Saskatchewan Environmental Society

SES STATEMENT CONCERNING AI DATA CENTRES

October 2026

As artificial intelligence (AI) expands, researchers, policy analysts, and affected communities are raising concerns about the environmental impacts of the data centres that power AI systems. (For instance, according to a recent Angus Reid Institute survey, 68% of Canadians would oppose an AI data centre near where they live.[1]) Concerns include large electricity demand, water use for cooling, air pollution from fossil-fuel electricity, noise and light pollution, waste heat, land disturbance, and cumulative effects on communities, ecosystems, and the climate.

The Saskatchewan Environmental Society (SES) shares these concerns about the environmental implications of AI data centres in Saskatchewan. Based on limited information available, SES does not support AI data centre developments that would increase fossil fuel dependence, greenhouse gas emissions, water stress, heat impacts, or other environmental harms. AI data centres should not proceed unless proponents and governments can demonstrate, through transparent public processes and environmental assessment, that these impacts will be avoided or meaningfully mitigated.

SES therefore recommends that AI data centres proposed for Saskatchewan proceed only if they undergo transparent environmental assessment to evaluate environmental impacts, minimize water use and waste heat, publicly disclose environmental performance, and avoid fossil-fuel power generation and instead operate via renewable power, without shifting costs — directly or indirectly — onto Saskatchewan ratepayers. A full list of recommendations can be found at the end of this statement.

Background

An AI data centre is a facility that houses information technology infrastructure used to train, deploy, and deliver artificial intelligence (AI) applications and services. AI data centres are similar to traditional data centres in that they contain hardware such as servers, storage systems, and networking equipment. The difference lies in the intensive AI workloads that lead to extraordinary demands for energy and cooling, the latter often in the form of water. AI data centres are also often delineated from traditional data centres by their large energy demand,[2] e.g., 100–300 megawatts (MW), sometimes even exceeding 1,000 MW.

The Government of Canada is heavily invested in AI developments and recently released a national strategy in that regard.[3] At present, SES understands that one AI data centre has been approved in Saskatchewan, which is Bell Canada's AI Fabric project in the Rural Municipality of Sherwood, near Regina. This massive project was initially planned as a 300 MW facility and later expanded towards a 1.2-gigawatt (GW) campus. The Government of Saskatchewan and Bell Canada did not complete a provincial or federal environmental impact assessment (EIA) before breaking ground. This is despite Saskatchewan's own *Environmental Assessment Act* criteria including any project that "substantially utilize[s] any provincial resource … cause[s] emission of any pollutants … causes widespread public concern … involve[s] a new technology … ha[s] a significant impact on the environment."[4,5] At its full capacity, this single AI data centre will demand nearly one-third of the peak electricity consumed by the entire province.[6]

After the initial phase of Bell Canada's AI Fabric project was approved, the Government of Saskatchewan released an AI data centre framework,[7] which requires proponents to "bring their own power." Thus, while the initial 300 MW will be powered by the SaskPower grid — and recent Saskatchewan Rate Review Panel materials state this additional demand may be supplied by coal-fired power generation[8] — the remaining 900 MW, which was announced after the framework was released, will require Bell Canada to self-generate power. At present, Bell Canada plans to build additional natural gas infrastructure to power the AI data centre, which would increase greenhouse gas emissions, deepen fossil-fuel dependence, and undermine Saskatchewan's ability to transition toward a net-zero electricity system.

The RM of Sherwood placed development conditions on the initial 300 MW project, including stormwater control to avoid flooding neighbouring land, acoustic limits of 70 dB or less, compliance with dark-sky best practices, and a prohibition on extracting groundwater or potable water supplies, effectively requiring a strict closed-loop cooling system.[9]

Saskatchewan is now evaluating more than 30 additional proposals to build AI data centres across the province.[10] CBC reports that AI infrastructure developers are targeting Saskatchewan because of its energy resources, open spaces, and colder climate that can reduce cooling costs.[11]

Areas of Concern

AI data centres have drawn considerable public attention and environmental concern because they concentrate large industrial demands for electricity, cooling, infrastructure, and municipal services. In Saskatchewan, these concerns are heightened by the province's fossil-fuel-heavy electricity system, the lack of publicly available information, and uncertainty about how cumulative impacts would be assessed. The key areas of concern discussed below include water use and cooling choices, electricity demand and power supply, heat impacts, noise and light pollution, land use, wildlife and habitat impacts, and the need for transparent environmental assessment. As the sector evolves, additional concerns may emerge.

Water Resources

Early AI data centres in the United States used flow-through cooling — which draws water from an external source, like a river or municipal supply, and then discharges the water after one use. This can lead to very large water use which stresses municipal supplies and local water bodies. Some recently constructed AI data centres use closed-loop water cooling, which re-circulates water and can reduce water consumption. However, closed-loop systems may increase electricity demand compared with water-intensive systems.[12]

Power Consumption

Roughly 70% of SaskPower's electricity generation is powered by fossil fuels, namely natural gas and coal.[13] Because large AI data centres are enormous power consumers — sometimes using as much electricity as cities — their demand could increase pressure to extend, refurbish, or restart high-polluting power stations that would otherwise be retired. This would increase greenhouse gas emissions and air pollution, create additional health and climate impacts, and make it harder for Saskatchewan to transition to a cleaner electricity system.

AI data centres also raise affordability and accountability concerns. If new data centre demand requires new generation or system upgrades, there is a risk that costs could be shifted onto Saskatchewan ratepayers. In addition, the demand for gas turbines to power AI data centres is

driving up the cost of turbine equipment and related power generation infrastructure.[14] The Government of Saskatchewan's "bring your own power" requirement may reduce direct pressure on the SaskPower grid, but it also raises questions about how self-generated power will be regulated.

The Heat Island Effect

AI data centres produce substantial waste heat that must be discharged, reused, or managed through cooling systems. Emerging research suggests that large AI data centres can create localized heat islands, raising surrounding land surface temperatures by an average of 2°C and up to 9°C in extreme cases.[15] Additionally, this thermal footprint can extend outwards by up to 10 km from a single data centre, which has an impact on the surrounding environment. Added heat may affect nearby vegetation and wildlife habitat, particularly on species sensitive to temperature fluctuations.

Noise Pollution

Depending on how the system is configured, some fans of the AI data centre may produce an intrusive hum that will be of concern to local communities. Because operations are continuous, local communities and wildlife habitat would then be persistently exposed to noise. This noise can affect wildlife by disrupting movement, reproduction, foraging, and predator-prey dynamics.[16]

Land Use

AI data centres are significant industrial developments with large physical footprints. Thus, siting should be considered carefully so they are not situated on endangered or critical habitat. AI data centres may have potential negative impacts on protected areas, migratory birds and other wildlife, and wetlands, to name a few.[17]

SES Recommendations

Due to the limited public information available about the potential environmental impacts of AI data centres, SES believes the following pre-conditions must be met and reviewed through an environmental assessment process. These recommendations are based on currently available information, which remains sparse, especially in a Saskatchewan context. The available information is not sufficient to demonstrate that impacts to land, water, wildlife, communities, electricity grids, and the climate will be avoided or meaningfully mitigated.

1. Proposed AI data centres should be subject to *The Environmental Assessment Act* of Saskatchewan.[18] Currently, opaque decision-making in Saskatchewan and elsewhere has led to public distrust of decision-making concerning AI data centre developments. The Government of Saskatchewan allows AI data centres to bypass formal environmental impact assessments. Environmental assessments should be used to evaluate electricity demand, greenhouse gas emissions, water use, land disturbance, wildlife and habitat impacts, noise, heat, air pollution, cumulative effects, and Indigenous and community concerns. The assessment process should also require a decommissioning and reclamation plan that assigns responsibility for decommissioning costs and site restoration.

2. AI data centres should use cooling systems that minimize water consumption, fossil-fuel electricity demand, waste heat, chemical contamination, and noise. Proponents should publicly disclose the proposed cooling technology, expected water use, backup cooling plans, and mitigation measures before approval. Once operating, AI data centres should be required to publicly disclose their water use and monitoring information.

3. Waste heat from AI data centres should be reduced at source and captured/reused where possible. Proponents should also be required to demonstrate that the proposed reuse of waste heat eliminates environmental harm.

4. AI data centres should not constitute an excuse to continue operation of Saskatchewan's coal-fired stations or increase Saskatchewan's reliance on coal, natural gas, or other fossil fuels, including through new fossil-fuel generation, expanded natural gas infrastructure, delayed retirement of existing fossil-fuel stations, or resurrection of already closed coal-fired stations.

5. AI data centres should operate using new, additional renewable power, supported by storage and/or demand-management measures that avoid new fossil-fuel generation and do not shift direct or indirect costs onto Saskatchewan ratepayers.

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