Canada Gazette Part I Volume 157 Number 33: Clean Electricity Regulations

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October 30, 2023

We wish to thank Environment and Climate Change Canada (ECCC) for the opportunity to submit our comments regarding the development of the Clean Electricity Regulations (CER). The focus of our comments will be on:

- The advantages and opportunities the expanded use of propane can provide as the sector looks to reduce emissions, in alignment with the 2050 net zero goals.
- The risk of leaving behind Canadians who live in rural and remote communities if decarbonization is rushed without safeguards in place and if *all* low emission options are not included in decarbonization efforts.
- Concerns that the rush to electrification will put rural jobs at risk.

About the Canadian Propane Association and Canada's propane industry

The Canadian Propane Association (CPA) is the national association for the propane industry, representing companies from every region of the country and across the entire supply chain. Our membership, representing over 400 companies, is an influential group which includes producers, wholesalers, transporters, retailers, manufacturers, distributors and service providers of equipment and appliances, and associated industries.

Annually, the propane sector supports between $5 billion and $6 billion in GDP, produces over 280 kb/day in propane production, provides the main energy source to between 150,000 and 200,000 households across Canada and supports directly and indirectly approximately 30,000 jobs. For governments, propane generates over $1.8 billion in taxes and royalties each year.

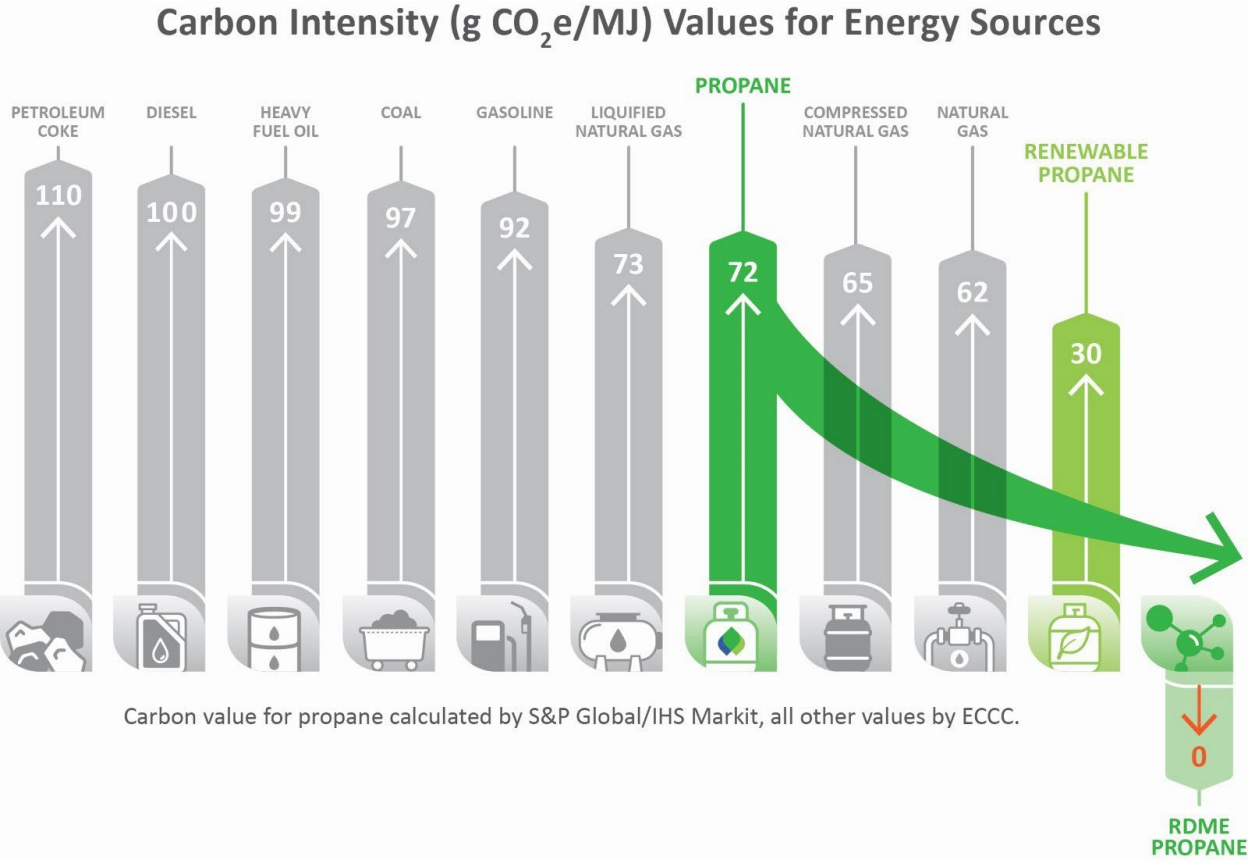
Propane has a vast array of uses, not just BBQs. Sectors in the Canadian economy that use propane include agriculture, commercial/institutional, manufacturing, mining & oil and gas, non-energy use & producers' consumption, residential and transportation.

Canadian propane also contributes to global emissions reductions as over 50 per cent of the propane produced in Canada is exported to countries such as Japan, South Korea, and Mexico whose communities seek a cleaner, reliable, and affordable energy options, particularly in rural and remote areas.

Propane is already recognized by governments around the world for the contribution it can make toward improved indoor and outdoor air quality and reduced greenhouse gas emissions, as evidenced under Canada's *Alternative Fuels Act*. Supplying affordable, reliable, and clean energy will continue to be the goal of Canada's propane industry.

Propane industry's Pathway to Net Zero by 2050

As the graph below shows, the carbon intensity of propane is on par with natural gas and the propane industry expects to see a further reduction in emissions intensity as we explore innovative emissions reductions technologies and pathways.



Renewable propane is already being produced in the U.S. and Europe. Unlike conventional propane, renewable propane can be made from a variety of renewable feedstocks. The most common form of renewable propane today is a byproduct of renewable diesel and sustainable aviation fuel made primarily from plant and vegetable oils, animal fats, or used cooking oil.

Propane can also be blended with renewable dimethyl ether (rDME), a sustainable fuel source that is produced from renewable feedstocks, such as dairy waste and biogas, or landfills. Today, rDME can be blended at 20% mass into LPG and used in existing LPG appliances, or it can be used as a 100% renewable fuel with limited modifications to equipment. DME, and increasingly rDME, is produced at commercial scale today. Compared to diesel and heating oil, rDME has close to 100% GHG emission reductions and can be produced from multiple renewable feedstocks including waste streams and residues, with a low GHG footprint.

Propane and renewable propane can be used alone or in blends with other renewable or low-carbon energy such as renewable dimethyl ether (rDME) to further reduce carbon emissions without sacrificing performance.

Canada's propane industry continues to strive to have commercially available renewable propane or rDME available to Canadians, at the lowest carbon footprint possible.

To that end, the CPA is presently examining the technical feasibility of decarbonizing propane in Canada, as we have already seen in other jurisdictions globally. In fact, the World LPG Association states that by 2050, over half of the propane consumed worldwide will be from renewable sources.

Canadian propane can and should be part of the decarbonized energy future, both domestically and worldwide.

Successful efforts to decarbonize will resemble a dial, not a switch.

The energy transition must be equitable across the country and ensure that the vast differences in resources and geography are considered. Technology must be available to allow for adoption. As technology advances the *dial* for change can be turned up.

We have seen far too often the *switch* approach is in most cases, aspirational with targets missed and policies such as the carbon tax for home heating changed or delayed.

The transition to a net zero energy future requires fairness, affordability, and energy choice for all consumers. This means an all-hands-on deck approach to not only reducing emissions but also providing affordable, reliable, and secure energy.

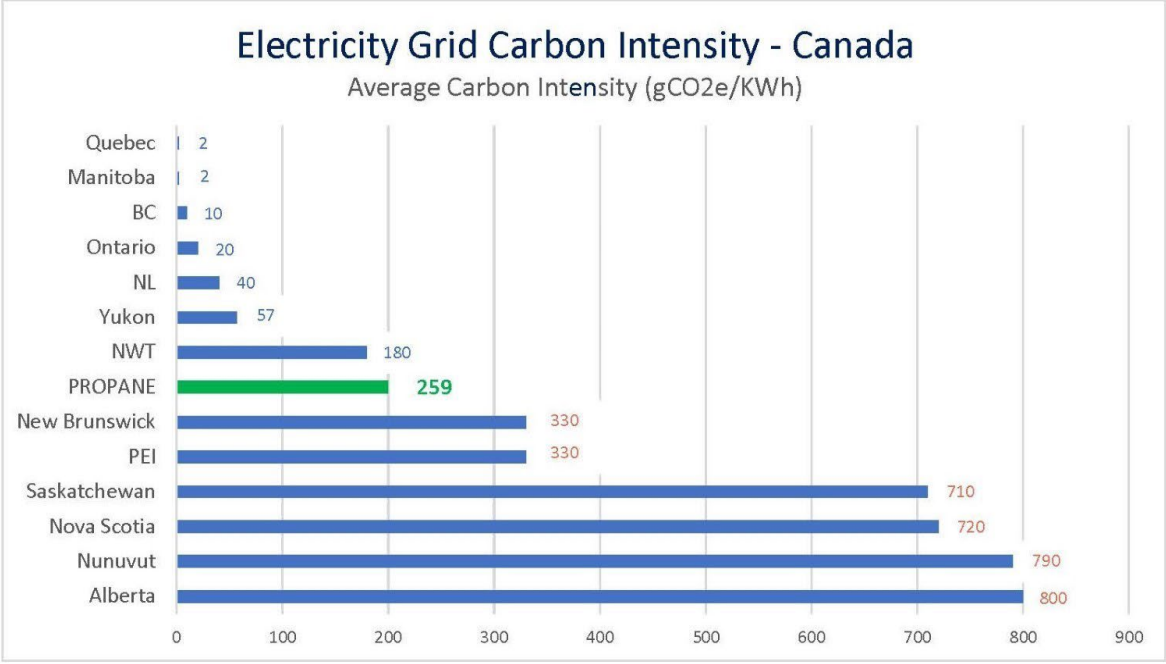
In that regard propane checks all the boxes.

When we consider the development of regulations, fundamental to the design is to ensure affordable energy choice. As we adjust to a low-carbon future, affordable energy and energy choice will play a major role in determining the success of that transition.

We are committed as an industry to continuing to demonstrate our responsibility to both the environment and the economy as Canada moves towards a clean energy future.

No single energy source can solve every environmental challenge and propane can complement renewable energy systems to reduce emissions while providing reliable energy for homes and critical infrastructure.

In terms of producing electricity, propane compares favourably to several provincial/territorial grids.



Sources: https://community.carbonleadershipforum.org/t/electricity-grid-carbon-intensity-canada-us-global/2440 and S&P Global Commodity Insights

Timelines

The proposed timelines in the draft CER are too stringent given the significant, long-cycle investments required to identify and implement cost-effective decarbonization technologies. As such, businesses could be challenged to make final investment decisions (FID) on decarbonization technologies without adequate time to assess which technologies suit their operations, investment needs and minimize consumer costs.

Extending the 2035 timeline will ensure businesses have sufficient time to identify and implement decarbonization technologies capable of meeting the proposed performance standard at the lowest cost to the business and consumers. The examples demonstrated above regarding net zero propane are feasible in Canada but will take time and investment certainty in order to be successful.

Significant challenges in adaptability and infrastructure costs

On page 20 in the Regulatory development section of the CER, the document states that the *Clean Electricity Standard Discussion Paper* introduced three key components: emission reductions, electricity affordability and electricity system reliability.

Importantly it was noted that:

"Implementing the proposed Regulations would require careful balancing of these criteria, as maximizing outcomes for any one criterion could place either of the other two at risk. For example, maximizing affordability could endanger emission reductions as the cheapest option to keep the electricity system operating in many places is to continue to use natural gas-fired generation. In the same way, maximizing reliability may hinder emissions reductions as reliability in the status quo requires having sufficient natural gas generation available."

While some provinces are relatively well positioned to adapt to the proposed regulations, for others, the challenges will be great. In three out of four Atlantic provinces (NS, NB, and PEI), the carbon intensity of electricity used is higher than propane. The Atlantic Loop has currently been delayed and requires billions of dollars, coal and oil will continue to dominate electricity production for many years in the Atlantic region.

Propane can immediately provide cleaner energy to communities relying on heating oil (38% reduction) and diesel power generation (up to 15-20% reduction) reducing emissions such as sulphur dioxide and particulate matter. Incremental progress is still progress towards a net zero goal and the CPA encourages the federal government to remain technology agnostic while Canadian energy sectors, including propane, continue to invest and develop new technology and pathways for emissions reductions.

As an energy provider for rural communities, Canada's propane industry sees the affordability challenges people face and will continue to face if the energy transition doesn't account for the diversity of needs and resources across provinces and communities. As is often the case, the

evolution for substantive change in rural communities is slower and more expensive than what their neighbours in urban areas will experience.

Considering the distances required to travel for important services such as medical and dental, the costs of transportation in rural communities are much higher. Public transportation is less available, and the cost of transporting food and other basic staples remain high. The increased costs to power these regions should be a consideration of the CER.

For example, access to fundamental technology such as high-speed internet and cell phone coverage is still not guaranteed or reliable in many areas across Canada. In far too many rural communities the level of service of these critical technologies is many years away, mostly due to providers that don't see a business case and governments that are slow to incentivize that investment. The same case can be made for the energy transition, and without a "wide path" to decarbonization, Canadian rural communities' risk being left behind.

Rush to reduce emissions could put rural jobs at risk.

The *Just Transition* and accompanying legislation (*The Sustainable Jobs Act*) are presented by the government as a plan to transition to clean jobs that will result in "enormous economic, job-creating opportunity across the country – for those in both conventional and emerging energy and energy-related fields."

The government estimates as many as 400,000 jobs could be created by 2030, "if Canada plays its cards right." However, others have likened this approach to the government's ineffective efforts to train people displaced by the collapse of the cod industry in Atlantic Canada back in the early 1990s.

As a sector, we are worried that removing energy choice (too narrow of focus on too few energy options) will put at risk well-paying jobs within the energy industry and many other sectors and most negatively affect rural communities.

As evidence, a Q&A from a briefing note to Ministers Wilkinson and O'Regan earlier this year shows how significant the jobs transition could be.

"Q. What sectors and regions will be most affected by a transition to a low-carbon economy?

A. "The transition to a low-carbon economy will have an uneven impact across sectors, occupations, and regions, and create significant labour market disruptions." Government expects that larger-scale transformations will take place in:

- *Agriculture – about 292,000 workers*
- *Energy – about 202,000 workers*
- *Manufacturing – about 193,000 workers*
- *Buildings – about 1.4 million workers*
- *Transportation – about 642,000 workers"*

The government must ensure that the energy sector, associated sectors such as agriculture and transportation, and the jobs attached to these industries in rural and remote communities themselves, will not be unintended collateral damage in the push to reduce emissions. Providing for energy choice such as propane, renewable propane, and propane rDME blend will help mitigate some of the negative impacts of electrification.

Furthermore, adjusting timelines for compliance with the proposed performance standard beyond January 1, 2035, ensures businesses have the time to assess existing and emerging technologies that can achieve the required emissions reductions at the lowest possible cost to their business and customers. Extending the timelines for compliance would allow businesses to dedicate greater amounts of capital towards breakthrough technologies that significantly move the needle on reducing emissions.

Propane: cleaner energy option for remote communities/during weather events.

The proposed regulations note, "flexibility for operators in locations where there may not be sufficient electricity infrastructure. This is reflected in that units less than 25 MW currently account for approximately 2 percent of Canada's electricity sector emissions."

Propane is an affordable, low emission and scalable replacement of diesel for power generation.

Consider:

- Electricity generation using propane is cleaner compared to diesel.
  - 15% -20% fewer emissions
  - 98% less particulate matter
  - 100% reductions in fuels spill remediation costs
- Communities can save up to 40% in fueling costs over diesel.
- Burns cleaner than diesel resulting in longer life and less maintenance.
- Can be stored long-term with zero degradation or contamination.
- Propane power is reliable, with proven performance, developed infrastructure and completely safe. It is not affected by catastrophic effects like hurricanes.
- Communities can benefit from propane's versatility. It is used in multiple solutions such as CHP (combined heat and power), cooking and home heating.

For temporary power, propane is a significantly cleaner solution than gasoline which is also used to fuel generators. Propane emits about 26% fewer emissions than gasoline.

As climate change continues to cause more severe weather events, propane, renewable propane, and propane/rDME blend will become even more critical to providing temporary low emission energy when the grid is down.

CEPA

The final CER are anticipated to be registered under the *Canadian Environmental Protection Act, 1999* (CEPA) in 2024 and come into force on January 1, 2025. The CPA strongly believes that CEPA, as a criminal regulation, is the wrong mechanism for these regulations. Achieving emissions reductions requires collaboration and recognition of the complexity and challenges of the goals. Applying criminal penalties to any federal-climate regulation is unnecessary. This feedback has been provided throughout the past several pieces of legislative and the CPA continues to recommend that federal government pursue an alternative mechanism, for the CER and all forthcoming policies.

Conclusion

Propane is one of the cleanest and most versatile energy sources. Canadian propane is a low-carbon, affordable, reliable, and versatile energy source that is safe and abundantly available.

As noted at the beginning of the submission, we ask that you consider:

- The advantages and opportunities the expanded use of propane can provide as the sector looks to reduce emissions, in alignment with the 2050 net zero goals.
- The risk of leaving behind Canadians who live in rural and remote communities if decarbonization is rushed without safeguards in place and if *all* low emission options are not included in decarbonization efforts.
- That the rush to electrification will put rural jobs at risk.

CPA recommends as well:

- Adjusting timelines for compliance beyond January 1, 2035, so that businesses have the time to assess existing and emerging technologies that can achieve the required emissions reductions at the lowest possible cost to their business and customers.
- Avoid using CEPA, a criminal regulation, as the mechanism for these regulations

I look forward to continuing to engage with you and your teams on this and other climate files which are of critical importance to the propane sector.