MANITOBA HEAVY CONSTRUCTION ASSOCIATION (MHCA)
#3 – 1680 Ellice Avenue, Winnipeg, Manitoba R3H 0Z2

Manitoba's Climate Change and Green Plan

MHCA response and recommendations

BACKGROUND – THE CONTEXT

Much has changed since the original release of the Pallister government's 'Made in Manitoba' climate change plan. This discussion paper reflects those changes and comments on the ways the heavy construction industry can play a meaningful role in reducing Manitoba's greenhouse gas emissions.

The federal government's tax will be imposed in April, 2019, increasing the price of gasoline and diesel "at the pump" by 4.4 cents and 5.37 cents per litre, respectively. The tax is set to rise to 11 and 13.4 cents/L in 2022.

As a tax at distribution of combustible fuels, the carbon tax will immediately increase the cost of conducting business for the heavy construction industry in Manitoba.

It must be recognized that the heavy construction industry has little to no means of defraying this cost as there is no practical alternative to the primary driver of cost – diesel fuel. For the heavy-duty vehicles in use by the industry, for transport and work, the market provides no alternative to diesel.

While there is developing technology and devices to reduce consumption of fuel, this industry has ample experience with the "growing pains" of adopting new, 'greener' technology for HDDVs and is informed by that experience. As a consequence, it is cautious.

"Early adopters" shoulder a disproportionate burden of the considerable expense that flows from capital acquisition, maintenance and lost productivity that have accompanied take-up of new technologies. Further, the industry is necessarily 'risk averse' in adopting technology unproven in the field, as engine-power failure in vehicles/machinery poses not only a safety hazard to workers but has material impact on productivity and therefore project costs.

DISCUSSION

The heavy construction industry understands the need to reduce GHG emissions and is willing to work toward practical goals with practicable measures and solutions.

Fuel accounts for as much as 30% of our industry's operating costs. At this point it is difficult to estimate the full impact of this cost on our industry, as the carbon tax would be felt in a number of 'input' costs. (Similarly, quantifying the industry's contribution to the 'transportation' sector or HDDV category within the national inventory accounts is confounded by the lack of specificity by industry.) However, a quick, back-of-the-envelope calculation by one member found that at a diesel carbon tax of 6.7 cents per litre (the planned Mb carbon tax; $25/tonne), company fuel costs would rise by $500,000 -- another member said their costs would rise in excess of $1 million annually.

The MHCA uses this as an illustration of the range and magnitude of the impact facing our industry members -- as a starting point. Its response to the Manitoba's Green Plan seeks to outline the impact of the proposed initiatives on the heavy construction industry, with implications for public infrastructure programs and investment.

The heavy construction industry wants to be part of a solution, but it must be a solution that can demonstrate the desired effect (GHG emissions reduction) while protecting the industry's competitiveness and preserving the value of infrastructure program budgets and the economy.

This following discussion speaks to the initiatives in the federal and provincial green plans, the implications for the heavy construction industry and potential programs and considerations in response. They include:

MEASURES/INITIATIVES:

- Raising the price per litre for diesel, at the pump, by 5.37 cents April 2019), through to 2022, when it hit 13.4 cents
- Carbon taxes on natural gas and gasoline also will increase costs in operations of the industry companies
- Raising the provincial biodiesel mandate to 5%, from the current 2%
- HDDV technology for greater fuel-efficiency
- Complying with a new national clean fuel standard, to be set by Ottawa, that would involve advancing clean fuels over and above the biofuel mandates

MHCA RESPONSE:

- Encourage the federal government to improve the accelerated capital cost allowance for new, fuel-efficient truck and engine replacement
- Protect finite resources fundamental to infrastructure projects – preventing the sterilization of aggregate deposits due to conflicting development, especially those located in proximity to the majority of infrastructure works ie. the Capital Region. This requires consideration of the adoption of 'whole government perspective' in land-use planning, which must work in tandem with Manitoba's infrastructure, environmental and mineral-resource priorities and demands.
- Integrate the impacts of climate change into the full life-cycle of infrastructure, including design, planning and management. Long-term budget planning and forecasts are critical to setting out a sustainable strategy for infrastructure (ie. water-control structures) critical to meeting and managing impact of climate change, particularly with the increased extremes in weather events.
- Adopt sustained dedication of new funding for green infrastructure project priorities, to enhance the resilience of infrastructure against climate change pressures

MHCA offers its response and recommendations, on provincial and federal levels.

Government of Manitoba

Carbon tax

MHCA recognizes that Ottawa collects and controls distribution of revenues collected from the federal carbon tax.

MHCA seeks provincial assistance in two areas of concern regarding the carbon tax:

1. MHCA requests Manitoba engage in timely discussion with the federal government, to encourage Ottawa to adopt tax-treatment options, which are set out below (apply carbon tax to fuel prior to provincial fuel tax, excise tax and GST; rebate GST for early adopters of new technology and devices; update Capital Cost Allowance to accelerate the depreciation rate). These measures would also benefit Manitoba in helping to preserve the value of provincial capital program budgets.

2. MHCA recommends the provincial government assess the carbon tax's financial impact on core infrastructure budgets (highways, roads, sewer & water, bridges, water-control structures).

   If the tax is not accounted for, the government will see reduced value from annual capital programs, most notably in Highways Capital and Water Control Structures. At present, Manitoba has a ~$6 billion transportation infrastructure investment deficit (the cost of bringing highways/roads to good condition). Reduced value in capital program budgets will compound that deficit.

Innovation in trucking design has had real impact on the long-haul trucking industry However, the technological innovations that have demonstrated payback to that sector have vastly different effect and implication for the heavy construction industry, the vehicles and machinery employed in the industry and the circumstance in which some of infrastructure work is carried out.

For these reasons, we caution the provincial government on how the transition to newer generation vehicle technology is pushed upon this industry.

Alternative engine technology: Unlike other GHG-emissions groups in the transportation category – personal vehicles; highway trucking – there exist as yet no good alternatives to the internal combustion engine that has served as the industry's tried and true workhorse for better than a century.

- Hybrid engines on the heavy construction machinery market hold minimal value proposition. Capital costs are not recouped by savings in either maintenance or reduced fuel costs, over time (approx. 20% more expensive, 18% fuel savings).

- Electric/compressed natural gas engines remain very much in the realm of 'future' technology for heavy construction vehicles and machinery; they are either not developed for, or not of practical use in, this industry. The sheer dimension of compressed natural gas motors makes them impractical.

  Unlike in the mining industry, electric heavy-duty vehicles are not practicable in the heavy construction industry and do not return the investment through savings from other operational expenses. Battery life is short, in relation to work day for heavy construction vehicles/machinery, thereby demanding frequent recharging. On-site recharging infrastructure is not workable. Recent discussion has turned to the necessity of developing a solid-state battery to expand electrification. While this may hold hope for the heavy construction industry, it remains very much a "future" proposition.

Tax treatment: As noted, early adopters in this industry bear disproportionate burden of risk. Incenting the take-up of new technology and devices benefits the provincial government's Carbon Savings Account goals, Manitoba's environment and the industry. For example, Tier 4 Final is the market standard for HDDV but for the heavy construction industry, 'growing pains' persist, with impact on operational costs and productivity.

Recommendation:

- Encourage take-up of technology/devices (Tier 4 Final, anti-idling devices/APUnits) by incenting/rewarding early adopters via exemption/rebate of PST on technology/devices that reduce pollution or GHG emissions. The exemption/rebate could be temporary – ie. first 5-year phase of Carbon Savings Account.

Public procurement and regulation: Government procurement and regulation shape industry practice and operations. This can assist the move to reducing the carbon footprint, with suitable caution.

Recommendation:

- Incent adoption of 'green' technology (ie. anti-idling devices/practices) through phased-in public regulation and procurement policies.
  - Any regulation restricting idling must allow for idling of engines engaged in work. It must consider applicability of idling regulation/technology in cold-weather zones as it affects engine starts.
  - Public tender awards can include requirement for tracking and reporting idling

- Move cautiously in procurement policies that seek to compel the heavy construction industry to adopt technology requiring refinement. Experience to date is that Tier 4 Final can reduce productivity and increase

operating costs, which ultimately will be felt by public budgets, as costs get reflected in bid prices. That can dramatically diminish the value of public infrastructure program budgets.

Green infrastructure priorities

While the Climate and Green Plan responsibly looks to protecting the environment, public infrastructure, property and livelihoods of Manitoba against the weather-related impact of climate change (flood, drought etc.), the heavy construction industry suggests that there are benefits to looking at less costly but equally meaningful measures.

They include:

- **Improving infrastructure planning and design**, such as:
  - packaging for larger road-renewal projects to reduce the inefficiencies, cost, impact and disruption of mobilization and demobilization of equipment, in the process minimizing non-productive fuel consumption and reducing GHG emissions
  - tie public/provincial infrastructure investment dollars to regional co-operation and coordination of municipal infrastructure planning/investment/priorities, against criteria established by regional/provincial body
  - improving transportation-asset design of roads and intersections, synchronize traffic controls to reduce the stop-start patterns of traffic and traffic jams, all of which would have measurable impact on emissions from all vehicles
  - using available technology to set spring road restrictions through condition assessment in real time. (Restrictions come on and off through the season, rather than have a seasonal start and a seasonal end date)

- **Encouraging/compelling recycling** of engine, used asphalt and shingle sourced oils. The industry has been a leader in recycling old asphalt, concrete, gravel, shingles and other materials into materials used in new pavement. This responsible management of materials has reduced the cost and environmental footprint of sourcing materials such as aggregates and asphalt cement. Assessing PST on these materials is counterproductive to incenting such stewardship. Remove the PST from recycled materials.

- **Adopting new construction/processing/production methods** that have been proven for infrastructure and are applicable in our climate. Consider the potential for:
  - use of glass in asphalt
  - use of FRP (glass-fiber reinforced polymer) rebar in road and bridge construction; reduced heat loss reduces life-cycles costs, balances higher material costs

- **Evaluating infrastructure assets based on life-cycle costs** for improved ROI – technology to improve assets (ie. roads) exists, but is more expensive

- **Asserting provincial authority through the Planning Act and the Mines and Minerals Act** to protect Manitoba's finite aggregate mineral resources from sterilization through competing land use activities– preserving high- and medium-quality aggregate zones for development (pits and quarries), especially those in proximity to our urban centers, is environmentally responsible. Millions of litres of fuel have not been consumed over the years due to the proximity of pits and quarries within the Capital Region, close to the bulk of the province's infrastructure projects.

This item reflects upon the above-mentioned need/caution for a 'whole government' perspective in policy, regulation and infrastructure investment strategy, to ensure that the interests of Manitoba's environment and economy are served in tandem, and that unintended consequences are avoided.

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Government of Canada

Carbon Tax

The carbon tax will immediately and significantly increase the cost of operations for heavy construction industry contractors engaged in all aspects of infrastructure works. The vast majority of this industry's work is funded by public budgets. Increase to cost (dramatic) will reduce the value of public infrastructure programs/budgets.

While a carbon tax is set out as an economically "efficient" way of linking cause and effect to consumption behaviour, the MHCA would like to underscore two salient points regarding the federal plan.

1. The greatest contributors to GHG emissions in the transportation category – personal vehicles – have some degree of control/choice in the kinds of vehicles they drive and in their driving habits (hybrid and electric vehicles; daily driving routine; ability to shift transportation mode).
   Similarly, the freight (long-haul) transportation industry has greater capacity to take up a broader range of new(er) technologies and vehicle engineering to reduce fuel consumption and emissions. The heavy construction industry has little-to-no choice in fuel, limited choice in technology -- limited hybrid and no electric options -- and limited influence over consumption.

2. The federal plan to return to families/households 90% of the carbon tax revenues collected in Manitoba allows no consideration of assistance to industry operators in the adjustment to increased costs of business, through rebates or program assistance for take-up of new(er) technologies or devices.

In that context, we respectfully encourage the federal government to consider:

Tax treatment

- **Do not tax a tax – apply carbon tax separately/alongside other taxes (provincial fuel, federal excise and GST) on diesel/gasoline at the pump.**

- **Consider tax rebate/refund for those taking up new technology**. Offer tax incentives for a limited time, as the technology proves its applicability/value to the heavy construction industry. The carbon tax is applied universally, without regard to costs imposed on early adopters; incentives recognize the risk burden

- **Capital Cost Allowance**: the federal government accelerated depreciation of greener technologies and equipment to incent adoption by other industry categories. It is reasonable to apply similar treatment to Tier 4 Final technology adopted by the heavy construction industry companies

- **Exempt anti-idling devices from GST**: These devices' value/applicability are unproven in the field of work for heavy construction.

- **Exempt biofuel proportion within diesel from the carbon tax**: Biofuels are more expensive to produce, thereby increasing fuel costs. An exemption would recognize the impact of raising the biofuel mandate

Respectfully submitted,
Manitoba Heavy Construction Association

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