export growth, and we are eating away at our reserves. In 2003 about 8.9 years of natural gas production remained in Alberta, given proved reserves and production levels for that year.<sup>xxx</sup> Less than ten years of conventional oil remain as well. Despite this, Alberta continues to export over half of oil and gas production to the United States.

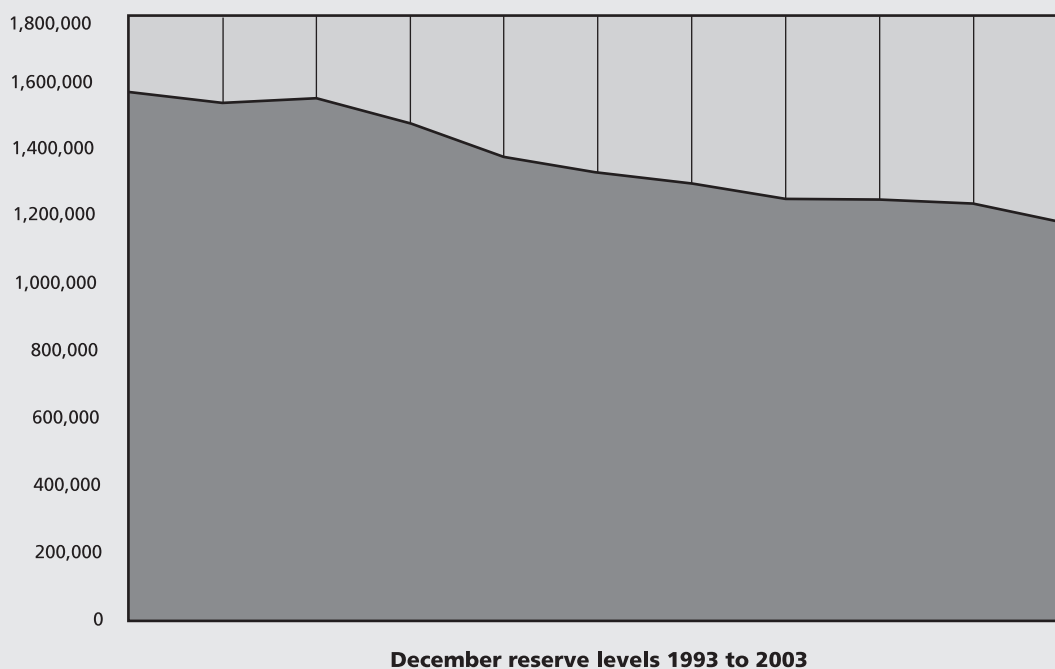
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**xxviii** EnCana Corporation, "EnCana and U.S. refiner examine joint venture to convert Ohio refinery and long-term heavy oil sales agreement," News Release, Calgary, Alberta, November, 2004, <http://www.encana.com/investors/newsreleases/2004/P1161297703953.html>, (accessed April 30, 2007).

**xxix** These figures have been calculated based on Statistics Canada data from CANSIM Table 128-0002.

**xxx** This calculation is made based on statistics taken from the Canadian Association of Petroleum Producers, "Alberta Statistics for the Past Eight Years," (Canadian Association of Petroleum Producers, n.d.), <http://www.capp.ca/raw.asp?x=1&dt=NTV&e=PDF&dn=34090>, (accessed April 25, 2007).



**FIGURE 4 Natural Gas Reserves**

Source: Statistics Canada, Table 128-0004 - Petroleum and marketable natural gas, remaining established reserves in Canada, annual (Cubic metres x 1,000,000)

### Shift to non-conventional fuels

Instead of reducing exports and focusing on conservation as conventional oil and gas run out, the Alberta government has staked the province's future on non-conventional sources such as coal bed methane and the tar sands. In addition to these 'new' sources, there is a risk that the province will shift back to coal for power generation in Alberta as natural gas runs out.

Tar sands and coal-bed methane development, because of their enormous potential reserves, will have very high environmental costs. The tar sands are generating large and mounting environmental costs in several areas: excessive demand for water and natural gas; permanent pollution of between one and three barrels of water per barrel of oil extracted; the accumulation of tailings; destruction of delicate boreal ecosystems; high climate change emissions; and air pollution and acid rain.<sup>xxxi</sup>

Similar to the tar sands, coal-bed methane (CBM) will have higher environmental costs compared with conventional natural gas.<sup>xxxii</sup> Most notably, experience with CBM in the US indicates significant landscape impacts from the higher intensity of wells drilled and serious potential impacts on local water tables where the coal is wet.

<sup>xxxi</sup> For more information on the impacts of the tar sands see, Hugh McCullum, *Fuelling Fortress America: A Report on the Athabasca Tar Sands and U.S. Demands for Canada's Energy*, (CCPA, Polaris and Parkland Institute, March, 2006). Also available at <http://www.ualberta.ca/~parkland/research/studies/Fuelling%20Fortress%20America%20WEB.pdf>, (accessed April 25, 2007).

<sup>xxxii</sup> As the name suggests, CBM is the methane present in coal formations.

As mentioned above, development of the tar sands requires incredible energy input levels which are currently being met by natural gas, whose reserves are in decline. Between the tar sands use and export levels guaranteed under NAFTA, the lifetime of Alberta's remaining natural gas reserves is being cut short. The Canadian tar sands industry currently uses 1 thousand cubic feet (1 Mcf) of gas for each barrel of oil produced from tar sands via in-situ thermal recovery and 0.5 Mcf/barrel for upgrading of tar sands into synthetic crude oil.<sup>xxxiii</sup> For comparison, the gas used to produce one barrel of oil is enough to run an average Canadian household for ten days. As extraction rates triple, energy input needs will also rise. Meeting those energy needs through other forms of energy such as coke gasification is also problematic due the significantly higher climate change emissions. Nuclear, the other option being considered is prohibitively expensive and has its own associated risks. These include high levels of fossil fuels in the uranium mining and refining process, the risk of accidents, and storage problems for the dangerous by-products including radioactive waste with a half-life of thousands of years.

### Summary

The uncontrolled and incredibly rapid pace of tar sands extraction is creating economic problems of inflation, especially in labour and materials costs as well as housing. These trends are driving long term investment elsewhere. This inflation is being driven by both public and private sector spending, though the bulk of the construction is in the private sector. The deficits left by pro-cyclical policies of the Alberta government have meant that the social and physical infrastructure necessary to sustain the boom are not in place and are being built at a high premium at the height of the boom.

The investment currently projected is heavily concentrated in a short period with high short term construction labour demand. Allowing construction to be such a large driver for a short concentrated period is risky. Once that construction phase is over, a large portion of the workers involved will no longer be needed.

The boom also has serious environmental costs for which solutions are not in place. The decline of conventional oil and gas and the shift to non-conventional sources has serious environmental consequences that have not been addressed. There are no policies in place to adequately address the water consumption and pollution, landscape impacts or high energy needs of the tar sands. Additionally, the climate change impacts will not be adequately reduced by existing intensity reductions.

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<sup>xxxiii</sup> North America Energy Working Group (NAEWG), "North American Natural Gas Vision," (NAEWG, January 2005), <http://www.pi.energy.gov/documents/NAEWGGasVision2005.pdf>, (accessed April 24, 2007).

## Section 2.

### Failing to Maximize Fossil Fuel Revenues for Albertans

Oil prices have almost tripled since the mid 1990s but royalties have not kept pace. Alberta Energy has a low target of capturing 20 to 25 percent of revenues from oil and gas but has not even achieved that level. Government data reveal the government received only a 19 per cent share of oil and gas revenues in 2004 (the most recent numbers available). The province's capture has actually fallen from 23 per cent in 2001.<sup>xxxiv</sup>

Obviously, with oil prices still fluctuating at near record highs, these low royalty rates are not due to prices or profits being low. Oil and gas has never been more profitable and is, in fact, the most profitable sector in Canada. Returns on equity for Canadian upstream oil and gas have risen from the high level of 15.4 percent in 2001 to 22.4 percent in 2005.<sup>xxxv</sup> In fact lofty energy prices have been producing profits at such a rate that about 33 of 55 tar sands projects have already paid off their initial capital investment.

In Alberta, royalties for conventional oil and gas fit into a complicated structure based on well size, age and production. For the tar sands a different regime was introduced, known as the generic tar sands royalty rate. It includes an accelerated capital write off period in which the royalty is 1% of gross revenues. Once the capital has been paid off, the royalty switches to a rate of 25% of net revenues or 1% of gross whichever is greater. Relative to conventional oil and gas in Alberta, even that 25% rate is low. For comparators, natural gas royalties range from 30% to 50% while for conventional crude oil rates are as high as 40%.

<sup>xxxiv</sup> Jason Fekete, "Alberta won't chase more resource revenues," *Calgary Herald*, July 12, 2006, <http://www.uofaweb.ualberta.ca/govrel/news.cfm?story=47951>, (accessed April 24, 2007).

<sup>xxxv</sup> Peter Tertzakian and Kara Baynton, *Canadian Upstream Oil and Gas Industry Financial Performance Outlook 2006-2008*, quoted in John W. Warnock, *Selling the Family Silver: Oil and Gas Royalties, Corporate Profits and the Disregarded Public*, (Edmonton: Parkland Institute and Canadian Centre for Policy Alternatives -Saskatchewan Office, 2006).

Tar sands are not the only non-conventional fuel with low royalties.

Another area where royalties are low is coal bed methane (CBM).

CBM is not the same as natural gas in spite of being included under the same royalty structure. The CBM wells are shallow and have a short lifespan; they are also low producing wells. This means they fall into a low natural gas royalty category in spite of causing dramatically more landscape, water and other environmental impacts.

The shift from conventional to non-conventional oil and gas will lead to a drop off in royalties. In spite of so many tar sands projects reaching pay-out, the Alberta government is projecting steep declines

in revenues from fossil fuels. The provincial government is forecasting that revenues will decline from \$11.7 billion in 2006-07 to \$7.8 billion by 2009-10.<sup>xxxvi</sup> The government attributes this to a number of factors including: anticipated lower oil prices, expected lower conventional oil and gas production levels, lower land license and lease sales, increased production and processing costs and an increased share of oil royalties paid on bitumen rather than conventional/synthetic crude oil.

Another serious problem with the current resource revenue profile in Alberta is that revenues from royalties on natural gas make up the largest portion of government resource revenues. As shown earlier, this is risky because natural gas has peaked and reserves are in decline. In 2006 total royalties were budgeted at approximately \$11.55 billion; of that \$5.4 billion is natural gas. By 2009-10, natural gas royalties are expected to decline to \$4.6 billion.<sup>xxxvii</sup> With natural gas in decline, the government's reliance on revenues from natural gas is irresponsible.

In the international context, Alberta's royalty rates are ridiculously low. A number of studies done by the Parkland Institute and Pembina Institute have shown that Alberta collects much less than Norway and Alaska. Generous estimates are that Alberta collects only 58% of available royalties from the tar sands while Alaska and Norway collect 88% and 99% of rent respectively.<sup>xxxviii</sup> In many other countries the rent recovery is 100% because the government does the extraction itself through a national oil company (OPEC countries, Mexico and China). Policies elsewhere include: Bolivia 82% of all revenues from natural gas go to the government; in Kazakhstan 80% of oil extracted goes to the government in a production sharing agreement; in Abu Dhabi and the United Arab Emirates, the profit margin for companies is limited to \$1 per barrel; in Russia the government takes 90% of the value of sales above \$25/barrel.

### Returns go to foreign owners

Neglecting to capture adequate rents essentially amounts to a transfer of wealth from Albertans to foreign shareholders as 49.1% of the assets and 55.9% of the revenues in Canada's energy sector are foreign owned.<sup>xxxix</sup> That translates into \$35 billion of the \$70 billion in assets in Canada's energy sector. In sharp contrast, the United States government has shown its lack of tolerance for foreign ownership of America's energy sector. A clear example is the Congressional move to reverse the CNOOC (Chinese oil company) bid to purchase Unocal in 2005.

- <sup>xxxvi</sup> Alberta Finance, "Fiscal Plan."
- <sup>xxxvii</sup> Ibid.
- <sup>xxxviii</sup> Bruce McNab, James Daniels and Gordon Laxer, *Giving Away the Alberta Advantage: Are Albertans receiving maximum revenue from our oil and gas?* (Edmonton: Parkland Institute, November 1999). Also see Amy Taylor, and others, *When the Government is the Landlord*, (Pembina Institute for Appropriate Development, 2004). Also available at <http://pembina.org/pdf/publications/GovtisLLMainAug17.pdf>, (accessed April 30, 2007). Note: These studies take into account cost and production differences.
- <sup>xxxix</sup> John R. Baldwin, Guy Gellatly and David Sabourin, "Changes in Foreign Control under Different Regulatory Climates: Multinationals in Canada," (Ottawa: Statistics Canada, March 2006), <http://www.statcan.ca/english/research/11-624-MIE/11-624-MIE2006013.pdf>, (accessed April 30, 2007).

Canada is unique amongst developed nations in allowing this level of foreign ownership of such a strategic economic sector and enabling such a huge transfer of wealth outside the country. This is further evidence of the colonial mentality that overshadows development policy in Canada. The energy sector is not unique; foreign ownership is high across the economy though especially so in the oil and gas sector. No other major industrialized country has a level of foreign ownership of its manufacturing even a third as high as Canada's. Altogether, some 36 different sectors of the Canadian economy are heavily or majority foreign-owned and/or controlled. In comparison, in the United States, there's not one major industry that is majority-foreign-owned or controlled. <sup>xl</sup>

### **A Discussion of Rent**

Rent is the value of a natural resource beyond the cost of extracting it and a normal profit to those who extracted it. The balance is the rent, that to which the owners of the resource are entitled. In Alberta the government has discussed a desire to extract a 'fair price for the owners'. However, as the representative of the owners, the government's job is not to gain a fair price, but the highest price possible for the owners of the resource.

Oil and gas companies are being hired by the government (the agent of the owners) to perform a service - extracting the resource - for a fee. Instead of discussing a fair price for owners, the debate should be about what is a fair rate of return to the extraction industry. Turning to metaphor for a moment, if the extraction industry is seen as the contractor you have hired to do repairs on your house, the picture becomes clear. When the house is sold, the renovations contractor does not have a right to the increased value that resulted from renovations and market changes. They are paid for their services - costs plus some profit. The only issue of fair return is perhaps how much profit they should be getting, or more likely, how much the home owner is willing to pay for that service.

Industry profit levels clearly show that much of that rent is being left to industry in the form of excess or unearned profits. Internationally there are a number of mechanisms used to capture rent, of which royalties is only one. Others include production sharing agreements, state direct investment or joint ventures, public ownership and generous tax regimes including a carbon tax. Alberta collects rents through royalties, corporate taxes and lease sales. The relatively low tax rates and lease sales are explained below.

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<sup>xl</sup> Statistics Canada data as analyzed by Mel Hurtig, "Selling Off Our Country: Takeovers place key Canadian industries in foreign hands," The CCPA Monitor, (Canadian Centre for Policy Alternatives, April 2006), <http://policyalternatives.ca/MonitorIssues/2006/04/MonitorIssue1353/index.cfm?pa=DDC3F905>, (accessed April 25, 2007).

### Lease Bids a poor cousin to royalties

Aside from royalties, Alberta uses lease and permit bids as mechanisms for rent capture. Tar sands leases generally have a fifteen year duration while permits are five years. The minimum bonus payment for a lease is \$2.50 per hectare while the minimum annual rental fee is equal to \$3.50 per hectare (with a minimum charge of \$50). For permits the rates are even lower. These lease and permit bids do not compensate for an inadequate royalty regime. Firstly, the floor for lease bids is set very low. Secondly, they reflect only the prices of oil at the time of the bidding. A royalty is paid out as the resource is produced and varies with prices. Lease bids on the other hand, are fixed one-time payments with smaller fixed annual rent payments. Where oil prices go up during the fifteen years of the lease contract, none of that increase in value is captured in the lease. Royalties are thus a much more effective instrument for recovering rent for the owners and capturing changes in the value of the resource.

### Taxes

Taxes are quite distinct from royalties as they relate to a return of a portion of profits to compensate for public support and infrastructure that enabled that profit. However, low corporate taxes are part of the giveaway of Alberta's resource wealth and thus worthy of discussion. Currently Alberta's corporate tax rate of a flat 10% is low relative to the rest of the country and very low by international standards. The government's goal is to reduce that further to 8%. Alberta has the second lowest corporate income tax rate in the country (Quebec is lowest at 9.9%). Other provinces range between 12% and 16% with an average of 14%. Combined with federal taxes the effective total corporate tax rate is 32.1%. In the U.S. the combined state and federal taxes for different states range from 39% to almost 44%.<sup>xli</sup> Taxes in other energy producing regions internationally are often much, much higher - Venezuela raised them from 35 to 50% and in Abu Dhabi it is 55%. In Norway oil firms pay a corporate tax at 28%, as well as a "special tax" of 50% on oil profits. Taken together this means the tax on oil profits is 78%, one of the highest tax rates in the world.<sup>xlii</sup>

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<sup>xli</sup> Government of Alberta, "Alberta Economy: Competitive Corporate Taxes," (Government of Alberta, 2007), <http://www.alberta-canada.com/economy/positiveBusinessClimate/competitiveCorporateTaxes.cfm>, (accessed April 30, 2007).

<sup>xlii</sup> Phil Vaagan, "Norway: a haven for oil production," Sunday Herald, July 4, 2004, <http://www.gasandoil.com/goc/news/nte42905.htm>, (accessed April 30, 2007).

### Subsidies another giveaway

The giveaway in the tar sands is not limited to uncollected rents. Taxpayers subsidize enormous value in public infrastructure for the industry as well as providing direct subsidies to the industry in many forms. Given high profit levels, subsidies by taxpayers cannot be justified. Research in 2005 by the Pembina Institute found that provincial subsidies are hard to quantify because the government of

Alberta does not currently track expenditure on oil and gas developments. However, at the federal level the oil and gas industry benefited from \$1.4 billion in subsidies in the year 2002 alone, and over \$8.4 billion in subsidies between 1996 and 2002.<sup>xliii</sup> Though the federal royalty tax credit was eliminated, the federal government is still heavily subsidizing the sector. Subsidies to carbon sequestration technology are an excellent example. The technology will be used by industry to maximize profits by injecting CO<sub>2</sub> into old wells for greater oil extraction. This technology is not yet proven as a climate change solution and is temporary at best. Yet, taxpayers are providing millions to develop and test the technology.

### Paying the extraction companies for their services

Thus, the question is: what is a fair return to the extraction companies for the service they provide? Is it in line with interest rates or 'normal profits'? Or is it the 19% to 22% that oil and gas shareholders have been earning? There are a range of estimates for the rates of return on tar sands projects. The National Energy Board has stated that tar sands projects are economic at an oil price of \$30 to \$35 per barrel US WTI.<sup>xliv</sup> In 2004 the Canadian Energy Research Institute (CERI) calculated the costs of extracting bitumen including all capital expenditures, operating costs, royalties and taxes and a minimum rate of return of 10%. This rate of return is reached at an oil price of \$25 (US WTI) per barrel on average.<sup>xlv</sup> Cost inflation is having an impact on profitability. However, with prices still high, those impacts are not significant as evidenced by record profit levels being announced annually by the extraction sector companies. As an example, the Canadian Natural Resources Horizon project has seen costs escalate by 35%. However, CNRL still projected a rate of return of 15 per cent based on a long-term oil price of \$28 US a barrel. When completed, the project's break-even oil price was projected to be a mere \$14.50 US a barrel.<sup>xlvi</sup>

### Summary

The provincial government has embarked on a long overdue review of the rent capture mechanisms. This review will only be successful if the government begins acting like the representative of the owner and respects its job of maximizing the return to those owners. This section has shown that Alberta is out of step internationally on rent collection and fossil fuel resource management. Low royalties and taxes combined with subsidies effectively minimize the returns to the owners.

**xliii** Amy Taylor, Matthew Bramley, and Mark Winfield, "Government Spending on Canada's Oil and Gas Industry: Undermining Canada's Kyoto Commitment," (Pembina Institute for Appropriate Development, 2005). Also available at <http://www.pembina.org/pdf/publications/GovtSpendingOnOilAndGasFullReport.pdf>, (accessed April 24, 2007).

**xliv** National Energy Board, "Canada's Oil Sands Opportunities and Challenges to 2015: An Update," (National Energy Board, June 2006): 5, [http://www.neb.gc.ca/energy/EnergyReports/EMAOilSandsOpportunitiesChallenges2015\\_2006/EMAOilSandsOpportunities2015Canada2006\\_e.pdf](http://www.neb.gc.ca/energy/EnergyReports/EMAOilSandsOpportunitiesChallenges2015_2006/EMAOilSandsOpportunities2015Canada2006_e.pdf), (accessed April 24, 2007).

**xlv** Canadian Energy Research Institute (CERI), "Oil Sands Supply Outlook Potential Supply and Costs of Crude Bitumen and Synthetic Crude Oil in Canada, 2013-2017," Media Briefing, (CERI, March 3, 2004), <http://www.ceri.ca/Publications/OilSandsSupplyOutlookPresentation.pdf>, (accessed April 24, 2007).

**xlvi** Steve Laut, CNRL Chief Operating Officer, quoted in Globe and Mail Staff, "Oil sands costs may rise 35%," Globe and Mail, November 2, 2004, <http://www.energybulletin.net/2997.html>, (accessed April 24, 2007).



The debate has been framed as one of determining a fair return to the owners. This section revealed that it should be the reverse. The review should focus instead on what the province is willing to pay the extraction companies for their services. The question is then: what mechanisms need to be put in place to limit that take by the corporations and capture that rent for the owners.



## Section 3.

### Failing to Maximize Value Added Jobs or Diversity

In 1974, then-Premier Lougheed told the Calgary Chamber of Commerce that “Since entering public life nine years ago, my theme has been that this province’s economy is too vulnerable, it is too dependent upon the sale of depleting resources, particularly oil and natural gas for its continued prosperity.”<sup>xlvii</sup> This is more the case than ever in Alberta as governments since have put into place policy frameworks and financial incentive systems that favor raw exports over value added. This should not be the case. A far greater degree of import substitution and a higher level of processing are possible in fossil fuels, forestry and agriculture.

Canada has suffered from its colonial past with the continued mentality of a resource hinterland. Over the last decade and a half, the province has shifted to a heavy reliance on raw resources and raw exports of fossil fuels, agricultural and forest products. Agriculture was one sector hit hard by this strategy: much of its value-added capacity was lost post-NAFTA. In 1972 Edmonton had five meat packing plants alone. All of these were lost. When Alberta beef producers lost access to U.S. meat processing during the BSE crisis, it was obvious how vulnerable this strategy had made the Canadian agricultural sector. The petrochemicals sector was hit by the same fate and current debates around raw bitumen exports show that oil will not be an exception.

An illustrative example is Alberta’s petrochemicals industry which is suffering from consolidations and plant closures. First Celanese announced closures and then in August of 2006 Dow Chemical announced that they would be closing two of their seven plants resulting in hundreds of job losses. This sector is suffering because of natural gas exports to the United States.

While employment levels are relatively low for primary and first stage derivative petrochemicals, they increase enormously the more the product is upgraded. However, in a number of ways, the Alberta government is prioritizing the extraction industry’s short term profits over the promotion of value added manufacturing of the fossil fuels resources. First, by not mitigating the boom and allowing construction costs to escalate the Alberta government has assisted in driving away

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<sup>xlvii</sup> Premier Peter Lougheed as quoted by Peter J. Smith, “The Alberta Heritage Savings Trust Fund and The Alaska Permanent Fund: A Ten Year Retrospective,” (Alaska Permanent Fund Corporation, n.d.) <http://www.apfc.org/reportspublications/TP2-4.cfm>, (accessed April 30, 2007).

investment in upgrading and refining.

Second, by supporting the expansion of pipeline capacity to the US for export of raw bitumen the Alberta government has locked Canada in to higher and higher export levels while also facilitating the expansion of upgrading and refining capacity south of the border. The following is a list of pending pipelines for bitumen export:

- Keystone pipeline 435,000 to 591,000 barrels of oil (Encana and Conoco Phillips);
- BP plans to ship 260,000 barrels a day of raw bitumen down the pipeline to Whiting, Indiana;
- Connacher Oil plans to pipe production from the great divide to a refinery in Great Falls Montana;
- Imperial Oil's Kearl Lake mine includes plans to ship raw bitumen out of the province; and
- In fall of 2006 Enbridge announced that it would be putting its Gateway pipeline (to ship 400,000 barrels-a-day of Alberta crude to Kitimat and on to China) on hold in favor of prioritizing two other pipeline expansions to get more bitumen to the Southeast U.S.

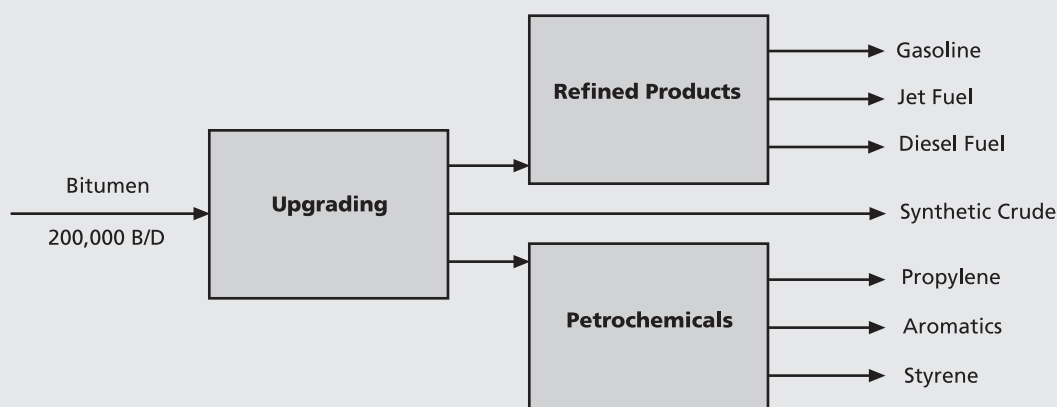
One estimate of the Keystone pipeline alone includes the loss of 18,000 direct and indirect jobs.<sup>xlvi</sup> Those jobs will be created in the U.S. instead of Canada.

Allowing these pipelines will directly prioritize short term profit maximization of the extraction industry over longer term jobs for Albertans in the upgrading and refining sector. Appendix 2 shows the upgrading projects planned for Alberta. As can be seen, there is 1.66 million barrels per day of upgrading capacity approved or already under construction and another 1.9 million barrels per day of capacity announced or disclosed for a total of 3.5 million barrels per day. If the tar sands developments were paced more appropriately, there could be adequate bitumen processing capacity in Alberta within a reasonable timeframe. The export pipelines will jeopardize those processing projects as they would be put into direct competition with upgrading and refining in the U.S., which has lower transportation costs to markets.

This is the exact scenario which the petrochemical industry faced at the time of the Alliance pipeline's construction in 2001.<sup>xlxi</sup> When the Alliance pipeline was proposed, the petrochemicals sector argued that their feedstock price and supply advantages would be eroded and the industry would be seriously impacted. The Lougheed government had fostered the industry through a set of policies that guaranteed the

**xlvi** Informetrica, "National Energy Board Hearing on Keystone Pipeline," (Informetrica, November 2006), [https://www.neb-one.gc.ca/ll-eng/livelink.exe/fetch/2000/90464/90550/409774/410106/416872/417796/428670/C-3-6b\\_-\\_A0V8W0\\_-\\_Written\\_Evidence\\_of\\_Informetrica\\_Limited.pdf?nodeid=428674](https://www.neb-one.gc.ca/ll-eng/livelink.exe/fetch/2000/90464/90550/409774/410106/416872/417796/428670/C-3-6b_-_A0V8W0_-_Written_Evidence_of_Informetrica_Limited.pdf?nodeid=428674), (accessed April 30, 2007).

**xlxi** Terisa Turner and Diana Gibson, *Back to Hewers of Wood and Drawers of Water: Energy, Trade and the Demise of the Petrochemicals Industry*, (Edmonton: The Parkland Institute, 2005). Also available at <http://www.ualberta.ca/~parkland/research/studies/PetroChemWeb.pdf>, (accessed April 24, 2007).

**FIGURE 5 Value Added From Bitumen**

Source: Purvin and Getz Inc. and CMAI, Inc., Summary - Bitumen to Refined Products and Petrochemicals.  
April 28, 2004, Page 7.

industry priority access to feedstock and guaranteed prices.

What was once the second largest industry in Alberta with revenues of over \$9 billion per year, with 7000 direct jobs and 14,000 indirect jobs is now in crisis. No new investment came to the province after the pipeline was built, instead the industry has been rife with plant closures and thousands of jobs have been lost or foregone. Parkland's 2005 study explored this industry in detail, revealing that a set of policy changes favoring the natural gas extraction sector sacrificed the value added petrochemicals sector.<sup>i</sup>

In Alberta's bitumen upgrading and refining sector, the extraction industry is seeking additional pipelines to eliminate a surplus of bitumen in current markets which is suppressing prices of bitumen. The pipelines will thus increase the price of bitumen. Transportation costs already place refining and upgrading at a disadvantage in comparison with the U.S. The current overheated economy further exacerbates that by making expansion or construction of upgrading and refining capacity in Alberta more expensive. Additionally, Alberta is exploring ways to rebuild the petrochemicals sector by linking it into bitumen resources for feedstock (see Figure 5). Eliminating that lower price for bitumen will hurt both the bitumen upgrading and refining and petrochemicals sectors once again.

### Loss of High Value Returns

Generally, studies have found that a higher degree of upgrading will increase marketability of bitumen feed stocks.<sup>ii</sup> Figure 6 shows the

<sup>i</sup> Ibid.

<sup>ii</sup> CERl, "Oil Sands Supply."

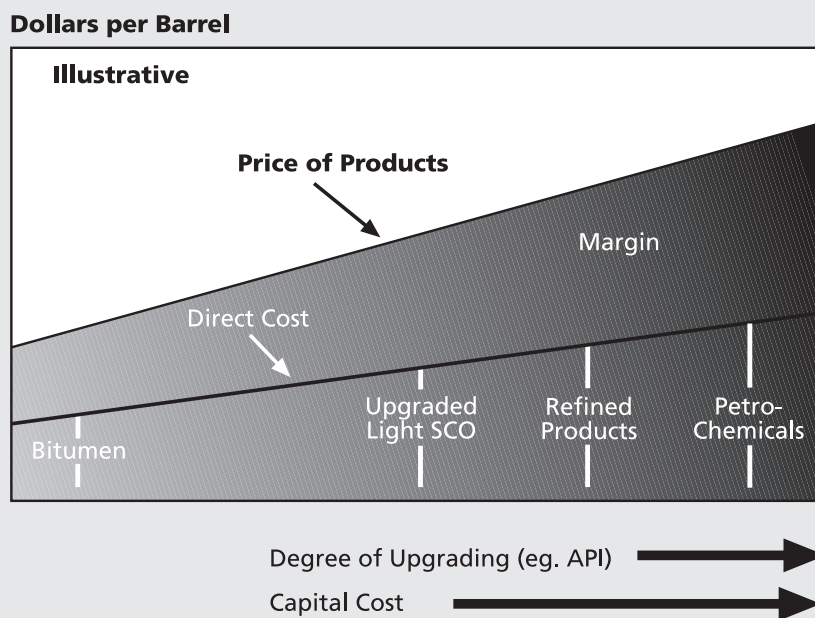
higher profit margins on upgraded and refined bitumen products. Raw exports to the United States directly enable the expansion of the upgrading and refining capacity in the United States while limiting it in Canada. That denies potential Canadian refining and petrochemicals industries access to the higher margins offered by those value added products. The job and economic returns increase dramatically the more the bitumen is upgraded and refined. It is in Canada's interest to ensure that those jobs and economic returns accrue to Canadians.

### Higher quality jobs

The jobs in the value added sector are generally community-based, unionized, family wage-earner jobs. The individuals can return home to their families between shifts and participate in their family and community life on their time off. The Celanese plant closure gives an excellent example of the trade off being made. Many of the workers laid off when Celanese closed ended up leaving their homes and families to take temporary contracts in the tar sands.<sup>iii</sup> These jobs do not offer the security the value added jobs did, and do not allow the participation in family and community life.

<sup>iii</sup> Turner and Gibson, Back to Hewers of Wood.

**FIGURE 6 Value Added Profit Margins**



Source: Purvin and Getz Inc. and CMAI, Inc., Summary - Bitumen to Refined Products and Petrochemicals. April 28, 2004, Page 3.

When the construction boom ends, over half of the workers involved in the oil and gas sector will be out of work. As seen in the earlier section on the boom, that will happen quickly and will involve many workers. A focus on ensuring maximum value added processing of Alberta's resources would create jobs for those workers when the construction boom ends, mitigating the boom and bust cycle.

#### **Increasing Canada's vulnerability**

The vulnerability of the province increases with its reliance on raw exports. As seen in Figure 6, the profit margin is much larger for the value added products than for raw bitumen. This makes them less vulnerable to price fluctuations than the raw exports as the cushion is bigger. By allowing additional bitumen pipelines, the government is deepening the province and nation's reliance on raw exports and thus increasing the vulnerability to price fluctuations. Additionally, this reliance on raw exports is locked in under the proportional sharing clause of NAFTA unless Canada exits that agreement or gains a Mexican exemption on proportionality.<sup>liv</sup>

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**liv** The proportional sharing clause within the North American Free Trade Agreement requires that Canada guarantee exports of energy. This guarantee is set as a requirement to maintain the ratio of those energy exports at current levels.

## Section 4.

### Lack of Planning for the Future

The provincial government under former Premier Ralph Klein admitted having had no plan. The area where this gap was most profound was in resource revenues and the environment. As oil and gas prices climbed into the stratosphere, government revenues from those sources also rose. Indeed, the government experienced an embarrassment of riches. The province has little to show for the liquidation of vast natural resource wealth, except huge unfunded environmental liabilities, little to no investment in renewable energies or energy conservation and very little in savings. Short term gain is paving the way for long term pain - all because the government did not plan how to manage the boom.

This lack of planning has driven the recent government spending spree described earlier, but it has also had other negative consequences. Given the lack of an investment framework, Alberta's wealth is being used to cut taxes and undercut other jurisdictions, putting downward pressure on taxes elsewhere in Canada and exacerbating inequities. In turn, the perception of the national inequality has created an incentive to spend rather than save or invest for fear the funds would have to be shared. Of the \$122.9 billion in natural resource revenue collected from 1977/78 to 2004/05, 91.4% went into a combination of current consumption and tax cuts while only 8.6% was saved in the Alberta Heritage Savings Trust Fund.<sup>lv</sup> Most symbolic of this lack of investment mentality was the rebate cheque given to all Albertans in 2005.

Though government has seriously neglected the Heritage Fund, some revenues have been saved in other endowment funds. As of May 2006 those included: the Advanced Education fund (Access to the Future Endowment) (\$750 million); Scholarship Fund (\$250 million); Medical Research Endowment Fund (\$200 million); and Science and Engineering Research Endowment Fund (Alberta Ingenuity Fund) (\$100 million).<sup>lvi</sup> Compared to the resource revenues received, (\$11.5 billion budgeted for the 2007/08 year alone) these funds represent minimal savings. In 2007 all of these funds were placed together under the management of the newly created Alberta Investment Management (AIM). Additionally, resource revenues are placed into two operating funds: the sustainability fund and capital fund.

Alberta has had a savings mentality in the past. When the Heritage Fund was first established under Premier Lougheed in 1976, 30% of annual resource revenue was to be set aside for the fund. This was

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<sup>lv</sup> Roger Gibbins and Casey Vander Ploeg, *Investing Wisely: An Investment Strategy for Creative Investment*, (Calgary: Canada West Foundation, 2005). Also available at <http://www.cwf.ca/V2/files/INVESTING%20WISELY.pdf>, (accessed April 24, 2007).

<sup>lvi</sup> David Thompson, *Fiscal Surplus, Democratic Deficit: Budgeting and government finance in Alberta*, (Edmonton: Parkland Institute, May 2006).

reduced to 15% in 1983, and then to 0% in 1989.<sup>lvii</sup> Between 1992 and 2006 the value of the Fund was actually eroded; inflation cut it almost in half. Only in 2006 was the fund even protected from erosion by inflation. The current value of the Heritage Fund is approximately \$12 billion US while Alaska's Permanent Fund is at \$38 billion US and Norway had almost \$300 billion US in its Fund in 2006.<sup>lviii</sup>

Though the Heritage Fund has been protected from erosion by inflation, there is no policy in place for growth of the fund. In fact, quite the opposite according to the Fund's legislation, all of its investment income is transferred to the General Revenue Fund (GRF) except for an amount retained in the Fund to protect its value from inflation.<sup>lix</sup> Not only are no resource revenues being placed in the fund, but interest earned on the fund (less inflation-proofing) is being taken out for general revenues. Despite embarrassingly large surpluses, the policy requires that the government remove maximum revenues from the fund. The February 2007 update reveals that, over nine months, the Fund earned investment income of \$1.194 billion, of which \$1.042 billion was transferred to general revenues, leaving only the minimal \$152 million in the Fund for inflation proofing.<sup>lx</sup>

Though the country has a comparable rate of oil production to Alberta's, Norway will soon have enough in their investment fund that the interest alone will cover their entire annual operating budget. In order to generate investment income equal to one year of currently budgeted expenditures, Alberta would need an investment fund of at least \$500 billion, over 40 times the existing Heritage Fund.<sup>lxi</sup> If Alberta had the same level as Norway, \$200 billion invested in a petroleum fund today, the government could safely put 5% of that into general revenue each year, and still protect the fund from inflation. That would work out to a revenue stream of \$10 billion per year - enough to replace the revenue generated from non-renewable resources today. With that level of revenue being generated, we would also have the funds necessary to invest in research on alternative energy sources, and in funding training and transition programs to ensure our workforce remained up-to-date and employable as we begin to move away from non-renewables for energy.<sup>lxii</sup>

**lvii** Gibbons, "Investing Wisely."

**lviii** Ivar Ekman, "Trouble brewing in oil-rich Norway," International Herald Tribune, November 18, 2005, <http://www.iht.com/articles/2005/11/18/business/vbnoil.php>, (accessed April 25, 2007).

**lix** Alberta Finance, "2006-07 Quarterly Report"

**lx** Ibid.

**lxi** This is calculated based on a rate of 5% interest returned to government which would still protect the fund from inflation.

**lxii** Much of this section is drawn from Ricardo Acuña, "Imagining Our Future: Seizing the Opportunities," Speech at the Alberta Federation of Labour 2006 Membership Forum - May 12, 2006, <http://www.ualberta.ca/PARKLAND/research/perspectives/AcuñaAFLSpeech06.htm>, (accessed April 30, 2007).

### Vulnerability and oil price dependency

The lack of investment framework and use of resource revenues to offset tax cuts has created an increased dependence on fossil fuel revenues for the province's budget. This has increased the province's vulnerability. It has also exacerbated inflationary pro-cyclical spending by government, exacerbating the boom. Government spending on

services has grown dramatically; public administration led the province in employment gains with 13,255 new jobs.<sup>lxiii</sup> This is in itself a good thing as those services were sorely under-funded and understaffed. However, with that spending being fuelled by unreliable resource revenues, these sectors are highly vulnerable. As mentioned earlier, the government is projecting a steep drop-off in resource revenues, and yet program spending increases are wholly reliant on those revenues.

The tax base (personal and corporate), and income from financial investments are the most stable sources of revenue for any government. The Alberta government cut those taxes at a time when the economy could most afford them. In 2001 the provincial government eliminated its progressive system for personal taxes and replaced it with a flat rate of 10.5%. Likewise, the corporate tax rate in Alberta was reduced from 15.5% in 2001 to 10% in 2007. The government's stated objective is to further reduce that rate to 8%.

Beyond budgetary volatility, however, there is a larger issue with the way Alberta's natural resource revenues are being valued. In a business context, Alberta's underground energy resources would show up on the balance sheet as a "Capital Asset". In accounting, when a "capital asset" is sold or converted; it is converted into a liquid asset or another form of asset on the balance sheet. There are three basic rules of good financial management that the government has ignored. First, the general rule is that the true value of that asset should be calculated. Second, at least that amount should be generated from the sale of the asset. Third, the revenues from that sale should be invested and converted into another form of capital to offset the sale.

The Alberta government has completely failed to meet these tenets of basic accounting. First, the government is failing to meet the first rule by failing to calculate and account for the full value of those resources. Fossil fuel resources, for example, are not accounted for as an asset in government budgets. Second, with such low royalty rates, the government is failing to maximize the value in the sale price. Third, instead of converting them into financial capital which will generate income for generations to come, the government has been spending the proceeds - converting assets into income - almost as fast as possible.

#### **Lack of democracy and accountability**

Another aspect to this revenue and spending picture is the lack of spending framework or democratic accountability in budgeting

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<sup>lxiii</sup> Alberta Employment, Immigration and Industry, "Annual Alberta Labour Market Review 2006," (Alberta Employment, Immigration and Industry, 2006): 7, [http://employment.alberta.ca/documents/LMI/LMI-LFS\\_2006\\_lmreview.pdf](http://employment.alberta.ca/documents/LMI/LMI-LFS_2006_lmreview.pdf), (accessed, April 30, 2007).



processes. Unbudgeted surpluses and spending make a mockery of democracy and the budgeting process. In each of the past five years, the government has over-spent its budget by an average of \$1 billion and underestimated revenues by an average of around \$4 billion.<sup>lxiv</sup> In place of a plan, the government has been making ad hoc decisions on spending on cash-starved public services, infrastructure and programs with relatively little long term positive impact.<sup>lxv</sup> For example, instead of re-regulating gas and electricity to ensure long-term affordability for Albertans, the government has given rebates.

In the 2007 budget the government announced that there would not be spending decisions made outside of the budget period. To address unbudgeted surpluses, the government announced a surplus management plan that included putting 1/3 of any unbudgeted surplus into the Heritage Fund and the balance into the capital fund. Unfortunately, the government's savings plan only applies to 1/3 of any *unbudgeted* surplus. This is hardly a savings plan at all given that it does not actually apply to any of the budgeted revenues. With the balance going into the capital fund, the problems of spending decisions have not been eliminated either.

### Summary

This section outlines how badly Alberta's resource revenues have been mismanaged. With very little saved, those revenues have been used to increase inequalities nationally, and to cut taxes. Spending increases for much needed programs and capital maintenance are reliant on those resource revenues. This increased dependence on resource revenues makes the province much more vulnerable to price fluctuations of a resource in which prices are known to be volatile.

Other nations have shown much more restraint and foresight in managing their resource revenues and have significant savings for use in mitigating boom and bust cycles and maintaining government operations beyond the life of fossil fuels. Norway, for example has almost \$300 billion in their fund.

<sup>lxiv</sup> The damage this does to democracy and accountability in this province is detailed in Parkland Institute, "Fiscal Surplus, Democratic Deficit: Budgeting and Government Finance in Alberta," (Edmonton: The Parkland Institute, 2006). Also available at <http://www.ualberta.ca/~parkland/research/studies/FiscalDemocracy.pdf>, (accessed April 25, 2007).

<sup>lxv</sup> Acuña, "Imagining Our Future."

The lack of spending or savings framework has also created large unbudgeted surpluses and eroded democracy and accountability in budgeting and spending decisions. The 2007 budget announcements make no real substantive changes on either front - savings or budget democracy. A savings and investment framework is desperately needed to bring back an investing mentality as well as some form of budget accountability.

This section outlines a series of policy options available to the Alberta

## Section 5. Options and Choices

government to put the province on an alternate path. These options were generated through discussions in a variety of Parkland policy forums. Recommendations are made that combine to shape an alternative development strategy for Alberta. This strategy document is meant to provide a starting point for a broad public debate on managing the province. Due to the limited scope of this project, the strategy is not comprehensive. The strategy is meant as a policy framework. Details will need to be flushed out in order to implement the individual recommendations. The strategy is intended to illustrate that a different path is possible, that the government has choices at their disposal and should be taking action to better steward Alberta's natural resources.

As mentioned in an earlier section, investment is a means not an end. Thus, in order to propose an alternate development strategy, the goals which that investment is intended to serve need to be clearly determined at the outset. What follows is a summary of the key goals that were identified through Parkland's forums.

### **Reduce vulnerability to booms and busts**

To create a prosperous economy that provides opportunities for all Albertans without boom and bust cycles. Also, to create a more diverse economy that is less reliant on raw resource exports and fossil fuels and thus, less vulnerable.

### **Environmental sustainability**

Economic development that meets the Brundtland report definition of meeting the needs of the current population without compromising the ability of future generations to meet their needs. This includes specifically ensuring that:

- the value of energy produced in Alberta transitions from one based on fossil fuels to one based on renewable energies with a strategy for a just transition for workers, and priority on ensuring Canadian security of energy supplies;
- climate change emissions are reduced - at least within Kyoto targets and ideally moving beyond Kyoto;
- there are no net environmental losses - water, air and landscape quality and quantity stay the same as they are now, or better;

- costs of energy extraction are internalized;
- conservation is prioritized and energy demand reduced; and
- sustainable agriculture is increased with an emphasis on local food production for local markets.

### **Social sustainability**

Economic development that puts Albertans and our communities at the centre while not compromising the quality of life of future generations. This includes the following elements:

- permanently low unemployment;
- recognize and respect First Nations rights in natural resource management and revenue sharing;
- fair royalties and fair returns from natural resource exploitation;
- natural resources are used to maximize revenues, jobs and diversification;
- communities that are socially sustainable including a better work-life balance and equity in access to housing and social infrastructure;
- permanently eliminate homelessness - no family or individual has to pay more than 30% of their income on housing;
- culture and the arts are valued and funded adequately;
- abolish poverty (incomes below the low income cut-off threshold);
- the minimum wage is a living wage;
- quality daycare is adequately funded and readily available;
- health care is delivered in a sustainable, publicly funded, publicly delivered model;
- all seniors have access to a reliable and adequate pension;
- regional, national and international inequities created by Alberta's wealth are recognized and addressed; and
- a seamless system exists for adult education that makes life-long learning a reality.

These goals will be used as the framework to guide both the discussion of options and the recommendations made in each areas.

### **The trade Implications - NAFTA**

Achieving the goals listed above will required bold policy action by the provincial government. Some of the policies recommended in the next sections may open the door to complaints under NAFTA. However, this report specifically avoids that analysis for two reasons.

Firstly, because NAFTA does allow for measures such as expropriations, it just requires fair compensation. Secondly, if NAFTA really does create significant increased liability for these policy measures, then it is possible to provide six months notice to re-open the agreement and exit or modify it. It is critical that NAFTA not put a policy chill on creating a solid development strategy for the province that is in the public interest. Where there are potential trade barriers, there is a need for a more open public dialogue about those barriers.

## **1. Slowing the Pace of Investment**

Turning to present investment levels, it is obvious that Alberta's economy is overheated. Investment levels are too high; meaning the current return on investment is too high. The impacts of this are being felt across the economy. Industries and investment in manufacturing and other sectors are being lost and long term quality jobs being sacrificed for short term construction phase jobs. The rate of return needs to be lowered to slow that investment and allow the province to return to a level of growth that is manageable and meets societal needs. Further research is needed to determine what level of investment is required to meet Alberta's long term goals and what rate of return would attract that level of investment.

There have been calls made for development to be paced or sequenced to take some of the heat out of the economy. This includes Peter Lougheed who has made this call in a number of different forums. Pacing development raises difficult questions of equity for treatment of the corporations involved and priority as to which projects are allowed to proceed first. Pacing also has to address the challenge of balancing public and private sector investment. Pacing is also highly controversial within the business community. Though there is a general consensus across different sectors that the economy is overheated, there is a strong difference of opinion as to how that should be addressed.

Many corporate executives claim that the market will correct itself and there is no need for government intervention. Others would argue that market corrections are brutal, and often involve a crash. In fact many would argue that the government should have intervened already to mitigate the boom - that the costs have already been too high in terms of homelessness, loss of industry and investment in other sectors, inflated costs for public infrastructure etcetera.

To resolve this issue, it is instructive to look at the adjustments already being made by the market. Some investors have already begun staging their projects. As mentioned earlier, Petro-Canada and Imperial have begun staging their developments. While such initiatives may be good, other market reactions are not. For example CNRL placed their upgrader project on hold while Shell scaled back plans for expansion. The other market adjustment mechanism is a shift of investment in value added and other manufacturing sectors to other countries where construction is cheaper. In an integrated global economy, this market restructuring is not in the long term interests of Albertans. The market maximizes short term profits while sacrificing long term quality jobs for Albertans and Canadians. Rather than looking to temporary foreign workers to meet the needs of a short intense boom, the government could manage that investment so that the construction phase is drawn out. This would mean that construction costs would be much lower for both the private and public sector. Public dollars would go farther in building infrastructure. It would also mean that those construction phase jobs would be around for a lot longer.

It is critical to recognize that the market is already quite distorted. The government already intervenes heavily in the market with large subsidies to the fossil fuels extraction sector. Also, foregone rents given to industry through low royalty rates as well as low tax rates are another form of market intervention. The government grants funds for pipelines and subsidizes vast public infrastructure for the industry. The amount of public spending being demanded for the Fort McMurray area is only a piece of that picture. Additionally, the public heavily subsidizes the fossil fuels sector by assuming the environmental costs and liabilities. For example, the huge unfunded liability of the polluted water in the tailing ponds leaves the public with the risk of leakage and the clean up costs.

The government sets the framework in which the market operates and thus, effectively the concept of a free market is a myth. The question is not one of market regulation but in whose interest the government acts and what goals guide that intervention. The following sections thus outline ways that the market could be restructured to govern corporate behavior in such a way that it serves the social goals outlined above.

## a. Private Sector Investment

### Feasibility of changing the rules

Many claim that the rules cannot be changed mid game. However, the income trusts regulations are a good example of the ability of the government to change the rules. Businesses face environment changes all the time - they pride themselves on their adaptability. The prices of oil and labour change all the time, as do taxes and capital cost allowances. Former Premier Lougheed revealed that with the political will, royalties can be increased and regulations put into place to protect Canadian manufacturing and value added industries. Former Premier Lougheed was quoted in the Calgary Herald as follows: "The new premier has to look at how they're going to have a more orderly development in the oilsands. That development should have one oilsands project completed before another one starts up." <sup>lxvi</sup>

The question is not one of whether it can be done but how it should be done. As many projects are already in the development stage and have significant sunk costs, it is critical that a strategy be used that treats the corporations equitably in deciding which investments would proceed and which would not. Also, that those with sunk costs that will be negatively impacted receive compensation appropriate to their circumstances.

### Policies for a Slow Down

It is important to distinguish between a moratorium and pacing or sequencing of development at the outset. Many groups have been calling for a moratorium on further tar sands developments (this includes the Sierra Club, the Pembina Institute and the Parkland Institute). This would allow some time for the province to appropriately debate and plan for better managed development. However as seen in earlier analysis, far too many projects have already received approval. Thus a moratorium on further approvals would not be adequate to address the economic pressures the province is experiencing in the short term. The same would apply to lease sales as a potential pacing mechanism. Too many have already been sold. In addition to such a moratorium, mechanisms will be needed to pace the approved developments; it will be necessary to limit the number of approved projects that will be allowed to proceed immediately and delay some that have already received approval.

There are three main methods by which a slow down could be engineered. These include direct sequencing of development through selection, sequencing through open bidding on a limited set of

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**lxvi** Jason Fekete, "Klein's lack of planning leaves Alberta's oil development in 'a mess', says former Alberta Premier Lougheed," Calgary Herald, September 8, 2006, <http://www.uofaweb.ualberta.ca/govrel/news.cfm?story=50142>, (accessed April 30, 2007).

construction permits, or sequencing through getting the prices right. Each is explained in detail below.

- i. **Regulation based on selection:** This option involves having the government directly select the projects that will be given priority and allowed to proceed. This option is the most direct but creates significant difficulties regarding equity treatment in the prioritizing of different projects. Difficult and controversial decisions would have to be made.
- ii. **Open bidding on limited construction permits:** Another way to sequence development projects is through bidding on construction permits. The government could set a limit on construction and production levels within labour market constraints. The size of the current labour force would be used to limit the amount of construction that would be allowed to proceed. This would determine the number and size of the construction permits that would be available in a given year. Part of that construction capacity would be reserved for the public sector; the balance would be available to the private sector. These permits would then be opened up for bidding in a manner similar to the current lease bidding framework. The bidding could be judged on the basis of a variety of criteria including royalty payments, environmental treatment and value added. This would require floors be set for royalties, value added, and environmental protection (including water use and contamination, landscape impact, and climate change emissions). This option addresses both the equity and unpredictability of the other two options. It treats corporations equally in terms of access through open bid rather than government choice.
- iii. **Getting the prices right.** This option includes increasing the costs associated with development to such an extent that some of the developers decide not to proceed. This could be achieved through internalizing environmental costs that are currently borne by the public, by increasing rent capture through royalties or through other means outlined below. Though perhaps less controversial, this option is less reliable as an instrument for pacing. It would be difficult to predict the level of investment slow down that would result from the different cost scenarios.
  - a. Environmental costs that could be incorporated into the costs of development include the following:

- *Climate change* - Premier Stelmach's government has introduced intensity reduction targets with a fee for missing those targets. Instead of a solid cap on emissions, an intensity target allows emissions to increase overall if they are reduced on a per unit basis. Intensity reduction targets will not be enough to address the climate change impacts of industry in Alberta. International scientists are calling for reductions of 80 percent from current levels. This is something Alberta can actually afford to do. University of Alberta economist Paul Boothe has done an analysis of the potential costs of meeting Alberta's Kyoto targets. Using figures on the economic costs of reducing greenhouse gas (GHG) emissions, he calculates that Alberta's share of reducing GHG emissions is \$3.1 billion Canadian per year. He also calculates the affordability of this arguing that with a gross domestic product (GDP) of \$245 billion in 2006 and projected growth of \$25 billion, the \$3.1 billion represents about 4.5 days of GDP or one-eighth of the projected growth.<sup>lxvii</sup> In the Stern report, international economists estimate the costs of not acting on GHG emissions would be in the range of 20% of GDP.\*

It is also critical to ensure that climate change reductions are not achieved through false trade offs such as carbon sequestration and nuclear energy. Where carbon sequestration is used it needs to be seen as a temporary bridging technology, not a long term solution. Also, that technology should be paid for by the industry as they benefit from it in terms of increasing extraction levels from old wells.

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**lxvii** Paul Boothe, "Cutting emissions won't bankrupt us," Edmonton Journal, February 21, 2007, <http://www.canada.com/edmontonjournal/news/ideas/story.html?id=8bbec0f1-9814-4d50-8e40-bef5a3338059>, (accessed April 24, 2007).

\* Sir Nicholas Stern, "The Stern Review on the economics of climate change," (HM Treasury, 2007), [http://www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/stern\\_review\\_report.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm), (accessed April 30, 2007).

- *Air and water pollution* - Placing higher fines and penalties on air and water pollution and properly enforcing such regulations would increase costs of production.
- *Land and water reclamation* - Currently there are a number of landscape and water impacts that are not borne by the industry. The reclamation of the tailings ponds is the most notable. There are a number of ways this could be transferred back to industry. First, approvals for projects could be conditional on cleaning



up the tailings ponds. Second, bonds could be required up front from industry to cover the cleanup liability. This type of contract is standard in other sectors such as mining where companies have to post bonds to cover potential cleanup costs. A good example is the Ontario Environmental Protection Act.

- b. Eliminate Subsidies and credits - All subsidies and credits to fossil fuel extraction could be eliminated or transferred over to another sector such as renewable energies. This may also inadvertently affect the pace of fossil fuel development by creating a more favorable investment climate for renewable energies.
- c. Ensuring that industry pays for public infrastructure directly mandated by its development - This option could include direct payment by the industry of roads that are driven by that development or other forms of direct necessary infrastructure. It could also include ensuring that industry pays their share for indirect infrastructure that supports their work. Currently taxpayers subsidize fossil fuel extraction through the provision of the necessary public infrastructure for development. Ensuring that the industry pays for that infrastructure through appropriate taxation would offset that public cost and increase the costs of development.

Aside from the three mechanisms listed above for managing the pace of development, other policy changes discussed in the next sections may inadvertently affect the pace as well. For example, limitations on export capacity (pipeline infrastructure), limitations on water access, and limits on access to natural gas as an energy source would all impact on the tar sands developments, making them more costly. Changing the approval process (The Energy and Utilities Board (EUB)) to make it more democratic and representative could also limit the pace of development by reducing the number of projects that receive approval.

## **b. Public Sector Spending**

Much of the demand for public sector investment, especially the additions to the stock of public capital/infrastructure stems from large private sector growth as well as the population pressure being brought on by that growth. A second component of public investment is maintaining the existing capital stock and spending regularly to ensure that we don't get behind as during the past 20 years and create what has come to be known as the "infrastructure deficit".

The 2007/2008 budget is the highest spending budget in the history of the province. The budget allocates \$18 billion to capital spending over three years. Additional funds are allocated at the municipal level. The budget has come under some criticism from economists for exacerbating problems of inflation and further overheating the economy. However, Appendix one shows that the bulk of the capital is in the area of private sector investment. Thus, limiting the public sector investment would have little impact. Additionally, much of that spending was necessitated by the infrastructure deficit. However, it is not necessary or desirable for the taxpayers to be paying premiums for that infrastructure. Rather than limiting the public sector development, it is more appropriate to control the private investment which will automatically make room for the necessary level of public investment.

### **Counter-Cyclical Spending**

To avoid creating such a debilitating infrastructure deficit in the future the province must avoid pro-cyclical spending. Spending has been driven by cyclical up and downturns rather than long term demographic and service quality needs. A framework is needed for both social and physical infrastructure that includes secure long term funding dictated by demographic and quality service levels.

Counter-cyclical spending is how governments with a long-term vision can help smooth out the highs and lows of the economic cycle. Though successful counter cyclic spending can be difficult, policies need to be in place to maintain a relatively stable rate of spending sufficient to repair, maintain and replace the existing stock of public capital at a minimum.

Balanced budgets act as a barrier to counter-cyclical spending. By disallowing deficit spending in bad economic times, it essentially necessitates pro-cyclical spending. One option is to simply eliminate the "zero deficit" law. Another option is to establish a long term

capital plan and accumulate a capital reserve for maintaining capital in times where economy is weak and the budget is limited. This could be done in spite of the zero deficit legislation. The province has a capital account within the operating budget already. It is a matter of structuring that account in such a way that it is set up to be used for counter-cyclical spending in the future.

### **A Spending Framework**

The development of a solid savings and investment plan for resource revenues would reduce spending pressures. The allocation of revenues into the capital reserve, the Heritage Fund and other dedicated endowments would limit the amount of resource revenues available for the operating budget. The inclusion in this framework of strategies to address inter-provincial inequities created by Alberta's resource wealth would also end the scenario where the government has been spending to rid itself of embarrassing riches. Also, the inclusion of smart growth regulations for all public infrastructure spending would help to ensure that taxpayer dollars are being spent wisely and with long term environmental impacts in mind. Limiting urban sprawl through smart growth includes limiting the expansion on the periphery of urban areas when the cores have capacity to have more density. Edmonton, for example, has one of the lowest density levels of municipalities in Canada.

Additionally, more transparent and reliable budgeting processes would eliminate the high unbudgeted surpluses and improve the process, accountability and transparency of public sector spending at the provincial level.

### **Recommendations:**

In this strategy, it was decided to use a combination of two of the options described for pacing -competitive bidding and getting the price right. This combination was thought to best meet the social goals outlined earlier while maximizing the equitable treatment of the corporations involved.

*1.1 Pace development by competitive bid. Using the current labour market as a constraint, the government would open a limited number of construction contracts to bidding by the private sector as described above. Floors for environmental treatment and royalties are set within other portions of this strategy.*

*1.2 Phase out the temporary foreign worker program. Temporary foreign workers should not be considered in the current labour force as*

*measured for the purposes of determining the size and quantity of permits to be given. With investment paced, demand for labour should slow. However, where foreign workers are needed, they should be considered immigrants and given full rights under the regular immigration laws.*

*1.3 Eliminate all subsidies and credits for fossil fuel extraction industries.*

*1.4 Incorporate externalized costs. Costs in terms of air and water pollution and landscape impacts need to be borne by the corporations. This would include more stringent costs for pollution of air and water (including the tailings ponds) as well as a carbon tax. This would also include regulatory and enforcement mechanisms to ensure the new cost structures are applied.*

*1.5 Regulation of environmental impacts. Other aspects of this policy that may impact on pacing include:*

- Surface and sub-water access by industry should be strictly limited and monitored.*
- Natural gas should be phased out as a fuel source for the tar sands. It should be prioritized for higher value added products including those necessary for building the renewable energy sector.*
- A moratorium should be placed on further bitumen export pipelines.*
- Co2 emission caps should be implemented. These should be emission reduction targets, not intensity reduction targets.*

*1.6 Respect Native Rights. Development should not be allowed to proceed where there are unresolved land claim issues or where native access issues are unresolved. To the extent possible, these issues should be addressed through negotiated land claims rather than one-off economic agreements with the corporations.*

*1.7 Counter-Cyclical spending. The government should eliminate the zero deficit legislation and practice counter-cyclical spending for public infrastructure projects. The government should also slow down private sector development enough to allow for space for public sector investment to cover the infrastructure deficit without exacerbating the boom or forcing taxpayers to pay a premium for that infrastructure.*

*1.8 Guidelines for counter cyclical spending. Once the infrastructure deficit has been addressed, measures should be put in place to ensure counter-cyclical spending. For example, when growth forecasts fall below 2% per annum, public infrastructure spending increases should be raised by a minimum of 10%, and when growth projections are above 4%, public infrastructure spending should decrease by at least 10%. The capital account should be restructured such that it is used for counter-cyclical spending purposes.*

*1.9 Smart Growth - All public sector infrastructure spending decisions should be required to meet sustainability and smart growth tests. For example, new public infrastructure should not be approved or subsidized on the extremities of urban areas when there is excess or adequate capacity in the centers.*

## **2. Options for Maximizing the Return from Fossil Fuels**

Albertans and First Nations are the owners of the province's natural resources and it is the job of the government as steward to ensure the maximum return to the owners from those resources. There are a number of different mechanisms that can be used to ensure a return to the owners. These include: royalties, production sharing agreements, taxes, equity purchases, joint ventures and public ownership. Royalties come in different forms - notably, on gross output (as with oil and gas in Alberta) and on net returns (as with the tar sands). Both have advantages and disadvantages. Taxation affords an often weak backup.

There are two main roles for the state: first, as the representative of the resource owners, the state leases its mineral rights, and collects payments such as royalties from the lessee. Also, as a sovereign, the state collects taxes from oil and gas production, property, and income. As mentioned earlier, studies have shown that Alberta's royalty and tax structures are out of line with international levels. Some options for increasing the rent recovery in Alberta are listed below.

### **Alternative tar sands Royalty Structures**

- Institute a progressive royalty rate. Not unlike progressive taxes, this rate could capture higher price values at higher price levels.
- Have a policy that specifies that 100% of rent will be captured. This would necessitate quantifying a 'fair return' to investors. This could be done by looking at the mean average return on investment in

other sectors and in oil and gas internationally and using those as benchmarks.

- Implement a windfall profits royalty. Many other countries have implemented a structure like this with a higher royalty after a certain price threshold to capture windfall profits. For example, Russia has a windfall profit rate of 90% when the price is over \$25US per barrel.
- Another option includes allowing industry to keep \$1.00 per barrel after a certain price threshold and the balance is recovered by government. However, this option removes some of the incentives for corporations to keep costs down.
- Finally, the most reliable rent recovery mechanism is public ownership, under which the government captures 100% of the available rent.

### **Tax Avoidance and Transparency**

Full information for the resource owner is a problem under most systems. Private and especially foreign ownership of the energy sector complicates the issue of royalties with much less transparency, concerns over transfer pricing and cost inflation.<sup>lxviii</sup> Tax avoidance is also a problem. Where the royalties are based on net profits such as the tar sands royalty, or where expenses can be written off, then issues related to transfer pricing and inflated costs become a concern. There is a need to better regulate costs and prevent inflation for the purposes of calculating rents.

One of Petro-Canada's key benefits and its *raison d'être* was to create a window into the industry - specifically to address issues of cost inflation and other corporate practices that impacted negatively on government revenues. With a Crown Corporation of this type, the government had access to information on costs and corporate expenses which allowed for a better ability to spot cost inflation. It also gave the government access to current industry information and technologies.

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**lxviii** Transfer pricing is defined as the setting of prices in transactions that are not at 'arm's length'-for example, when one company sells goods to another company, but both companies have common ownership. These costs can be inflated for the purpose of inflating costs within a jurisdiction, reducing the appearance of profits and thus reducing taxes and other fees payable.

PetroCanada has recently been privatized and without this window into the industry, strong regulation and enforcement of royalties and taxes is necessary. These elements are absent in Alberta's energy sector which is governed mainly voluntarily or by 'self-regulation'. Lack of regulation and enforcement of royalties and taxes are serious concerns in this sector. Alberta's auditor Fred Dunn said that it is uncertain how many millions Alberta is owed due to inadequate auditing of royalties derived from oil and gas production. In the press conference, the auditor said, "Alberta will not be getting its royalties

which the regime says it should be collecting — that's the bottom line," He estimated losses to taxpayers in the range of \$180 million to \$200 million due to a continued inability to know the "completeness and accuracy" of well production data for oil and natural gas.<sup>lxix</sup> With high levels of foreign ownership and no public ownership, it is critical that the number of auditors of oil and gas operations be increased. This would ensure that the estimated production, tax and royalty levels are accurate. Transparency is generally a problem with private capital, but there are examples where the private sector has been required to open its books. For example, in Venezuela Hugo Chavez sent in the accountants to look at the books. Russia also did this and served the industry with unpaid tax bills.

### **Corporate Ownership Structure**

In the context of transfer pricing and cost inflation mentioned earlier, one of the most effective mechanisms for full rent recovery and better transparency is to change the ownership structures. Options for changing this structure include both full public ownership and equity purchases by the public sector.

One concern with this option is that it increases the public reliance on resource revenues and the fossil fuel sector. To reduce this risk, the government could easily diversify other financial assets to lessen dependence on the resource sector.

Instead of subsidies, money given to the industry could be made conditional on equity purchases. This differs from outright public ownership because it still utilizes a conventional corporate model with a profit mandate. However, replacing subsidies and grants with an equity purchase ensures a return to taxpayers on that investment. Norway uses this model and now receives a significant portion of the return from oil and gas in the form of shareholder dividends. An industry with such high returns on investment does not need taxpayer subsidies to operate or attract investment. It is entirely appropriate to require an equity share in return for such an investment.

Taken together the above options represent a variety of instruments for capturing more of the resource rents owing to Albertans. The government has not lacked for options to date, but lack political will to act on behalf of the owners. At the minimum a windfall profits tax would capture some of the extraordinary profits being generated by record high oil prices.

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**lxix** Jason Fekete, "Missing royalties costing millions: Alberta auditor also cites lax food safety," Calgary Herald, October 3, 2006, <http://www.uofaweb.ualberta.ca/govre/news.cfm?story=51169>, (accessed April 30, 2007).

## Recommendations

- 2.1 Competitive bidding and windfall profits tax. The competitive bid process that has been recommended to address pacing would also maximize royalties. The bid process would set a floor for royalties above which companies would bid to get access to the construction permit (see description in pacing above). To this end a minimum floor would need to be set for royalties. It is recommended that the capital write off or 'generic royalty regime' that applies to the tar sands be eliminated and regular depreciation rules be applied to all capital investments in fossil fuels extraction. The floor for tar sands royalties would be increased as follows: the rate would be left at 25 % of net revenues up to a level where a 10 % return on investment is reached. Above that level, an extraordinary profits royalty would come into effect, capturing 90 % of net profits.*
- 2.2 Equity purchase requirement. Any contribution made by government to industry will be in the form of an equity purchase and would be on the terms of any private investor.*
- 2.3 Eliminate voluntary regulation. Because the minimum royalties structure is based on net profits, problems of transfer pricing and inflated costs will need to be addressed through regulation and transparency. Voluntary regulation of royalties will need to be replaced by a strong regulatory and enforcement branch with skilled auditors. Corporations that have successful bids for development would have to agree to open their books for audit of appropriate royalty payments. This would also require that structures be put in place to define allowable costs and appropriate costs structures.*

## 3. Maximizing Upstream/Downstream Jobs - Value-added

The province has established the Value-Added and Technology Commercialization Task Force with a mandate of accelerating Alberta's value-added production and increasing the commercialization of new ideas and discoveries in the province. However, though this is a good step in acknowledging the need for action on value added, creating a taskforce is not enough. There are clear policy actions that can and should be put into place immediately to prevent the further loss of value added investment south of the border.

The following set of policies set out a long term strategy for the province incorporating both legislative and financial instruments to



promote upgrading of Alberta's resources instead of exporting them at the first exportable level. This applies to both ethane and natural gas liquids and bitumen and bitumen by-products. The goal of the policy is also to push Alberta and Canada's processing higher up the value chain. For example, not only upgrading the bitumen but increasing the refining capacity as well. Gasoline shortages over the past year have illustrated how strategic refining capacity is and the shortage of capacity that exists in Canada.

It is important to recognize at this point that the concentration and magnitude of upgrading projects being proposed for specific regions of Alberta raise concerns about local infrastructure and environmental impacts as well as water demand. However, rather than sacrifice those jobs to other regions also with dubious environmental protections, it is critical that a comprehensive set of policies be put into place that addresses these concerns. These policies will need to improve the environmental regulations that protect the local environment and ensure that the appropriate mechanisms are in place to enforce those regulations.

The following is a list of policy instruments that could be used to maximize the level of value added processing that occurs in the province and country.

### **Prioritizing feedstocks**

Former Premier Lougheed set up the crown corporation, the Alberta Petroleum Marketing Commission, in part, to ensure that new petrochemical industries locating in Alberta could be given priority in the provision of feedstocks. A similar structure should be created to ensure that Alberta's value added sector gets priority access to Alberta's fossil fuel resources. Natural gas will be an important feedstock for materials necessary for the transition to renewable energies and a green economy. Burning that fuel for the tar sands does not make sense. A far more efficient use would be to prioritize valuable declining natural gas reserves in Canada for value added processing only.

### **Price guarantees**

A price guarantee for feedstock for value added both in natural gas and oil would make the price for Alberta value added producers competitive despite higher transportation charges and U.S. taxes on imports. This policy would require exiting or modifying NAFTA which prohibits two price policies.<sup>lxx</sup>

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<sup>lxx</sup> Canada had an internal price for natural gas that differed from the export price prior to NAFTA.

### **Moratorium on raw exports**

Set clear increasing targets for upgrading and refining and a declining cap on exports as the capacity comes on line. This would include a moratorium on any new pipelines for raw exports. There are five pipelines coming up for approval for bitumen exports. Without the capacity to export, the industry would have to build the capacity in Canada.

This would need to include a moratorium on further natural gas exports to the United States. Already natural gas is a declining resource in Canada and reserves are falling. Under these circumstances exports should be stopped or seriously curtailed. One effective way of achieving this is to reinstate the vital supply safeguard whereby exports are not allowed unless the province has 25 years of 'proved' conventional reserve. Currently this policy has been watered down to say that exports are not allowed unless we have 15 years of anticipated reserve including non-conventional sources. This has created the scenario where Alberta has less than ten years left of conventional natural gas and is still exporting well over half of what is produced annually.

### **Restructure royalties to favor processing in-province**

An example of this would be to increase provincial royalties on extracted ethane intended for export. At the same time reducing provincial royalties on ethane at wellhead and upgraders would encourage local extraction. The province could put in place a similar set of policies for bitumen extraction and export with royalties higher for bitumen exported than for that which would be upgraded and refined in province. It will be necessary to ensure that the royalties are progressive, declining as the product moves further up the value chain in order to provide an incentive for maximum value added.

### **Government infrastructure investment**

A very direct means of ensuring that value added is prioritized in Alberta is to create a provincial public corporation that will conduct value added processing. This has been very effective in Quebec. Where private investors are allowed access to the value added sector, the requirement can be made that they form joint partnerships such as the SGF/Petromont in Quebec. This would also ensure that the public has access to and control over a portion of the strategic refining sector. Where the government invests in value added outside of the public corporation, this should be in the form of an equity purchase not a subsidy.

### **Promote upgrading of tar sands**

By-products and off-gases should be upgraded instead of burned for fuel. Invest in research and development for upgrading of tar sands and feedstock for the petrochemicals sector. This has been initiated with the Hydrogen Upgrading Taskforce. However, allowing permits for further bitumen pipelines and exports to the U.S. jeopardizes those efforts.

### **Recommendations**

*Put policies into place to maximize value added jobs generated by fossil fuels.*

- 3.1 A moratorium should be placed on all additional pipeline export capacity for bitumen. New pipeline capacity should be considered only to create an oil pipeline to the East that is not routed through the United States and to increase the capacity to export high quality, value added product such as gasoline.*
- 3.2 By making value added a criteria for bid selection, the bidding process will be used to create an incentive to upgrade and refine in Canada.*
- 3.3 Pacing development to reduce the heat in the economy will reduce the extent to which construction costs act as a disincentive to building upgrading and refining in Canada.*
- 3.4 Invest in transportation infrastructure including rail lines for transporting value added products to markets.*
- 3.5 Prioritize natural gas for value added processing. This should include reforming the vital supply safeguard to include the provision that no exports be allowed unless there is at least 25 years of proven supply of conventional gas.*
- 3.6 Royalties should be restructured to favor value added in natural gas and bitumen processing. This includes a progressive rate that treats higher value products more lightly and charges more the lower the level of processing or upgrading.*
- 3.7 The environmental standards should be drastically improved for upgrading and refining industries. Adequate regulatory and enforcement mechanisms should also be put into place to ensure those standards are met.*

#### 4. Maximizing the Long Term Benefits from Fossil Fuels and Planning for the Future

*“The gratification of wealth is not found in mere possession or in lavish expenditure, but in its wise application.”*

Miguel de Cervantes, author of *Don Quixote de la Mancha*

Both Norway and Alaska regard their funds as hedges against boom and bust cycles and as a source of stable and long-term revenue streams for future generations. Alaska and Norway are preparing for the day the oil runs out. The Norwegian model is also based on goals of protecting the economy from inflation and deindustrialization. It also ensures long-term financial security. Alberta lacks any framework at all for resource revenues and has no long term goals for the use or investment of those revenues.

It is critical for Alberta to implement clear goals for resource revenues and a framework for spending and investing them. Without such a framework, the economy will remain increasingly vulnerable due to the loss of natural capital. Critical questions to address include: what should the ratio between spending and savings be? What should the parameters for each be?

There has been significant debate recently about formulas for saving and investing Alberta’s resource revenues. In addition to the Norwegian model of 100%, opinions of the appropriate amount to be saved vary including: former Premier Lougheed recommends the level be 30%, the Canada West Foundation recommends 50% and the Financial Management Commission recommended limiting the use of non-renewable resource revenues to \$3.5 billion annually for current budget purposes.<sup>lxxi</sup>

##### **Goals for a Spending and Saving Framework:**

There are multiple goals for resource revenue funds. These include: an income replacement fund, perpetual security for social infrastructure and weaning the economy off of fossil fuels.

Specific goals for the revenues could include:

- ensuring sustainable funding for social infrastructure and services for the future;
- reducing vulnerability from reliance on volatile resource revenues for general operating funds;
- transitioning to a future beyond fossil fuels including building the alternative energy industry; and

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**lxxi** For more information on the arguments in favor of saving a portion of the resource revenues, see Roger Gibbins and Robert Roach, eds., *Seizing Today and Tomorrow: An Investment Strategy for Alberta’s Future*, (Canada: Canada West Foundation, 2006).

- ensuring intergenerational equity through converting natural capital to other forms of capital for future generations.

### **Policy options**

There are a range of options available for investing the revenues for future generations.

- **Leave it in the ground** - As Grant Notley said, the best HSTF is to keep oil and gas in the ground. Some economists would argue that as alternatives become more widely available, oil will eventually lose its value and that it may not maintain that value as reliably in the ground. Another element of this strategy is the incorporation of environmental costs whereby leaving it in the ground is not only an investment strategy but about using Alberta's natural resources as a transition to greener energies and transitioning the economy as quickly as possible. Mechanisms for this option include placing a cap on tar sands production or even a declining cap. Norway is an example of a country that utilized a cap on production to achieve social objectives and limit negative impacts of fossil fuel production.
- **Increase savings and reintroduce a progressive tax structure**- To be fiscally prudent, the government needs to finance its programs and services through a fair and progressive tax system. Resource revenues should not be relied on for core budget expenses. By taxing properly in the hot economy, it would be very feasible to save 90% of resource revenues. It would be possible to put into place a policy that allows a maximum to be taken in slow years such as the \$3.5 billion figure the Financial Management Commissions recommended, or 4% to 4.5% interest such as is the policy in Norway.

### **Options for savings ratios include:**

- Save 90% of resource revenues in a fiscal security fund leaving the balance for general revenues. This option minimizes the reliance on volatile resource revenues to some extent but still leaves a significant amount in general revenues. It would reduce vulnerability and maximize the funds used for the longer term.
- Save 50% and put 50% into general revenues. This option is the one recommended by the Canada West Foundation and is seen as feasible. However it would leave a substantial amount of resource revenue in general revenues, thus leaving the province somewhat vulnerable and reducing the amount of revenue available for building a future.
- Save 30% and put the balance into revenues. This is the ratio recommended by former Premier Lougheed. This would leave the

province quite vulnerable due to a heavy reliance on resource revenues and would not maximize the use of funds for the future. However, it is a step in the right direction, at least putting some funds aside for investing in the future.

- Identify the average of revenues coming in to the government from resources in low price years and target that as the maximum rate to be taken from those revenues. This eliminates the reliance on unsustainable revenues and limits the impacts of a price crash on the budgets. This was part of the objective of the Financial Management Commission in setting the rate of \$3.5 billion.<sup>lxxii</sup>

### **Options for a spending/investment framework**

Once the ratio of revenues to be pulled out of the operating budget is set, it is necessary to plan for the framework for the investment or use of those funds. Using the social goals outlined at the beginning of this section, the following possible parameters have been identified for those funds.

- Renewable Energies Fund - Placing the revenues from non-renewable resources into the renewable energy sector would move the province down the path to sustainability; using fossil fuels to build the green economy. For an idea of how this fund could be structured, see the framework recommended below.
- Social endowments - The revenues could be put towards endowment funds for health care, education and the arts. This would secure investment returns as funding sources for those areas somewhat protecting themselves from boom and bust cycles over the long term.
- Low interest loans for productive investment and research and development across Canada. As an example Premier Lougheed's government lent out monies at lower than market rates to provincial governments across Canada. Such a measure would help to offset the inequities created by Alberta's resource wealth and mitigate pressures against saving it.
- Investing in natural capital (land) - This option proposes to invest the revenues in buying and protecting prime agricultural land which is rapidly disappearing in the province. This would secure production of garden market fruits and vegetables for future generations. The fund could also be designated for restoring natural areas such as damaged water sheds and forested areas.

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<sup>lxxii</sup> Financial Management Commission, "Moving from Good to Great," (Financial Management Commission, 2002): 6, 44, 63, [http://www.albertafmc.com/2002\\_0708\\_fmc\\_final\\_report.pdf](http://www.albertafmc.com/2002_0708_fmc_final_report.pdf), (accessed April 25, 2007).

### **Investment Fund Management**

If a portion of the revenues are to be placed into long term investment funds, parameters for those funds will be necessary as well.

- Use the fund merely as a financial security fund and invest the

revenues externally. For example, Norway's resource fund is a passive fund all of which is invested outside of the country and which gets its earnings externally. The benefits of this model include the reduced risk of the fund becoming a corporate slush fund; the reduced risk of further overheating the provincial economy; and investing externally addresses some of the inequities created by such resource wealth.

- Invest a portion internally and the balance outside the province. This would enable some investment in building industries such as the renewable sector in Alberta while also investing outside the province. It would address equity issues while allowing the province to plan for a just transition for workers and communities to a future less reliant on fossil fuels.

### Renewable Energy

Europe has a 6% level of renewable energy in their energy mix and in 2003 had 14% in electricity generation alone.<sup>lxixiii</sup> Alberta has less than half that at present and no specific targets for increasing those levels. Alberta and Canada are still heavily subsidizing fossil fuel extraction instead of renewable energies.

When discussing renewable energies this report does not include biofuels. Those fuels are heavily carbon- intensive at the farming stage. They lend themselves to large-scale, industrial farming which is both pesticide and fossil fuel intensive. Biofuels industries are also driving up feed prices making other forms of farming less viable. There is a possibility that the use of agricultural waste to create ethanol may be worthwhile but with the caution that this be specifically waste created in the production of a viable, marketed crop, not solely for the purposes of fuel production. For the purposes of the options below, renewable energies are considered to be solar, geothermal, hydro (ideally micro-hydro) and wind.

### Recommendations

*The goal of the recommendations below is to ensure that 90% of resource revenues are kept out of general revenues and treated separately and that an investment and savings framework is established for those funds that prioritizes sustainable funding for the future and renewable energy.*

- 4.1 *A minimum of 90% of revenues from oil and gas will be removed from the general revenue stream. The revenues will be targeted as follows: 50% will be put into a newly created renewable energies fund; 40% will be invested through the AHST in securing the future for education, health care, social services, culture and the arts.*

<sup>lxixiii</sup> U.S. Commercial Service, "International Market Insight: E.U. Renewable Energy and Energy Efficiency Market," (U.S. Commercial Service, July 2005), [http://commercecan.ic.gc.ca/scdt/bizmap/interface2.nsf/vDownload/ISA\\_2718/\\$file/X\\_4969822.PDF](http://commercecan.ic.gc.ca/scdt/bizmap/interface2.nsf/vDownload/ISA_2718/$file/X_4969822.PDF), (accessed April 30, 2007).

4.2 *If taking such a large portion of resource revenues out of the budget creates a deficit, the provincial government should restore the progressive tax system for income - both individual and corporate. Taxes on corporate profits should be increased as well. These will be used to replace fossil fuel revenues, creating sustainable funding for regular operating expenses. Where additional revenues are required, these should be generated from taxes environmentally harmful activities, such as pollution.*

*Parameters for the Renewable Energy Fund:*

4.3 *Set national, provincial and municipal targets for renewable energy supply and generation. The European Union has set a renewables target of 12% of energy supply and 22% of electricity generation by 2010.*

4.4 *Transfer all subsidies. All subsidies and incentives should be transferred from fossil fuels to the renewables sector. It is necessary to level the energy playing field, to enable alternatives to get off the ground. This includes a subsidies framework to attract initial investment in renewables. Those incentives should be targeted towards smaller operations in a diversified sector rather than large scale mega projects owned by large corporate interests. This would allow the province to capitalize on Alberta's huge potential in terms of solar, geothermal and wind.*

4.5 *Create a Crown Corporation. Within the renewable energies fund the government should create a provincial crown corporation that would develop in the area of renewable energies. This could allow not only for a solid window into that sector but would guarantee investment in that emerging sector when the risk is high. Also, a portion should be set aside for research and development.<sup>lxxiv</sup>*

4.6 *Create a favorable investment climate for renewable technology. This would include providing increased tax incentives and equity funds to companies; actively promoting the use of renewable energy technologies through the education system, consumer awareness initiatives, and partnerships with government and private industry; and leading by example - purchasing green power and providing vocal and financial support for renewable energy technologies.<sup>lxxv</sup>*

4.7 *Create a worker and community transition fund that will be used for training and transition programs to ensure a just transition for workers and communities.*

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**lxxiv** Where the government funds research and development or it takes place at publicly subsidized post secondary education facilities, the patents would be publicly owned.

**lxxv** This section draws on recommendations made by Pete Sundberg, "Community Based Renewable Energy Development, (Falls Brook Centre: Canadian Environmental Network, April 2004). Also available at <http://fallsbrookcentre.ca/docs/technology/IntlCommunityRE.pdf>, (accessed April 25, 2007).



### **The Environment and Reducing Dependence on Fossil Fuels**

It is clear that in the longer term, the focus of investment and the Alberta economy needs to shift away from fossil fuels. Alberta needs to look more substantially to renewables to get ahead of the longer term changes. Such a change needs to be done within a framework that prioritizes a just transition for workers and communities to ensure both environmental and social sustainability for the province. Though a thorough analysis of the steps needed to move in that direction are beyond the scope of this report, a number of policy options are listed below that would put the province on the right path.

### **A Moratorium on New Development**

As seen in earlier sections of this report, the level of investment projected for the tar sands is spectacular. Placing a moratorium on any further approvals would allow the province to somewhat limit both the pace of expansion and the growth in production levels. This moratorium could be short term as a temporary solution to allow for planning for the appropriate pace of development of the tar sands. Or it could be permanent, such that when production decreases in existing oil operations, no new investment is allowed and production levels taper off.

### **A Cap on Production**

It may be that the province has already given approvals for more barrels per day in extraction than is prudent. Another policy instrument that could be used to more specifically limit production is a cap. Production could be limited to a specified maximum level. Norway has used such a cap to limit production and lengthen the duration of their oil deposits. In a model where fossil fuels are being used as a transition fuel to a renewable or green economy, this cap would be a declining cap, slowly reducing the production of fossil fuels as the economy transitions to other renewable energy sources and consumption is reduced.

### **Removing the Profit Motive**

Growing problems of global warming and the over-reliance on increasingly scarce supplies of oil are linked and need to be addressed together. As long as exorbitant profits are to be made in the fossil fuel sector, those companies will continue to promote an unsustainable lifestyle and wield undue influence on government policy. Treating fossil fuels like other addictive substances, especially tobacco can be illustrative. Research has shown that tobacco industries have used all of the tools at their disposal to continue to increase markets at a time when public awareness of the health hazards of their products ran

counter to their interests. Those tools included large lobbying budgets and litigation against policies that curtailed their ability to access markets (get new addicts).<sup>lxxvi</sup> A study of fossil fuel corporations would reveal the same elements. The MMBT case illustrates the litigation side. In that case, the ban of an environmentally harmful gasoline additive was challenged successfully under Chapter 11 of the North American Free Trade Agreement.

There are a few different options for addressing this problem. These include:

- Replacing current oil and gas companies with a public interest corporation whose mandate is to reduce consumption of fossil fuels while also being responsible for the extraction and processing of the resources.
- Nationalizing the oil sector and using the profits from oil production to convert to mass transit and renewable energy.
- Creating cooperative non-profit entities to manage the resources with a mandate of reducing consumption and production.

A number of these options would permit a just transition for oil workers away from oil production to renewable energy as the industry is systematically reduced.

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**lxxvi** Cynthia Callard, Dave Thompson and Neil Caldicott, *Curing the Addiction to Profits: A supply side approach to phasing out tobacco*, (Canada: Canadian Centre for Policy Alternatives, 2005), Also available at [http://policyalternatives.ca/documents/National\\_Office\\_Pubs/2005/curing\\_the\\_addiction\\_summary.pdf](http://policyalternatives.ca/documents/National_Office_Pubs/2005/curing_the_addiction_summary.pdf), (accessed April 25, 2007).

## Conclusions and Recommendations

This report has shown that Alberta is currently on a crash course. Four key problems with the current economy are identified and dealt with in depth: lack of an adequate plan for investments, lack of adequate rent capture, lack of value added jobs, and lack of a plan for resource revenues. With no plan in place to manage either the investment or the revenues from our natural resources, the economy is overheated and resources are being squandered. This lack of framework has also allowed much of the available resource rent to be left to the corporations rather than recovered for the owners.

There are many options open to the provincial government to avoid this crash course. Many of those options are laid out in the penultimate chapter. The report selects from amongst those options to make solid recommendations that will allow the government to minimize rather than exacerbate the boom and bust cycles. It creates a set of policies that maximize the jobs and revenues from Alberta's natural resources while laying out a strong strategy for the use of those revenues for the long term benefit of Albertans.

This strategy creates a province where social and environmental sustainability are priorities. The framework presumes that investment is a means not an end and creates a set of goals which fossil fuels extraction is meant to achieve. It is possible for Albertans to live in communities that are equitable and sustainable. This strategy sets the province on that path.

The recommendations made in this report are summarized below. Combined, these recommendations lay the foundation for a solid alternative development strategy for Alberta.

### 1. Slowing the Pace of Investment

*A combination of mechanisms are recommended to slow private sector investment including competitive bidding and getting the price right. This combination was thought to best meet the social goals outlined earlier while maximizing the equitable treatment of the corporations involved.*

*1.1 Pace development by competitive bid. Using the current labour market as a constraint, the government would open a limited number of construction contracts to bidding by the private sector. The size of those*

*construction permits would be determined using labor market constraints (available labour force). Bids would be judged based on royalty payments, environmental standards and value added. Floors for environmental treatment and royalties are set within other portions of this strategy.*

- 1.2 *Phase out the temporary foreign worker program. Temporary foreign workers should not be considered in the current labour force as measured for the purposes of determining the size and quantity of permits to be given. With investment paced, demand for labour should slow. However, where foreign workers are needed, they should be considered immigrants and given full rights under the regular immigration laws.*
- 1.3 *Eliminate all subsidies and credits for fossil fuel extraction industries.*
- 1.4 *Incorporate externalized costs. Costs in terms of air and water pollution and landscape impacts need to be borne by the corporations. This would include more stringent costs for pollution of air and water (including the tailings ponds) as well as a carbon tax. This would also include regulatory and enforcement mechanisms to ensure the new cost structures are applied.*
- 1.5 *Regulation of environmental impacts. Other aspects of this policy that may impact on pacing include:*
  - *Surface and sub-water access by industry should be strictly limited and monitored.*
  - *Natural gas should be phased out as a fuel source for the tar sands. It should be prioritized for higher value added products including those necessary for building the renewable energy sector.*
  - *A moratorium should be placed on further bitumen export pipelines.*
  - *Co2 emission caps should be implemented. These should be emission reduction targets, not intensity reduction targets.*
- 1.6 *Respect Native Rights. Development should not be allowed to proceed where there are unresolved land claim issues or where native access issues are unresolved. To the extent possible, these issues should be addressed through negotiated land claims rather than one-off economic agreements with the corporations.*
- 1.7 *Counter-Cyclical spending. The government should eliminate the zero deficit legislation and practice counter-cyclical spending for public infrastructure projects. The government should also slow down private*

*sector development enough to allow for space for public sector investment to cover the infrastructure deficit without exacerbating the boom or forcing taxpayers to pay a premium for that infrastructure.*

- 1.8 *Guidelines for counter cyclical spending. Once the infrastructure deficit has been addressed, measures should be put in place to ensure counter-cyclical spending. For example, when growth forecasts fall below 2% per annum, public infrastructure spending increases should be raised by a minimum of 10%, and when growth projections are above 4%, public infrastructure spending should decrease by at least 10%. The capital account should be restructured such that it is used for counter-cyclical spending purposes.*
- 1.9 *Smart Growth - All public sector infrastructure spending decisions should be required to meet sustainability and smart growth tests. For example, new public infrastructure should not be approved or subsidized on the extremities of urban areas when there is excess or adequate capacity in the centers.*

## **2. Maximizing the Return from Fossil Fuels**

- 2.1 *Competitive bidding and windfall profits tax. The competitive bid process that has been recommended to address pricing would also maximize royalties. The bid process would set a floor for royalties above which companies would bid to get access to the construction permit (see description in pricing above). To this end a minimum floor would need to be set for royalties. It is recommended that the capital write off or ‘generic royalty regime’ that applies to the tar sands be eliminated and regular depreciation rules be applied to all capital investments in fossil fuels extraction. The floor for tar sands royalties would be increased as follows: The rate would be left at 25% of net revenues up to a level where a 10% return on investment is reached. Above that level, an extraordinary profits royalty would come into effect, capturing 90% of net profits.*
- 2.2 *Equity purchase requirement. Any contribution made by government to industry will be in the form of an equity purchase and would be on the terms of any private investor.*
- 2.3 *Eliminate voluntary regulation. Because the minimum royalties structure is based on net profits, problems of transfer pricing and inflated costs will need to be addressed through regulation and transparency. Voluntary regulation of royalties will need to be replaced by a strong regulatory and enforcement branch with skilled auditors. Corporations that have successful bids for development would*

*have to agree to open their books for audit of appropriate royalty payments. This would also require that structures be put in place to define allowable costs and appropriate costs structures.  
Put policies into place to maximize value added jobs generated by fossil fuels.*

### **3. Maximizing Upstream/Downstream jobs - Value-added**

- 3.1 A moratorium should be placed on all additional pipeline export capacity for bitumen. New pipeline capacity should be considered only to create an oil pipeline to the East that is not routed through the United States and to increase the capacity to export high quality, value added product such as gasoline.*
- 3.2 By making value added a criteria for bid selection, the bidding process will be used to create an incentive to upgrade and refine in Canada.*
- 3.3 Pacing development to reduce the heat in the economy will reduce the extent to which construction costs act as a disincentive to building upgrading and refining in Canada.*
- 3.4 Invest in transportation infrastructure including rail lines for transporting value added products to markets.*
- 3.5 Prioritize natural gas for value added processing. This should include reforming the vital supply safeguard to include the provision that no exports be allowed unless there is at least 25 years of proven supply of conventional gas.*
- 3.6 Royalties should be restructured to favor value added in natural gas and bitumen processing. This includes a progressive rate that treats higher value products more lightly and charges more the lower the level of processing or upgrading.*
- 3.7 The environmental standards should be drastically improved for upgrading and refining industries. Adequate regulatory and enforcement mechanisms should also be put into place to ensure those standards are met.*

*The goal of the recommendations below is to ensure that 90% of resource revenues are kept out of general revenues and treated separately and that an investment and savings framework is established for those funds that prioritize sustainable funding for the future and renewable energy.*

#### 4. Maximizing the Long Term Benefits from Fossil Fuels and Planning for the Future

- 4.1 *A minimum of 90% of revenues from oil and gas will be removed from the general revenue stream. The revenues will be targeted as follows: 50% will be put into a newly created renewable energies fund; 40% will be invested through the AHST in securing the future for education, health care, social services, culture and the arts.*
- 4.2 *If taking such a large portion of resource revenues out of the budget creates a deficit, the provincial government should restore the progressive tax system for income - both individual and corporate. Taxes on corporate profits should be increased as well. These will be used to replace fossil fuel revenues, creating sustainable funding for regular operating expenses. Where additional revenues are required, these should be generated from taxes environmentally harmful activities, such as pollution.*

*Parameters for the Renewable Energy Fund:*

- 4.3 *Set national, provincial and municipal targets for renewable energy supply and generation. The European Union has set a renewables target of 12% of energy supply and 22% of electricity generation by 2010.*
- 4.4 *Transfer all subsidies. All subsidies and incentives should be transferred from fossil fuels to the renewables sector. It is necessary to level the energy playing field, to enable alternatives to get off the ground. This includes a subsidies framework to attract initial investment in renewables. Those incentives should be targeted towards smaller operations in a diversified sector rather than large scale mega projects owned by large corporate interests. This would allow the province to capitalize on Alberta's huge potential in terms of solar, geothermal and wind.*
- 4.5 *Create a Crown Corporation. Within the renewable energies fund the government should create a provincial crown corporation that would develop in the area of renewable energies. This could allow not only for a solid window into that sector but would guarantee investment in that emerging sector when the risk is high. Also, a portion should be set aside for research and development.*<sup>lxxvii</sup>

<sup>lxxvii</sup> Where the government funds research and development or it takes place at publicly subsidized post secondary education facilities, the patents would be publicly owned.

<sup>lxxviii</sup> This section draws on recommendations made by Pete Sundberg, "Community Based Renewable Energy Development, (Falls Brook Centre: Canadian Environmental Network, April 2004). Also available at <http://fallsbrookcentre.ca/docs/technology/IntlCommunityRE.pdf>, (accessed April 25, 2007).

- 4.6 *Create a favorable investment climate for renewable technology. This would include providing increased tax incentives and equity funds to companies; actively promoting the use of renewable energy technologies through the education system, consumer awareness initiatives, and partnerships with government and private industry; and leading by example - purchasing green power and providing vocal and financial support for renewable energy technologies.*<sup>lxxviii</sup>

- 4.7 *Create a worker and community transition fund that will be used for training and transition programs to ensure a just transition for workers and communities.*



## Appendix 1 Alberta Major Construction Projects

The following are March 2007 summaries of projects that have recently been completed, are currently under construction, or are proposed to start construction within two years.

### Inventory of Major Alberta Projects - Projects in Alberta, valued at \$5 million or greater

Sector	# Total Projects	Value of Projects(\$millions)
Agriculture & Related	10	\$ 183.5
Chemicals & Petrochemicals	7	\$ 1,095.0
Commercial/Retail	85	\$ 6,093.7
Commercial/Retail and Residential	12	\$ 3,261.9
Forestry & Related	7	\$ 830.0
Infrastructure	212	\$ 13,626.1
Institutional	174	\$ 10,990.5
Manufacturing	6	\$ 169.0
Mining	5	\$ 1,795.4
Oil & Gas	11	\$ 1,905.0
Tar sands	54	\$104,806.0
Other Industrial	18	\$ 414.7
Pipelines	30	\$ 6,973.4
Power	22	\$ 5,871.8
Residential	92	\$ 3,563.6
Tourism/Recreation	112	\$ 7,455.8
<b>Total</b>	<b>857</b>	<b>\$169,035.4</b>

### Inventory of Alberta Regional Projects - Projects valued at less than \$5 million

Sector	Number of Projects	Value of Projects(\$ CDN)
Agriculture & Related	3	\$3,450,000
Commercial/Retail	158	\$189,410,000
Forestry & Related	1	\$3,000,000
Infrastructure	90	\$126,290,000
Institutional	42	\$84,380,000
Manufacturing	14	\$21,490,000
Oil, Gas & Tar sands	10	\$11,380,000
Other Industrial	79	\$105,190,000
Residential	46	\$72,210,000
Tourism/Recreation	35	\$50,490,000
<b>Total</b>	<b>478</b>	<b>\$667,290,000</b>

Source: Alberta Statistics, Alberta Major Construction Projects. <http://www.alberta-canada.com/statpub/albertaConstructionProjects/rp0703.cfm>

Notes: Not all projects over this threshold are listed, due to reasons of confidentiality and/or due to information not being available at the time of printing. The costs of projects listed in the Inventory are estimated values only.

## Appendix 2 Upgrader Capacity Projection

Company	Project Name	Phase	Project Status	Startup Date	Barrels Per day
Total E&P (formerly Deer Creek)	Joslyn/Surmont Upgrader	1	Announced	2010	50,000
Peace River Oil Upgrading	Bluesky Upgrader	1	Announced	2010	25,000
Petro-Canada/UTS/Teck Cominco Syncrude	Fort Hills Upgrader	1 / 2	Announced	2011	100,000
	Mildred Lake and Aurora Mining and Upgraders	Stage 3 Debottleneck	Announced	2011	46,500
CNRL	Primose Upgrader	1	Announced	2012	145,000
OPTI/Nexen	Long Lake Upgrader	3	Announced	2013	72,000
Total E&P (formerly Deer Creek)	Joslyn/Surmont Upgrader	2	Announced	2013	50,000
Petro-Canada/UTS/Teck Cominco	Fort Hills Upgrader	3 / 4	Announced	2014	90,000
CNRL	Horizon Mine and Upgrader	4	Announced	2015	145,000
CNRL	Primose Upgrader	2	Announced	2015	58,000
OPTI/Nexen	Long Lake Upgrader	4	Announced	2015	72,000
Syncrude	Mildred Lake and Aurora Mining and Upgraders	Stage 4 Expansion	Announced	2015	139,500
CNRL	Horizon Mine and Upgrader	5	Announced	2017	162,000
Husky	CNRL	Expansion	Announced	TBD	67,000
Peace River Oil Upgrading	Bluesky Upgrader	2	Announced	TBD	25,000
Peace River Oil Upgrading	Bluesky Upgrader	3	Announced	TBD	25,000
Peace River Oil Upgrading	Bluesky Upgrader	4	Announced	TBD	25,000
Value Creation	North Joslyn Upgrader	1	Announced		40,000
Athabasca Tar sands Project	Scotford Upgrader	Debottleneck	Application	2007	45,000
Athabasca Tar sands Project	Scotford Upgrader	Expansion	Application	2009	90,000
Suncor	Voyageur Upgrader	1	Application	2010	156,000
BA Energy North West Upgrading	North West Upgrade	1	Application	2010	50,000
Suncor	Voyageur Upgrader	2	Application	2012	78,000
BA Energy North West Upgrading	North West Upgrade	2	Application	2013	54,000
BA Energy North West Upgrading	North West Upgrade	3	Application	2016	54,000
Synenco	Northern Lights Upgrader	1	Disclosure	2010	50,000
Synenco	Northern Lights Upgrader	2	Disclosure	2012	50,000
<b>Total not yet approved</b>					
<b>1,964,000</b>					
BA Energy	Heartland Upgrader	2	Approved	2010	54,000
CNRL	Horizon Mine and Upgrader	2	Approved	2011	45,000
CNRL	Horizon Mine and Upgrader	3	Approved	2011	90,000
OPTI/Nexen	Long Lake Upgrader	2 (South)	Approved	2011	72,000
BA Energy	Heartland Upgrader	3	Approved	2012	54,000
<b>Total approved</b>					
<b>315,000</b>					

Company	Project Name	Phase	Project Status	Startup Date	Barrels Per day
Husky Syncrude	CNRL Mildred Lake and Aurora Mining and Upgraders	Debottleneck Stage 3 Expansion	Construction Construction	2006 2006	12,000 116,300
OPTI/Nexen	Long Lake Upgrader	1	Construction	2007	72,000
CNRL	Horizon Mine and Upgrader	1	Construction	2008	135,000
Suncor	Tar Island Upgrader		Construction	2008	116,000
BA Energy	Heartland Upgrader	1	Construction	2008	54,400
<b>Total under construction</b>					
<b>505,700</b>					
Suncor Syncrude	Tar Island Upgrader Mildred Lake and Aurora Mining and Upgraders	Base U1 and U2 Existing Facilities	Operating Operating	1967 1978	281,000 290,700
Husky	CNRL	Existing Operations	Operating	1992	71,000
Athabasca Tar sands Project	Scotford Upgrader	1	Operating	2003	155,000
Suncor	Tar Island Upgrader	Millennium Vacuum Unit	Operating	2005	43,000
<b>Total operational</b>					
<b>840,700</b>					

Total Approved, under construction or operating  
1,661,400

Total not yet approved  
1,964,000

Total all projects  
3,625,400

Source: National Energy Board, Oilsands Opportunities and Challenges to 2015: an Update, June 2006, P. 62-66.

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11045 Saskatchewan Drive,  
Edmonton, Alberta  
T6G 2E1  
Phone: (780) 492-9558  
Email: [parkland@ualberta.ca](mailto:parkland@ualberta.ca)  
Website: [www.ualberta.ca/parkland](http://www.ualberta.ca/parkland)

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