

October 1, 2024

Executive Director's Message

We are back into event season again with recent Roundtable events with Nutrien and BHP. There are event summaries and photos posted here – [Nutrien BHP](#).

Both events saw about 240 SIMSA member persons meet with 60-Nutrien persons and 30-BHP persons for a day, with presentations, Q&A, and ample networking time. The BHP event also included Tier-1 contractor booths and 5-break-out sessions.



Josh Dodd of Nutrien



Jamie Brecht of BHP with SIMSA's Eric Anderson

And as a reminder our Roundtable events (like those above) and some other items are for SIMSA members only. On the membership application it states, “SIMSA membership is only applicable to the above-named company – **not its subsidiaries, joint venture partners, suppliers, parent companies, etc.** The above name will be used on the Saskatchewan Supplier Database and for SIMSA “Members Only” event qualification purposes.” This clause is strictly enforced and results in numerous persons being turned-away from our events.

The annual Saskatchewan Suppliers’ Energy Forum is this week! This is not a members only event.



Saskatchewan Suppliers’ Energy Forum

Oct. 2, 2024 - Delta Hotel, Regina, SK

Presenters include Cenovus, Federated Co-operators Ltd, CAAP, Burns & McDonnell, and Arizona Lithium. More to be announced soon.

Register



And, we will be hosting member sessions – that we are calling Town Halls - in Regina and Esterhazy on October 1st and November 20th respectively. The [Regina session](#) will begin with a lunch (registration for this event is now closed given it is today), while [Esterhazy session](#) will begin with a breakfast. Both are free and are targeting regional members. Members will hear a strategic update, learn about Protecture, and be able to ask questions and provide feedback.

The 2025 Mining Supply Chain tradeshow booth and tickets go on sale to SIMSA members October 30th! And new this year, there will be 2 registrations included with each booth (there was only 1 previously). Tradeshow booths and tickets will go on sale to non-SIMSA members on November 6th.

Given the overwhelming demand for MSCF sponsorships last year, this year we will not use a “first-come first-serve” format for buying sponsorships, but rather a “deadline for submissions of interest” and then we will “draw names out of a hat.” SIMSA Member deadline for submissions of interest is October 7, 2024 at 9:00 a.m. Interested sponsors must attend at SIMSA’s office or virtually on October 10, 2024 at 9:00 a.m. for sponsorship draw.

Levels of sponsorship will be drawn in the following order: Platinum, Swag Bag, Gold, Silver, Bronze. The “hat” will be reloaded at the start for each level’s draw, with names of companies interested in that level. If your name is drawn in a category and you refuse the sponsorship, you will not be eligible for sponsorship in any other category. Also, for example, if you were in the draw for Platinum but were not drawn, you do not get to pick from another level – you must re-enter the draw for the other desired level.

Additional details including sponsorship cost and benefits can be found [HERE](#).

There will be an event with Westinghouse and Cameco on November 8th.

Member's News

[Capital Projects Coordination with Peter Lucas](#)

[AGI Envirotank LP's 30-year history](#)

[ALS Laboratory Group Trace-Level Analysis of PFAS in Soils by EPA Method 1633](#)

[A2SKI Industrial signs partnership with PDI Group of companies to become A2SKI-PDI Industrial Group](#)

[Trace Associates Inc.'s Research-based Call to Action for Regional Sustainability Risk Management](#)

[Clifton Engineering Group announces the expansion of its Indigenous partnership with Misty Clifton Engineering Ltd., welcoming Kineepik Métis Local as a new partner](#)

Advocacy

Eric Anderson has met with representatives of both the Saskatchewan Party and the Saskatchewan NDP Party for pre-election conversations. At both, and on other recent occasions, he asked that the "Prompt Payment" legislation be opened to include mining and engineering companies (they were previously exempt).

Eric will be meeting with Federal Resources Minister Wilkinson on October 10th to discuss energy and natural resource priorities for Saskatchewan to maximize economic opportunities in the energy transition.

From September to November 15th, SIMSA is running a social media campaign on the importance and economic impact of buying from local companies. You will see images like the following with details attached to the images.

1.



"01.4x guy_ec impact"

COPY:

What's SIMSA-nomics? What's SIMSA-nomics? It's generating almost four times the economic impact for Saskatchewan (and four times the tax revenue) when local suppliers are hired. It's building a better Saskatchewan and a brighter future. Learn more at simsa.ca.

2.



"02.Tripling threesome_labour inc."

COPY:

What's SIMSA-nomics? It's almost tripling labour income when mining and industrial suppliers are sourced in Saskatchewan. It's building a better Saskatchewan and a brighter future. Learn more at simsa.ca.

3.



"03.4x girl_ec impact"

COPY:

What's SIMSA-nomics? It's generating almost four times as much tax revenue for Saskatchewan when local suppliers are hired. It's building a better Saskatchewan and a brighter future. Learn more at simsa.ca.

4.



"04.Power working together"

COPY:

What's SIMSA-nomics? It's the power of SIMSA members working together to build more successful, sustainable industries across the province. It's building a better Saskatchewan and a brighter future. Learn more at simsa.ca.

5.



"05.Impact local supp"

COPY:

What's SIMSA-nomics? It's the impact that comes from building new industries, creating new jobs, and drawing on the experience, innovation and insights and local suppliers. It's building a better Saskatchewan and a brighter future. Learn more at simsa.ca.

Nuclear

Genealogy of Westinghouse Nuclear Power Reactors

The genealogy of the Westinghouse Pressurized Water Reactor (PWR) design describes the evolution of one of the most widely used nuclear reactor types in the world. Westinghouse has been at the forefront of PWR technology since its inception. The following is an outline of the key developments and innovations that have shaped the PWR lineage:

1. Origins and Early Concepts (1940s-1950s)

The concept of the Pressurized Water Reactor was initially developed in the early 1940s as part of the Manhattan Project, with a focus on submarine propulsion. This concept was refined by the U.S. Navy under the leadership of Admiral Hyman Rickover, who played a critical role in developing nuclear reactors for naval propulsion. Westinghouse Electric Corporation partnered with the U.S. Navy to develop the first practical PWR. This collaboration led to the creation of the USS Nautilus (SSN-571), the world's first nuclear-powered submarine, which used a PWR designed by Westinghouse.

2. First Commercial PWR (1957)

The first commercial PWR, located at the Shippingport Atomic Power Station in Pennsylvania, was commissioned in 1957. Shippingport was designed by Westinghouse as part of the U.S. Atomic Energy Commission's (AEC) program to develop civilian nuclear power. Although it was considered a prototype, Shippingport marked the beginning of Westinghouse's participation in the commercial nuclear power industry. The Shippingport PWR used enriched uranium as fuel and pressurized water as both a coolant and a moderator, establishing the basic principles that would guide future PWR designs.

3. First Generation PWRs (1960s)

Following the success of Shippingport, Westinghouse began standardizing its PWR designs for commercial use. This first generation of PWRs included reactors with electrical outputs ranging from 200 MW(e) to 600 MW(e). Early plants like Yankee Rowe (1960), Indian Point 1 (1962), and Zion (1973) were based on these standardized designs.

4. Evolution to Second Generation PWRs (1970s)

Westinghouse developed larger, more powerful PWRs with outputs of up to 1,200 MW(e) and beyond. These second-generation reactors featured improvements in fuel efficiency, reactor safety, and operational reliability. Many of the second-generation Westinghouse PWRs used a four-loop design,

which improved heat removal capacity and increased overall efficiency. Plants like Turkey Point (1972) and Surry (1972) are examples of this generation.

These designs also introduced more robust safety systems, such as emergency core cooling systems (ECCS) and containment structures designed to withstand potential accidents.

5. Third Generation PWRs (1980s)

Westinghouse introduced the Standardized Nuclear Unit Power Plant System (SNUPPS) design, which standardized many aspects of PWR construction to reduce costs and construction times. The SNUPPS design was used in plants like Callaway (1984) and Wolf Creek (1985). These reactors incorporated additional safety features, such as improved ECCS and more advanced control systems. The third-generation PWRs were designed to address the lessons learned from the Three Mile Island incident in 1979.

6. Advanced Passive PWRs (1990s-2000s)

In the 1990s, Westinghouse began developing a new generation of PWRs known as Advanced Passive (AP) reactors. The AP600, the first of this series, was designed to use passive safety systems that rely on natural forces, such as gravity, natural circulation, and compressed gases, to ensure reactor safety without the need for active controls or operator intervention.

Building on the AP600, Westinghouse developed the AP1000, which became one of the most widely recognized Generation III+ reactor designs. The AP1000 features modular construction techniques, simplified design, and enhanced safety systems. The first AP1000 units were commissioned in China in the 2010s.

7. Small Modular Reactors and Beyond (2010s-present)

As part of the growing interest in Small Modular Reactors (SMRs), Westinghouse has been involved in the development of SMRs based on its PWR technology. The Westinghouse SMR is designed to provide scalable, flexible nuclear power options for smaller grids or remote locations.

The design of the AP300 SMR leverages the operating experience of the AP1000, as well as tens of millions of hours on that went into the development of the AP1000 reactor. Westinghouse is also developing the eVinci micro reactor, a small, transportable nuclear reactor designed for remote operations and off-grid applications, leveraging PWR technology principles in a compact form.

Further Reading:

[AP1000® Pressurized Water Reactor | Westinghouse Nuclear](#)

[AP300™ SMR | Westinghouse Nuclear](#)

[eVinci™ Microreactor | Westinghouse Nuclear](#)

[AP1000 - Wikipedia](#)

[Westinghouse AP1000 Design Control Document Rev. 19 - Tier 2 Chapter 1 - Introduction and General Description of the Plant - Section 1.2 General Plant Description \(nrc.gov\)](#)

Member Services

The “Industrial Concierge” role has been changed to “Manager of Member Services”, reflecting the activities of the role more closely. As such, the responsibilities of the role are:

- Advocacy
- Innovation
- Fostering Member Innovation
- Support Innovation Financing
- Environmental, Social and Governance (ESG)
- Procurement and ESG Compliance
- Carbon Accounting and Energy Transition
- Labor and Workforce Development
- Business Development
- SIMSA Member Engagement (site visits, feedback collection)
- Surveys and reporting for all of the above

Therefore, there are a few initiatives in the works:

- As SIMSA’s mandate to reduce red tape and multiple member complaints, SIMSA is engaging in an advocacy program. We are collecting issues that member companies are facing with respect to ISNet, Ariba, Fieldglass and any other compliance programs. These issues directly affect the sustainability of the SIMSA membership.
 - What programs are you currently having issues with?
 - What issues are you having? Examples are:
 - a. Relevance of data requested
 - b. A risk-based approach and questionable of competence of ISNet/Ariba/Fieldglass/etc to be evaluating content
 - c. Ownership of data

- d. Bias towards larger and/or smaller companies, sectors, etc.
 - e. ISNet/Ariba/Fieldglass/etc vetting of data
 - f. ISNet/Ariba/Fieldglass/etc fee structures
 - g. Effort required to input data
 - h. Etc.
- Are any of these issues buyer specific?
- In order for the mining, energy and industrial sectors to meet its goals, we need to vastly increase the provincial labour force. So, we are turning to the ones building it – to see what we, as industry, can do to help.

Sector News

Westside Irrigation Rehabilitation Project to Create \$5.9 Billion Impact

The Government of Saskatchewan released the Economic Analysis for the Westside Irrigation Rehabilitation Project (WIRP), the first part of the overall Lake Diefenbaker Irrigation Projects.

The analysis was done by KPMG LLP and shows an increase in Gross Domestic Product (GDP) of \$5.9 billion while generating over 30,000 jobs (person years of employment) and 9,500 jobs during the construction phase. A conservative estimate of tax revenues to governments is projected to be upwards of \$770 million with value added processing.

"Our government believes in supporting the economy by making sound investments to create a stronger Saskatchewan," Minister Responsible for the Water Security Agency David Marit said. "This is only the start of what could be done, we have a truly remarkable opportunity in front of us to create a better quality of life for all Saskatchewan people for generations to come."

The overall GDP impact will increase significantly when factoring in the potential value-added benefits over a 50-year period. As seen in other jurisdictions, there is a direct connection to expanding irrigated acres and value-added processing investments.

"The Government of Saskatchewan continues to discuss the project with the federal government," Marit said. "We are hopeful they will come as a funding partner as this project is a major economic benefit to the Canadian economy and our country's food security."

The work done by KPMG assessed the influence of increased crop production expenditures on GDP, employment, and taxes, using the 90,000-acre Westside Rehabilitation Irrigation Project.

As announced in the spring of 2024, the engineering and design of the WIRP is moving forward with the engineering firms of MPE and Stantec as the joint venture Prairie Engineering Partners.

The Lake Diefenbaker Irrigation Projects are made up of three distinct projects: the Westside Rehabilitation, Westside Expansion, and the Qu'Appelle South Water Conveyance Project.

The current focus is on the WIRP as it expands and modernizes infrastructure constructed nearly 40 years ago to irrigate up to 90,000 acres of land.

For project updates and to view the report, visit: <https://diefenbakerirrigation.ca/>.

Upcoming Events

Register for Upcoming Events [HERE](#)

- **SIMSA Town Hall-Regina – October 1, 2024 (today – registration is closed)**
Come meet with SIMSA staff to learn about how to utilize your membership, provide feedback on what you'd like SIMSA to provide its members, and learn about "Protecture" – SIMSA's new benefits plan that is available only to SIMSA members. This event is intended for SIMSA member companies in the southern part of Saskatchewan. Complimentary lunch provided – limit 2 attendees per SIMSA member company.
- **Saskatchewan Suppliers Energy Forum (SSEF) – October 2, 2024**
The 10th Annual Saskatchewan Suppliers Energy Forum will be on October 2, 2024 at the Delta Hotel in Regina. Tradeshow and sponsorship sold out. Tickets are \$275 until September 19th, then price increases to \$525.
- **Westinghouse Supplier Symposium – November 8, 2024**
Learn about new build projects, both domestic and abroad, as Westinghouse looks to expand its global supply chain and leverage the strength of Saskatchewan manufacturing and innovation. Senior leadership and procurement persons from both Westinghouse and Cameco will be in attendance.
- **SIMSA Town Hall-Esterhazy – November 20, 2024**
Come meet with SIMSA staff to learn about how to utilize your membership, provide feedback on what you'd like SIMSA to provide its members, and learn about

“Protecture” – SIMSA’s new benefits plan that is available only to SIMSA members. This event is intended for SIMSA member companies in Esterhazy and surrounding area. Complimentary breakfast provided – limit 2 attendees per SIMSA member company.

- **Saskatchewan Mining Supply Chain Forum (MSCF) – April 9 & 10, 2025**
Save the Date! The 17th Annual Saskatchewan Mining Supply Chain Forum will take place on April 9 and 10, 2025 at Prairieland Park in Saskatoon.
- **SIMSA AGM – May 14, 2025**
Save the date! Our 2025 AGM will be on May 14, 2025 at Prairieland Park in Saskatoon.

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