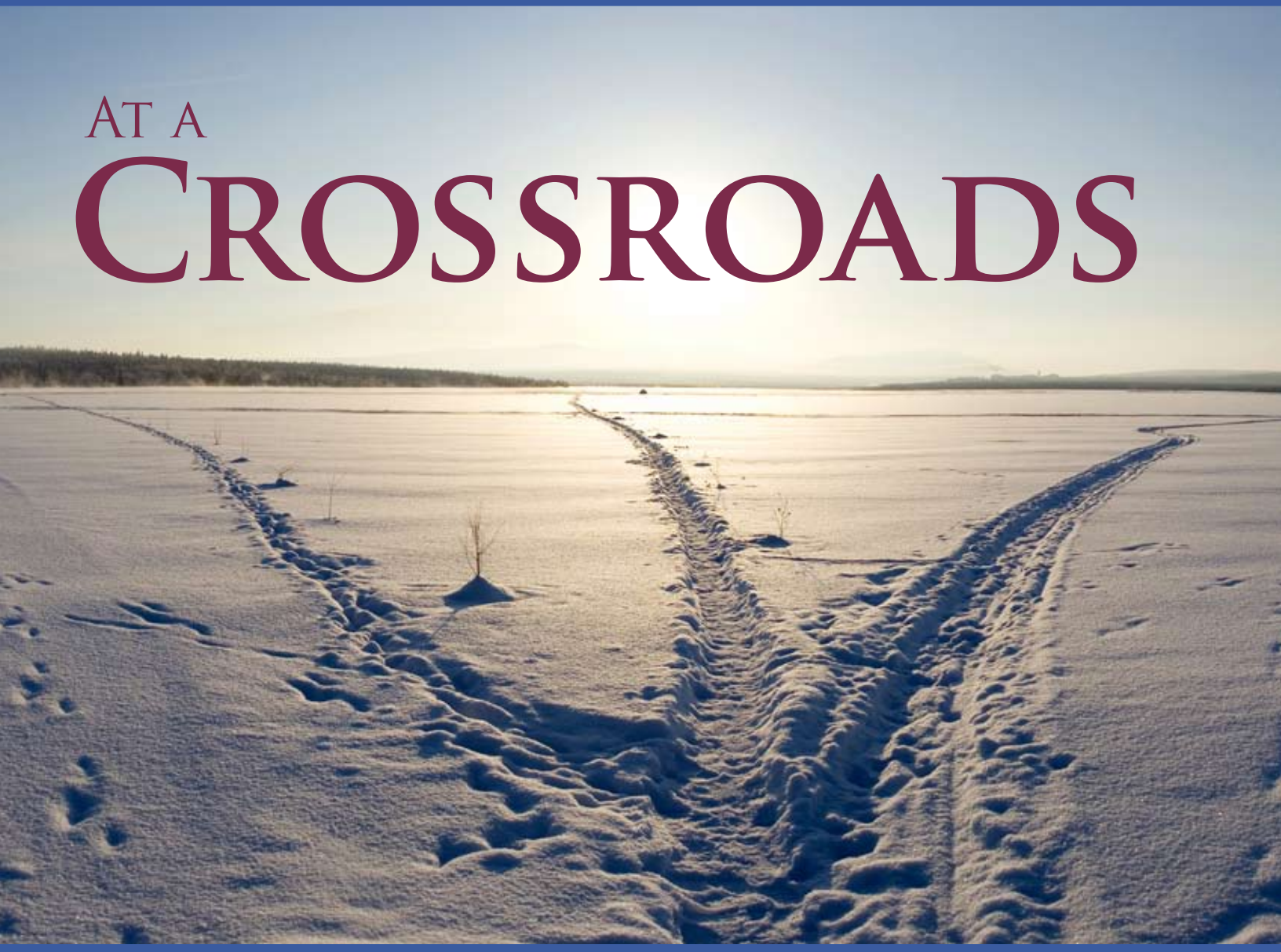
At a Crossroads



Achieving a Win-Win From Oil and Gas Developments in the Northwest Territories

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Jennifer Grant

Peggy Holroyd

Mike Kennedy

Katherine Mackenzie

the PEMBINA institute

Sustainable Energy Solutions

Alternatives North

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At a Crossroads

Achieving a Win-Win From Oil and Gas Developments in the Northwest Territories

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1. Introduction

"Each generation will reap what the former generation has sown." — Chinese Proverb

The Canadian government, as a resource manager for the Northwest Territories' (NWT) oil and gas resources, is at a crossroads — it has to decide how to manage the development of the oil and gas resources in the territory. Will it choose to put corporate interests above those of the resource owners, and allow oil and gas resources to be extracted and exported for short-term corporate gains? Or will it strive to achieve a win-win for corporations and resource owners? A win-win development scenario would allow companies to earn fair returns on their investments while providing maximum benefit for resource owners today and in the future. This paper makes the case for a win-win development scenario.

To accomplish the win-win, the federal government needs to review and reform royalty rates and the bidding process for awarding oil and gas leases to capture maximum revenue from oil and gas developments. At the same time, the Government of the Northwest Territories (GNWT) needs to take advantage of available tax options to obtain revenue for oil and gas resource owners in the territory. Once collected, a portion of the revenue from oil and gas developments in the NWT should be invested in a long-term fund to be shared with future generations. This fund could help mitigate the impact of resource developments; provide a store of wealth for future generations (who won't benefit directly from the resources developed today); diversify and strengthen the territorial economy; and provide financial capital to shift the Canadian economy away from fossil fuel dependence and toward renewable energy sources.

A number of Canadian oil and gas producing provinces recently made changes to the royalty and tax regimes applicable to oil and gas developments. However, the federal government has not made changes to the royalty and tax regimes for oil and gas developments in the NWT. Yet the federal government has made development in the North a priority. "As I've said before, 'use it or lose it' is the first principle of sovereignty in the Arctic," said Prime Minister Stephen Harper.[1] If the Government of Canada is determined to develop the North, it is time for an examination of the royalty and lease regimes to ensure maximum revenue collection for resource owners. The GNWT can play an important role in achieving a win-win too. More specifically, the GNWT has a number of tax options available to it that could be applied to oil and gas developments. Direct taxation provides a way for the GNWT to help ensure that the benefits of oil and gas developments are shared by all current and future residents of the NWT.[2]

A review of the resource royalty and taxation system is needed now — before devolution and significant developments like the Mackenzie Gas Project take place. The Mackenzie Gas Project would increase NWT oil and gas production exponentially. Proven and potential natural gas reserves in the Mackenzie Delta and Beaufort Sea are estimated at 55 trillion cubic feet.[3] A

[1] Conservative Party of Canada, "Prime Minister Harper Announces Plan to Identify and Defend Northern Resource," news release, August 26, 2008.

[2] An examination of the federal taxation system related to oil and gas development in the NWT is outside of the scope of this paper.

[3] Government of the Northwest Territories, Department of Industry, Tourism, and Investment, *Media Room Did You Know?* http://www.iti.gov.nt.ca/MediaRoom/DYK.shtml (accessed September 1, 2009).

United States Geological Survey report, released in July 2008, estimates that the Arctic contains 30% of the world's undiscovered gas reserves.[4] It is expected that future demand for natural gas will far outstrip supply, resulting in high natural gas prices.[5] A revised system is desirable prior to devolution, when the GNWT and other northern governments will likely be given the responsibility of managing oil and gas resources in the territory and will be required to retain the existing royalty system for some time after devolution.[6]

This discussion paper reviews and evaluates the existing Frontier Lands Petroleum Royalty Regime as well as the system for awarding lease rights for oil and gas, both of which are administered by the Government of Canada on behalf of Canadians.[7] It also reviews key opportunities for the Government of the Northwest Territories to capture revenue from oil and gas developments within the territory. In the introduction below, oil and gas developments in the NWT are described. The next chapter presents basic concepts and policy options related to resource revenue collection. The third chapter focuses on the current system for capturing revenue from oil and gas, discusses options for improving the resource revenue regime, and identifies reasons why Northerners should be concerned about the current resource revenue regime. The fourth chapter makes the case for the creation of a long-term fund to ensure the benefits of development are passed on to future generations. The fifth and final chapter summarizes the findings of the report and outlines key recommendations.

1.1 Oil and Gas Developments in the NWT

1.1.1 Trends in Development

Exploration for oil and gas resources in the NWT began as early as the 1920s. In 1932, Imperial Oil began producing from the Norman Wells Oil Field, with full-scale production taking place during World War II as part of the Canol Project. A pipeline was built to Alberta in the 1980s. In the 1950s, NWT gas exploration began in the southwest region of the territory in the Cameron Hills and southwest of Great Slave Lake. The first commercial discovery of natural gas was in 1966 at Pointed Mountain near Fort Liard. Roughly 350 wells were drilled in the southern NWT during the fifties and sixties. The 1990s saw growth in exploration, production and export to the south via pipelines from the Cameron Hills and Liard Plateau.[8]

The federal government opened the high Arctic to oil and gas exploration in the 1960s and exploration in the Mackenzie Delta area began in that decade. The majority of the exploration drilling that has taken place in the region up to now took place in the 1970s and 1980s at a time of rapidly rising energy prices. In 1977 the Berger Inquiry recommended a ten-year moratorium on the development of a Mackenzie Valley pipeline until land claims were settled, land use

[4] U.S. Geological Survey, "90 Billion Barrels of Oil and 1,670 Trillion Cubic Feet of Natural Gas Assessed in the Arctic," press release, July 23, 2008, http://www.usgs.gov/newsroom/article.asp?ID=1980 (accessed May 8, 2009).

[5] International Energy Agency, Organization for Economic Cooperation and Development, *World Energy Outlook 2007*, http://www.worldenergyoutlook.org/2008.asp (accessed May 8, 2009).

[6] This was the case after devolution in the Yukon Territory.

[7] Regulation of oil and gas exploration, development and production is the responsibility of the National Energy Board.

[8] Government of the Northwest Territories, Department of Industry, Tourism and Investment, *Mining, Oil, and Gas: History of Oil and Gas in the NWT*, http://www.iti.gov.nt.ca/miningoilgas/historyoilgas.shtml (accessed May 8, 2009).

planning was in place, and social and environmental concerns were addressed. In the 1980s, under the National Energy Program, the federal government poured millions of dollars into oil and gas exploration, in part as a way of ensuring security and supply of resources in the Arctic.[9] In the 1990s, the rise in gas prices led to greater oil and gas exploration and renewed interest in a Mackenzie Valley pipeline.

To date, nearly 200 exploration wells have been drilled in the Mackenzie Delta; close to 30% of those wells have been successful. The largest gas discoveries have been at Taglu, Parsons Lake and Niglintgak.[10] A map of the active oil and gas rights in the NWT is shown in Figure 1.

Figure 1. Oil and gas resources in the NWT have yet to be fully developed.

Credit: Mike Palmer, The Nature Conservancy

The proposed 1,200 kilometre Mackenzie Valley Pipeline would bring natural gas from the Beaufort Delta to Alberta and southern gas markets.

In 1999, the Northern Oil and Gas Directorate of the Department of Indian and Northern Affairs Canada announced that rights to explore several different areas throughout the Mackenzie Delta region had been granted to two parties with work bid commitments totaling over $180 million. Since 2003, over 32 winning work bids have been issued for the Mackenzie region worth $2.1

[9] Government of the Northwest Territories, Department of Industry, Tourism and Investment, *History of Oil and Gas Development in the NWT*, http://www.iti.gov.nt.ca/miningoilgas/historyoilgas.shtml (accessed April 2, 2009).

[10] Wright Mansell Research Limited, *An Evaluation of the Economic Impacts Associated with the Mackenzie Valley Gas Pipeline and Mackenzie Delta Gas Development* (2004), http://www.iti.gov.nt.ca/publications (accessed May 8, 2009).

billion.[11] Corporate interest in the Mackenzie region has been growing since 2003. In 2007, the Northern Oil and Gas Directorate issued seven exploration licences for the Beaufort Sea, Mackenzie Delta and Central Mackenzie Valley region worth an estimated $613.4 million in work expenditures.[12] In the first quarter of 2008, five exploration licences were issued in the Beaufort Sea, committing more than $1.2 billion to exploration of potential resources.[13]

Interest in oil and gas developments has been fueled by the belief that high gas prices could justify the construction of a pipeline to connect northern gas supplies to the broader North American gas market.[14] Yet today, the only gas production in the Beaufort region is from Ikhil field, which serves consumer needs in nearby Inuvik. Development in the region has been constrained recently by relatively low gas prices and the lack of pipeline access to major gas markets.[15]

1.1.2 Mackenzie Gas Project

The Mackenzie Gas Project (MGP) proposes to develop natural gas fields in the Mackenzie Delta region of the NWT and to move natural gas supplies to markets in Canada and the United States.[16]

The MGP consists of five major parts:[17]

- three natural gas field production facilities
- a gathering pipeline system
- a gas processing facility in Inuvik
- a natural gas liquids pipeline from Inuvik to Norman Wells
- a natural gas pipeline from Inuvik to northwestern Alberta

The natural gas pipeline is expected to reach 1,220 kilometres with a capacity of 1.2 billion cubic feet per day over approximately 30 years.[18] The combined investment of the construction of a pipeline down the Mackenzie Valley to northern Alberta and the development of fields in the Mackenzie Delta to provide gas to fill the pipeline is estimated to be $16.2 billion.[19]

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[11] Drummond Consulting, "Winning Bids NWT 2003–2008," received June 2009.

[12] Ibid.

[13] Ibid.

[14] Wright Mansell Research Limited, *An Evaluation of the Economic Impacts Associated with the Mackenzie Valley Gas Pipeline and Mackenzie Delta Gas Development* (2004), http://www.iti.gov.nt.ca/publications (accessed May 8, 2009).

[15] Ibid.

[16] Mackenzie Gas Project partners include Imperial Oil, Royal Dutch Shell, Aboriginal Pipeline Group, Conoco Phillips, and Exxon Mobil.

[17] Mackenzie Gas Project, *Project Overview*, http://www.mackenziegasproject.com/moreInformation/publications/documents/Project_Overview.pdf (accessed May 8, 2009).

[18] Ibid.

[19] Imperial Oil Resources Ventures Limited, "Mackenzie Gas Project: Project Cost Estimate and Schedule Update," submission to the National Energy Board and Joint Review Panel for the Mackenzie Gas Project (Calgary, AB: Imperial Oil Resource Ventures Limited, March 12, 2007).

The timing of the project has shifted dramatically since the project's initial application was filed in 2004. Preliminary estimates of the project start date indicated that pre-construction activity would commence in late 2006 and pipeline construction would start in 2007–2008.[20] In March 2007, Imperial Oil estimated that the construction activities would begin in the summer of 2010 and the project start-up activities would be completed in 2014.[21] However, the start date has undergone numerous setbacks due to delays from the proponents and the Joint Review Panel. The Joint Review Panel is responsible for reviewing and making recommendations to the federal government on the Mackenzie Gas Project's environmental and social impacts. The panel's report was released in December 2009. It concluded that, subject to the full implementation of the panel's 176 recommendations, the adverse impacts of the MGP "would not likely be significant and that the Project and those Facilities would likely make a positive contribution towards sustainability."[22]

An economic analysis completed in 2004 estimates that the Mackenzie Gas Project will add between $40.8 billion and $57 billion to Canada's GDP and earn the federal government up to $18 billon in revenue. It is estimated that more than 157,000 person-years of employment would be created over the lifetime of the project.[23] After-tax cash flows (profits) to the anchor field producers are estimated to be $17 billion over the fields' life span, assuming that only the original three fields are brought online. However, it is foreseeable that other fields would also be developed, putting anchor field producers' profits in the $70 billion range. The pipeline and gathering systems from the fields are expected to net proponents between $12 and $17 billion in profits over 38 years.[24]

Both the territorial and federal governments have expressed their general support for the Mackenzie Gas Project. The GNWT wrote a letter to the project proponents in 2005 stating that it did not intend to introduce or support "any new, targeted tax or royalty changes (post-devolution) that would negatively impact project economics for the MGP."[25] The federal government has publicly stated that it supports the project, subject to the completion of an environmental assessment and regulatory review.[26] In 2005, the federal government wrote a letter to Imperial Oil expressing its ongoing support for the Mackenzie Gas Project. The letter

[20] Wright Mansell Research Limited, *An Evaluation of the Economic Impacts Associated with the Mackenzie Valley Gas Pipeline and Mackenzie Delta Gas Development* (2004), http://www.iti.gov.nt.ca/publications (accessed May 8, 2009).

[21] Imperial Oil Resources Ventures Limited.

[22] Joint Review Panel for the Mackenzie Gas Project. 2009. *Foundation for a Sustainable Northern Future. Executive summary.* http://www.ngps.nt.ca/registryDetail_e.asp (accessed January 13, 2010). Page 3.

[23] Wright Mansell Research Limited, *An Evaluation of the Economic Impacts Associated with the Mackenzie Valley Gas Pipeline and Mackenzie Delta Gas Development — An Update* (2004), http://www.iti.gov.nt.ca/publications (accessed May 8, 2009).

[24] Pacific Analytics Inc., *The Mackenzie Gas Project: A Financial and Economic Assessment*, prepared for Alternatives North, September 2006, http://www.alternativesnorth.ca/mackenziegasproject.html (accessed September 1, 2009).

[25] Letter from Joseph Handley, Premier of the Northwest Territories to the Mackenzie Gas Project proponents, November 22, 2005, http://www.ngps.nt.ca/Upload/Interveners/O Reilly - Kevin - citizen/05-11-22 Mackenzie Gas Project Fiscal Assurances.pdf (accessed May 4, 2009).

[26] Indian and Northern Affairs Canada, *Backgrounder — Mackenzie Gas Project*, http://www.ainc-inac.gc.ca/ai/mr/is/mgp-eng.asp (accessed September 1, 2009).

detailed its financial commitments related to the project, including $258 million for the regulatory process and a $500 million fund over ten years to mitigate socio-economic impacts associated with the project. The letter expressed the federal government's commitment to exploring other support options with the proponents, including potential adjustments to the royalty regime. It also stated that the government has no intention of introducing new project-specific taxes.[27] In January 2009, Environment Minister Jim Prentice announced that the federal government had made a financial offer to the project proponents to contribute to infrastructure costs and regulatory process expenses.[28] No details were released on the amount of this financial offer.

[27] Letter from Anne McLellan, Deputy Prime Minister of Canada, to Imperial Oil Limited, November 16, 2005, http://www.ngps.nt.ca/Upload/Interveners/O Reilly - Kevin - citizen/Letter from DPMO to Imperial.pdf (accessed May 4, 2009).

[28] Industry Canada, "Statement by Minister Prentice on the Mackenzie Gas Project," January 19, 2009, http://www.ic.gc.ca/eic/site/ic1.nsf/eng/04335.html (accessed May 4, 2009).

2. Resource Revenue Basics

To provide context to the discussion of the Northwest Territories' resource revenue system for oil and gas (presented in chapter 3 of this report), it is useful to review a number of related concepts, including resource revenue ownership, economic rent, and why and how economic rent should be maximized for the benefit of the public.

2.1 Who Owns the Oil and Gas Resources?

Oil and gas resources on Crown land in the NWT are **owned** by the public (i.e. all Canadians). Oil and gas resources are **developed** by oil and gas companies. In the case of the NWT, these resources are **managed** by the department of Indian and Northern Affairs Canada (INAC).[29] In their role as resource managers, governments grant companies the rights to develop oil and gas resources. While these companies incur development costs and earn a profit on the resource they produce and sell, they do not own the resource. The government is responsible for capturing revenue from oil and gas companies to ensure appropriate compensation for resource owners, while allowing companies fair returns for their investments.

The Public Owns the Oil and Gas Resources

Public* = Resource Owners

Government* = Resource Managers

Companies = Resource Developers

* Aboriginal governments are the legal owners and managers of oil and gas within some areas, as per land claim agreements.

2.2 What Is Economic Rent?

Economic rent is the difference between the market value of a resource and the cost of producing that resource, including a normal rate of return on investment. It represents the revenue that is available for the owners of a resource from its development. Resource revenue is captured by governments on behalf of resource owners. It is important that the amount of revenue obtained by governments for the development of resources reflects a significant portion of the available rent in a particular region. This is necessary to ensure that the citizens of that region — the owners of the resource — are being appropriately compensated for the development of the resources. The amount of rent that is captured by governments depends on the rate of royalties as well as the amount of money obtained through other means, including income taxes and the sale of exploration and development rights. The figure below depicts economic rent.

[29] Aboriginal governments legally own and manage resources in areas where land claims have been settled and Aboriginal governments have subsurface rights. Regulation of oil and gas exploration, development and production is the responsibility of the National Energy Board. This report does not address oil and gas development on Aboriginal land.

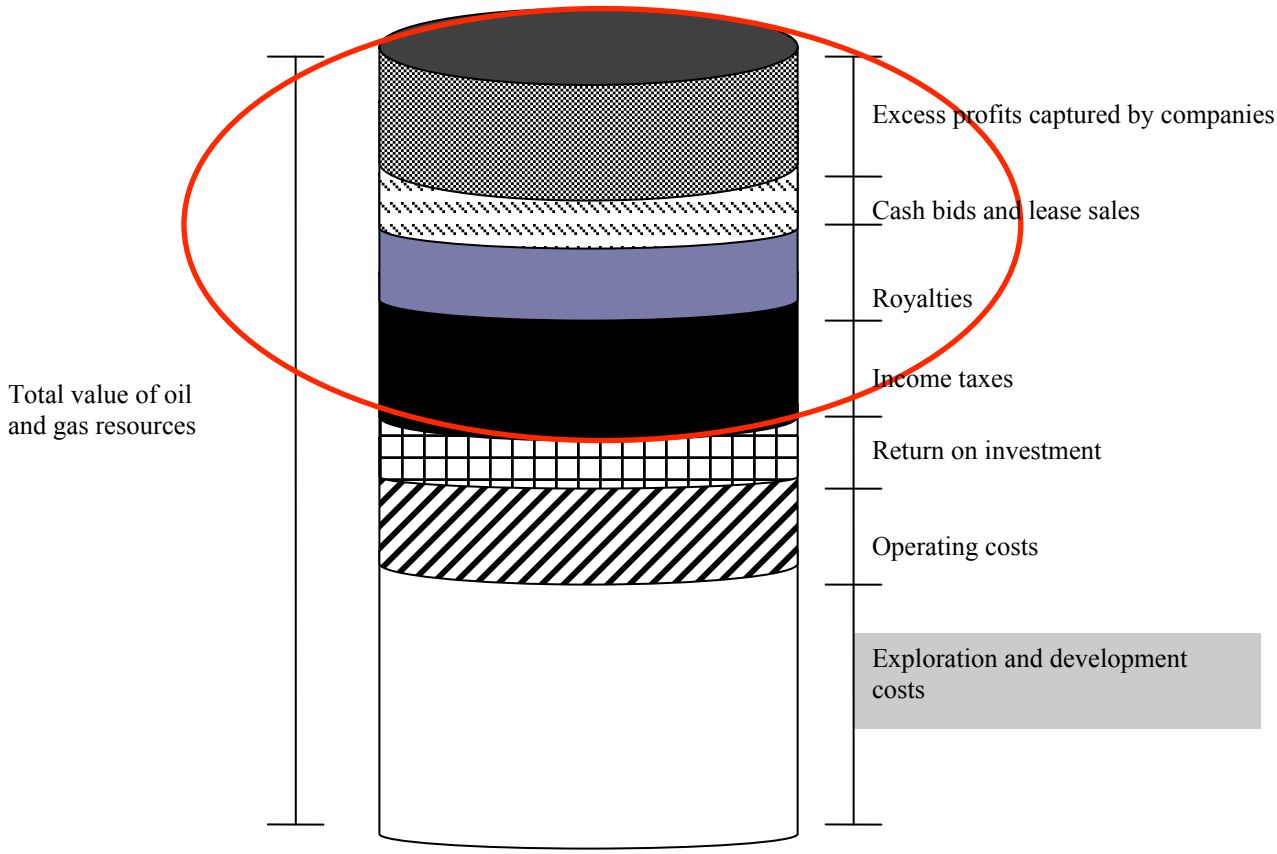

Figure 2. Economic rent (shown by the oval at the top of the figure) is the difference between the value of a resource and the cost of producing it, including a return on investment.

Economic rent is captured by government through cash bids, lease sales, royalties and corporate income taxes on excess profits. Rent that is not captured by government is left with companies as excess profits.

2.3 Why Maximize Resource Revenue Collection?

As resource managers, governments are responsible for ensuring maximum benefit from the development of the oil and gas resources. Governments collect resource revenue on an annual basis through a number of policy means, including royalties that are levied on the revenue companies earn through the sale of the resources. After paying governments, companies are left with a profit or return on their investments. This return is, in effect, their **commission** for extracting and selling oil and gas resources.

In setting the **commission rate**, the government's job is to strike the optimal balance between providing a fair return to resource developers on their investment and maximizing revenue collection. The objective is to achieve a win-win for resource owners and resource developers. When royalties and taxes are set too low, or when companies are provided significant royalty or tax breaks (credits, exemptions, rebates), companies get more than their fair share of profits at the expense of revenue for government and hence resource owners. Low revenue collection is thus a subsidy to oil and gas companies. Governments need to set commission rates that adequately compensate the resource developers (oil and gas companies) for their investments and risk, but do not leave them with unfair and excess profits.

Figure 3. The flow of royalties compared to the resource revenue stream.[30]

2.4 What Is an Appropriate Regime for Resource Revenue Collection?

At the most detailed level, economic rent varies not by country or by company but rather by reservoir of oil or gas. Thus, for every reservoir in a region, a different amount of economic rent is available for capture by the government. The amount of rent available shifts with the market price and supply of oil and gas. Depending on the relationship between the cost of production and the value of the resource for the particular reservoir, the amount of economic rent could be positive, negative or zero. Figure 4 demonstrates how the amount of economic rent available varies according to the supply cost for a particular reservoir (or its position on the supply curve). On the graph, projects taking place at "A" along the supply curve have high economic rent. Those at "B" have less economic rent. Projects at "C" have no economic rent and are not financially viable given the market price in the graph.[31]

[30] Artist: Malcolm Mayes, ARTIZANS Art Works.

[31] Investors may not know the financial viability of a project until after they have invested, at the end of the project's life. Part of the normal rate of return on investments is intended to reflect this risk.

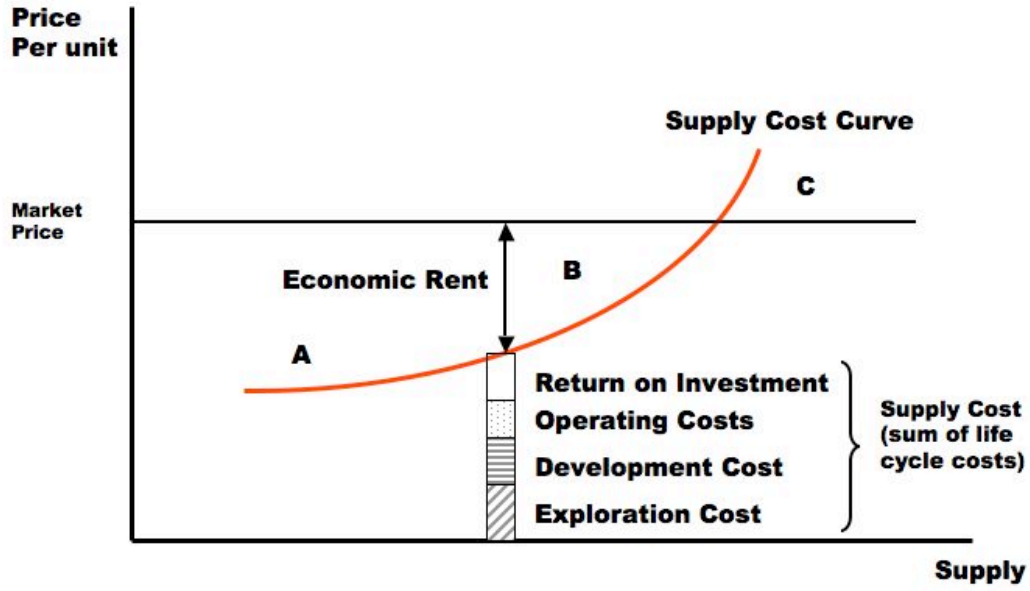

Figure 4. Economic rent at different levels of supply and market prices.[32]

The challenge for governments trying to capture economic rent is to figure out where on the supply curve oil and gas production is taking place, and thus how much rent is available for capture. Ultimately, it is important that the amount of revenue obtained by governments in return for the development of oil and gas resources reflects the amount of economic rent available in a particular region. This is necessary, in part, to ensure that the citizens of that region are being appropriately compensated for the development of their non-renewable resources. In general, when governments do not collect an appropriate amount of economic rent, they are providing a subsidy to oil and gas companies. This subsidy may lead to more oil and gas activity than would occur if governments were collecting sufficient rent. In other words, such a subsidy may perpetuate investment in unsustainable resource development, perhaps at the expense of investments in renewable energy options.

2.5 Policy Options for Maximum Revenue Collection

In Canada, governments employ a number of policy tools to collect revenue from non-renewable resources. These tools include initial payments for resource rights (also referred to as cash bids or bonus bids), annual lease payments or rentals, royalties on production, and taxes (on capital and income).

- **Cash bids** are placed by companies wishing to undertake resource developments. The amount "bid" reflects what the company is willing to pay the government for the right to develop the resource. This amount is over and above the royalties that will be paid on revenue earned from the resource developments. The company calculates what it is willing to pay based on its estimate of the cost and the after-tax earning potential of the project. The bid generally reflects what a developer is willing to invest in a particular resource development in exchange for a return on its investment. Governments then award the right to undertake the development to the highest bidder.

[32] Amy Taylor and Marlo Raynolds, *When the Government is the Landlord,* (Drayton Valley, AB: The Pembina Institute, 2006).

- **Work bids** are used in some jurisdictions as an alternative to cash bids. A work bid specifies the amount of money that a particular company is willing to spend on exploration for a project. A work bid does not result in any direct payment to government and so is not part of capturing economic rent.[33]
- **Lease payments** and rentals are generally paid annually and are a small portion of overall revenue from non-renewable resource developments.
- **Royalties** are paid on the revenue earned from resource developments and are often sensitive to changes in such factors as the price of the resource and the cost of extraction.
- **Taxes** are collected by different orders of government (federal, territorial and provincial) on capital investments, income, fuel and purchases.

Rights and Tenure: Different Words, Similar Meaning

Mineral rights are issued by government to companies to explore for and extract resources. The right is also called a lease or tenure, because the company is given rights to the resource for a period of time. If the resource is not accessed, the rights return to the government.

Lease: To give temporary use of in return for payment.

Tenure: A condition or form of right or title, under which … property is held.

—The Canadian Oxford Dictionary, 1998

Other means of collecting revenue from oil and gas developments include **equity stakes** and **profit sharing,** which are less common in Canada.

- With an **equity stake** the government, on behalf of the resource owners, becomes part owner of an oil and gas development. This means shouldering a portion of the costs associated with the development and also reaping a portion of the benefits through revenue generation when the resource is sold.
- **Profit sharing** is a mechanism that governments can use to collect additional revenues from oil and gas developments based on the profits earned by the oil and gas companies. Generally, profit sharing mechanisms function on a sliding scale. The government receives a portion of the profits from oil and gas developments after a minimum rate of return is realized by the resource developers. After the resource developers have received their return, then the government return rises as the profitability of projects rise.[34]

Some policy approaches do a better job of collecting available revenue than others. For example, in regions where the value of non-renewable resources is well known (in regions where extensive exploration and resource production has already taken place), a cash bidding system has proven to be an effective way to capture revenue early in a project, as a supplement and not a substitute

[33] A work bid does not result in direct payment to government except when the work expenditure is not completed. In this case, the initial deposit (worth 25% of the work bid) is forfeited to the government. For the period 2003–2008, a total of $67.8 million was forfeited. Indian and Northern Affairs Canada, *Northern Oil and Gas Annual Report 2008*, (Ottawa, Ontario: Government of Canada, 2008) http://www.ainc-inac.gc.ca/nth/og/pubs/ann/ann2008/ann2008-eng.pdf (accessed June 20, 2009).

[34] An example of this type of policy is Alaska's recently enacted Clear and Equitable Share (ACES) Tax which is a tax on oil and gas profits of 25%. Alaska Department of Revenue Tax Division, *Revenue Sources Book: Fall 2007*, (Juneau, Alaska: Government of Alaska, 2008) http://www.tax.alaska.gov/programs/documentviewer/viewer.aspx?1202f (accessed December 8, 2008).

to royalties.[35] This is the case, for example, in Alberta, British Columbia and Alaska. In the following chapter, the current resource revenue system for oil and gas developments in the NWT is discussed in detail.

[35] Strategic Value Services, *Comparative Analysis of Fiscal Regimes,* report prepared for the Northern Oil and Gas Directorate Indian and Northern Affairs Canada, February 2005.

3. Oil and Gas Revenue Collection in the NWT

This chapter reviews the current resource revenue regime in the NWT, specifically focusing on the royalty system, the system for leasing oil and gas rights, and the taxation system.

The Government of Canada, through the Oil and Gas Management Directorate of the Department of Indian and Northern Affairs Canada, is responsible for the management of oil and gas rights in the NWT. The collecting and setting of royalties is currently authorized by the Canada Petroleum Resources Act and is prescribed through the Frontier Lands Petroleum Royalty Regulations (FLPRR). The FLPRR came into force in 1991 at a time when there was limited oil and gas production in the southwest portion of the territory.[36] Thus, while the regulations came into force in 1991, there was no petroleum production to which the regulations applied until 2000.[37]

Oil and gas rights are issued in the NWT through approved work bids. A work bid states what a company is willing to invest to develop a project. While work bids theoretically result in regional benefits when expenditures on local goods and services take place, they do not require companies to pay anything upfront to the resource owners. Work bids are used when there is high uncertainty as to whether any resources will be found. They imply that the value of the resource in the region is zero, or close to it, and the company would not be prepared to bid cash.

Revenue from oil and gas developments can also be captured through taxes. There is a range of tax options available to the Government of the Northwest Territories for obtaining revenue from oil and gas developments, which will be discussed in Section 3.3 below.

3.1 The Need to Maximize Resource Revenue Through Royalties

An important job of the federal government is to capture maximum revenue from oil and gas developments within its jurisdiction.

Under the current regime, at project start-up the FLPRR requires companies to pay a royalty of 1% of gross revenue. This rate increases by 1% every 18 months, up to a maximum of 5%, until "project payout" is achieved. Project payout occurs when a company has written off all costs and earned a return allowance equal to 10% plus the long-term bond rate. The return allowance is calculated monthly.[38] Upon project payout, companies pay a 5% royalty on gross revenue or a 30% royalty on net revenue, whichever is greater.[39]

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[36] Royalty rates for oil and gas development at Norman Wells, Point Mountain and Kotaneelee were grandfathered under the previous regulations and are not part of the FLPRR. Doug Matthews, personal communication, July 2009.

[37] Government of Canada, *Regulations Amending the Frontier Lands Petroleum Royalty Regulations*, Canada Gazette, Vol. 141, No. 50, December 15, 2007. http://canadagazette.gc.ca/partI/2007/20071215/html/regle3-e.html (accessed December 21, 2008).

[38] Northern Oil and Gas Directorate Indian and Northern Affairs Canada, *Calculating Royalties*, http://www.ainc-inac.gc.ca/nth/og/flprr/calc-eng.asp (accessed September 1, 2009).

[39] Indian and Northern Affairs Canada, *Discussion Paper: The Frontier Lands Petroleum Royalty Regulations, Proposed Amendments,* http://www.ainc-inac.gc.ca/oil/roy/regrev/discu_index_e.html (accessed October 2, 2008).

It is when the post-payout rate is reached, or when companies are earning a profit on the oil and gas development, that the government is able to obtain substantial revenue from the production and sale of the resources. The 30% royalty on net revenues is called a "resource rent royalty," meaning it is a royalty levied on the economic rent associated with a project.[40] Resource rent royalties, if properly established, provide a means to transfer a consistent share of economic rent from oil and gas developers to the public.

Resource rent royalties are levied on net revenue while *ad valorem* royalties are levied on gross revenue. The table below compares resource rent royalties with *ad valorem* royalties.

Table 1. Resource rent royalties versus *ad valorem* royalties.

Resource Rent Royalties	Ad Valorem Royalties
• calculate economic rent precisely and capture a predefined and consistent share of available rent, because costs and a return on investment are taken into consideration; • are sensitive to changes in price, profits and costs of production both over time and from project to project; • can be set to leave a normal rate of return with companies and to transfer remaining revenues to citizens; • are normally levied at the project level, not on individual wells, and are calculated over the life of the project, not on an individual barrel or single period within the project; • are administratively more complex but economically efficient, i.e., they use a precise calculation of economic rent as a basis of royalties.	• are applied to gross revenues and can take such factors as prices, productivity, vintage, quality, depth and location as proxies for changes in economic rent; • are less sensitive to changes in price, profits and costs and therefore require adjustments when there is a significant change in economic circumstances to ensure high compensation for citizens; • are normally based on individual wells, not an entire project; • are administratively simpler, but may be economically inefficient, i.e., they rely on a crude approximation of economic rent as the basis for royalties, rather than economic rent itself.

Because resource rent royalties, such as those used in the NWT for oil and gas production, are based on net revenues and thus account for the cost of resource production, they can be set higher than royalties that are based on gross revenues without significantly impacting the economic viability of a project.

Despite this, the federal government has set an exceedingly low resource rent royalty rate for oil and gas developments in the NWT. In doing so, it has put corporate interests ahead of citizens' interests. At 30% of net revenue, the royalty rate is below the high end of the *ad valorem* rates that apply to conventional oil (up to 40% of gross revenue) and natural gas (up to 35% of gross revenue) in Alberta. Thus, while we would expect to see a resource rent royalty set higher than *ad valorem* rates in other regions, this is not currently the case in the NWT.

Even when compared to regions that employ resource rent royalties or taxes on profits, the rate applied to oil and gas developments in the NWT is low. For example, the 30% rate applicable to oil and gas in the NWT is lower than the high end of the resource rent royalty applied to net revenues in the oil sands in Alberta (40%). It is also lower than the profits tax that applies to oil and gas developments in Norway (50%). The low royalty rate applied to oil and gas in the NWT results in companies earning excess profits at the expense of the resource owners.

[40] In Canada, other resource rent royalties include Alberta's oil sands royalties, British Columbia's net profit royalty, Newfoundland's offshore oil royalty regime and the offshore oil royalty regime in Nova Scotia.

In 2005, Strategic Value Services was contracted by INAC to conduct a comparative analysis of royalty collection from gas resources in the NWT, Alberta, British Columbia, Alaska and Norway.[41] The available economic rent in these regions was estimated using two gas price scenarios, $4.5/mcf (million cubic feet) and $6.00/mcf (real 2005 Canadian dollars). The analysis was based on established gas plays in the NWT and Northern British Columbia — Beaver River, Windflower and Colville. The table below summarizes the results of the study. The total take by government through royalties and taxes, shown in the table as a percentage of the available economic rent, is consistently less in the NWT than it is in the other regions considered.

Table 2. Comparison of government share of gas royalties.[42]

Prospects	Government Share of Resource Rent – Hypothetical Comparison of Rates					
	Beaver River @ $6.00/mcf	Beaver River @ $4.5/mcf	Colville @ $6.00/mcf	Colville @ $4.5/mcf	Windflower @ $6.00/mcf	Windflower @ $4.5/mcf
NWT	60%	59%	59%	58%	52%	45%
Alberta	60%	61%	64%	68%	62%	65%
B.C.	65%	65%	67%	70%	64%	65%
Alaska	65%	65%	62%	65%	65%	68%
Norway	78%	78%	79%	81%	78%	79%

Lower royalty rates in the territory are often justified by the federal government on the basis of higher exploration and development costs relative to Alberta or British Columbia. However, an analysis of wells in the Deh Cho First Nation territory revealed that all producing wells are less than 60 kilometres north of the NWT border.[43] In northern Alberta and British Columbia — remote regions with infrastructure comparable to that in southern NWT — a significant amount of oil and gas activity is taking place, yet oil and gas producers in these jurisdictions pay higher royalty rates.[44] Though the current major oil and gas reserves in the North are remote, if the Mackenzie Valley pipeline is built it will make these resources available for exploitation. Furthermore, the NWT oil and gas resource rent royalty regime is explicitly designed to take into account the potential for higher costs and risks associated with more remote resource developments. The 30% royalty is levied on net revenues after the project reaches payout, which means that it already accounts for the high cost of resource production.

3.2 The Need to Maximize Resource Revenue Through Cash Bids

In addition to reviewing and reforming the oil and gas royalty rates in the NWT, the federal government needs to revise the work bid system which is currently used to award oil and gas leases in the territory. Work bids do not result in a transfer of revenue from companies to the

[41] Strategic Value Services, *Comparative Analysis of Fiscal Regimes,* report prepared for the Northern Oil and Gas Directorate Indian and Northern Affairs Canada, February 2005.

[42] Ibid.

[43] Petr Cizek, *Value of Deh Cho Oil and Gas Production and Royalties*, prepared by Cizek Environmental Services for Deh Cho First Nation, 2003.

[44] Ibid.

government and thus, in the case of the NWT, are not a policy mechanism used to collect economic rent from oil and gas developments. Cash bids, on the other hand, provide a useful way for resource managers to capture revenue from developers at the outset of a project. While the use of work bids in the NWT may be somewhat justified given the relatively high degree of uncertainty about the existence and extent of oil and gas resources, it is still important for resource owners to receive some upfront compensation for the development of their resources. For this reason, a system based on a combination of work bids and cash bids would be a more appropriate way to award oil and gas leases in the territory. An example of such a system is found in the Inuvialuit Settlement Region (ISR), where the Inuvialuit Regional Corporation (IRC) is responsible for managing the affairs of the ISR as outlined in the 1984 Inuvialuit Final Agreement. In 2000, the IRC put some of its subsurface lands out for exploration through a cash bid system. The IRC received a cash payment of $75.6 million for the four exploration parcels awarded in addition to the work bids. The total work commitment of these winning bids was $466 million over the ten-year life of the licences.[45]

3.3 The Need to Maximize Resource Revenue Through Taxation

The Government of the Northwest Territories has the authority to levy a number of taxes that would allow it to capture revenue from oil and gas developments in the NWT. The government could do so for the benefit of the resource owners — the citizens of the NWT. In Budget 2008, the GNWT committed to taking a number of measures to restore fiscal sustainability in the territory, including the generation of new revenues. In September 2008, the Department of Finance released a discussion document, *Revenue Options*,[46] which focused on raising new revenues and presented the options available to the GNWT to fund new and existing programs, services and infrastructure. As discussed in the *Revenue Options* report, the Territorial Minister of Finance has the authority to capture revenue through taxes on capital, income, consumption (including carbon emissions) and property. In 2009, the GNWT released a second discussion paper on this topic, *Examining the Mix: Options for Changing the NWT Tax System,* which provided additional details on potential changes to the current tax regime in the NWT.[47] This paper provided background information for roundtable discussions that took place in the fall of 2009. The roundtable discussions revealed support for a number of tax options available to the GNWT, some of which could be used to obtain greater revenue from resource developments in general and oil and gas developments more specifically. Indeed, one of the issues raised during the roundtable discussions was the low level of benefit received from resource extraction activities in the NWT compared to other countries. The need to establish plans and approaches to ensure that Northerners get the full range of benefits from resource developments was

[45] Calvin Brackman, Department of Resources, Wildlife and Economic Development Government of the Northwest Territories, *The Northwest Territories Petroleum Industry 2001*, http://www.bmmda.nt.ca/background.htm (accessed May 4, 2009).

[46] Government of the Northwest Territories Department of Finance, *Revenue Options*, September 2008, http://www.fin.gov.nt.ca/taxation/revenue-options/index.htm (accessed September 1, 2009).

[47] Government of the Northwest Territories Department of Finance, *Examining the Mix: Options for Changing the Northwest Territories Tax System,* September 2009, http://www.fin.gov.nt.ca/documents/press-releases/revenue-options/Revenue Options 2009 Final.pdf (accessed November 2009).

emphasized in the discussions.[48] A detailed cost and benefit analysis of the most promising tax options available to the GNWT to generate revenue from oil and gas developments is now warranted. This section provides a brief overview of some of the options that should be evaluated in detail.

Capital Tax: A capital tax is applied on a corporation's "paid up" capital. This includes retained earnings, capital stock, and long-term debt.[49] Most provinces and territories have capital taxes, while the NWT does not.[50]

One of the strengths of a capital tax compared to income taxes is that it provides a stable revenue stream over time. Revenue from income taxes, by comparison, tends to fluctuate from year to year as corporate income does the same.[51]

Territorial Formula Financing (TFF) Grant

The TFF Grant from the Government of Canada makes up approximately 65% of the GNWT's annual revenues. The grant is equal to the difference between the revenue the GNWT would need to provide levels of public services comparable to the provinces and its revenue raising ability. The territories' revenue raising ability is measured as its ability to raise revenues at taxation levels comparable to the National Average Tax Rates. The value of the grant is adjusted annually to account for changes in population and provincial spending levels.

TFF Grant = Expenditure Requirements – Revenue-Raising Ability

An incentive for the territory to raise its own revenue is worked into the formula: 30% of the territories' revenue raising ability is excluded from the calculation.

Despite the significant revenue potential of a capital tax, the GNWT presently does not levy such a tax. According to analysis done by the Government of the Northwest Territories, a mere 0.3% tax on the paid up capital of large corporations (not just oil and gas) would net $12 million in annual revenue.[52]

Resource Income Tax: Resource income taxes are applied to the earnings of resource extraction companies. Some provinces utilize this type of tax to collect excess profits from mining companies.[53]

In its 2008 *Revenue Options* paper, the GNWT did not analyze the potential revenues from a resource income tax on oil and gas.[54] Such an analysis should be completed, particularly before any major projects, such as the Mackenzie Gas Project, take place. A resource income tax could be part of a plan to diversify the economy, its revenues also forestalling the need to increase rates

[48] Government of the Northwest Territories Department of Finance, *Examining the Mix: Options for Changing the Northwest Territories Tax System, Report on 2009 Revenue Options Consultations,* November 2009, http://www.fin.gov.nt.ca/documents/press-releases/revenue-options/reortdec102009.pdf (accessed November 2009).

[49] Government of the Northwest Territories Department of Finance, *Revenue Options*, September 2008, http://www.fin.gov.nt.ca/taxation/revenue-options/index.htm (accessed September 1, 2009).

[50] Ibid.

[51] Ibid.

[52] Government of the Northwest Territories Department of Finance, *Revenue Options*, September 2008, http://www.fin.gov.nt.ca/taxation/revenue-options/index.htm (accessed September 1, 2009).

[53] Ibid, 22.

[54] Ibid, 23.

of other taxes, like corporate income taxes.[55] The 2009 roundtable discussions on options for changing the NWT tax system revealed broad but not unanimous support for such a tax. Participants stated that such a tax could be introduced in advance of devolution to increase the benefits from resource developments already taking place in the territory and that such a tax should be explored as a way of investing in the future.[56]

Property Tax: The GNWT currently levies property taxes on oil and gas developments that take place outside of communities designated as cities, towns or villages, which are municipal taxation areas. Properties containing developments (e.g. "improvements" such as buildings or other infrastructure) related to oil and gas, minerals and pipelines are subject to such taxation. In its 2009/10 Budget Address, the GNWT announced that it will adjust the 2009 property tax rates on mining, oil and gas, and pipeline properties to increase revenues from these sources by 15%.[57]

Carbon Tax: Governments around the world have used carbon taxes as integral parts of their policy approaches to addressing climate change. In Canada, the provinces of British Columbia and Quebec have both introduced carbon taxes. A carbon tax is levied on fossil fuels according to the carbon content of the particular fuel. Fuels higher in carbon are taxed at a relatively higher rate than those lower in carbon. In the NWT, a carbon tax could apply to a number of products or uses including fuels used for heating, electricity generation, pipeline compressors or motor vehicles.[58]

Other revenue raising options available to the GNWT include consumption taxes on tobacco, liquor, sales and hotels, and fees on highways and airports. A cost-benefit analysis of the full suite of tax options available to the GNWT could help ensure that the government is maximizing revenue raising potential in the territory.

3.4 Race to the Top: Assessing and Revising Tax Options

The Government of the Northwest Territories should assess the range of tax options that could be applied to oil and gas extraction to determine the potential costs and benefits associated with each tax option. Changes to the tax system should be viewed and designed as part of an integral package of resource revenue reform.

Efforts should also be made to work with other jurisdictions, in Canada and beyond, to stop tax competition between jurisdictions. In tax competition, jurisdictions lower their tax rates to draw in businesses from other jurisdictions. However, in this "race to the bottom," all jurisdictions end up with lower tax revenues, and the competitiveness "gains" of all the tax cuts made along the way are negated. That is, once all jurisdictions lower their tax rates, then no-one has a competitive edge. At the same time, taxes have been shifted off of corporations and onto

[55] David Thompson, The Parkland Institute, *A Fair Price: Taxation, Services and Programs in the Northwest Territories,* http://www.ualberta.ca/PARKLAND/ (accessed September 1, 2009).

[56] Government of the Northwest Territories Department of Finance, *Examining the Mix: Options for Changing the Northwest Territories Tax System, Report on 2009 Revenue Options Consultations,* November 2009, http://www.fin.gov.nt.ca/documents/press-releases/revenue-options/reortdec102009.pdf (accessed November 2009).

[57] Department of Finance Government of the Northwest Territories, Budget Address 2009–10 Northwest Territories, http://www.fin.gov.nt.ca/address/index.htmh (accessed September 1, 2009).

[58] Government of the Northwest Territories Department of Finance, *Revenue Options*, September 2008, http://www.fin.gov.nt.ca/taxation/revenue-options/index.htm (accessed September 1, 2009).

individuals.[59] The federal government removed its capital tax in 2006,[60] and some of the provinces and territories are planning to eliminate their capital taxes by July 1, 2012.[61] This race to the bottom does a disservice to the public, who would ultimately benefit from the tax revenue.

3.5 Why Northerners Should Care

Why should Northerners care about how much revenue the federal and territorial governments collect (or do not collect) from oil and gas resources? There are several reasons, summarized below and then discussed later in more detail.

First, it is critical that the tax and royalty regimes are capturing maximum revenue from oil and gas developments *before* major projects such as the Mackenzie Gas Project proceed. Once projects are approved, it becomes increasingly difficult to change the tax and royalty regimes applicable to them.

Second, some Aboriginal land claim organizations in the NWT receive resource royalties from the federal government through land claim agreements. The amount of royalty revenue collected by the federal government has a direct impact on the amount of revenue the organizations will receive from oil and gas developments within their settled region.

Finally, there is only one opportunity to develop the finite oil and gas resources in the NWT. Low royalty and taxation rates today will mean public revenue that is lost forever.

3.5.1 Maximize Revenue Collection Before Major Projects Take Place

The Mackenzie Gas Project, or developments of a similar size, would vastly increase gas production from the NWT. Increased production means the potential for increased resource revenue — if the resource revenue regime is designed to maximize revenue collection from gas projects. To achieve maximum revenue collection, it is critical that the resource revenue regime is adjusted before such projects are undertaken. It is exceedingly difficult to make changes to the revenue regime that applies to a project once the project has begun.

The federal government is responsible for managing oil and gas resources in the NWT. The federal government sets the terms of the royalty regime and collects revenues from oil and gas companies that operate in the territory. The revenue that the federal government collects from oil and gas developments in the NWT goes into general revenues and is used to support the program spending of the federal government. The GNWT therefore does not receive royalty payments from the development of oil and gas resources in the territory. The main source of revenue (approximately 65% of the total territorial budget)[62] for the GNWT is transfer payments from the federal government. Annual transfer payments are determined by the Territorial Formula Financing agreement and are unrelated to the amount of oil and gas revenue obtained by the federal government for resource developments in the territory.

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[59] David Thompson, Principal of PolicyLink Research and Consulting, personal communication. Also see Organization for Economic Cooperation and Development, "Harmful Tax Competition: An Emerging Global Issue" http://www.oecd.org/dataoecd/33/1/1904184.pdf (accessed May 8, 2009).

[60] David Thompson, Principal of PolicyLink Research and Consulting, personal communication.

[61] Government of the Northwest Territories Department of Finance, *Revenue Options*, September 2008, http://www.fin.gov.nt.ca/taxation/revenue-options/index.htm (accessed September 1, 2009).

[62] Government of the Northwest Territories Department of Finance, *Revenue Options*, September 2008, http://www.fin.gov.nt.ca/taxation/revenue-options/index.htm (accessed September 1, 2009).

In Table 3 below, the current and potential royalties received by the federal government for the development of NWT oil and gas resources are compared to the federal government transfers to the GNWT through Territorial Formula Financing payments.

Table 3. Comparison of current oil and gas royalties and Territorial Formula Financing.

Revenue Stream	Annual Revenues / Transfer Amount
Average annual federal royalties from NWT oil and gas 2002–2007[63]	$23 million + $120 million from the Norman Wells Proven Area Agreement
Average annual Territorial Formula Financing 2005/06–2008/09 received by GNWT from Canada[64]	$841 million (65% of GNWT Total Budget)[65]

The federal transfers to the GNWT currently exceed the revenues generated from oil and gas resource royalties, including the amount collected from the Norman Wells Proven Area Agreement, which does not fall under the Frontier Lands Petroleum Royalty Regulation. The Government of Canada receives approximately $120 million per year from the Norman Wells oil field through its Proven Area Agreement signed with Imperial Oil in 1944.[66] Royalties from other oil and gas production in the NWT have been between $20 and $30 million per year in the past six years, averaging $23 million annually. Transfers to the GNWT through the federal government's Territorial Formula Financing have averaged $841 million over the past four fiscal years. In the future, however, revenues from gas developments through the Mackenzie Gas Project could exceed the federal government's transfers to the GNWT, as shown in Table 4 below.

[63] Department of Indian Affairs and Northern Development Northern Oil and Gas Directorate, Government of Canada, *Northern Oil and Gas Annual Report 2007*, http://www.ainc-inac.gc.ca/nth/og/pubs/ann/ann2007/ann2007-eng.asp (accessed September 1, 2009).

[64] Government of Canada Department of Finance, *Federal Transfers to Provinces and Territories: NWT*, http://www.fin.gc.ca/FEDPROV/mtpe.html - NorthwestTerritories (accessed January 7, 2009).

[65] Northwest Territories Bureau of Statistics, Government of the Northwest Territories Department of Finance, http://www.stats.gov.nt.ca/Statinfo/PublicSector/terr_fin.otp (accessed September 1, 2009).

[66] Chuck Strahl, Minister of Indian Affairs and Northern Development, letter to Dennis Bevington, Western Arctic Member of Parliament, September 26, 2008.

Table 4. Projected federal royalties and GNWT income taxes from the Mackenzie Gas Project.

Revenue Stream	Annual Revenues
Mackenzie Gas Project projected annual federal royalties — Full Production Case (average over 45 years)[67]	$985 million
Mackenzie Gas Project projected annual income taxes to the GNWT (average over 45 years under taxation regime in place as of 2007) — Full Production Case[68]	$172 million

A financial model developed by Pacific Analytics examined four development scenarios to project the potential resource revenues of the Mackenzie Gas Project. The projected rates of return for all of the scenarios were far above normal returns for similar projects (e.g. approximately 30% versus an expected rate of return of 17.8% for the Alaska Gas Pipeline).[69] Before a project as economically significant as the Mackenzie Gas Project comes online, the royalty and taxation regime should be changed to guarantee maximum revenue generation for resource owners.

3.5.2 Increased Revenue Collection by the Federal Government Means Increased Revenue for Aboriginal Governments

Aboriginal governments with settled land claim agreements will directly benefit if the federal government obtains increased revenue from oil and gas developments in the NWT. The more revenue the federal government collects, the more revenue the Aboriginal governments will receive. In addition, royalty rates for Crown land may influence royalty rates for Aboriginal-owned lands, as Aboriginal governments consider the competitiveness of their adjacent lands. The Government of Canada has Comprehensive Land Claim Agreements with the Sahtu Dene and Métis, the Gwich'in, and the Tlicho. These agreements articulate the way that resource revenues collected from Crown land are shared with these groups. The Comprehensive Land Settlement for the Inuvialuit, signed in 1984, does not require the federal government to share royalties from developments on Crown land, but includes other provisions for revenue from oil and gas developments.[70] The following table outlines the existing royalty sharing agreements within the NWT. Negotiations with the Deh Cho for a land claim agreement are ongoing, although an Interim Resource Development Agreement is in place. Settlement negotiations, including resource revenue sharing agreements, are also underway with the Akaitcho and the Northwest Territory Métis Nation Aboriginal groups.[71] Should the federal government decide to change the royalty system, it must consult with Aboriginal governments in the NWT as per the legal requirements in land claim agreements.

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[67] Pacific Analytics Inc., *The Mackenzie Gas Project: A Financial and Economic Assessment*, prepared for Alternatives North, September 2006, http://www.alternativesnorth.ca/mackenziegasproject.html (accessed December 15, 2008).

[68] Ibid.

[69] Ibid.

[70] Doug Matthews, personal communication, July 2009.

[71] Indian and Northern Affairs Canada, *Discussion Paper: The Frontier Lands Petroleum Royalty Regulations, Proposed Amendments, http://www.ainc-inac.gc.ca/oil/roy/regrev/discu_index_e.html* (accessed October 2, 2008).

Table 5. Summary of existing royalty sharing agreements within the NWT for oil and gas projects.[72]

Aboriginal Group	Agreement	On First $2M of Royalties (%)	On Annual Royalties of More than $2M (%)
Gwich'in	Gwich'in Land Claim Agreement	7.5	1.5
Sahtu Dene and Métis	Sahtu Land Claim Agreement	7.5	1.5
Tlicho	Tlicho Land Claim Agreement	10.5	2.1
Deh Cho	Interim Resource Development Agreement	12.3	2.5

3.5.3 Low Royalty and Taxation Rates Today Mean Lost Resource Revenue Tomorrow

Low royalty and taxation rates can accelerate the pace of oil and gas developments relative to what it would be with higher rates, as companies strive to take advantage of low rates. However, every barrel of oil or cubic foot of gas that is produced at low royalty and tax rates today is one less barrel or cubic foot that is available for production at rates that achieve maximum revenue collection for resource owners tomorrow. In 2008, an estimated $312 million dollars was spent on gas exploration in the NWT.[73] As gas supplies from more southern sources dwindle, it is conceivable that the Mackenzie region of the NWT will be targeted as a boom region for global gas developments. As well, natural gas is expected to play a more dominant role in the world energy supply as climate policy encourages a switch from high carbon fuels to lower carbon fuels.[74] Resource owners should avoid giving away their resources at a subsidized rate today, because declining gas supplies in southern markets and increased action on climate change will likely mean that natural gas resources in the NWT will be worth even more in the future.

[72] Adapted from Indian and Northern Affairs Canada, *Discussion Paper: The Frontier Lands Petroleum Royalty Regulations, Proposed Amendments*, http://www.ainc-inac.gc.ca/oil/roy/regrev/discu_index_e.html (accessed October 2, 2008), 3.

[73] Indian and Northern Affairs Canada, *Northern Oil and Gas Annual Report 2008*, (Ottawa, Ontario: Government of Canada, 2008) http://www.ainc-inac.gc.ca/nth/og/pubs/ann/ann2008/ann2008-eng.pdf (accessed June 20, 2009).

[74] International Energy Agency, Organization for Economic Cooperation and Development, *World Energy Outlook 2007*, http://www.worldenergyoutlook.org/2008.asp (accessed May 8, 2009).

Record Profits for Oil and Gas Companies

The oil and gas industry in Canada achieved a historic profit record in 2006 when operating profits reached $25.5 billion, an increase of 31% over 2005.[75] The oil and gas industry accounted for half of the overall profit gain in Canada's non-financial industries in 2006.[76] In 2008 a new record was set for corporate profits for the oil and gas sector ($37.8 billion, up 43.2% from 2007), in spite of lower profits in the fourth quarter.[77]

In fact, companies with high stakes in oil and gas developments are among the most profitable companies in Canada. According to the annual survey completed by the *Report on Business Magazine*, oil and gas companies with oil sands holdings and winning bids in the North, including Imperial, Husky and Petro-Canada, rank in the top 50 most profitable companies in the country. Husky ranked 9th in 2008 with $3.2 billion in profits, followed by Imperial and Petro-Canada at 10th and 12th respectively with profits of $3.1 billion and $2.7 billion.[78] Conoco Phillips, an American firm active in the oil sands and the Mackenzie Gas Project, is the third largest integrated oil and gas company in the U.S. In 2007, Conoco Phillips posted profits of $11.8 billion.

[75] Miles R. Rowat, *Boom Times: Canada's Crude Petroleum Industry,* (Ottawa, ON: Statistics Canada, catalogue no. 11-621-MEI-No. 047, September 2006).

[76] Statistics Canada, *Quarterly Financial Statistics for Enterprises,* (Ottawa: Statistics Canada, Daily February 24, 2006).

[77] Oil and gas extractors' profits dropped 41.2% from the third quarter to $7.1 billion and refiners' profits reduced by 47.3% to $2.3 billion; Statistics Canada, *Quarterly Financial Statistics for Enterprises,* (Ottawa: Statistics Canada, Daily February 29, 2009) http://www.statcan.gc.ca/daily-quotidien/090226/dq090226a-eng.htm (accessed April 24, 2009).

[78] The Globe and Mail, "The Top 1000," *Report on Business*, June 2008, http://business.theglobeandmail.com/v5/content/tp1000-2008/index.php (accessed April 24, 2009).

4. A Long-Term Fund

Regions that rely on oil, gas and other non-renewable resources for a substantial share of their revenue face both a planning challenge — the revenue stream is uncertain and volatile — and an intergenerational equity challenge — the supply of the resources is exhaustible.[79] The planning challenge is especially difficult in regions where the economy lacks diversity, and is therefore particularly vulnerable to unpredictable changes in the prices of non-renewable resources.

In light of these factors, policy-makers must decide how to adjust government fiscal policy to cushion the domestic economy from sharp and unpredictable variations in non-renewable resource prices and associated revenues. Policy-makers must also consider how much non-renewable resource income to spend on the present generation and how much to save for future generations.[80] To address these challenges, a number of regions in the world are placing revenues from non-renewable resource developments into long-term funds. In the following sections, we discuss the approaches taken by Alberta, Alaska and Norway. These jurisdictions have established non-renewable permanent funds (NPFs) to address these and other challenges. NPFs are funds into which a portion of revenues from the development of non-renewable resources is placed on a continuous basis. When well designed and administered, these funds increase in value over time as non-renewable resources are depleted.

Converting Natural Capital Into Financial and Human Capital

Long-term funds are especially important due to the nature of non-renewable resources like oil and gas. Once this natural capital is used up, it is gone forever.

Economic rent from this natural capital should be converted into financial and human capital to create long-term benefits. This means investing resource revenues into long-term funds and programs and infrastructure to benefit present and future generations.

In 2000, the GNWT released a four year non-renewable resource development strategy in which the government highlighted the need for a portion of non-renewable resource revenues to be reinvested in the North to reduce dependence on federal transfer payments.[81] The GNWT's 2009–2010 Budget Address reaffirmed the government's commitment to advancing this issue, stating, "A Heritage Fund could play an important role in preserving the benefits of resource developments in NWT so that these proceeds can be reinvested to achieve sustainable economic development in NWT. We need to be concerned that the revenues earned from developing our resources benefit this and future generations."[82] A long-term fund could be an effective tool to

[79] Jeffrey Davis, Rolando Ossowski, and Annalisa Fedelino, "Fiscal Challenges in Oil-Producing Countries: An Overview," in *Fiscal Policy Formulation and Implementation in Oil-Producing Countries,* eds. Jeffrey Davis, Rolando Ossowski, and Annalisa Fedelino, (Washington, DC: International Monetary Fund, 2003), http://www.imf.org/external/pubs/nft/2003/fispol/ (accessed May 8, 2009).

[80] Ugo Fasano, *Review of the Experience with Oil Stabilization and Savings Funds in Selected Countries,* International Monetary Fund Working Paper 00/112 http://www.imf.org/external/pubs/ft/wp/2000/wp00112.pdf (accessed May 8, 2009).

[81] Government of the Northwest Territories Department of Finance, *Towards a Better Tomorrow: A non-renewable resource development strategy for the NWT*, http://www.fin.gov.nt.ca/documents/forms-documents/nrrds.pdf (accessed May 8, 2009).

[82] Government of the Northwest Territories Department of Finance, *Budget Address 2009–10 Northwest Territories*, page 15, http://www.fin.gov.nt.ca/address/index.htm (accessed May 4, 2009).

achieve the kind of independence the NWT seeks. As the 2009 roundtable discussions on options for changing the NWT tax system revealed, there is strong support for the development of such a fund in the NWT.[83] Indeed, a discussion paper on a proposed "Heritage Fund" for the NWT will soon be released.[84] Furthermore, the Joint Review Panel recommended that a portion of funds from the Mackenzie Gas Project be dedicated to planning and investing in a transition from the eventual winding down of the project. More specifically, the Panel recommended "that the GNWT establish mechanisms for funding transition programs, based on revenues it would obtain from non-renewable resource royalties."[85] Such funds could be accrued in a non-renewable permanent fund for the NWT.

Long-Term Funds: A Primer

The International Monetary Fund identified five different types of sovereign wealth funds that could be used by governments. These funds include:

- stabilization funds, where the primary objective is to insulate the budget and the economy against commodity (usually oil) price swings;
- savings funds for future generations, which aim to convert non-renewable assets into a more diversified portfolio of assets;
- reserve investment corporations, whose assets are often still counted as reserve assets, and are established to increase the return on reserves;
- development funds, which typically help fund socio-economic projects or promote industrial policies that might raise a country's potential output growth; and
- contingent pension reserve funds, which provide (from sources other than individual pension contributions) for covering unspecified pension liabilities on the government's balance sheet.

The same article provides a list of benefits associated with these funds, including:

- helps to avoid boom-bust cycles;
- facilitates inter-generational savings and wealth transfer;
- provides for greater portfolio diversification and a greater focus on returns relative to traditional reserve funds.[86]

The benefits of non-renewable permanent funds are substantial. These funds provide insurance against declining revenues from resource production as non-renewable resources are depleted over time. They also ensure that future generations will benefit from the production of resources today. They can be used to help mitigate boom and bust cycles, provide economic diversification to rural communities, and facilitate a transition to renewable resources.

[83] Government of the Northwest Territories Department of Finance, *Examining the Mix: Options for Changing the Northwest Territories Tax System, Report on 2009 Revenue Options Consultations,* November 2009, http://www.fin.gov.nt.ca/documents/press-releases/revenue-options/reortdec102009.pdf (accessed November 2009).

[84] Government of the Northwest Territories Department of Finance, *Examining the Mix: Options for Changing the Northwest Territories Tax System, Report on 2009 Revenue Options Consultations,* November 2009, http://www.fin.gov.nt.ca/documents/press-releases/revenue-options/reortdec102009.pdf (accessed November 2009).

[85] Joint Review Panel for the Mackenzie Gas Project. 2009. *Foundation for a Sustainable Northern Future. Executive summary.* http://www.ngps.nt.ca/registryDetail_e.asp (accessed January 13, 2010). Page 3.

[86] International Monetary Fund, "State-Owned Investment Funds: IMF Intensifies Work on Sovereign Wealth Funds" (Washington, DC: IMF Survey Online, IMF, 2008). Available online: http://www.imf.org/external/pubs/ft/survey/so/2008/POL03408A.htm

Federal and territorial leaders and oil and gas development proponents have promised Northerners many benefits associated with resource developments. However, there is no clear mechanism in place to ensure that there are direct benefits for *all* Northerners. A non-renewable permanent fund for the NWT could help ensure that development benefits all residents — current and future. The fund could also provide a source of revenue for addressing negative socio-economic impacts from oil and gas developments, something the federal government has already committed to doing with the $500 million Mackenzie Gas Project Impact Fund. More specifically, such a fund could be used to mitigate boom and bust cycles, provide a store of wealth for future generations, and facilitate a transition away from non-renewable resources after the MGP is complete. A permanent fund could also assist in distributing the benefits from oil and gas developments in one region across the whole NWT.

A percentage of the interest earned from a non-renewable permanent fund could furthermore provide financial resources to manage local energy needs in communities throughout the NWT. For example, small communities could benefit substantially from renewable energy investments that eliminate or reduce their dependence on diesel power. Investments such as these would still be valuable after gas reserves begin to decline and would give communities certainty in energy prices and reliability.

4.1 Experiences with Non-renewable Permanent Funds

Governments in Alaska and Norway have recognized the value and importance of NPFs and have made them a major component of the resource management policy governing oil and gas production in their respective regions. These two jurisdictions have established NPFs to protect against boom and bust economic cycles, provide economic stability, accumulate significant wealth and create a long-term revenue stream for their regions. While Alberta has a savings fund, the Alberta Heritage Fund (which will be described in more detail below), the current operation and objectives of this fund are substantially different from NPFs in Alaska and Norway.

4.1.1 Alberta Heritage Fund

The Alberta Heritage Fund is an example of a well conceived permanent fund that was halted and therefore has not achieved its original intentions. The Alberta Heritage Fund differs from the Alaska Permanent Fund and the Norway Pension Fund both in its objectives and operation. Alberta's fund was created in 1976 by then premier of Alberta, Peter Lougheed, at a time when Alberta was experiencing a boom in oil and gas revenues.[87] The initial investment in the fund was $620 million. The start-up money also included a $1.5 billion transfer of cash and financial assets from Alberta's General Revenue Fund.[88] From 1976 to 1983, 30% of provincial resource revenues were transferred to the fund each year. In 1983, the resource revenue transfer was reduced to 15%. In 1987, it was stopped completely.

A fundamental objective of the Alberta Heritage Fund at the time of its creation was to provide economic stability by setting aside revenues from natural resource developments.[89] When it was established, Lougheed outlined four objectives for the fund. First, the fund was to function as a

[87] Sandy Gillett, *Oil and Gas Legacy Funding in Norway, Alaska, Alberta and British Columbia* (Vancouver, British Columbia, 2002).

[88] Ibid.

[89] Allan Warrack and Russell Keddie, *Alberta Heritage Fund vs. Alaska Permanent Fund: A Comparative Analysis* (Edmonton, Alberta: University of Alberta, Faculty of Business, 2001).

savings account that would offset declining resource revenue in the future. Second, the fund was to provide additional leveraging opportunities for the government, thus reducing the government's future debt load. Third, the fund was to improve quality of life for Albertans. Finally, the fund was to facilitate stability in the economy by providing money to diversify economic activity in the province.[90]

The government first drew on the Alberta Heritage Fund's investment income in 1982.[91] Between 1982 and 1995, income from the fund was transferred to the General Revenue Fund to help pay for ongoing government programs and services. Projects such as irrigation works, parks, hospitals and research projects were supported with income from the Alberta Heritage Fund. During the same period of time, no inflation proofing took place. As a result, the value of the fund began to decline.

Transfers to the General Revenue Fund stopped in 1995, when the fund was valued at approximately $12 billion. The objectives of the Alberta Heritage Fund have vacillated as circumstances changed: "Objectives have been modified or abandoned, directly or indirectly, by the Alberta government during the life of the fund."[92] In 1997, the Alberta Heritage Fund was restructured.[93] It was divided into the Transition Portfolio to meet immediate fiscal needs, and the Endowment Portfolio to maximize long-term investments.[94] As part of this restructuring, the fund was protected against devaluation due to inflation. A portion of income earned by the fund is now transferred back into the Endowment Portfolio to offset losses in capital value due to inflation. All other income is transferred into the General Revenue Fund. The Government of Alberta has committed to adding one third of government surpluses to the fund for long-term savings. As of December 2008, the Heritage Fund was valued at $14.5 billion, down $2.5 billion from 2007.[95]

4.1.2 Alaska Permanent Fund

The Alaska Permanent Fund was created in 1976, the same year as the Alberta Heritage Fund, in response to significant resource revenues from a major oil discovery at Prudhoe Bay. The fund was established to provide long-term stability to fiscal policy, to save resource revenues for future generations as resources decline, and to return a share of resource revenues from oil and gas developments to the people of Alaska. A constitutional obligation requires that at least 25% of all mineral lease rentals, royalties, royalty sale proceeds, federal mineral revenue sharing

[90] Ibid.

[91] Sandy Gillett, *Oil and Gas Legacy Funding in Norway, Alaska, Alberta and British Columbia* (Vancouver, British Columbia, 2002).

[92] Allan Warrack and Russell Keddie, *Alberta Heritage Fund vs. Alaska Permanent Fund: A Comparative Analysis* (Edmonton, Alberta: University of Alberta, Faculty of Business, 2001).

[93] Sandy Gillett, *Oil and Gas Legacy Funding in Norway, Alaska, Alberta and British Columbia* (Vancouver, British Columbia, 2002).

[94] Ibid.

[95] Alberta Finance and Enterprise, Government of Alberta, *Alberta Heritage Savings Trust Fund 2008–09 Third Quarter Update* February 26, 2009**,** http://www.finance.alberta.ca/business/ahstf/index.html (accessed April 24, 2009).

payments, and bonuses received by the State of Alaska be placed into the fund.[96] Income from the fund is used to finance dividend cheques to the citizens of Alaska, to ensure that the value of the fund keeps pace with inflation, and to increase the principal amount of the fund.[97] In 2007, every Alaskan citizen received US $1,640[98] as a dividend from the fund. The largest amount ever distributed was US $1,963.86 in 2000.[99]

In 2007, the value of the Alaska Permanent Fund was US $37.8 billion, and the fund earned US $4.9 billion in net income that year. Its return over the last 15 years has been 12.2%.[100] After weathering the recent economic downturn, the fund's value in 2008 was US $36 billion.[101] The Alaska Permanent Fund's investment strategies have ensured its continuous growth, both in terms of its asset base and its ability to earn revenues.[102] The fund currently accounts for more than 50% of central government revenue in Alaska.[103] There is strong citizens' interest in the fund's operation and investment activities. The Alaska Permanent Fund can only undergo fundamental changes through constitutional amendment.[104] In 1999, a citizens' vote was solicited to consider the possibility of using some of the fund's principal to balance the state budget. With a nearly 95% voter turnout, more than 70% voted "no" to spending Alaska Permanent Fund earnings.[105]

4.1.3 Norway Pension Fund

The Norway Pension Fund was created in 1990, and the first transfer to the fund took place in 1996.[106] The fund's objectives relate to both economic stability and long-term savings. As resource revenues increase due, for example, to increasing commodity prices, funds are accumulated in the Norway Pension Fund rather than in general revenues. This allows the government to dampen inflationary pressures and contain the potential appreciation of the exchange rate. During declines in commodity prices, previously accumulated financial assets can

[96] Ugo Fasano, *Review of the Experience with Oil Stabilization and Savings Funds in Selected Countries,* International Monetary Fund Working Paper 00/112, http://www.imf.org/external/pubs/ft/wp/2000/wp00112.pdf (accessed May 8, 2009).

[97] Ibid.

[98] Alaska Department of Revenue, "Permanent Fund Dividend Division" (Anchorage, Alaska: Government of Alaska, 2008), https://www.pfd.state.ak.us/ (accessed May 27, 2008).

[99] Sandy Gillett, *Oil and Gas Legacy Funding in Norway, Alaska, Alberta and British Columbia* (Vancouver, British Columbia, 2002).

[100] Allan Warrack and Russell Keddie, *Alberta Heritage Fund vs. Alaska Permanent Fund: A Comparative Analysis* (Edmonton, Alberta: University of Alberta, Faculty of Business, 2001).

[101] Alaska Permanent Fund Corporation, *Annual Report 2008*, http://www.apfc.org/home/Content/home/index.cfm, (accessed September 1, 2009).

[102] Ibid.

[103] Ugo Fasano, *Review of the Experience with Oil Stabilization and Savings Funds in Selected Countries,* International Monetary Fund Working Paper 00/112, http://www.imf.org/external/pubs/ft/wp/2000/wp00112.pdf (accessed May 8, 2009).

[104] Allan Warrack and Russell Keddie, *Alberta Heritage Fund vs. Alaska Permanent Fund: A Comparative Analysis* (Edmonton, Alberta: University of Alberta, Faculty of Business, 2001).

[105] Ibid.

[106] 1996 was the first year the Government of Norway realized a fiscal surplus since 1990.

be accessed to provide stable and consistent government spending.[107] Reserves can be used either in the short run, as a financial buffer against revenue declines to avoid a budget deficit, or in the long run, as oil production declines and social expenditure increases, thereby promoting intergenerational equity. The fund also contributes to increasing transparency in the use of oil revenue.[108]

The Norway Pension Fund receives income from two sources. The first source is the government's net cash flow from petroleum activities. The second source is the return on the fund's capital.[109] All budget surpluses are also placed in the Norway Pension Fund. Expenditures from the fund are split among earning more income, funding social programs and financing reductions in income taxes. Expenditures made from the interest generated from the fund currently account for approximately 10% of the country's GDP. By 2060, they are expected to account for 20%.[110] The fund is projected to grow to equal 93% of the nation's GDP by 2010; it currently represents 82% of national GDP.[111] In 2007, the Pension Fund was valued at $385.45 billion. It is currently valued at $339.3 billion, after being strongly influenced by the global financial crisis, during which equity markets halved in value.[112]

When the Norway Pension Fund was created, asset management was conservative and restricted to low-risk investments.[113] Today, all fund assets are invested in foreign financial assets, including fixed-income instruments and equity in mature markets. The objective of this investment strategy is to help dampen the appreciation of the real exchange rate in the face of rising oil export revenues, thereby protecting the competitiveness of the non-oil sector and supporting the fund's stabilization objectives.[114]

In 2001, the Environment Fund was created and a small portion of the Pension Fund was invested only in environmentally responsible companies. In 2004, the Norwegian government cancelled the Environment Fund when it adopted ethical (including environmental) guidelines

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[107] Ugo Fasano, *Review of the Experience with Oil Stabilization and Savings Funds in Selected Countries,* International Monetary Fund Working Paper 00/112, http://www.imf.org/external/pubs/ft/wp/2000/wp00112.pdf (accessed May 8, 2009).

[108] Ibid.

[109] Sandy Gillett, *Oil and Gas Legacy Funding in Norway, Alaska, Alberta and British Columbia* (Vancouver, British Columbia, 2002).

[110] Norwegian Ministry of Finance, "The Norwegian Petroleum Sector and the Government Pension Fund-Global" (Oslo, Norway: Government of Norway, 2006), http://www.regjeringen.no/upload/FIN/Statens%20pensjonsfond/The_Norwegian_Petroleum_Sector_te.pdf (accessed May 5, 2009).

[111] Ibid.

[112] Norwegian Ministry of Finance, "The Government Pension Fund – Global: 2008 is the worst year in the history of the fund," (Oslo, Norway: Government of Norway, 2009), http://www.regjeringen.no/en/dep/fin/press-center/Press-releases/2009/the-government-pension-fund---global-200.html?id=548597 (accessed September 1, 2009).

[113] Jeffrey Davis, Rolando Ossowski, James Daniel and Steven Barnett, *Stabilization and Savings Funds for Nonrenewable Resources: Experience and Fiscal Policy Implications* (Washington, DC: International Monetary Fund, 2001).

[114] Ugo Fasano, *Review of the Experience with Oil Stabilization and Savings Funds in Selected Countries,* International Monetary Fund Working Paper 00/112, http://www.imf.org/external/pubs/ft/wp/2000/wp00112.pdf (accessed May 8, 2009).

for the entire fund.[115] The ethical guidelines established two main obligations that drive the management of the fund. First, the fund should ensure that a reasonable portion of the country's petroleum wealth benefits future generations by earning sufficient financial returns in the long term.[116] Second, the fund should not contribute to unethical acts or omissions, such as violations of fundamental humanitarian principles, serious violations of human rights, gross corruption or severe environmental damages.

The ethical guidelines developed for the fund have changed the nature of the fund's investment focus. Once invested in arms, environmentally irresponsible mining companies, and retailing giants with questionable labour practices, the fund's investments now comply with sustainable development principles.[117]

The Norway Pension Fund is considered successful. It has contributed to consistent budget surpluses in Norway, even in 1998 when oil prices dropped significantly.[118]

4.1.4 Fund Comparison

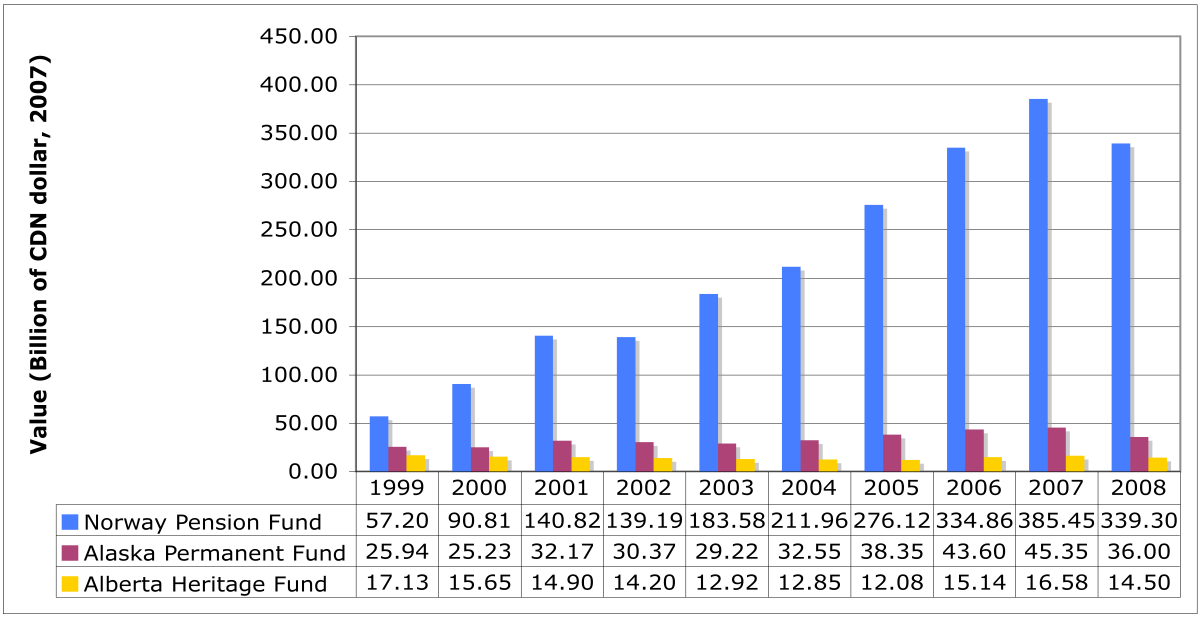
The figure below shows the value of the long-term funds in Alberta, Alaska and Norway. The value of the Alaska Permanent Fund and the Norway Pension Fund far exceed the value of the Alberta Heritage Fund, despite recent increases in oil and gas production levels in Alberta relative to the other countries.

[115] Norwegian Ministry of Finance, *History of the Environmental Fund,* http://www.regjeringen.no/en/dep/fin/Selected-topics/The-Government-Pension-Fund/Ethical-Guidelines-for-the-Government-Pension-Fund---Global-/History.html?id=434896 (accessed May 19, 2009).

[116] Norwegian Ministry of Finance, "The Ethical Guidelines," (Oslo, Norway: Government of Norway, 2008), http://www.regjeringen.no/en/dep/fin.html?id=216 (accessed May 5, 2009).

[117] Council on Ethics, "Ethical Guidelines for the Norwegian Government Pension Fund-Global" (Oslo, Norway: Government of Norway, 2007), http://www.regjeringen.no/en/dep/fin/Selected-topics/The-Government-Pension-Fund/Ethical-Guidelines-for-the-Government-Pension-Fund---Global-/the-ethical-guidelines.html?id=434894 (accessed May 5, 2009).

[118] Ugo Fasano, *Review of the Experience with Oil Stabilization and Savings Funds in Selected Countries,* International Monetary Fund Working Paper 00/112, http://www.imf.org/external/pubs/ft/wp/2000/wp00112.pdf (accessed May 8, 2009).



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Norway Pension Fund	57.20	90.81	140.82	139.19	183.58	211.96	276.12	334.86	385.45	339.30
Alaska Permanent Fund	25.94	25.23	32.17	30.37	29.22	32.55	38.35	43.60	45.35	36.00
Alberta Heritage Fund	17.13	15.65	14.90	14.20	12.92	12.85	12.08	15.14	16.58	14.50

Figure 5. Market value of long-term funds in Norway, Alaska and Alberta (Cdn, billions, 2007).

Non-renewable permanent funds ensure that future generations benefit from the resource extraction occurring today. They can buffer domestic economies from global economic downturns and provide a store of wealth when non-renewable resources run out. Revenue from non-renewable permanent funds can be reinvested to stimulate new economic opportunities and to diversify economies. The money can also be used to help communities adapt to climate change or to manage negative social and environmental impacts from resource developments.

In the NWT, a long-term fund would have multiple benefits. A thorough investigation of the design and implementation of a long-term fund for revenues from oil and gas resource developments in the NWT is needed.

5. Conclusion

The resource revenue regime applicable to oil and gas developments in the NWT (including federal royalties, work bids, GNWT taxation options and a long-term fund) needs to be reviewed and reformed to achieve a win-win for resource owners and oil and gas companies. A win-win regime would allow companies to earn fair returns on their investments while capturing maximum revenue for resource owners from the development of their resources. The regime needs to be reviewed and reformed now before large-scale oil and gas developments and devolution occur in the NWT.

Low royalty and tax rates result in an unfair bias towards the development of non-renewable resources over sustainable energy options. As non-renewable resources worldwide decline, it is imperative that the governments of Canada and the NWT obtain maximum revenue from this limited resource for current and future generations. Once obtained, a portion of the revenue from oil and gas developments should be placed in a long-term fund used to mitigate boom and bust economic cycles, to support a transition to renewable energy sources over time, and to provide a stable and long-term revenue stream to governments as resources are depleted.

5.1 Resource Revenue Review Process

It is critical that the current regime be reviewed through an open and transparent public process that is done for the resource owners by the resource owners. The resource revenue review process should involve consultation with Aboriginal organizations and governments, territorial governments, and other Northerners; provide opportunity for public input and comment; and be supplemented by public education materials. The process should address the myriad of issues that directly relate to the development of oil and gas resources in the NWT, including devolution, employment, environmental issues, social issues and infrastructure needs. Four principles for reviewing and reforming the resource revenue regime are:

1. **Citizens First:** The review gives precedence to the needs of oil and gas resource owners.
2. **Meaningful Public Input:** The review incorporates genuine public deliberation and collaborative problem solving. The review is *not* merely an exercise in public relations or "educating" the public. This may require participant funding to allow for informed participation and access to independent technical assistance.
3. **Timeliness and Transparency:** The review timeline is ambitious but fair and always gives participants sufficient notice of opportunities to participate and comment. Resource owners should also have full access to details about the review process, experiences elsewhere, and information generated by the review.
4. **Neutrality:** The review does not contain any bias towards the current royalty and tax system; instead, it aims to independently determine the best royalty and tax system for today and the future, based on the wishes of Canadians and NWT residents in particular.

The structure of the review process will determine whether or not the perspectives of Northerners and all Canadians — as resource owners — are appropriately considered.

The negotiation process that has taken place between the federal government and the proponents of the Mackenzie Valley Pipeline to date provides a sharp contrast to the transparent process described above. The proponents of the pipeline are seeking financial support from the government to build and operate the pipeline. The negotiations between the Government of

Canada and proponents of the Mackenzie Gas Project are occurring behind closed doors without consultation with Northerners or the broader public.

Behind Closed Doors: Mackenzie Valley Pipeline Negotiations

Behind closed doors, the federal government is negotiating with the proponents of the Mackenzie Gas Project regarding government support for the construction and operation of the pipeline through the Mackenzie Valley. The 1,200-kilometre natural gas pipeline is the critical piece of infrastructure that would be used to connect gas resources in the North to markets in the South. The proponents of the Mackenzie Gas Project have been trying to reduce their costs by finding other partners to build the pipeline. In December 2007, the Mackenzie Gas Project proponents pitched a proposal in which the federal government would partner with TransCanada and the Aboriginal Pipeline Group (APG) to build the pipeline.[119] At that time, the Government of Canada made it clear that it had no interest in owning any portion of the project, yet said it would consider supporting a TransCanada/APG partnership to build the pipeline through loan guarantees, shipping commitments and "other breaks."[120] Indirectly subsidizing this partnership was seen as more politically acceptable than directly subsidizing the oil and gas companies. TransCanada's operation of the pipeline would make the project more economical because, historically, pipeline operators have lower profit expectations than oil and gas companies. In January 2009, Environment Minister Jim Prentice announced that the Canadian government had made a financial offer to Imperial Oil and the other proponents of the Mackenzie Gas Project. The offer would contribute to infrastructure costs and expenses related to the regulatory process,[121] and would also include a sharing of risks and returns.[122]

5.2 A Win-Win Development Scenario

The resource revenue regime applicable to the NWT's oil and gas resources needs to be reviewed and reformed to ensure a "win-win" for companies and resource owners, and not a "win-lose" in which the interests of the corporations take precedence and the owners are short-changed on the value of their resource. The Department of Indian and Northern Affairs Canada undertook a review of the FLPRR in 2006, making a number of amendments to the regulations. The changes, however, do not address the regime's low rates.[123]

Starting the Debate on Royalty Reform

A tiered resource rent royalty that involves higher royalty rates at higher return levels would ensure more appropriate compensation for resource owners. Through such a regime, when company returns reach pre-determined thresholds, the royalty rate increases. The base royalty should be set high enough to ensure a minimum level of compensation to resource owners is achieved and would increase as different thresholds of returns are achieved.

With the kind of leadership and long-term vision espoused in the GNWT's non-renewable resource development strategy, coupled with a long-term fund, communities in the NWT would be empowered to chart a path towards self sufficiency and long-term sustainability. The Pembina

[119] Jon Harding, "Ottawa considers Mackenzie Plan," *National Post*, December 17, 2007.

[120] Jon Harding, "Mackenzie Partners see Ottawa Aid," *National Post*, December 19, 2007.

[121] CBC News, "Ottawa offers to pay some costs of Mackenzie pipeline: Prentice" Canadian Press, Monday, January 19, 2009, http://www.cbc.ca/Canada/north/story/2009/01/19/mgp-prentice.html (accessed May 4, 2009).

[122] Industry Canada, "Statement by Minister Prentice on the Mackenzie Gas Project," January 19, 2009, http://www.ic.gc.ca/eic/site/ic1.nsf/eng/04335.html (accessed May 4, 2009).

[123] Government of Canada, *Regulations Amending the Frontier Lands Petroleum Royalty Regulations*, Canada Gazette, Vol. 141, No. 50, December 15, 2007. http://canadagazette.gc.ca/partI/2007/20071215/html/regle3-e.html (accessed December 21, 2008).

Institute recommends that the following changes be considered as part of a win-win development scenario for oil and gas in the NWT:

1. Introduce cash bids: The first logical step to ensuring maximum revenue for the development of oil and gas resources is the introduction of a cash bid system for granting development rights. Cash bids provide an important avenue for capturing revenue from oil and gas developments, taking into consideration the royalty rates applicable to the resources. They reflect a company's assessment of the value of the resource, including what the company already expects to pay in taxes, operating and capital costs and royalties, and thus are effective at capturing any "residual" rent from oil and gas resources.
2. Capture excess profits: Excess profits from increasing commodity prices will be inevitable as global demand for natural gas rises. As such, it would be advisable for the Government of Canada and the GNWT to adjust the northern taxation and royalty regime to a more price sensitive system that captures additional revenues from the resource in times of high profitability. This can be done in a number of ways, including applying a multi-tiered royalty regime (like that of Newfoundland and Labrador and Alberta's oil sands) or through the introduction of a profits tax.
3. Assess the costs and benefits of GNWT's tax options: The GNWT has a number of tax options that it could use to more equitably share the benefits of oil and gas developments with all NWT residents. A capital tax would allow stable revenues to be raised from all oil and gas corporations with capital. Resource income taxes could provide a way for the GNWT to collect excess profits on oil and gas developments, and indeed, its recent review of revenue options showed a public interest in developing this option. A resource income tax could also help to diversify the NWT economy. Property taxes also enable the GNWT to gather revenues from oil and gas developments. A carbon tax could provide incentive to reduce greenhouse gas emissions and provide revenue that could be used, in part, to address concerns related to climate change. A cost-benefit analysis of the tax options available to the GNWT is needed to identify the best options for maximizing revenue collection from oil and gas developments in the NWT.
4. Invest in a long-term fund: Revenues from oil and gas developments should be placed in a long-term fund to provide a store of wealth for future generations, mitigate impacts from resource developments, strengthen and diversify the territorial economy, and enable a transition to renewable energy sources. The fund should be managed cooperatively and in a transparent way by the federal, territorial and Aboriginal governments so as to ensure benefits for current and future generations. It will be necessary to ensure that the fund is inflation-proofed and that it does not adversely affect the funding received through the Territorial Funding Formula.

Changes to royalty and tax rates can be made without significantly lowering investor confidence. Government leaders need to take a long-term approach to resource developments and recognize that non-renewable resources should not be developed unless the amount of revenue retained by the government is maximized. If companies are not willing to develop the resources under the terms set by government, then the resource should be left in the ground and developed at a later time when maximum revenue capture is possible. There is only one opportunity to develop these resources, so obtaining maximum revenue from every barrel of oil and cubic foot of gas is essential.

A report commissioned by the Alternatives North Coalition evaluated the impact of alternative royalty scenarios on revenues from the MGP. According to the study, MGP royalties under a system such as that in place in Norway (which has a 50% tax on profits from oil and gas projects), would yield $24.6 billion in revenues compared to the $16.3 billion that is expected under the current regime over a 45 year operating period.[124]

Despite threats by corporations to reduce investments if revenue capture policies are changed, experience shows that governments can successfully put the interests of citizens first. This was demonstrated in Newfoundland and Labrador, where Premier Danny Williams insisted on terms for oil and gas developments that put the interests of the resource owners before those of the companies. When the companies heard the terms put forward by the premier they walked away from the negotiations. The companies returned 17 months later and began oil and gas developments under the same terms they had earlier refused to accept (see below text box for more information). As oil and gas resource manager, the government needs to remember who owns the resources. The government also needs to keep in mind that given the favourable conditions provided to investors in Canada, particularly political and economic stability, there is no need to subsidize profitable oil and gas companies.

Newfoundland and Labrador's Fight for Equity in Offshore Oil and Gas[125]

In June of 2004 Paul Martin made a promise to Danny Williams, the Premier of Newfoundland, that the province would receive royalties from offshore oil and gas development. In October 2004 Paul Martin reneged on the agreement and Williams refused to accept the change. Williams was quoting as saying "Our pride can't be bought….We won't say yes to less." Williams returned to Newfoundland and removed the Canadian flag from all government buildings.

Eventually, the Newfoundland government and Canada's federal government came to an agreement that Newfoundland could keep 100% of the resource royalties derived from the oil resource in their jurisdictions, namely the Hibernia oil field.

Following the agreement with the federal government, the Newfoundland government took aim at stakes in the offshore oil and gas development in the Hibernia oil field. Thus began negotiations with Exxon Mobil, Chevron, Petro Canada and Norsk Hydro Canada Oil and Gas Inc, all equity holders in the Hebron offshore developments.

After first balking for a year over Newfoundland's demands, the oil companies and the Newfoundland government settled on a deal that provided Newfoundland with a 4.9% equity stake in the Hebron oil project along with an enhanced royalty regime.

The enhanced royalty regime for the Hebron project includes the 4.9% equity stake for the Hebron project along with a 6.5% "super royalty" if oil prices stay above $50 per barrel and a commitment to construct a gravity-based oil recovery system using local suppliers. The increase is in addition to the current Offshore Royalty Regime which includes the following components:

- *Ad valorem* royalty of 1 to 7.5 % of gross revenue
- Tier 1: 20% of net revenues after a 5% resource allowance plus the long-term bond rate
- Tier 2: 10% of net revenue after a rate of return of 15% plus the long-term bond rate

To allow companies to adjust to a new resource revenue regime, changes should be announced in advance of implementation and undertaken according to specific timelines. Changes should be

[124] Pacific Analytics Inc. 2007. *The Mackenzie Gas Project: A Financial Analysis Update*. Commissioned by: Alternatives North Coalition. http://www.alternativesnorth.ca/pdf/JimJohnsonReportForANMGPUpdateReportSep2007.pdf

[125] CTV News. "Newfoundland premiers announces deal on Hebron project" CTV.ca, (August 22, 2007); New Release. "Royalty Regime" Government of Newfoundland and Labrador, June 13, 1996.

made for all new projects immediately, and changes to old projects should be phased in over a period of time with the details well known in advance of implementation. Once royalty and tax rates are set at an acceptable level (i.e., one that provides maximum compensation to resource owners), the auctioning of leases through a competitive cash bid system can provide upfront revenue for resource owners. Placing a portion of revenue into a long-term fund can ensure that future generations also benefit from resources developed today.

It is the federal government's responsibility to update the royalty regime quickly, decisively and fairly to build investment certainty for resource developers and deliver maximum revenue to resource owners, on whose behalf they manage the oil and gas resource. It is the territorial government's responsibility to ensure that through its tax system benefits are accrued for residents from resource developments. Both systems should be considered through a resource revenue review that explores the needs and desired future of the residents of the NWT, who under devolution will inherit the management of resources. The only regime that will withstand the test of time is one that provides a fair commission to companies undertaking developments while maximizing the owners' share of the returns.