

No Business Case for a Second Container Terminal (T2) in the Fraser River Estuary

1. Summary

If Port Metro Vancouver (PMV) followed proper business practises, they would not be proposing to build a second container terminal (T2) on Roberts Bank. A credible cost/benefit analysis would demonstrate that it is not a viable project. Their planning deficiencies include the following:

- At \$3 billion, the Terminal 2 Project will rank with the world's most expensive container terminals. The Project will create about 3 million TEUs (*twenty foot container equivalent units*) of additional capacity, or about \$1,000 for every TEU of capacity created.
- At over double the cost of developing capacity in Prince Rupert, Port Metro Vancouver's T2 project will struggle to be competitive and, in the longer term, will necessitate much higher handling rates to pay for this unnecessary investment
- There is sufficient capacity on the BC west coast in operation or planned to meet Canada's trading needs for many decades to come. The Port has consistently understated actual port capacities, whilst at the same time over estimating its forecast growth.
- PMV forecasts assume traffic will increase even faster than in the recent past. This will only lead to over investment in infrastructure that will be underutilized.
- PMV's forecasts translate into a Compound Annual Growth Rate (CAGR) of 6.3% per year. It is an unrealistic forecast considering the last five years (2008 to 2013) have shown a Compound Annual Growth (CAGR) of 2.54%. Even with recovery from the 2008 recession, the expectation of a CAGR of 6.3% per year for the next 18 years lacks credibility.
- It is highly suspect to base forecasts of container growth on trading partners' projected growth – but this is what PMV is doing.
- Rail congestion is already present in BC, with increases in oil and grain shipments. The Fraser Canyon rail route is reaching a tipping point and will not be able to handle the volumes projected by PMV. Shipping delays will exacerbate the move of US cargoes back to US ports.
- Terminal 2 could easily become a white elephant project simply because there isn't enough rail capacity to handle the needs of a massive deep-water terminal.
- The Terminal 2 Project will threaten jobs due to high investment costs, automation and competition between PMV ports leading to labour unrest.
- PMV fails to consider several key factors, including an emerging trend for manufacturing to revert back to North America from Asia as well as the expanded Panama Canal taking traffic away from North American west coast ports.
- PMV should not be counting on increased volumes as a result of their "stealing" more traffic from Seattle, Tacoma and Portland. Hauling US containers adds little or nothing to the Canadian economy. All three US ports have plans underway to improve their infrastructure and operations such that they will likely get at least some of this US traffic back.

Rather than spending \$3 billion on building a second container terminal (T2) in an environmentally sensitive area of Roberts Bank that will need to attract even more US-destined cargo to fill it, PMV should instead adopt a strategy of gradually reducing its share of containers bound for the US. That would facilitate about one million TEUs of additional capacity at absolutely no cost. It would accommodate sensible lower growth rates (based only on Canadian demand), thereby deferring the need for T2 for several decades.

Port Metro Vancouver (PMV) persists in moving forward with a Canadian Environmental Assessment for the \$3 billion second container shipping Terminal (T2), with three berths, adjacent to Deltaport, on Roberts Bank, Delta, B.C. To justify this massive project in the Fraser River Estuary, PMV has published several reports overestimating forecasts of increased demand and understating current and potential capacity in Vancouver’s container business.

Even the lowest case forecasts in these reports are not being achieved. The container business from 2008 to 2013 grew from **2.5 million TEUs** (*twenty-foot container equivalent units*) to **2.83 million TEUs**, a Compound Annual Growth Rate (CAGR) of **2.54%**. Yet Port Metro Vancouver claims the container business will triple by 2030, which is a Compound Annual Growth Rate (CAGR) of **6.3%**.

The ports of Metro Vancouver could handle **5 million TEUs** without a second terminal at Roberts Bank. With planned upgrades and more efficient operations, the capacity could increase to **7.0 million TEUs**. With that capacity, Port Metro Vancouver could facilitate a Compound Annual Growth Rate (CAGR) of **3%** until 2040. There is no need to build Terminal 2 (T2) at Roberts Bank in the foreseeable future.

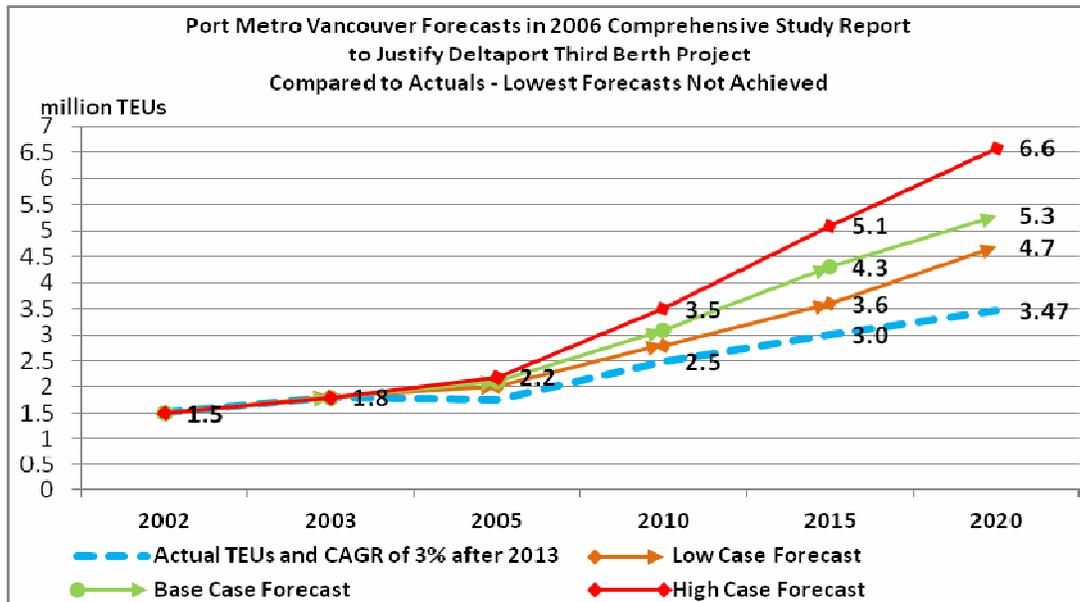
2. Misleading Forecasts

Port Metro Vancouver attempts to justify a need for Terminal 2 (T2) using inflated forecasts despite the fact that the achieved volumes are consistently lower than projections.

2006

The *Comprehensive Study Report* of 2006, used to justify construction of the Deltaport Third Berth at the existing Terminal One, contained forecasts that are still not being realized. The lowest case projections were based on Compound Annual Growth Rates (CAGR) of 5.3% to 6.5%. The actuals achieved from 2006 to 2013 were a CAGR of 3.5%.

Port Metro Vancouver (PMV) – Forecasts to Justify Deltaport Third Berth are not being achieved



(TEU – Unit of capacity based on volume of a twenty-foot container)

2011

In 2011, Port Metro Vancouver (PMV) commissioned a study, ‘*Preliminary Container Traffic Projections for Port Metro Vancouver, 2011 to 2030*’, by Worley Parsons. Again, the lowest case forecasts are not being realized. The lowest case projections were based on a Compound Annual Growth Rate of 4.03% between 2010 and 2030. The lowest case forecasts of 2.66 million TEUs for 2011 increasing to 2.97 million TEUs for 2013 did not materialize. The actuals were 2.51 million TEUs in 2011 and 2.83 million TEUs in 2013.

2013

When throughput between 2011 and 2013 failed to grow at the projected rates, PMV commissioned another study, '*Port Metro Vancouver Container Forecasts*', 2013 by Ocean Shipping Consultants. The Study lowered the projections for the next few years but used higher annual growth rates to reach similar projections for 2025 and 2030.

Despite failures to meet lowest case projected volumes, the 2013 Ocean Shipping Study fails to credibly explain the higher assumed growth rates. Whereas the Worley Parsons Study assumed a growth rate of 4.6% to 4.7% between 2015 and 2025, the Ocean Shipping Consultants Report increased that assumed growth to 4.9%. Then the Report raised the forecasts by including a mysterious 'Intermodal Addition.' This inexplicable addition is used to add an extra quarter million TEUs to the long-term forecasts. It is based on anticipation that Vancouver's market share will increase another 20% due to competitive intermodal costs. Credible data and information are not provided to substantiate this claim. The Study, furthermore, acknowledges that quantifying the added numbers is problematic.¹

Growth and Forecasts

PMV claims that a second container terminal at Roberts Bank is needed because container traffic through Canada's Pacific Gateway is expected to triple by 2030. That would mean an increase from **2.7 million TEUs** in 2012 to **8.1 million TEUs** by 2030, a Compound Annual Growth Rate (CAGR) of **6.3%** per year. This does not correlate with CAGR of **2.54%** from 2008 to 2013.

It is inconceivable that Port Metro Vancouver forecasts would project a low case scenario that is significantly better than historical growth. It is normal business practice to correlate base case projections with growth over prior years, but this is not what is being projected.

Some of the prior years' growth, furthermore, has been achieved through containerizing exports that were previously shipped as break-bulk. This growth cannot be expected to continue as everything that can be containerized has been and the supply of empty outbound containers used for this traffic has been much reduced.

Some of the current growth at Port Metro Vancouver is a result of their taking United States market share away from Seattle and Tacoma. It is not due to actual market growth. The handling of US goods in containers adds very limited value to the Canadian economy. It is not cost-effective to spend billions on a terminal for containers bound for the US.

Calculations from Port Metro Vancouver (*PMV*) also fail to include the fact that the Port of Prince Rupert will be handling some of the growth in West Coast Shipping. Since PMV has a monopoly on only local cargoes (*which are about 30%*), the two ports compete for cargoes moving to other Canadian and US destinations. The demand/supply situation should not be calculated for Port Metro Vancouver in isolation.

The container business of Port Metro Vancouver has been growing at a compound annual growth rate of **2.54%** over the past 5 years (2008 – 2013). If only full imports are considered, **2.75%** is the compound annual growth rate. Published information reveals that PMV has sufficient container business capacity to accommodate a Compound Annual Growth Rate (CAGR) of **3%** for more than 25 years.

The following graph shows Port Metro Vancouver forecasts from the Shipping Consultants Report (2013) compared with a Compound Annual Growth Rate of 3%. The Graph also shows container TEU capacity according to Port Metro Vancouver compared with TEU capacity according to public sources of information.

CAGR – Compound Annual Growth Rate

PMV – Port Metro Vancouver

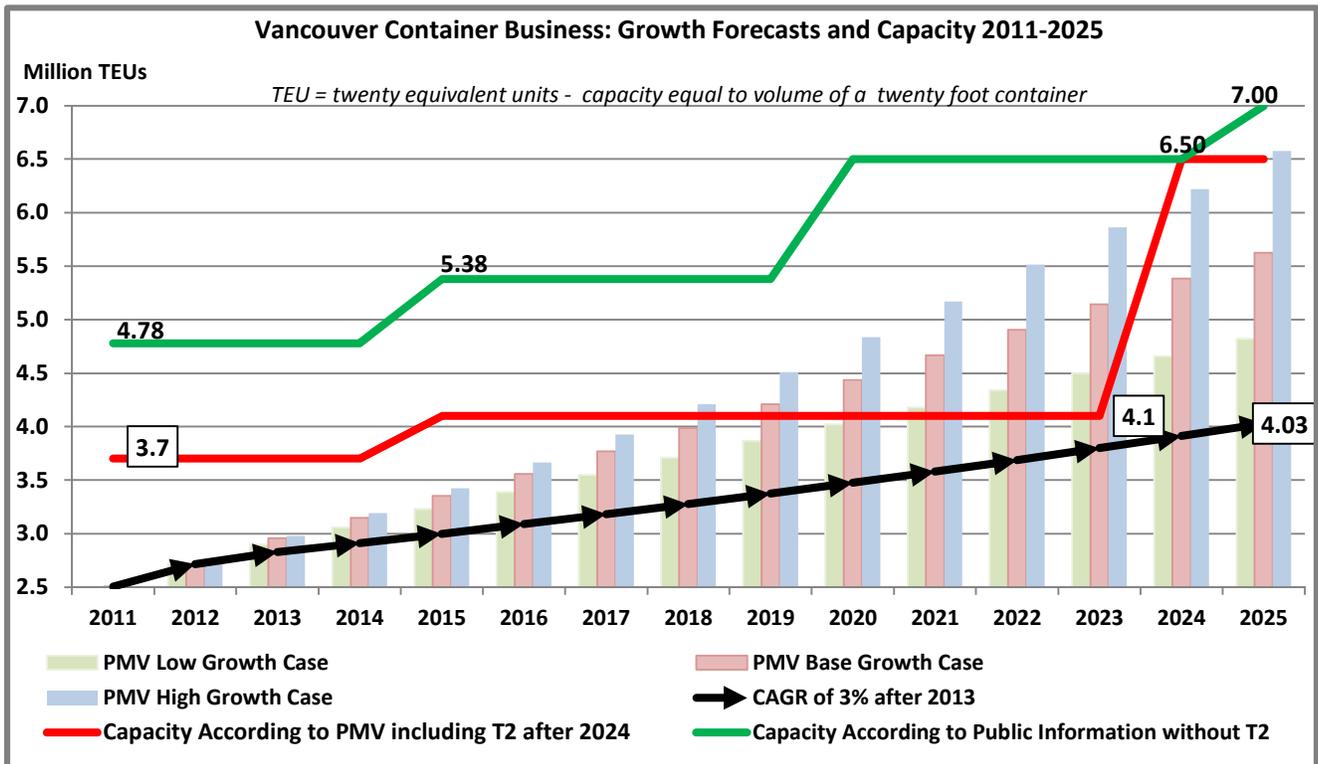


Table: Vancouver Container Business: Growth Forecasts and Capacity 2011-2050

Year	PMV TEU Forecast Low	PMV TEU Forecast Base	PMV TEU Forecast High	Actual & 3% CAGR After 2013	PMV TEU Capacity	Published Information Capacity
2011	2.51	2.51	2.51	2.51	3.7	4.78
2012	2.71	2.71	2.71	2.71	3.7	4.78
2013	2.90	2.96	2.98	2.83	3.7	4.78
2014	3.06	3.15	3.19	2.91	3.7	4.78
2015	3.23	3.35	3.42	3.00	4.1	5.38
2016	3.39	3.56	3.67	3.09	4.1	5.38
2017	3.55	3.77	3.93	3.18	4.1	5.38
2018	3.71	3.98	4.21	3.28	4.1	5.38
2019	3.87	4.21	4.51	3.37	4.1	5.38
2020	4.02	4.44	4.84	3.47	4.1	6.50
2021	4.18	4.67	5.17	3.58	4.1	6.50
2022	4.34	4.91	5.51	3.69	4.1	6.50
2023	4.50	5.14	5.86	3.80	4.1	6.50
2024	4.66	5.38	6.22	3.91	6.5	6.50
2025	4.82	5.62	6.58	4.03	6.5	7.00
2030	5.41	6.58	8.11	4.67	6.5	7.00
2035	5.87	7.38	9.47	5.41	6.5	7.00
2040	6.24	8.08	10.77	6.28	6.5	7.00
2045	6.56	8.74	12.08	7.28	6.5	7.00
2050	6.83	9.35	13.40	8.43	6.5	7.00

3. Port Metro Vancouver Statistics for Capacity

Statistics for container capacity at Vancouver ports vary. Reports trying to make a case for a second terminal at Roberts Bank downplay the available capacity. However as it tries to justify the case for T2 and promote business the numbers it uses are much higher. According to the study, '*Port Metro Vancouver Container Forecasts, July, 2013, by Ocean Shipping Consultants*'ⁱⁱ Port Metro Vancouver has the capacity to handle **3.7 million TEUs** (*twenty-foot container equivalent units*). Page 91 of the report fails to include an increase in 2015 when the Deltaport Road and Rail Improvement Project is scheduled to be completed. It does not include planned expansions and upgrades at Centerm and Vanterm container terminals.

Page 183 shows a different set of numbers with capacity of **3.7 million TEUs** from 2011 to 2014 and then increasing to **4.1 million TEUs**. It show an increase of only 0.4 million TEUs even though the Deltaport Road and Rail Improvement Project adds 0.6 million TEUs of capacity.

According to the Port Metro Vancouver (PMV) website, the capacity at Deltaport will be **2.4 million TEUs** by 2015 with completion of the Deltaport Road and Rail Improvement Project:ⁱⁱⁱ

“As part of the Container Capacity Improvement Program, Port Metro Vancouver has worked with the Province of BC and Deltaport operator TSI Terminal Systems Inc. to develop a plan to upgrade existing infrastructure that would increase Deltaport’s container capacity by 600,000 TEUs, to a total of 2.4 million TEUs.”

This does not correlate with statistics from the Terminal Operator at Deltaport, Terminal Systems Inc. which indicate 2.1 million TEUs with the Third Berth. With the Road and Rail Improvement that would add up to 2.7 million TEUs.

The PMV statistics differ from a 2006 Government of Canada Report^{iv} that identifies a capacity of 4.6 million TEUs with the Third Berth. Add in the .6 million for the Road and Rail Improvement Project and the total capacity is **5.2 million TEUs** by 2015.

Container capacity, according to the 2013 Ocean Shipping Consultants Report, is currently **3.7 million TEUs** increasing to **4.1 million TEUs** in 2015.

4. Published Information Indicates Sufficient Container Capacity

Container capacity, according to published information, and appropriately factoring in Prince Rupert, demonstrates Canada’s West Coast has sufficient container capacity for several decades. Port Metro Vancouver has a current capacity for **4.78 TEUs** increasing to **5.38 TEUs** in 2015 and to **6.5 TEUs** by 2020 without Terminal 2 at Roberts Bank.

Prince Rupert Port has a current capacity for **.75 TEUs** with a planned expansion for another **1.25 TEUs** by 2020 if there is business demand. There is also potential in Prince Rupert for another terminal facilitating an additional **2 million TEUs**. As a result B.C. ports can facilitate **9 to 10.50 million TEUs** if the demand grows. That is more than triple the current business.

The federal government is allowing Port Metro Vancouver to ignore recommendations from a 2008 Transport Canada Advisor Report^v that recommends:

“...policy makers develop container capacity in Prince Rupert before making investments in Vancouver” and further that: “...a systematic approach be taken to achieve an understanding of port capacity before a conclusion is reached that a particular port must necessarily be physically larger.”

Table of B.C. West Coast Ports' TEU Container Capacity: Current and Potential

Port	Current Capacity	Construction to be completed by 2015	Planned Expansions & Efficiencies	Total Capacity by 2020	Potential Expansions & Efficiencies	Total Capacity by 2025
Deltaport	2.10	0.60	0.30	3.00		3.00
Vanterm	1.00		0.20	1.20		1.20
Centerm <i>Planned Expansion</i> <i>Potential Expansion</i>	0.88		0.62	1.50	0.50	2.00
Fraser Surrey	0.80			0.80		0.80
<u>PMV Total TEUs</u>	<u>4.78</u>	<u>0.60</u>	<u>1.12</u>	<u>6.50</u>		<u>7.00</u>
Prince Rupert <i>Phase Two</i> <i>Additional Expansion</i>	0.75		1.25	2.00	2.00	4.00
<u>West Coast Total TEUs</u>	<u>5.53</u>	<u>0.60</u>	<u>2.37</u>	<u>8.50</u>	<u>2.50</u>	<u>11.00</u>

For Sources of Information for Container Capacity at B.C. Ports, see Appendix A

NOTES:

1. Fraser Surrey Docks – In 2006, \$190 million was spent on expansion for containers. The port is connected to three transcontinental railways, offers high capacity container gate, gantry cranes, storage space, power plug-in points for refrigerated containers, and transloading capability. Yet, due to global use of larger container ships, navigation problems up the Fraser River, and an agenda for a second terminal at Roberts Bank, Port Metro Vancouver has scuttled container business at this port. There are still opportunities for smaller container ships, especially when the larger vessels will likely be diverted to the Panama Canal once it is completed.

There are plans to use this valuable port as a conduit for shipping USA coal through Canada to other countries. Even without using this well-equipped port for containers, there is plenty of capacity to facilitate growth in the container business.

2. Centerm: On May 16, 2014, Port Metro Vancouver announced plans for expansion.

3. Lynnterm was previously identified by Port Metro Vancouver for conversion to a container terminal.

5. Impacts of Increased Container Traffic in Metro Vancouver

There is limited space in the Vancouver area to accommodate a triple increase in the container business. As B.C. is the destination of about 30% of the Port Metro Vancouver containers, it is questionable economics to triple the numbers of containers going to eastern Canada (50 to 60%) and the U.S. (15 to 20%).

Massive container port expansion requires increased train and truck movements, expanded supply chains, land development and related infrastructure. This impacts Vancouver land use, agricultural lands, roads, bridges, air quality, internationally significant habitat and quality of life for all people in Metro Vancouver and the Lower Mainland.

Containers moved by rail to and from Vancouver (except for containers moved to and from US West Coast) have to travel through the Fraser Canyon and over the Rocky Mountains. This rail corridor is pretty well at a tipping point. It is unlikely to be able to handle the expansion suggested by PMV. There has already been increased rail congestion to/from the Lower Mainland. In winter 2013/2014, for example, there were significant problems and delays moving Canadian grain to market. In addition there has been a huge increase in the shipment of oil by rail.

Prince Rupert on the other hand has plenty of rail capacity to/from Central and Eastern Canada. Its rail link is not constrained in the same way as Vancouver.

6. Port Metro Vancouver's Inflated Forecasts Ignore Important Factors

Port Metro Vancouver is ignoring a number of other key factors:

- As some manufacturing activity in Asia is shifting from China to other Southeast-Asian countries, it becomes more economical to ship these containers via the Suez Canal to the east coast of North America
- There is a definite trend to move offshore manufacturing back to North America (near sourcing), with destinations such as Mexico and the southern United States as key destinations; the majority of PMV's trade is with Asia, so this near sourcing trend will certainly reduce growth rates in container traffic through PMV
- Overall growth in PMV throughput is completely driven by import growth (mostly from Asia); many exports are low-value bulk cargoes (timber, grain, pulp) that do not justify bringing in empty containers, and can also be shipped in bulk carriers
- Expansion of the Panama Canal will allow ship sizes on the routes from Asia to New York to more than double in size, thereby increasing the competitiveness of this alternative to Vancouver
- Economic slowdown in China, with growth rates forecast to decline from 7.7% in 2013 to 7.3% in 2015, plus the risk of a real estate bubble collapse
- Handling US containers adds extremely limited value to the Canadian economy, generates very few jobs, and leads to increased congestion of Canadian rail links, which are already struggling to handle increased volumes of grain and crude oil, as evidenced by the recent massive backlogs in grain traffic.
- Potential proposed actions by the US government to either i) eliminate the Harbor Maintenance Tax charged on containers moving through US ports, which gives Canadian ports a cost advantage over US ports for US-destined cargoes, or ii) imposing some form of levy on US container imports arriving via Canada.
- Direct vessel calls to other secondary BC ports – such as Nanaimo (that already handles containers) or possibly Port Alberni

In addition to these factors there is also the issue of US Northwest Ports – Seattle, Tacoma, and Portland—that are making improvements so that they can better handle the larger container vessels as well as improving their intermodal services. There is anecdotal evidence that Port Metro Vancouver has increased the volume of US cargo it handles – previously at about 4 percent of the total – to between 10 – 15 percent. PMV cannot expect that it will continue to expand the number of containers holding goods bound for the US. Clearly this volume is better handled by US ports. Port Metro Vancouver cannot continue to steal US traffic without expecting opposition and possibly levies. In fact it is questionable whether PMV can hang onto the US traffic that it has today. It may well see declines in the volume of US cargo it is handling today.

7. Bulk and Break Bulk (NOT containers) Handle 80% of tonnage through Port Metro Vancouver

The Container Business is receiving disproportionate funding, infrastructure and promotion at the expense of Bulk and Break Bulk Shipping which represents over 80% of the tonnage through Port Metro Vancouver.

It makes more sense to use PMV ports for this strong base of B.C.'s economy. It is an economic loss when unnecessary container berths and infrastructure dominate ports, land spaces and rail capacity. A paper presented at the Canadian Transportation Research Forum, May, 2011, *Investment in Canada's Asia-Pacific Gateway Infrastructure for Bulk vs Container Traffic*, S. O'Sullivan & FEJ Tougas, May 2011, discussed the disproportionate funding to the container business:

"However, the promotion of the Gateway has focused largely on expanding and accelerating the velocity of container traffic, in large measure with public funding. In contrast, improvements to the handling capabilities for bulk (such as coal, potash, grain, petrochemicals, energy products and forestry products) and break-bulk (e.g.: certain pulp and paper products, logs and special agricultural commodities) freight originating in Canada has received significantly less attention and funding. Bulk and break-bulk freight forms the base of an economy that provides well-paying jobs significant tax revenues and export earnings. Although these commodities are in high demand from economies throughout the world, especially those in Asia, and might otherwise merit immediate and significant investment, there is more emphasis on investment (including public investment) in competitive container traffic than bulk commodity traffic."

The report outlines how the expenditures and focus on the container business contravene the purpose of the federal *Canadian Marine Act (CMA)*. Referring to the 34 Gateway Projects:

"...Of these Initiatives, 25 were of benefit to the container sector, while only four were for the dual benefit of the bulk and container sectors...Such initiatives appear to directly contradict the purpose of the CMA."...

"...Whether the use of public funds for port infrastructure is desirable at all is one question, but the case for preferring container port infrastructure over bulk and break-bulk infrastructure is not, in our view, warranted."...

"Investing in container facilities does not promote competition in a way that supports continued growth in the bulk sector and thus fails to fulfill the purpose of the CMA."

The report further emphasizes that bulk and break bulk shipping are key to B.C.'s economy:

"In 2010, bulk alone represented 68% of all tonnage through the PMV and when break-bulk is factored in, this figure rises to 82%."

The percentage was the same for 2013. Bulk cargo is driving the growth in Vancouver with export of bulk four times that of containers.

8. Taxpayers Paying a High Price

Pacific Gateway Strategy: Between 2005 and 2011, **\$22 billion** was committed to Pacific Gateway projects, mostly to benefit the container business. The private sector committed \$14 billion and Canadian **taxpayers** are providing **\$8 billion**. The Pacific Gateway Transportation Strategy (2012-2020) has identified future projects requiring a **further \$25 billion**. One can be sure billions of tax dollars will be required. Taxpayers' dollars are being used to choke up Metro Vancouver's ports, roads and railways with containers at the expense of bulk shipping which is the base of B.C.'s economy. (March 4, 2014 - Data provided to Bloomberg BNA by the B.C. Government) <http://www.bna.com/canadas-west-coast-n17179882593/>

9. Vancouver Planning Expansion to Handle US Trade

The first and foremost priority for Canadian ports should be to handle Canadian trade; there can be no argument that Canadian ports **must** have sufficient capacity to handle Canada's international trade requirements. Beyond this "absolute minimum", the Canadian economy can benefit when existing port facilities maximize their utilization levels, employment and profitability by handling discretionary additional trade, with the most likely opportunity being containers originating from or destined to the US market. To the extent that there are fewer opportunities to export commodities such as lumber from the US to Asia, the increased movement of containers through Canadian ports (and the resultant repositioning of the empty containers back to Vancouver where they can be loaded with Canadian exports to Asia) does also add value to the Canadian economy.

However, PMV's proposed T2 project goes far beyond the concept of maximizing the utilization of existing port assets by attracting discretionary US container trade, and instead adopts a policy of constructing an extremely expensive greenfield container terminal in a highly sensitive environmental area that will largely depend on further increasing Canada's share of US-bound container movements in order to succeed. While PMV has been successful in increasing its share of the US market in recent years, the ports in Seattle and Tacoma, which have been the losers in this battle, have plans to respond and try to take back business from Vancouver.

With the support of the US Government, there are plans to improve US northwest terminals to handle larger vessels and increased rail volumes. The US Government is also examining the negative role of the Harbor Maintenance Tax which has shifted US trade to Canadian ports. In order to level the playing field, the US is considering various options including removal of the tax or imposition of a similar fee on US containers moving through Canadian ports.

Determining how much of PMV's container traffic is moving to the US is not simple. In the recent market study prepared by Ocean Shipping Consultants (2013) for PMV to promote Terminal 2 (T2), various statistics were provided about the origin and destination of container traffic handled by Port Metro Vancouver. One set of statistics on page 42 suggested that ports in the "Pacific North" (Prince Rupert, Vancouver, Seattle, Tacoma, and Portland) handled combined volumes of 0.77 million TEUs (*twenty-foot container equivalent units*) for Western Canada and 0.93 million TEUs for Eastern Canada in 2012. It is reasonable to assume that all Canadian traffic is moving through Canadian ports. This means that Port Metro Vancouver and the Port of Prince Rupert likely handled 1.7 million TEUs of Canadian export/import containers out of a total of 3.3 million – about 50%. The other 50% would be US trade.

Another set of statistics from the same report presented a contradictory picture, implying that 20% of imports and 5% of exports through Vancouver were accounted for by US trade. PMV's consultants failed to analyze comparative figures for Prince Rupert, but anecdotal evidence suggests that about 50% of Prince Rupert's volume (nearly 300,000 TEUs) was accounted for by US trade. Even assuming that 20% of total throughput is driven by US (import) trade, this would imply that Vancouver currently handles about 565,000 TEUs of US cargos. These statistics indicate that the ports of Metro Vancouver and Prince Rupert collectively handle nearly 1 million TEUs of US containers.

10. Prince Rupert as an Alternative

Fairview Container Terminal in Prince Rupert opened for business in October 2007, and since then has achieved strong acceptance in the market as an additional B.C. Asia-Pacific Gateway. Since inception, volumes grew every year up to 2012, when throughput hit about 565,000 TEUs, or about 17% of total market share; volumes did slip slightly in 2013.

Phase II of the project is projected to increase capacity to over 2 million TEUs (an increase of about 1.5 million TEUs), and will cost about \$650 million to complete. On this basis, each additional TEU of new capacity at Prince Rupert will cost about \$433 to develop.

By comparison, Port Metro Vancouver's Terminal 2 (T2) Project will reportedly cost about \$3 billion to construct, and will create about 3 million TEUs of additional capacity, or about \$1,000 for every TEU of capacity created. At \$3 billion, PMV's T2 project will rank with the world's most expensive container terminal ever built. At over double the cost of developing capacity in Prince Rupert, Vancouver's T2 project will struggle to be competitive with alternatives such as Prince Rupert, and in the longer term will necessitate much higher handling rates to pay for this unnecessary investment.

While Prince Rupert is obviously not a viable alternative for serving the immediate hinterland of Vancouver, it can serve the interior of BC (particularly places like Prince George), and has equal / better connectivity into the Prairies, Ontario and the rest of Eastern Canada. While no specific information has been provided by PMV on how much traffic the greater Vancouver area actually generates, the Ocean Shipping Consultant's study from 2013 estimated that all of BC accounted for about 27% of PMV's container imports in 2013, so there can be no doubt that PMV has ample capacity to serve the small portion of the Canadian market that cannot be served by Prince Rupert.

11. Constraints on Canadian Rail Capacity

Even if PMV were to pursue their objective of further increasing container traffic through Vancouver by attracting more and more US-bound cargo in order to achieve the goal of being one of the largest container ports in North America, the port alone is not enough to achieve this goal. This entire business plan hinges on there being sufficient rail capacity to move all of these additional containers (beyond what is produced and consumed in the immediate southern BC hinterland) to the US and Eastern Canada.

The winter of 2013 / 2014 has once again served as a stark reminder that railroads (both in Canada and the US) are operating near their peak, and that any adverse weather conditions can quickly lead to congestion and delays in the entire rail system.

Grain shipments, an absolute cornerstone of the Prairies economy, were reportedly delayed by over 2 months, in part due to adverse weather conditions, but also due to rapidly expanding oil-by-rail shipments (the key economic driver in Alberta). PMV, in their entire analysis of the T2 project, appears to have forgotten that most of these containers will need to move thousands of miles by rail. The port has not provided any studies to show that existing and/or planned expansions of the Canadian rail network would be sufficient to cope with growth in Canada's own rail requirements for grain, oil, and domestic trade as well as increased container traffic bound for the US.

It is unconscionable for PMV to be proposing a \$3 billion expansion project for Vancouver that will primarily be used to handle increased volumes of US trade, when such a project could either i) adversely impact the flows of Canadian imports, exports and domestic trade, or ii) become a white elephant project because there simply isn't enough rail capacity to meet the needs of the deep-water terminal.

12. T2 Will Actually Reduce Port Employment

PMV's proposed T2 project will have a significant negative impact on employment in the Vancouver port sector, particularly in the short to medium term. Given the proposed construction methodology of the project, T2 will quickly introduce 2 to 3 million TEUs of new capacity to the Vancouver container terminal market. Faced with repaying an investment of about \$3 billion, the operator will need to quickly fill the terminal with containers – at least in the short to medium term, this will be achieved by stealing existing throughput from the current terminals in Vancouver (Deltaport, Vanterm, Centerm, and Fraser Surrey).

While all of these existing terminals operate as non-automated terminals (all of the equipment is driven by people), the new T2 project will almost certainly either be a semi-automated or fully automated terminal (in a semi-automated terminal, the cranes in the stacking yard are computer controlled, and in a fully automated terminal even the gantry cranes lifting containers on and off the vessel are computer controlled). Therefore, until container volumes at the other non-automated terminals recover to their "pre-T2" levels, the actual employment levels in the Vancouver port sector will fall; there will be fewer people employed in this skilled, well-paid sector to buy the TVs, electronic goods and food being imported through this new terminal.

It is unclear how the unions that operate at PMV's container terminals will react to this situation, but if history serves any sort of precedence, it will lead to strikes or other work stoppages in the short term (as evidenced by the recent truckers strike in Vancouver), and it will also likely lead to higher costs to settle the matter. One need only look at the recent trucker strike (2014), which ended with truckers getting penalty payments for any delays they incur, and then terminal operators implementing new gate times and fees in order to reduce the risk of trucker delays.

With limited rail capacity, bulk shipping needs, fluctuating markets, high infrastructure costs, and cheaper alternatives, it makes no business sense to build a second terminal at Roberts Bank based on flawed forecasts.

Attachments:

*Appendix A: Sources of Information for Container Capacity at B.C. Ports
Document References*

Appendix A: Sources of Information for Container Capacity at B.C. Ports.

Deltaport and Vanterm

Publications indicate the capacity at Deltaport is 2.1 million TEUs with the Deltaport Third Berth expanding to 2.7 million TEUs with completion of the Road and Rail Improvement Project in 2014/2015.

Transport Canada, March 2008: *Pacific Coast Container Terminal Competitiveness Study TP 14837E*
Prepared for: Policy Integration and Research Branch, Strategic Policy Directorate Policy Group by Hanam Canada Corporation, Victoria, BC <http://www.tc.gc.ca/eng/policy/report-research-ack-tp14837e-menu-1671.htm>

“Centerm, Vanterm and Deltaport exceed the average productivity of container terminals in the US. Terminal Systems Inc. is adding a third berth at Deltaport to increase capacity from 1.4 to 2.1 million TEUs per year by 2009 and has ordered equipment to increase Vanterm’s capacity to over 1.0 million TEUs by 2009”. (Page 36)

The Deltaport Container Terminal at Deltaport is operated by TSI, Terminal Systems Inc. which is owned by Global Containers Inc. A publication by TSI in 2006/2007 announced that the new Third Berth would increase capacity to **2.1 million TEUs**. (Slide Presentation: page 17)

- Environmental approval complete
- Operational 2009
- Increase capacity by 50%, to **2.1 Million TEUs**

Study by Worley Parsons Canada, November, 2011: *Projections of Vessel Calls and Movements at Deltaport and Westshore Terminals - Deltaport Terminal Road and Rail Improvement Project (DTRRIP)*

<http://www.robertsbankterminal2.com/wp-content/uploads/Projections-of-Vessel-Calls-and-Movements-at-Deltaport-and-Westshore-Terminals.pdf>

Pages 22, 24, 41 and other pages indicate that Deltaport has a maximum capacity of **3.0 million TEUs**.

Centerm

BC Shipping News June, 2013: <http://issuu.com/janemci/docs/bcsn-jun13>

“our annual capacity is almost **880,000 TEUs** per year” (Page 10)

Dec. 2006: DP World Connexions from website, Media Centre: Opening of expanded Centerm:

“Further investment will push capacity to **1.2 million TEU** per year. Warehousing and distribution operations are also planned for Centerm.” (Page 6)

Vancouver Province: Sept. 7, 2006:

http://www.canada.com/story_print.html?id=63e6404b-3b54-451c-a288-233d8dcedbeb&sponsor

“DP World will continue to expand Centerm, spending more than \$200 million to push capacity to **1.2 million containers** a year.”

Centerm has invested in modernization of the port and could possibly consider further investments to expand in the future.

Fraser Surrey Docks

http://www4.fsd.bc.ca/company/ccip_program.htm

“Fraser Surrey Docks, the multi-purpose terminal located 34 kilometres up the Fraser River has the real estate and a majority of the infrastructure already in place to provide upward of **1,000,000 TEU** of container capacity. Located on a natural marine highway, in the epicentre of off dock and industrial areas, Fraser Surrey Docks believes environmentally low cost container capacity can be achieved with as little as 10% of the cost of other options.”

The Vancouver Sun June 21, 2006: **Container docks in Surrey idle after \$190m expansion**

<http://www.canada.com/vancouvernews/news/story.html?id=243c5a27-053e-49c4-8bde-f94f9ffef45d>

“Container facilities at the Fraser Surrey Docks, which recently underwent a \$190-million expansion, are sitting idle, with a third of the terminal's workforce laid off.”

Document References

Page 3: ⁱ *Ocean Shipping Consultants, Port Metro Vancouver Container Forecasts, July 2013, page 171*

Page 5: ⁱⁱ *Port Metro Vancouver Container Forecasts, July, 2013, by Ocean Shipping Consultants*, ⁱⁱ <http://www.robertsbankterminal2.com/information-centre/project-documents/>
Scroll down to Technical Reports 2013.

Page 5: ⁱⁱⁱ *Deltaport Terminal, Road and Rail Improvement Project*,
<http://www.portmetrovanouver.com/en/projects/ongoingprojects/dtrrip.aspx>

Page 5: ^{iv} *Trends in Containerization and Capacity at Canadian Ports, Prepared by Allison Padova, Economics Division, January 30, 2006*
<http://www.parl.gc.ca/Content/LOP/researchpublications/prb0575-e.htm>

Page 5: ^v *Strategic Advisors Report, Asia Pacific Gateway and Corridor Initiative Report and Recommendations, 2008; Burghardt, DeFehr and Turner, Page 12.*
<http://www.apgci.gc.ca/StrategicAdvisor.html>