SASKATOON CHAPTER NEWSLETTER

March 2026 Updates

March 10th

- Wade Conlan - DL Presentation (more details in newsletter)

April 27th

- Bill McQuade – Society President Visit

May 28th

- Moon Lake Golf Tournament

The Saskatoon Chapter of ASHRAE is officially incorporated as a non-profit as of February 26th, 2026. Thank you to our Chapter President Kyle Harasyn for putting the time and effort in to getting this completed.

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Government Affiars SaskEnergy Question Answers

Part of this year's Government Affairs community outreach, Spencer Ollenberger prepared a set of questions for SaskEnergy. Their responses are included in this newsletter for your information. If you have any follow-up questions, please contact the BOG and we will be happy to pass them along.

1. How does SaskEnergy define "sustainable energy solutions"?

Within the context of the team I lead, our work has two main areas of focus.

First, we assess energy-saving measures for both cost-effectiveness and energy-reduction potential. For an energy solution to be truly sustainable, it must be affordable and meet customer expectations for comfort. SaskEnergy's energy efficiency rebate programs support this by helping residential and commercial customers reduce natural gas consumption and lower long-term energy bills.

Second, we participate in the development and evaluation of next-generation technologies. We collaborate with local industry and customers to field-test emerging technologies, identify their real-world performance, and help remove barriers to market for innovations that show potential for energy and cost savings.

Outside of our group, SaskEnergy also has dedicated teams focused on long-term infrastructure planning to ensure the reliability and affordability of the province's natural gas system. Significant investments in system modernization help maintain our 99.99% reliability and support the evolving needs of Saskatchewan customers.

2. What ASHRAE standards or best practices does your team rely on when evaluating building energy performance, equipment efficiency, or system optimization in Saskatchewan?

When assessing the energy savings of different technologies for our energy efficiency rebate programs it is essential to have a well vetted method of estimating the performance of any given piece of equipment. We rely heavily on verified performance characteristics of equipment such as Annual Fuel Utilization Efficiency for furnaces and boilers as defined by ASHRAE standard 103, or heat recovery effectiveness for HRVs as defined by ASHRAE standard 1060.

We also participate in new technology demonstration projects where our goal is to assess the relative performance of a new piece of equipment. In those cases, we follow along with the measurement and verification guidance provided by ASHRAE guideline 14. This guideline provides a standardized way of carrying out these types of evaluations which helps all stakeholders agree on the relative success of a project.

3. From a utility perspective, where do you see the greatest opportunities for improving energy efficiency in commercial and institutional buildings across the province?

A pattern I see emerging is that more and more types of equipment are becoming incredibly optimized in their efficiency, and codes and regulations are not far behind. This means that there is less and less headroom to achieve energy savings by installing more efficient equipment. For example, as of January 2025, the lowest thermal efficiency allowable for hydronic boilers sold in Canada is 90 per cent, with most installations being 95 per cent thermally efficient or better. As we approach this point of diminishing return on equipment performance, another opportunity for improving energy efficiency in buildings is in system design and optimization.

For every building, this is going to look a little bit different, but techniques such as boiler water temperature resets, scheduled temperature setbacks, or demand-controlled ventilation, are all ways to reduce a building's energy consumption, which may not require any new equipment at all. The path to realizing these savings starts with skilled mechanical trades people with a good understanding of the systems they work on, recognizing and advocating for these opportunities which exist beyond like-for-like equipment replacement.

4. How is SaskEnergy approaching the modernization of its infrastructure to ensure long-term reliability, safety, and resilience for customers?

Over the past decade, SaskEnergy has significantly expanded and modernized its infrastructure to keep pace with customer growth and reliability needs. In 2024–25 alone, we invested $176 million in system growth and expansion projects and committed another $132 million to capital improvements focused on risk management and reliability.

This work is guided by a disciplined approach that prioritizes optimizing existing assets, expanding capacity through targeted compression improvements, and building new infrastructure to meet customer-backed demand. SaskEnergy also closely monitors the condition of its assets, performs proactive maintenance, and replaces equipment at the end of its service life. Together, these efforts strengthen safety, expand system capacity, and contribute to a reliable, resilient energy network for communities across Saskatchewan.

5. What types of technologies—boilers, hybrid systems, waste heat recovery, controls, metering, etc.—show the most promise for improving energy performance in Saskatchewan's climate?

Recently, we have been exploring the role that gas heat pumps may play in Saskatchewan's home heating market. There are several different types available but currently the most widely available systems are based on the absorption cycle. These systems are air-to-water heat pumps which move heat energy from the ambient outdoor air into the hydronic system. The key differentiator is that instead of using an

electric motor to excite the refrigeration cycle, they use a small gas flame. This results in a system which can achieve greater than 100 per cent gas efficiency in space and water heating applications. Testing in the province of Saskatchewan has shown that these systems can operate down to -40 C without the need for a backup heating system.

Electric air source heat pumps still have their limitations with respect to cold climate performance and operating cost and emissions specific to Saskatchewan's situation. Traditional systems like high performance boilers, furnaces, and water heaters and their associated controls are beginning to reach a point where there is very little room left for incremental improvement. The ability of gas heat pumps to achieve heating efficiency greater than 100 per cent is a real game changer which opens the door to a whole new category of appliances with ample headroom for improvement and optimization.

6. From your vantage point at the utility, what aspects of building design or mechanical systems are most often overlooked but have the biggest impact on long-term operating performance?

The main design aspect that I think of here is the right sizing of heating equipment. We are very fortunate that through our rebate programs, we can get a sample of the type and size of HVAC equipment that is being installed in the province. In a lot of cases, equipment such as boilers or furnaces are sized using outdated "rule of thumb" techniques such as heating capacity based on floor area. With advancements in building construction, this very often leads to heating equipment being oversized for the application and cycling the burner on and off to meet demand. I likely don't have to tell you that for any gas-burning appliance, the ideal operating scenario is allowing the burner to turn on and run continuously. Frequent cycling leads to a decrease in average annual performance, which we can see when assessing the gas consumption of a property before and after a retrofit.

7. Are there specific areas where you feel ASHRAE's guidance is underutilized in Saskatchewan's building sector, such as ventilation standards, energy modeling, or commissioning?

I don't feel that ASHRAE's guidance is underutilized, rather, I feel that ASHRAE's guidance plays an essential role in Saskatchewan's building sector. A large portion of my career experience is in building mechanical design as a consulting engineer, which helps to add context to the work I do at SaskEnergy. In many cases, ASHRAE standards and guidelines provide the foundation on which heating and ventilation systems are designed. Elements from standards such as ASHRAE 62.1 of 90.1 have even found their way into National Building Code of Canada and National Energy Code for Buildings of Canada. It makes sense that in a climate as severe as Saskatchewan's, professionals seek out guidance on the best practices to maximize overall system efficiency while still meeting indoor environment expectations.

8. When evaluating incentive programs or pilot technologies, what criteria does your team use to determine technical feasibility, customer value, and long-term benefit?

SaskEnergy's incentive programs, whether for a specific piece of equipment, or for a more complex measure like our Homes Beyond Code program, rely on a mathematical approach to determine what energy efficiency measures should be included, and how big of an incentive should be provided.

Depending on the type of program we are considering, we apply industry-standard cost-effectiveness calculations to help us evaluate the suitability of the program for SaskEnergy's customers.

The decision to participate in emerging technology demonstration projects relies on a more qualitative approach. Here in Saskatchewan, reliability is critical when choosing equipment for space heating. This unfortunately means that new technologies can struggle to find a foothold in the market until they have a proven track record. When we do participate in demonstration projects, our goal is to allow emerging technologies with the potential to result in energy savings or market transformation, the ability to deploy in a real-world environment to collect data and build case studies. In a successful project, the participating company will have passed several milestones in market development and show sufficient promise for our market.

9. Looking ahead 5–10 years, what changes do you anticipate in Saskatchewan's energy landscape—whether related to technology, workforce, codes, or customer expectations?

With equipment performance becoming more optimized, I anticipate the pursuit of energy savings is going to shift away from equipment-based solutions, to system-based solutions. This will require a higher baseline understanding of HVAC principles amongst the public, which in turn will create a higher expectation of expertise amongst mechanical and electrical professionals in the province. We're already seeing the beginning of this shift with the widespread incorporation of expert guidance like ASHRAE 90.1 for energy efficiency or ASHRAE 62.1 for ventilation design being adopted into codes across North America.

Specific to Saskatchewan customers, the anticipation is that they will continue to expect SaskEnergy to deliver natural gas safely, affordably and reliably. We will continue to do so by staying in step with the state of the industry and the needs of our customers.

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Call for Submissions: ASHRAE Regional Technology Awards

The **ASHRAE Saskatoon Chapter** is looking for submissions for the **Regional Technology Awards!**

These awards celebrate innovative and energy-efficient building projects that demonstrate excellence in HVAC&R design, sustainability, and indoor environmental quality. This is a great opportunity to showcase the exceptional work being done right here in Saskatchewan.

Projects can be submitted to the **Chapter** or **Regional** level, offering recognition across ASHRAE's broader community. Categories include commercial, institutional, healthcare, residential, and industrial facilities, among others.

Application Form: Tech Award Application Form
Regional submission deadline: April 17, 2026
How to apply: Please submit your completed application package to the CTTC Chair at c102cttc@ashrae.net. Regional submissions can be submitted directly to the ASHRAE Region XI RVC at cttc@ashraeregionxi.org.

Don't miss the chance to have your work recognized for its technical excellence and sustainable impact. Share your success and inspire others in our chapter to continue pushing the boundaries of building performance!

Programs and Upcoming Events

We are excited to share our program calendar for the last half of the ASHRAE Society year. While venues are still being finalized, we are pleased to confirm our lineup of speakers and dates to the end of the chapter year.

March 10th

- Wade Conlan – DL presenting "Weighing the Pig vs. Making it Fly"
- 11:30am - 1:30pm At Venice House 906 Central Ave - $25
- A lot of existing building stock needs to have its energy, and thereby operational carbon, improved if we are to meet the challenges for net-zero energy or carbon-neutrality in the next few decades. The improvement of the existing building stock, which is often looked at as energy hogs, can be greatly improved through the retro-commissioning process. This session covers the stages of weighing the pig (benchmarking) versus actively making improvements for systems. Actual projects for laboratories, hospitality and gaming, and university facilities will be used to demonstrate how to use retro-commissioning to make your pig fly.

April 27th

- Society President - Bill McQuade Visit/ Combo Student Night
- Location TBD

May 28th

- Moon Lake Golf Tournament - Details Coming Soon
- **Raffle prize sponsorship. Please reach out to communications@ashraesaskatoon.ca if you are interested.**

INTERESTED IN JOINING THE BOARD?

Volunteering with ASHRAE is a great opportunity that lets you develop leadership skills, network with those in the industry, and offers opportunity to travel around North America!

Please send inquiries to **communications@ashraesaskatoon.ca**

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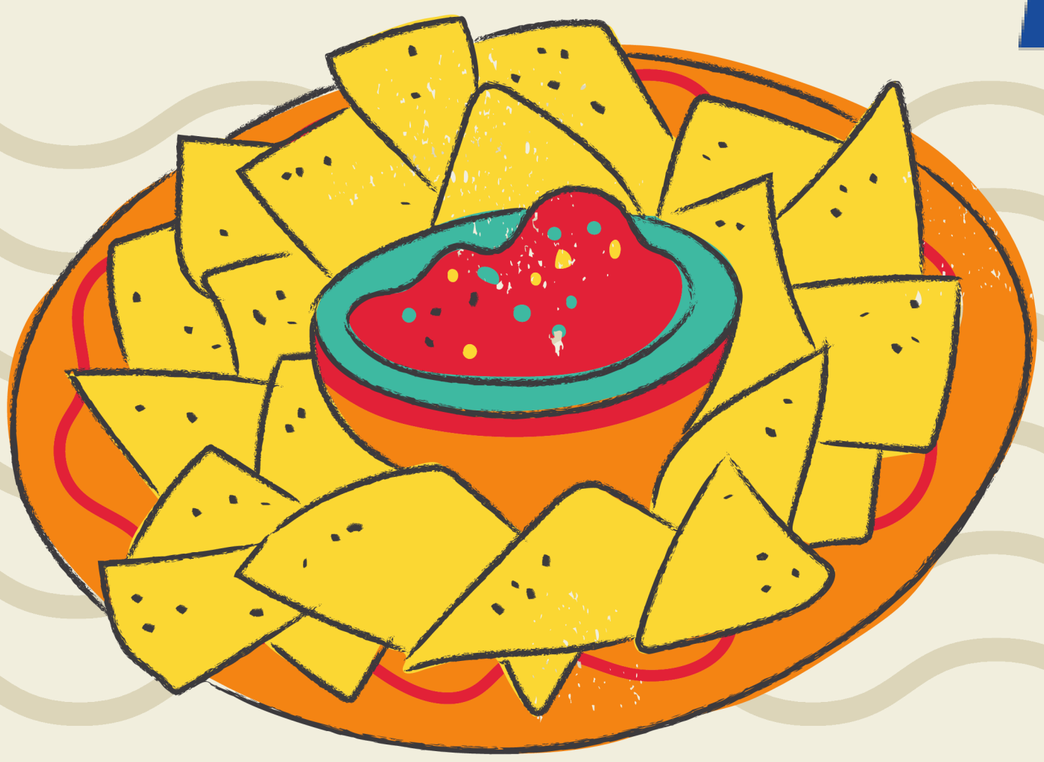

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