

Saskatchewan Stands to Benefit from Compliance with the Federal Clean Electricity Regulations – David Maenz, December 23, 2024

The Government of Saskatchewan and SaskPower have clearly stated a commitment to transitioning Saskatchewan's electricity system to net zero emissions by 2050. The finalized Clean Electricity Regulations (CERs) released by the federal government are aligned with the same mid-century timeline for completing a net-zero transition. A cost-effective transition to a zero emissions supply of electricity within 25 years precludes any further build out of new large unabated (without carbon capture) fossil fuel generators beyond planned units that are well advanced with commitments to construction.

The CERs set an annual emissions limit of 65 tonnes of CO₂ per GWh of capacity. The standard comes into place Jan 1st, 2035, and applies to new build generators. Existing natural gas-fired units can continue to operate to end of life or 25 years from commissioning (which ever comes first) before the CER emissions limits apply. For example, the recently completed Great Plains Power Station near Moose Jaw, SK was commissioned in December 2024. This newly constructed plant can operate to 2049 before the CER emissions standard will apply. Planned gas plants that are under construction by 2028 such as the Aspen Power Plant near Lanigan, SK can operate until Dec 31, 2049. As such, the CERs are designed to minimize the costs associated the net zero 2050 transition.

Under a separate set of long-standing regulations unabated coal-fired generators must be shut down prior to Jan 1st, 2030.

The revised standard accommodates new gas plants equipped with carbon capture and storage and existing and new gas "peaker plants" operating at less than 20% of capacity. Peaker plants can rapidly respond to supply fluctuations and thus are important contributors to balancing and providing backup to supply coming from intermittent renewables. Further, the CERs include provisions for "pooling of emissions" from the fleet of generators operating under the CER standard, along with "banking" of avoided emissions below the CER standard for future use. The flexibility built into the CERs along with storage and interprovincial flows of electricity will guarantee the reliability of supply as the system transitions to net zero electricity.

Over the next 25 years, SaskPower is facing the considerable task to replace the current fleet of fossil generators with zero emissions options. The per capita costs of our transition are higher than forecasted for hydro-rich provinces and it unreasonable for the rate payers of Saskatchewan to assume this burden of costs. The federal government has established funding structures including investment tax credits applied to new build clean electricity projects that are designed to distribute the burden of clean electricity transition costs across the national tax base.

The CERs were released along with a Regulatory Impact Analysis Statement (RIAS). The RIAS utilized state-of-the art modelling of the full spectrum of economy-wide transitions costs over the next 25 years. These costs include the build out of supply and transmission infrastructure to meet a projected doubling of demand for electricity. The models then predicted the impact of electricity sector expansion and conversion to zero and low emission options on the residential cost of electricity for each province. Federal funding structures such as Investment Tax Credits were included in the analysis. Under the baseline scenario (i.e. without the CERs in place), the residential price of electricity in Saskatchewan is projected to increase by 15% by the year 2050. Compliance with the CER will result in a 16% increase in residential rates in

Saskatchewan. The RIAS projected most other regions of Canada to experience electricity price decreases with CER compliance. Saskatchewan is the exception, which is projected to experience an incremental price increase of around 0.2 cents per kWh relative the baseline scenario. This incremental rate impact (beyond what is expected in the baseline) is modest. Further, any small rate change needs to be considered in the context of overall household energy expenditures, which are expected to decrease over time as people switch from fossil fuels to more efficient technologies like electric vehicles and heat pumps. In summary, the combination of flexible federal regulations along with federal assistance for clean electricity projects will avoid a burden of cost imposed on the rate payers of Saskatchewan.

The Government of Saskatchewan “categorically rejected the Clean Electricity Regulations (CERs) published by the federal government” on December 18, 2024. The provincial government referred to its own study completed by the Saskatchewan Economic Impact Assessment Tribunal (EIAT) in the press release rejecting the CERs. The EIAT study compared the economics of a scenario of non-compliance with an early draft of the CERs “Saskatchewan Affordable Power Plan” with a scenario of CERs compliance. In contrast to other highly respected economic models of electricity sector transition, the EIAT study suggested that CER compliance would impose economic hardships on citizens of Saskatchewan. The EIAT report conclusions are irrelevant because they are based on prior a draft of the federal CERs that was intended to be a consultation document. The flexibility and allowances build into the final version of the CERs were designed to reduce cost of implementation. In addition, the economic impacts highlighted by the EIAT study were primarily due to differences in assumed carbon pricing and federal support for compliance and non-compliance with the CERs. These underlying assumptions caused the Saskatchewan Affordable Power Plan to look more economically attractive. In short, the EIAT report was tailored, based on unrealistic assumptions, to undermine the CERs.

Dr. Brett Dolter, from the Department of Economics at the University of Regina completed a detailed and objective assessment of the actual impacts of compliance with the CERs. The U of R study concluded that compliance with the CERs would have a marginal impact on electricity rates in Saskatchewan. This agrees with the results obtained by four independent energy-economy models of the clean electricity transition as described in the federal government’s RIAS.

The CERs are aligned with the stated goals of SaskPower and the Government of Saskatchewan to transition the electricity sector to net zero emissions by 2050. Further, models of the energy mix to generate electricity under a scenario of compliance to the CERs resemble the future energy mix forecasted in SaskPower’s own long-range plans. Realistically, only modest adjustments are required to SaskPower’s long-range plans to comply with the final version of the CERs.

The flexibility built into the CERs and associated federal investment tax credits will ensure emissions reductions from electricity generation over the next 25 years without compromising the reliability of supply or imposing a burden of costs on the citizens of Saskatchewan. The CERs help respond to industry demands for cost-effective clean electricity to minimize the potential impacts of future border carbon adjustments applied to exported products. The time has come for the Government of Saskatchewan to cease with the knee jerk rejection of this federal initiative and get on with the job of transitioning to a clean electricity supply for the people of Saskatchewan.