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THE NORTH WEST STURGEON UPGRADER: GOOD MONEY AFTER BAD?

Ted Morton

EXECUTIVE SUMMARY

The North West Upgrader (NWU) project illustrates the risks of government-led efforts to diversify Alberta's economy. What began as a low-risk, low-cost project to encourage domestic bitumen upgrading has morphed into a multi-billion dollar boondoggle with high risks for Alberta taxpayers. Originally, the Government of Alberta (GOA) intended to collect bitumen from producers in lieu of royalties and sell it to provincial upgraders, adding value to the commodity and creating jobs and revenues in Alberta. The private sector was to build and finance the new upgraders, as well as assume the market risks of low margins. The 2008 financial collapse effectively killed that plan. With just one prospect (NWU) remaining, the Stelmach government decided to be more than the middleman. The GOA committed to retain ownership of the bitumen up to the point of sale, pay NWU a toll for the processing, and then sell the upgraded product. Under a new "take or pay" arrangement, the GOA assumed liabilities estimated at $19 billion over the 30-year contract with NWU, as well as the market risk of having to sell the upgraded product at below costs. As four different premiers and six different energy ministers cycled through Edmonton, construction costs soared to over $8 billion. The original $6.5 billion cap on the GOA's liability for construction costs disappeared, and the GOA—and by extension, Alberta taxpayers—are now on the hook for $26 billion in processing payments — the equivalent of $63 per barrel. Falling oil prices are further undermining the prospects for the investment to break even. Written from a rare insider's perspective, this paper analyzes the lack of effective government oversight and due diligence surrounding the North West Upgrade. Rather than being an exception, NWU fits the larger and longer pattern of failed "forced-growth" diversification initiatives in Alberta and other provinces. Alberta politicians should think long and hard before succumbing to the next version of the "refine it where you mine it" diversification siren song.

In government policy, as in life, the path to hell is often paved with good intentions. And so it is with Alberta's bitumen royalty-in-kind program, or BRIK. What started off as a low-cost, low-risk initiative to incent more upgrading of bitumen in Alberta has now turned into the multi-billion dollar North West Sturgeon Upgrader project (NWU) —with the government of Alberta (GOA)— and by extension, Alberta taxpayers, holding the bag if it doesn't fly.[1]

INNOCENT BEGINNINGS

It began innocently enough in the first year of the Stelmach government. Oil prices were soaring to unimagined highs, and billion of dollars were going into new oil sands production. Most of these investments were to build new *in situ* Steam-Assisted Gravity Drainage (SAG-D) operations that could access oil sands reserves that are too deep to surface mine. Unlike the original mining operations, the new, smaller, less capital-intensive SAG-D producers were not building their own upgraders.[2] But unless new upgraders were built, the growing volumes of bitumen production would all be shipped south to be refined, along with the value-added benefits.

When Ed Stelmach became Premier in 2006, almost 70 percent of the bitumen mined in Alberta was upgraded in Alberta. It was projected that this figure would drop to less than 50 percent by 2017.[3] But no one was going to invest billions of dollars in a stand-alone merchant upgrader in Alberta unless they had an ironclad guarantee of at least a 30-year supply of bitumen; enter BRIK.

BRIK EXPLAINED

As first proposed under the 2007 *New Royalty Framework*, the government would require bitumen producers to give a portion of their actual bitumen production in lieu of paying the required royalty. While integrated producers —those who had already built their own upgraders— obviously didn't like this policy, it was popular with smaller, newer *in situ* companies. While novel, BRIK was not unprecedented. Earlier Alberta governments had done something similar with conventional oil and gas.

Armed with its own stream of bitumen production, the GOA could in turn sign contracts with prospective merchant upgraders to guarantee them the long-term supply needed to attract investors. Under this scenario, risk to the GOA would be minimal since it was merely acting as a middleman — collecting bitumen from existing producers and selling it for the same market price to new upgraders. The benefits of a more integrated value-added chain within Alberta would include the jobs created during the construction phase and new corporate tax revenues. As public policy, it was low-risk, low-cost, almost elegant. Build it —or in this case, supply it— and they will come.

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[1] The NWU is owned by the North West Redwater Partnership, a joint venture between Ian McGregor and Canadian Natural Resources (CNRL).

[2] By 2014, of the 113 bitumen extraction projects in Alberta, only six are mines.

[3] There are currently five upgraders operating in Alberta: Suncor (1967), Syncrude (1978), Scotford (2003), CNRL Horizon (2009) and CNOC Nexen Long Lake (2009). Source: *IHS-CERA Special Report* (2013), "Extracting Economic Value from the Canadian Oil Sands: Upgrading and Refining in Alberta (or not)?"

INITIAL PROSPECTS POSITIVE

At the outset, BRIK appeared poised to achieve all these objectives. Prior to the 2008 recession, five upgraders were being built or expanded and another six were being actively planned.[4] All told, the projects represented over $100 billion in capital investment and would have added three million barrels a day (mbd) of upgrading capacity — more than tripling the current capacity. The area east of Edmonton began to be called "Upgrader Alley," in anticipation of a Houston-like refinery row.

RECESSION HITS/PROJECTS CANCELLED

Edmonton's euphoria was short-lived. When the 2008 financial collapse hit, oil prices plunged (from $140 in July to $40 by Christmas) and investment dried up. Only three of the five upgraders under construction in 2008 were completed, and five others were either cancelled or postponed. It quickly became apparent that BRIK by itself was not going to build any new upgraders.

THE NEW DEAL

Eager to keep one of the Premier's signature commitments, the Stelmach government proceeded to sweeten the deal to keep the one remaining project afloat — the North West Upgrader in Sturgeon County. Under the original scenario, the government would simply insure ongoing bitumen supply, and leave it to North West to take their upgraded products to market, with whatever costs they incurred and whatever prices they could get.

Now under the new deal, the GOA committed to retain ownership of the bitumen up to the point of sale of the upgraded products, pay North West a processing fee or toll for upgrading it and then sell the upgraded products into the market. By now —2010— construction costs were estimated to be $5.7 billion (up from an earlier estimate of $4 billion). 80 percent of the capital costs would be borrowed, with payment on these bonds effectively guaranteed by the GOA's 30-year "take-or-pay" tolling contract. This new arrangement effectively transferred the risk of upgrading to the government — a liability estimated to cost $19 billion in tolls over the 30-year contract.

As Minister of Sustainable Resources Development (2007-2009), I had been a supporter of the early version of the BRIK program. But I was not directly involved and was only vaguely aware of the post-2008 changes. This changed in January 2010 when I was moved to Minister of Finance and tasked with reigning in our ballooning deficits. Suddenly I was very much involved. And the more I learned about the new deal, the more I opposed it.

Like all new ministers, I spent the first several months being briefed by the department's senior staff and being brought up to speed on key files. The North West Upgrader was one of these files, and it quickly became clear to me that Energy Department officials were much more enthusiastic about this project than Finance. My officials' concerns were that the GOA was being asked to take equity-type risks without equity-type returns.

My concerns were amplified by various communications I received. One energy company executive indicated that, while his company was interested in participating in the "new" BRIK, their own forecasts for bitumen upgrading in Alberta indicated poor returns and financial risks that were greater than the potential benefits. The only reason they were prepared to proceed, he emphasized, was because the new RFP shifted all those risks to the province.

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[4] *IHS-CERA Special Report*. Op. cit. p.1.

A leading corporate bond-rating agency confirmed that under the “hell-or-high water” monthly tariff arrangement, investors were assured of recovering all costs —both construction and operations— plus a fixed return. All these costs would be included in the cost-of-service tariffs paid by the GOA (75 percent) and CNRL (25 percent). Nor would bond holders be exposed to any volume risk, as again, the GOA (75 percent) and CNRL(25 percent) had undertaken to guarantee the stipulated monthly supply of bitumen to be processed.

This risk-shifting was needed in order to achieve a high enough rating on the billions of dollars of bonds that NWU would have to sell to build the Upgrader. The higher the bond rating, the lower the interest paid on the bonds, and thus the lower the cost of building the Upgrader. Shifting all the risk —and thereby reducing the costs of borrowing— was the only way the NWU could ever be profitable.

I also consulted with former Energy and Finance minister Greg Melchin. Melchin’s advice was blunt: “No amount of government subsidy is going to make an unprofitable business profitable. It is only going to transfer the loss to the taxpayer.” He also pointed out that if we did the deal with NWU, it would guarantee that no one else would build a privately financed upgrader in Alberta. The precedent of government subsidy would be set. As a less risky alternative, Melchin suggested a royalty rebate on bitumen that is upgraded in Alberta, possibly accompanied by a hike in the royalty rate.

I was particularly concerned with the “hell-or-high water” conditions around the proposed processing contract. I contended that it was reckless for the government to sign a contract that committed us to pay the tolls even if the Upgrader were not operating. I argued this contract amounted to a *de facto* government guarantee of the debt bonds that North West would need to sell to build the Upgrader, and that this would violate Alberta’s 1996 *Business Financial Assistance Limitations Statute*, which prohibited such government guarantees.

Energy officials insisted that the contract was not technically a “loan guarantee,” and they were supported by officials from Justice who asserted that “section 72 is clear in that it does not prohibit” such contracts. My response was that this interpretation was self-serving, and was not the same as saying that the Act “authorizes or permits” such contracts.

When I argued that we should make the tolling payments conditional on the Upgrader’s performance, I was told that to sell the bonds at a sufficiently low interest rate that would allow North West to be profitable, there would have to be a “direct, irrevocable and unconditional guarantee of the Crown.” To my way of thinking, this proved that there was a *de facto* loan guarantee.

But my objections were in vain. Not only was it one of the Premier’s priorities, it was also championed by influential minister Doug Horner, not least because the proposed Upgrader was to be built in his constituency of Sturgeon County. The project was buoyed by the same pro-Edmonton, anti-Calgary sentiment that had helped Stelmach defeat Jim Dinning and myself in the second round of the 2006 PC leadership race and that subsequently led to Stelmach’s ill-fated royalty review.

All the crucial decisions were made by a small working group of ministers and senior officials (of which I was a member). At our final meeting before the plan was to go to Cabinet and caucus, I had previously persuaded two other ministers to vote against it. One of them didn’t even show up. When I asked him why the next day, he smiled and said, “I can count. The fix was in.” When it came time to vote, my one other erstwhile ally changed her mind and voted to support the deal. I didn’t bother to ask her why.

An interesting sidebar to this in-house decision-making process is that I was also approached in a social setting by a representative of NWU, who pressed me on my opposition to their project. It is interesting because, of course, these were Cabinet deliberations that were supposed to be confidential.

A short but polite conversation ensued. I remarked that no private company would take on this type of risk, so why should the government? My interlocutor acknowledged that over time, there would be some good years and some bad years, but only the government has the ability to commit for 30 years. Sensing my lack of enthusiasm, he pointed out that the government's risk is really only an opportunity cost, since it receives the bitumen in kind, so there is no public record of profit or loss.

I replied that I doubted that energy analysts in Calgary would be fooled by the lack of public records. Even I could figure out the dollar value of the bitumen we would take in kind. His final foray was that the Upgrader would be a hedge against future low prices for bitumen. (Still in 2015, this continues to be a favourite fallback position for upgrading supporters.) I replied that we already would have that hedge even if the amount of bitumen upgraded in Alberta drops to 50 percent. Besides, 50,000 b/d of upgrading is hardly much of a hedge when daily bitumen production in Alberta hits two or three million b/d.

So in the end, the new NWU arrangement was presented to Cabinet and caucus as a done deal that would deliver on the Premier's promise to incent more upgrading in Alberta. Caucus heard a lot about capturing the "value added," but was told almost nothing about the significant financial risk that the GOA was now assuming. I am certain that the majority of caucus did not even understand the changes that had been made to the original deal, which did not surprise me. The new deal was now hopelessly complex. Cheered on by Edmonton-area ministers and MLAs, the package got a free pass through caucus.

FINANCIAL RISK EXPLAINED

The financial risk of upgrading depends on three factors: the capital cost of building the upgrader, the costs of operating it; and the spread between the price of bitumen and the price of the refined products. The wider the spread, the greater the opportunity for profit; the narrower the spread, the greater the risk of loss. If the combined costs of the bitumen plus the upgrading toll are greater than the going market price of the refined products you are producing, then you lose money. While the spread has varied over the past decade, recent trends suggest a narrower spread in coming years. The new technologies of directional drilling and multi-stage fracking have dramatically increased the supply of sweet, light crude in the North American market — keeping its price well below the world price.

And of course, the upgrader itself contributes to narrowing the spread by increasing the demand for bitumen and increasing the supply of refined products. In short, there's a reason that financial advisors tell their clients to avoid investments that depend on a price spread that moves at both ends.

Capital construction costs are a second crucial variable in the risk analysis: the higher the costs, the higher the processing toll. As noted above, by 2011, capital costs were estimated at $5.7 billion, with a guarantee that any cost overruns above $6.5 billion could not be added to the processing toll. I'd like to think that this new cap on recoverable costs was due in part to my strenuous objections.

THE PROMISES

Notwithstanding the new cap, concerns with capital construction costs continued to dog the North West Sturgeon Upgrader. While the cap would protect the government against higher processing fees (tolls), it did nothing to protect the institutional investors who were being asked to purchase almost $5 billion of capital debt.

By November of 2011, I was the Energy Minister in the new government of Premier Alison Redford. In a twist of irony that only those who have had to bear the yoke of Cabinet discipline can truly appreciate, I was now tasked with defending a project that I had strongly opposed. And I didn't do a very good job.

For the record, I would note that upon becoming Minister of Energy, I effectively killed a carbon-copy project of the NWU deal called Teedrum. Teedrum was a $6.6 billion initiative of the Alberta First Nations Energy Centre that had evidently been encouraged by senior civil servants in Energy and the lame-duck Premier during the ten-month leadership campaign that consumed caucus and the PC Party after Stelmach announced his intention to resign in January 2011. I had never heard of it before becoming Minister of Energy, and if I hadn't heard of it, then virtually no other members of Cabinet or caucus would have been aware of it. When a draft agreement to proceed with Teedrum appeared on my desk shortly after becoming Minister, I told our new Premier, Alison Redford, that there was no way that I could support this. Doubling down on the multi-year, multi-billion dollar NWU debt obligations was not something I was willing to do. To her credit she agreed, with the proviso that I would be the messenger to deliver the bad news. This was done at a meeting on February 8, 2012, and was a complete surprise to the Teedrum leaders. It was one of the most unpleasant meetings that I had during my eight years in government.*

* See "Chief claims racism behind government's decision," Alberta Sweetgrass, 19:4 (2012). "Alberta blasted over rejection of First Nations oil sands refinery," *Vancouver Observer*, Feb. 20, 2012.

In response to a media question just weeks after becoming Minister, I casually remarked that the GOA was in effect guaranteeing $4 billion worth of bonds that North West would be selling to investors. Less than a week later, CNRL Vice-Chairman Murray Edwards told the *Calgary Herald* that Minister Morton was clearly wrong in this assertion.

> "So the risk on the refiner, North West and Canadian Natural, is the risk on capital cost acceleration, in other words, if there are productivity issues, if there's capital cost acceleration issues, or there are operating cost issues, those all fall back on the producer, not on the toll payer…. So there is a shared risk, it's not a guarantee, it's a tolling arrangement and you're using the benefit of the low-cost capital of the government and CNRL, the supply of bitumen and the expertise of CNRL and North West to build it, so it's truly a public-private partnership."[5]

Notwithstanding such assurances, doubts continued. A year later, when Northwest and CNRL sanctioned the project, North West's CEO Ian McGregor acknowledged that cost overruns were a risk but assured the all-party committee of the Alberta Legislature:

> "We plan to build it for $5.7 billion, and our fee structure runs out at $6.5 billion. I get a lot of questions about: what happens if this costs more than $6.5 billion? My answer is: "It's not going to. We meant $5.7 billion when we said it, and here's the planning and the amount of work." We spent $800 million proving that we can do it for that. I mean, those are the things you have to meet."

This cap was confirmed in the Report of the All-Party Legislative Committee in May 2013.[6] Five months later in October, Premier Redford participated in the official ground-breaking ceremony. There were smiles all around.

[5] "No loan guarantee in upgrader, Canadian Natural insists" *Calgary Herald*, Nov. 25, 2011

[6] Report of All-Party Committee (May, 2013). http://albertaenergyplus.ca/wp-content/uploads/2013/05/AEF-Report-BRIK_web-version.pdf

THE REALITY

Two months later, the smiles were gone. In a press release just days before Christmas (when governments hope that no one is paying attention to the news), the GOA quietly announced that cost overruns had driven the total construction costs to $8.5 billion, and the expected completion date was extended 12 months to 2017. In addition, the GOA would now loan NWU $300 million to help with interim financing. The original $6.5 billion cap was nowhere mentioned.

What would this 50 percent cost increase mean for the GOA's toll payments? That was quietly announced at the end of June in footnote 19 on page 145 of the Energy Department's Annual Report for 2013-14. The GOA is now on the hook for $26 billion in processing payments —up from $19 billion— which translates into a processing cost of $63 a barrel, making it almost impossible for the investment to break even. And that's assuming that there are no more cost overruns and that the plant actually operates the way it is supposed to — two very optimistic assumptions.[7]

A final complication is the additional demand that proceeding with construction will put on Alberta's already constrained labour market. To the extent that building the Upgrader results in higher costs for other oil sands projects via higher labour costs, the government loses money there too through decreased royalties and taxes. This was the conclusion of an independent study done by the respected energy consulting firm IHS-CERA. Their report concluded that, "the province creates more jobs and benefits by NOT upgrading bitumen." The more recent CERI study also identifies the negative effect of increased demand for labour on more lucrative upstream projects as a potential risk of the NWU project.[8]

CONCLUSION

The BRIK/NWU project —a project that spanned six different Energy Ministers[9] (including myself) and three and now four different Premiers— took on an inertia of its own. Over these seven years there was a glaring lack of effective government oversight or due diligence. While I did not realize it while I was in government, the NWU is likely to become just the most recent installment in a long legacy of loss in the GOA's attempts at economic diversification and valued-added initiatives.[10] The twisted tale of how the NWU came to be is wholly consistent with the economic literature on forced growth.

Forced growth denotes government-led initiatives to use public funds —whether in the form of grants, loan guarantees, tax breaks or some combination of all three— to attract private sector companies to develop new companies or other forms of economic activity within their jurisdictions. The forced-growth literature reveals a pattern of economic failures. The factors contributing to this pattern of policy failure include the following:

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[7] In December, 2014, the Canadian Energy Research Institute (CERI) released a cost-benefit analysis that found that a green-field refinery in Alberta, such as NWU, is "net socially beneficial across a typical discount rate range [of 13-15 percent]." (p. ix.). CERI is clear, however, that its finding is conditional upon such factors as the variable price of bitumen and refined products such as diesel over the next three decades. In a short, two-page note on NWU, the CERI study found that its incremental benefits were primarily limited to enhanced oil recovery (EOR) and reduced emissions through carbon capture and storage (CCS), and restoration of wetlands. On the downside, CERI identified the same risks and liabilities described in this study: no cap on final capital costs and uncertain light/heavy oil differentials — both "at potential expense to the government and by extension society," (pp. 11-13). Canadian Energy Research Institute, "Refining Bitumen: Costs, Benefits and Analysis," Study No. 145 (December, 2014).

[8] Ibid., p.13.

[9] Mel Knight, 2006-2009; Ron Liepert, 2010-11; Ted Morton, 2011-12; Ken Hughes, 2012-13; Diana McQueen, 2013-14; Frank Oberle, 2014-15.

[10] See Ted Morton and Meredith McDonald, "The Siren Song of Diversification: Alberta's Legacy of Loss, 1973-1993," *School of Public Policy Research Papers*, Volume 8, Issue 16 (2015).

- Such projects tend to be motivated more by politics than actual or potential economic viability;
- Typically there is no high-quality, independent, professional assessment of the proposed project's long-term economic viability, which results in an underestimate of the risks;
- Unequal expertise means that governments tend to be out-negotiated by their more experienced counterparts; and
- As a result, there is a tendency for governments to take most of the risks, provide most of the capital, and receive little of the profits, when there are any.[11]

Evidence of all of these factors can be found to varying degrees in the seven-year genesis from the GOA's low-cost, low-risk BRIK policy to the high-cost, high-risk North West Upgrader.

For better or for worse —and I clearly think the latter— the North West Upgrader now appears to be a *fait accompli*. Suffice it to say that Alberta's new Premier and his successors should think long and hard before succumbing to the next version of the diversification siren song of "refine it where you mine it."

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[11] Ibid.

About the Author

Dr. Ted Morton is currently an Executive Fellow at The School of Public Policy at the University of Calgary. He recently served as Minister of Energy for the Government of Alberta (2011-2012). Prior to that, he was the Minister of Finance (2010) and Minister of Sustainable Resources Development (2006-2009). In 2001, he was the Director of Policy and Research for the Office of the Official Opposition in the Canadian House of Commons. Ted is known for his expertise in the energy-environment interface in Western Canada and federal-provincial relations. He holds a BA degree (Phi Beta Kappa) from Colorado College and MA and PhD degrees from the University of Toronto.