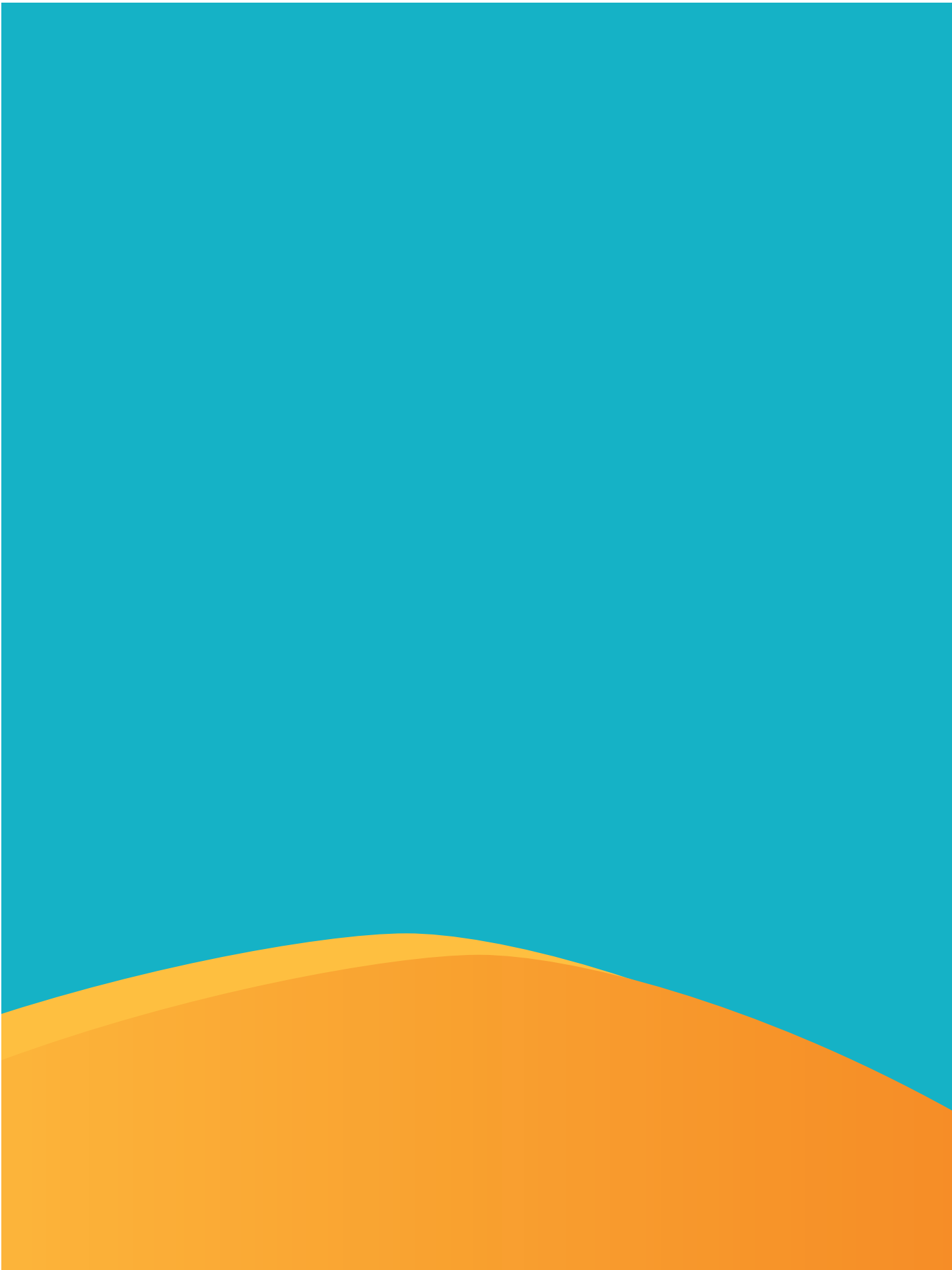




# **POWERING ALBERTA'S ECONOMY:** The Alberta NDP's submission on the draft Clean Electricity Regulations

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Alberta  
**NDP**  
CAUCUS



# SUMMARY

The Government of Alberta has stated it intends [to achieve](#) a carbon-neutral (or net-zero) economy by 2050. The International Energy Agency points out that an [important milestone for advanced economies](#) to achieve this goal is that their electricity systems largely decarbonize by 2035 as it lays the cornerstone for further electrification and emissions-reductions in other sectors.

Alberta has made great strides in lowering the greenhouse gas footprint of Alberta's electricity system with the phase out of coal, and has been tracking towards a net-zero electricity system in the coming decades before the most recent halt on renewables introduced by the Government of Alberta. A stable, workable framework for the sector is in everyone's best interest to attract the low emissions investment needed in Alberta to keep the system affordable, reliable and low-emitting.

This submission constitutes the Alberta NDP's input to Environment and Climate Change Canada's proposed Canada Electricity Regulations (CER), recognizing Alberta's decarbonization journey will look different than other provinces, and the federal regulations need to reflect that. For example, nationally, over 80 percent of Canada's

electricity comes from non-emitting sources, but in Alberta, over 80 percent of our supply comes from emitting sources like natural gas. As a result, this submission focuses on four areas where, if implemented, the CER can help to create stability in Alberta's electricity sector rather than exacerbating the turbulence introduced by Alberta's government. These changes include:

- *Increase the cap on low-use peaking plants*
- *Enable compliance flexibility for CCUS*
- *Allow cogen units an extended end of life to enable time for CCUS*
- *Extend equal treatment of net exports cogen units as peaking units*

While the CER aims to set national standards, Alberta must still develop its own ambitious policies in order to attract the investment needed to achieve a reliable, net-zero grid that allows for low-cost technologies to flourish without prescribing winners and losers. Alberta is ready and able to meet this challenge — and it is critical to our economic future that we do so.

# BACKGROUND

Alberta has had significant success in the electricity sector in large part due to the Alberta NDP policies that led to the rapid phase out of coal, as well as the procurement of renewables which opened the door to long-term power purchase agreements in the province. Furthermore, the Alberta NDP government legislated a 30 per cent renewable electricity target by 2030, and began procuring large-scale solar power to help kick-start what was at the time a burgeoning source in the province. This suite of policies created a strong framework that was successfully attracting investment in low-carbon electricity in Alberta.

Today, Alberta has become the [largest market](#) for renewable energy in Canada due to its low cost, a stable policy framework that ensured investor confidence, and Alberta's entrepreneurs, engineers and communities finding new ways to get projects done. Unfortunately, an [abrupt](#) halt on renewables was implemented by the current provincial government. Unexpected policy changes, especially ones that target a specific sector, highlight the importance of why any new federal regulations must get it right.



# CANADA'S CLEAN ENERGY REGULATIONS

Capital Power's CEO, Avik Dey, [stated](#):

*"the general framework set out in the draft Clean Electricity Regulations (CER) is a positive step for Canada. It is easily understood, can supply much needed market stability to attract capital and investment for new projects, and stands to offer increased clarity for all players."*

However, while Alberta's electricity system not only has the opportunity to make the largest emissions reductions in Canada, it also faces challenges that are different from most of the rest of the country and there are several significant areas of concern that need to be addressed.

In the hopes of achieving a policy that provides predictability for low-carbon energy investment in Alberta, we are recommending the following items be updated in the CER.

## Caps for Low-Usage Plants

While batteries are becoming increasingly common in new renewable energy projects in Alberta, as well as [across North America](#), longer-term storage systems, including technologies such as compressed air, pumped hydro and hydrogen are likely to be more readily available on a longer horizon.

Keeping the lights on is of paramount importance, and quickly dispatchable facilities that operate in peaking capacity, such as simple natural gas plants are likely to be important in the medium-term. Limiting their operating time to 450 hours per year may result in perverse outcomes with those units looking to dispatch their maximum output in their allotted hours as quickly as they can each year, and then potentially not being available later in the year when needed, or simply being overused at one time of the year and being unavailable when needed.

It is unlikely that relatively high-emitting gas plants will operate in a mode other than when other, lower cost supplies are low particularly as the industrial carbon price follows the schedule laid out by the [Alberta government in December 2022](#). Therefore, overall emissions impacts are likely to be small while enabling flexibility for years or months of unusually low availability of other resources. Rather than deeming the maximum hours, we recommend a maximum capacity factor of 15-20 per cent which would be in line with existing peaking plant operations thereby creating an additional buffer to support system reliability until more storage is built out.



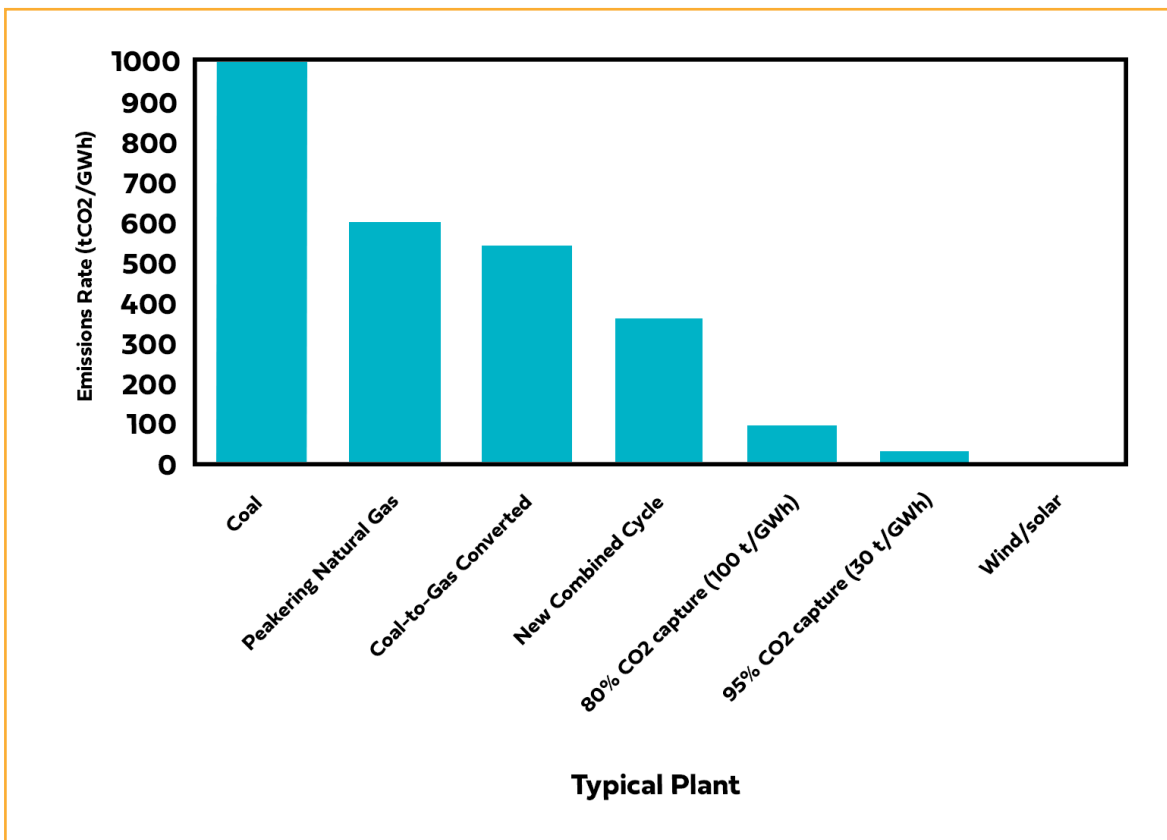
## CCUS Flexibility

Most global decarbonization analyses agree that Carbon Capture, Utilisation and Storage (CCUS) is likely to play a short- to medium-term role in emissions reductions particularly for regions that have historically relied heavily on thermal power production. While Alberta has been an early adopter of CCUS, the technology is still in its early days of commercialization.

The [oilsands Pathways Alliance](#), as well as Alberta-based electricity companies like [ENMAX](#) and [Capital Power](#), have received federal funding and have access to federal subsidies for CCUS projects. With carbon prices scheduled to increase above 100 \$/tCO<sub>2</sub>, CCUS is likely to be a [viable option for many gas units in Alberta](#).

While Alberta has spent [billions in subsidies](#) over the past 15 years, no project has yet achieved a 95 per cent capture rate that would be required to comply with the CER's 30 t/GWh. This limit therefore is likely to have the unintended consequence of deterring investments in CCUS for fear of an inability to comply.

While 95 per cent capture rates should be the design goal to ensure CCUS delivers on its promise to be close to zero-emissions' energy, the CER needs to recognize new technologies often experience growing pains. Given this, the emissions limit for CCUS under the CER should be phased in starting at 100 t/GWh for projects built before 2035, should recognize the benefits of earlier emissions reductions, and allows newer CCNG plants — such as Shepherd, Genesse, Milner and Cascade — the opportunity to adopt CCUS. We further recommend that the emissions limit be lowered to a rate closer to 40 t/GWh for new projects starting in 2040.



Additionally, flexibility for minor non-compliance needs to be available so that the limit is non-binary. Flexibility could include a financial payment into a fund dedicated to further facilitating electricity decarbonization (such as storage). This flexibility will help to de-risk early CCUS projects with the goal of getting more emissions reductions sooner, rather than increasing the risk investments will not happen at all.



## End of prescribed life

The proposed regulations allow for new combined cycle and/or cogeneration natural gas plants to run until 2045 without any form of emissions reduction, such as CCUS. However, as proposed, the CER requires any unit that is older than 20 years to install CCUS after 2035.

While many groups doubted it was possible, or made [spurious claims about the cost](#), Alberta is on track to completely phase out coal well ahead of 2030. This was, in part, due to early conversion of some units from coal to gas. While most of these units are scheduled to retire before 2035, a few were scheduled to retire by 2037. Given the emissions that were reduced by phasing out early, these remaining units should be allowed to operate until the end of 2037 to honour the timelines when the original conversion investments were made.

Alberta has over 5,000 MW of cogeneration facilities, of which about 1,500-2,000 MW is commonly exported to the bulk electricity system. While it is only fair that net exports to the grid have the same rules as their

competitors, recognizing some flexibility will help maintain system reliability as the industry moves to adopt CCUS. While most cogeneration is not highly dispatchable, cogen units that only offer small amounts of energy into the market should have the same rules applied to them as peaking units discussed above.

Despite the proposed [Federal tax subsidy](#), the recent market turmoil introduced by the Alberta government may further delay some CCUS projects. Furthermore, not all cogen units will have access to necessary infrastructure by 2035. Cogen units that were designed for bulk export only represent around 1,500 MW of net to grid capacity, and have lower emissions profiles than other gas facilities, and so grandfathering less cogen facilities that were built as significant net-to-grid facilities until 2040, aligning more closely with oilsands pathways net-zero commitments will enable them to either adopt CCUS or smooth a transition without creating significantly higher cumulative emissions.





# ADVANCING THE AMBITION IN ALBERTA

Alberta knows it is not alone in developing low-carbon electricity. Renewable energy overtook both coal and nuclear in American electricity market share in 2022, and the United States is expected to install more battery capacity than new natural gas in 2023.

However, Alberta still has a long way to go, and federal support can help reduce uncertainty and lower long-term energy bills by enabling low-cost renewable energy, energy storage and other low-carbon technologies.

Getting the CER right is an important step in enabling Alberta to continue the decarbonization of Alberta's grid. The federal government can further support Alberta in this transition with support for better distribution, transmission and interconnection as well as energy storage infrastructure that will enable more supply and supply options to keep prices low while maintaining reliability without the need for governments to prescribe or gamble on specific technologies.



## CONCLUSION

Alberta has long been a global energy leader and is well-positioned to meet the challenge of a net-zero grid. We have the natural resources, the people, the companies and can-do attitude that can make this a reality. It is important to remember recent successes in electricity decarbonization were frequently considered (and sometimes continue to be) impossible before they became inevitable. The goal of a net-zero grid by 2035 is just that — a goal. More importantly, the related — and inevitable work — will allow

us to plan and prepare for the future. It is about creating a robust plan to decarbonize Alberta's electricity, attracting investments to the sector, and addressing climate change. Alberta has the opportunity to regain its leadership in renewable and low-carbon energy development. Through planning and creating long-term policies, Alberta has the opportunity to lead through the ongoing global energy transformation and electrification taking place around the world.

