

SERVING MANITOBA'S ENERGY SECTOR

MANITOBA

Energy Review

2025

What is the
energy
transition?

Nations Royalty:
A blueprint for
Indigenous energy
independence

Unlocking a zero-emissions
future with green hydrogen



FORT GARRY

FIRE TRUCKS



Fort Garry Fire Trucks is the largest fire apparatus manufacturer in Canada and are proud builders of fire trucks, custom-built pumpers, aerial ladders, and related fire-fighting equipment. Our customers emanate from cities, towns, and municipalities throughout Canada, the U.S., and abroad with the harshest weather, climates, and terrain.

Every aspect of design and construction is handled by Fort Garry employees, from painting to pump

assembly. As we have grown over the years, so too have our product lines. Fort Garry Fire Trucks manufactures a wide range of vehicles, including rescue trucks, pumper trucks, tankers, and even aerial ladder platforms, thanks to our exclusive partnership as the Canadian distributor for Sutphen Corporation. In fact, Fort Garry now offers 130 product lines and over 12,000 options for customers to choose from for the most extreme conditions in the world—which is why we design “*One Tough Truck*.”

Chris Pilek

**Manitoba, Saskatchewan,
& Northwestern Ontario
Sales Manager**

**CALL US FOR MORE INFORMATION
AND FULL SPECIFICATIONS
ON ANY OF OUR VEHICLES.**

1-800-565-3473



SUTPHEN
EXCLUSIVE
Canadian
Distributor

ONE TOUGH TRUCK

WWW.FGFT.COM TOLL FREE: 1-800-565-3473
RR#2 53 BERGEN CUTOFF RD. WINNIPEG, MB. - CANADA - R3C 2E6



well positioned



In this issue...

Message from Premier Wab Kinew	6
Message from the Minister of Business, Mining, Trade and Job Creation, Honourable Jamie Moses	8
Manitoba Government statistics 2024 Oil by the Numbers	10
Revolutionizing environmental monitoring with RNA	12
What is the energy transition?	14
Nations Royalty: A blueprint for Indigenous energy independence	17
The key to unlocking a zero-emissions future: Green hydrogen	18
Reuse waste heat and reduce your energy costs with heat recovery technology	20
Taking pride in Canada's nuclear excellence	24
Driving digital transformation and innovation in Manitoba's energy sector	26
Grid sets sight on two upcoming drill programs in southeastern Manitoba	29
Careers in energy: Connecting talent with opportunities	30
Transforming Manitoba's oil & gas sector with new technologies	32
Commitment from Huidbay will double critical mineral shipments from the Port of Churchill in 2025	33
Index to advertisers	34

Published by:
DEL Communications Inc.
Suite 300, 6 Roslyn Road
Winnipeg, MB R3L 0G5
www.delcommunications.com

President & CEO:
DAVID LANGSTAFF

Editor:
LYNDON MCLEAN
lyndon@delcommunications.com

Advertising Sales Manager:
DAYNA OULION

Advertising Sales:
COLIN JAMES
MIC PATERSON
DAN ROBERTS
ANTHONY ROMEO

Production services provided by:
S.G. Bennett Marketing Services

Creative Director / Design:
KATHLEEN CABLE

©Copyright 2025.
Manitoba Energy Review. All rights reserved. The contents of this publication may not be reproduced by any means, in whole or in part, without the prior written consent of the publisher.

While every effort has been made to ensure the accuracy of the information contained herein and the reliability of the source, the publisher in no way guarantees nor warrants the information and is not responsible for errors, omissions or statements made by advertisers. Opinions and recommendations made by contributors or advertisers are not necessarily those of the publisher, its directors, officers or employees.

Publications mail agreement #40934510
Return undeliverable Canadian addresses to:
DEL Communications Inc.
Suite 300, 6 Roslyn Road
Winnipeg, Manitoba, Canada R3L 0G5
Email: david@delcommunications.com

PRINTED IN CANADA
05 | 2025

DEL
Communications Inc.

IT'S ABOUT TIME **JACK!**



Jack knows time is money

PAYS FOR ITSELF - 4 WEEKS

The increase in oil/gas production is immediately measureable not only in time, but real dollars.

INSTALLATION - 1 DAY

It only takes a few hours to have your compressor up and running, practically eliminating production downtime.

YOUR TIME - ZERO

Our safety qualified installers will perform maintenance checks when required, onsite, saving you the trip in.

ANNUGAS
COMPRESSION CONSULTING LTD.

www.annugas.com

Toll Free **1.866.ANNUGAS**



ANNUGAS PRODUCTION ENHANCER®



MESSAGE FROM THE PREMIER **WAB KINEW**



Your Manitoba government is working every day to create more good jobs for Manitobans, while strengthening our economy and safeguarding it from tariffs.

Our government is continuing to take a Team Manitoba and Team Canada approach to our tariff response, because it's never been more important that we work together. That means working with industries, including the energy sector here in Manitoba. Working together is what we've always done in the face of challenges. And it's why, while we may be facing difficulty, I'm confident that Manitoba's energy sector is not going anywhere. Manitobans have been building up our low-carbon energy grid for half a century, and many Manitobans have made a living in our oil patch. And we're going to keep building long after the tariff threat is over.

Because of the investments Manitobans have made for generations, we are in a unique position to lead Canada out of this challenging moment and into the energy future. We are a trusted global trading partner, with a 99% clean energy grid. And our government is going to keep leaning into this opportunity. We've launched an Affordable Energy Plan to make sure we can keep powering our economy and do it in a way that makes sense in the middle of this economic uncertainty – by making it affordable.

Manitoba has all the building blocks to be a global energy leader. We are rich in critical minerals, and we have the tools to get those minerals to market in a sustainable, safe way. We have decades of experience in low-carbon energy. We have a conventional energy sector. And most importantly, we have the people – an innovative and skilled workforce, with a prairie work ethic that powers our economy and our energy sector. We should all be proud of what we have here in Manitoba. Our government is, and we're going to keep working with you, the leaders in our energy industry, to build up our capacity, grow our economy, and create good Manitoba jobs for Manitobans that will be sustainable for generations to come.



PORTABLE METER PROVING

Our portable meter prover allows our competent and qualified team to visit you on site to complete your meter tests and maintenance. With this winning combination, we are able to save you downtime and keep your operation running and compliant!

MOBILE PSV & VALVE SERVICE

Have a tight schedule or remote site? Let us come to you! We offer mobile PSV servicing and meter proving.

Our qualified team is ready to provide both major and minor repairs of all types of PSVs. We are committed to meet customer deadlines without compromising the quality of our service. Our capabilities include but are not limited to start up re-certification, operational maintenance and regular preventative maintenance and testing.



ENFORM

ISO 9001:2008 Certified



PRIMEC CONTROLS
CANADA

primecccontrols.ca

Virden, Manitoba
Tel: 204-748-3704

Estevan, Saskatchewan
Tel: 306-634-5304





MESSAGE FROM THE MINISTER OF BUSINESS, MINING, TRADE AND JOB CREATION **HONOURABLE JAMIE MOSES**

Manitoba is a global hub for mineral exploration and development, and our government is focused on continuing to strengthen the industry. Last month, I was honoured to attend a groundbreaking ceremony to mark the beginning of construction of the first mine to open in Manitoba in over 15 years. By working together with Alamos Gold, Indigenous nations, and northern communities, we stood up a mine within just 18 months of forming government.

This project exemplifies many parts of our new Critical Minerals Strategy Securing Our Critical Mineral Future. This strategy will help solidify Manitoba as a world leader in responsible mineral development. Key actions include developing partnerships with Indigenous nations, investing in high-priority regional infrastructure projects, and the recent opening of a dedicated, single window Critical Mineral Office. Manitoba has the minerals the world needs, and this new mine will create new opportunities to develop trade relationships and bring significant economic benefits to the north and the entire province.

Manitoba is also the right place to develop critical minerals because of our world-class trade hubs like CentrePort and North America's only deep-sea arctic port serviced by rail at the Port of Churchill. Our budget invests \$450,000 in operating funding to CentrePort – one of North America's largest trimodal inland ports and Foreign Trade Zones – to attract new investment and spur economic development. Along with our federal partners, we have also invested close to \$80 million in the Port of Churchill to establish Manitoba as an integral transportation hub that will help diversify our trade relationships. This investment will create good jobs that will advance our critical mineral strategy.

With 30 of the 34 critical minerals on Canada's critical mineral list, countries around the world are seeking supply – and, especially these days, a stable trading environment. With our central location, strategically connected infrastructure, and robust manufacturing sector, we are well-positioned to support our trade partners and expand Manitoba's economy and the North American market.

The expansion of the mineral sector in Manitoba means more investment for our province, stronger local communities, and more good jobs for Manitobans. We will continue to work hard to ensure everyone knows that the road to success starts in Manitoba.

My door is always open for further discussions as to how my department and government can continue to help advance industry projects. Please reach out to my office if you would like to engage in Manitoba's critical mineral future. ♦

CANADIAN ENERGY

POWERING GLOBAL OPPORTUNITY



30,000+
Global Energy
Show attendees



22,500+
represented
companies



1,000+
conference
delegates



500+
exhibiting
companies



350+
expert
speakers



10 NECs
20 IECs



8
award
categories



460,000
sq ft
exhibition hall

CONNECT WITH 500+ COMPANIES FROM VARIOUS INDUSTRIES:



GOVERNMENT
ENTITIES



SERVICE & SUPPLY
COMPANIES



GAS & LNG
COMPANIES



INTEGRATED
ENERGY
COMPANIES



TRANSMISSION &
DISTRIBUTION



REFINERIES &
MAINTENANCE



CLEAN
TECHNOLOGY
COMPANIES



POWER
GENERATION &
UTILITIES



TECHNOLOGY
PROVIDERS



LEGAL & INDUSTRY
ANALYSTS



NATIONAL &
INTERNATIONAL
OIL COMPANIES



FINANCERS &
INVESTORS

SCAN QR CODE
TO REGISTER





MANITOBA GOVERNMENT STATISTICS

2024 OIL BY THE NUMBERS

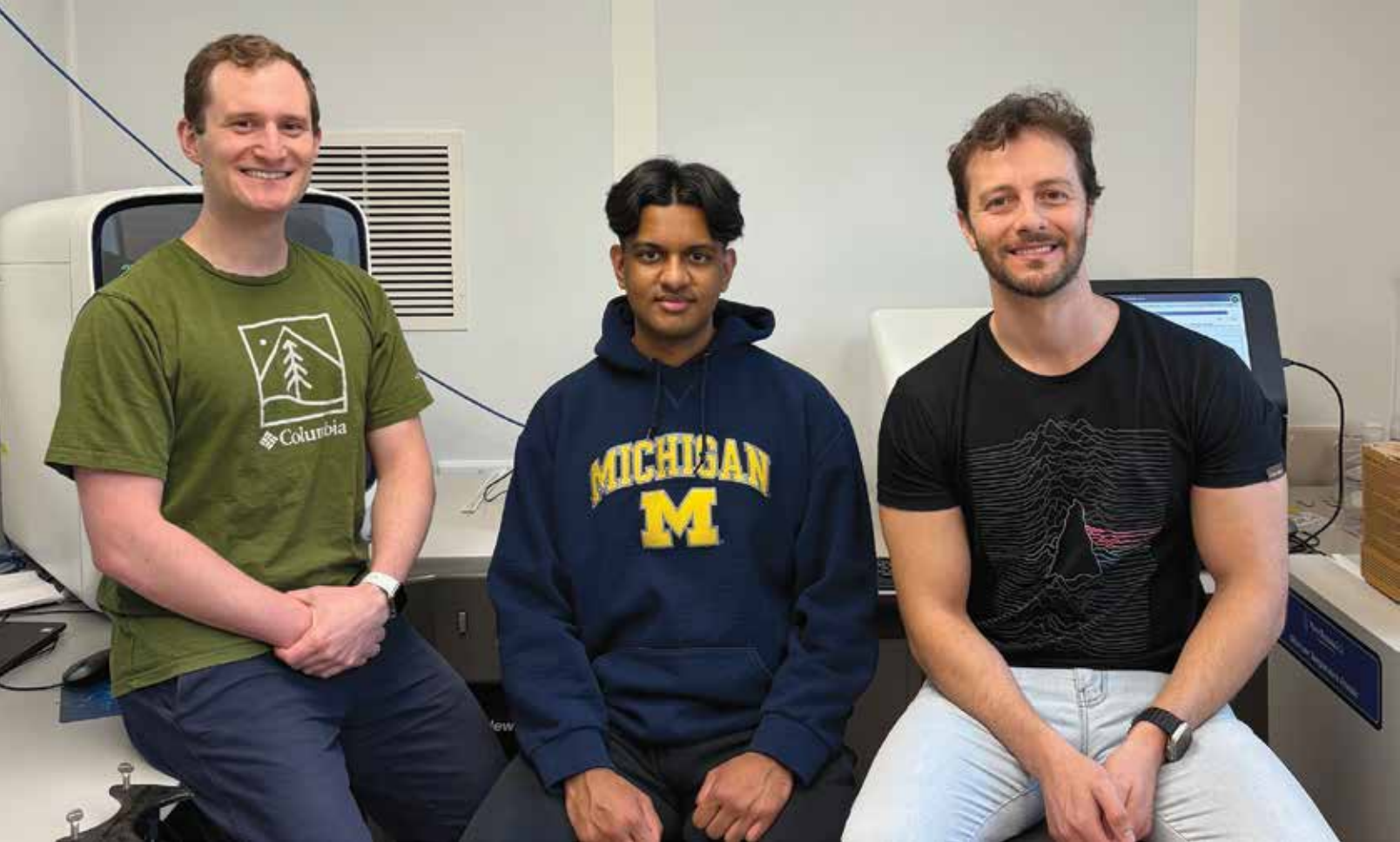
CATEGORIES

Geophysical Licenses Issued	2	Certificates of Abandonment Issued	46
Geophysical Expenditures (\$).....	\$536,532	Crude Oil Production (m³)	2,305,100.3
Drilling Licenses Issued.....	195	Water Production (m³)	16,880,876.2
New Wells Drilled	197	Avg. Oil Production (m³ per day)	6,315.34
New Wells on Production	186	Value Oil Sold (\$)	1,299,960,351.49
New Wells Abandoned	1	Crown Oil Royalty (\$ received)	14,231,427.92
Horizontal Wells Drilled	194	Freehold Oil Tax (\$ received)	9,620,575.89
Metres Drilled	471,579	Average Oil Price per m³ (\$)	580.22
Wells Capable of Production (December).....	5,572	Lease Sale Bonuses (\$).....	876,479.48
Wells Producing (December)	4,066	Reservation & Lease Rentals & Fees (\$)	177,340.89
Abandoned Producers.....	125	Crown Lease Area (ha)	834
Other Wells Abandoned.....	31	Total Crown Area Under Disposition (ha)	49,355.07

2024-25 OIL PRICES

Month	Manitoba LSB		Selling Price Manitoba Production	
2024	\$/M³	\$/BBL	\$/M³	\$/BBL
January	\$535.65	\$85.11	\$514.54	\$81.77
February	\$564.14	\$89.64	\$541.81	\$86.10
March	\$604.78	\$96.10	\$583.31	\$92.69
April	\$685.85	\$108.98	\$652.60	\$103.70
May	\$656.14	\$104.26	\$615.69	\$97.84
June	\$685.26	\$108.89	\$630.49	\$100.19
July	\$734.79	\$116.76	\$636.45	\$101.14
August	\$602.96	\$95.81	\$573.73	\$91.17
September	\$552.75	\$87.83	\$524.71	\$83.38
October	\$594.63	\$94.49	\$570.90	\$90.72
November	\$588.81	\$93.56	\$556.75	\$88.47
December	\$579.60	\$92.10	\$559.62	\$88.93
Avg. 2024	\$615.45	\$97.79	\$580.05	\$92.18
2025	\$/M³	\$/BBL	\$/M³	\$/BBL
January	\$604.4	\$96.04	\$611.39	\$97.16
February	\$580.77	\$92.28	\$569.99	\$90.58
March	\$571.47	\$90.81	\$523.18	\$83.14

INFORMATION COURTESY OF MANITOBA AGRICULTURE AND RESOURCE DEVELOPMENT



Revolutionizing environmental monitoring with RNA

Provided by the Centre for Oil and Gas Research and Development



The Centre for Oil and Gas Research and Development (COGRAD), located in the Department of Chemistry at the University of Manitoba, is an analytical facility committed to advancing the analyses and remediation of petroleum-based chemicals in the environment. Founded in 2015 from funding from the Western Economic Diversification Canada (now Prairies Economic Development Canada, PrairiesCan), the centre is an International Organization for Standardization (ISO) accredited analytical laboratory. Due to the ISO-17025 accreditation, the Centre provides scientifically defensible analytical data to external clients.

In recent years, COGRAD augmented its operations to include research and development in the field of environmental DNA (eDNA). eDNA is genetic information left by all living things in the environment. eDNA can be long lasting, staying intact

from weeks in water, to thousands of years in sediment. eDNA sampling is non-invasive with the information collected in small samples of water, sediment, air, or soil. These samples allow for dynamic biodiversity monitoring, and environmental modelling. In 2024, to meet the demand for non-invasive environmental monitoring, the University of Manitoba supported a new start-up company, White Otter Biotech Inc.

White Otter Biotech was co-founded by Dr. Jörg Stetefeld, co-founder of COGRAD and a Tier 1 Canada Research Chair at the University of Manitoba, and Dr. Danny Gussakovsky, a recent Ph.D. graduate from the University of Manitoba. One of the main objectives of White Otter Biotech is to utilize innovative molecular technologies to enable data-driven decision making. White Otter Biotech works closely with stakeholders ranging from energy and mining companies to government, and

Indigenous communities to offer efficient, accurate, and cost-effective biodiversity monitoring services. White Otter Biotech is at the forefront of the field by using environmental RNA (eRNA). Unlike eDNA, which can persist in the environment long after an animal has left or died, eRNA is short lasting and is therefore a better indicator of recent or current activity. eRNA is also more abundant than eDNA, allowing for detection of biodiversity with higher sensitivity. eRNA sampling also occurs simultaneously with eDNA collection, in small samples of water, sediment, air, or soil, while providing higher resolution, more accurate results, and greater reliability in biodiversity monitoring and environmental modelling than other available technologies.

White Otter Biotech is currently developing a new non-invasive caribou monitoring system in collaboration with the Kivalliq Inuit Association. This project integrates Traditional Inuit Knowledge with contemporary scientific knowledge to establish a baseline on caribou concentration, movement and location. Caribou populations will be assessed by detecting eDNA and eRNA present in air, soil, and water environmental samples. As part of the project, community-based workshops will be held to provide training on the environmental sampling methods and data analysis. This will help to build capacity and enable Youth, Hunters, and Elders to actively engage in independent long-term caribou monitoring efforts. At the conclusion of the project, standardized long-term monitoring procedures will be developed and integrated into the process of reviewing, approving, and issuing licenses to access Inuit Owned Lands. White Otter Biotech is committed to bringing innovative eDNA and eRNA technologies to biodiversity monitoring efforts to enable expedited environmental assessments and continue sustainable mineral exploration and mining.

COGRAD and White Otter Biotech collaborate with scientists, local communities, private corporations, and government agencies to empower data-driven decision making. Working with stakeholders from across Canada and internationally, COGRAD and White Otter Biotech are committed to providing reliable, accurate, and consistent services.

For further information, please visit our websites www.cogradmb.ca and www.whiteotterbiotech.com or Gregg Tomy (Gregg.Tomy@umanitoba.ca), Jörg Stetefeld (Jorg.Stetefeld@umanitoba.ca), or Danny Gussakovsky (Danny.Gussakovsky@whiteotterbiotech.com). ❖



*Always looking for new opportunities in
Manitoba and S.E. Saskatchewan's oil patch.*



Border Energy Ltd.

**512 7th Avenue S.
Virden, MB R0M 2C0**

Office: **204-748-4180** Fax: **204-748-4182**
Cell: **204-851-1169** Email: **darren@borderenergy.ca**

What is the energy transition?

Courtesy of Manitoba Hydro

There's lots of talk about the "energy transition" on the news, on TV, and on social media. It's a hot topic in industry, government, and other forums. You may also have heard the term in relation to things like electric vehicles (EVs), renewable energy sources, decarbonization, fossil fuel alternatives, space heating, and climate change.

But let's get specific – what does "energy transition" really mean?

ENERGY – HOW IT'S MADE, HOW IT'S DELIVERED AND HOW IT'S USED – IS CHANGING

According to Lindsay Hunter, manager of Manitoba Hydro's IRP Policy and Coordination department, the phrase "energy transition" covers many different topics because its implications are so broad and may influence many different aspects of our world.

"In brief, the energy transition is the shift in how energy is made, delivered, and used all around the world," Hunter says. "A large part of this transition is a shift from fossil-based energy like coal, oil, and natural gas to different energy sources like wind, solar, and hydroelectricity.

One example of this change is the increasing number of customers shifting from buying internal combustion engine vehicles (fueled by gasoline or diesel) to vehicles powered by electricity or potentially hydrogen. Another is the growth in customers using technologies such as ground- or air-source heat pumps to heat their homes instead of or alongside natural gas. Even the shift to battery powered chainsaws, leaf blowers, and lawn trimmers is part of this energy transition.

Utilities and energy providers need to

consider this shift to more vehicles and appliances that depend on electricity – and other factors, like energy efficiency programs and technology – when they plan and invest in energy infrastructure to meet growing demand.

"And when we talk about changes to how energy is generated, we're talking about how utilities or other generators produce energy, for example using hydroelectricity or wind generation to produce electricity, using natural gas for heating, or refining petroleum products to produce gasoline," Hunter says.

"Right now, most of Manitoba Hydro's energy is hydroelectricity – electricity generated by the flow of water. In the future, Manitoba's new energy needs could come from different sources like wind. But it isn't always windy, which means there will continue to be an important role to play for more dependable sources of energy like natural gas and hydroelectricity ensure the reliability of our energy supply. This is another part of what we mean when we talk about the change in the way energy is generated and how that relates to the energy transition."

The ways in which we deliver energy are also shifting in the energy transition.

"Currently, petroleum companies deliver gasoline to our cars, and we have utilities like Manitoba Hydro delivering electricity to our homes," Hunter notes. "But there are changes happening with the way energy is delivered. For example, rather than filling your internal combustion engine car with fuel at a gas station, owners of electric vehicles (EVs) could be charging them at home.



Owners of electric vehicles could be charging their vehicles at home instead of filling them up at a gas station.

“There are also more customers looking for options to enhance the energy efficiency of their home or business. That change in behaviour among consumers creates challenges and requires energy suppliers like Manitoba Hydro to adapt.”

THE ENERGY TRANSITION HAS BEGUN

Some parts of the energy transition may seem futuristic, like biomethane, battery energy storage for your home, or bidirectional charging to and from your electric vehicle. While these technologies have not yet been widely adopted in Manitoba, they exist today in other parts of the world – and they may make their way to Manitoba in the future.

That said, the energy transition has already begun in Manitoba in other ways. For example, many Manitobans are choosing to purchase electric vehicles (Manitoba set a record for EV sales last quarter.)

And it's not just individual consumers taking part in the energy transition. Some large commercial and industrial energy users in Manitoba are taking action to decarbonize their operations by choosing to shift their processes or heating from natural gas to electricity, helping them reach their own emission reduction targets. Others are looking at how natural gas might complement other less mature technologies like ground- or air-source heat pumps.

Along with changes in the type of energy customers are using, there are changes in who is producing it. Some Manitoba Hydro customers may choose to generate their own electricity through solar (or photovoltaic) panels they install on their home or business. The decision to build and use solar panels is just one of many energy-related choices with implications for Manitoba's electrical infrastructure and the energy market – implications including the potential need for greater



Some large commercial and industrial energy users are decarbonizing their operations by shifting their processes or heating from natural gas to electricity. Others are exploring how natural gas could complement other energy sources for heating.

investment in our energy system to ensure we can meet our customers' needs.

“The energy transition is already having an impact on Manitoba Hydro,” Hunter says. “We serve the whole province, and because of the energy transition, we are very likely to be taking on a larger share of total energy supply in the province.

“For example, if you look again at the shift from internal combustion engines to EVs, power for those EVs represents an entirely new demand for electricity. It's not energy Manitoba Hydro has provided before – it's brand-new energy load that we will likely need to serve in future, whether through hydropower, wind generation, or other means.”

The biggest factor driving the energy transition? Decarbonization.

Climate change is one of the defining issues of our era – and individuals, utilities, governments and other organizations around the world are responding.

One way many organizations are trying to mitigate the effects of climate change is through decarbonization – reductions

in the amount of greenhouse gases in the atmosphere, in part by reducing carbon emissions from energy.

“It's one of the biggest factors impacting the energy transition,” says Hunter.

“Decarbonization has huge implications on decisions about energy in the future.

“Other aspects like decentralized energy infrastructure (for example, district energy systems that use recovered thermal energy to heat or cool a neighbourhood) and growth in digital technologies also affect the transition, but decarbonization is the big one.”

Decarbonization comes with challenges. For example, natural gas (a carbon-emitting fuel source) is vital to meeting demand for heating, and in a province where temperatures regularly dip below -40 C each winter, reliable heating is non-negotiable. However, other decarbonization options – like hydrogen for fuel and innovations in natural gas – are already showing promising results as our society continues to decarbonize.

And while we know for sure that the energy transition is already underway, we can only estimate the pace of change.

Through Integrated Resource Planning, Manitoba Hydro is working to understand our province's future energy needs and what steps may be necessary to manage the change and ensure we can continue delivering safe, reliable energy, now and into the future.

"It could be slow or it could be fast – it all depends on when people start making their choices as part of the transition," Hunter says. "But the transition is already happening, and as a utility that supplies energy to hundreds of thousands of customers, Manitoba Hydro is making sure that we plan for this change."

MANITOBA HYDRO'S INTEGRATED RESOURCE PLAN: PREPARING FOR YOUR ENERGY FUTURE

Through Integrated Resource Planning, Manitoba Hydro is working to understand our province's future energy needs and what steps may be necessary

to manage the change and ensure we can continue delivering safe, reliable energy, now and into the future.

"We're preparing for the energy transition, and we're focused on Manitoba," Hunter says. "Whether it's planning for our future decisions about necessary investments or managing the potential for impacts on our customers, our Integrated Resource Plan is a repeatable process we regularly update to help us keep on top of and respond to changes occurring in the energy landscape. It's a tool to help us make sure we make the right decisions at the right time so we can lean into the energy

transition prepared and ready to serve our customers."

Manitoba Hydro is hard at work on a new Integrated Resource Plan (IRP), expected to be completed in the fall of 2025.

Manitoba Hydro is hard at work on a new Integrated Resource Plan (IRP), expected to be completed in the fall of 2025.

Curious about the energy transition, the factors influencing our energy future or Manitoba Hydro's IRP? Learn more about our Integrated Resource Plan at <https://www.hydro.mb.ca/corporate/planning/>. ♦



INNOVAIR
Industrial

Supplying Manitoba and Saskatchewan
with industrial gases since 1946

Manitoba Owned  Proudly Canadian

P: 204.772.9476 | TF: 800.667.3344 | E: Industrial.Sales@innovairgroup.com | innovairindustrial.com

Nations Royalty:

A blueprint for Indigenous energy independence

By Kody Penner, Vice President of Corporate Development, Nations Royalty

For generations, Indigenous communities have been stewards of their lands and resources, balancing economic development with cultural and environmental integrity. Unfortunately, despite a history of inspiring leadership, far too many communities continue to struggle in the effort to transition to clean energy sources. Energy infrastructure projects that would connect Indigenous Nations to provincial power grids are repeatedly delayed, communities are forced to pay inflated prices for conventional power, and many don't have access to the capital they need to invest in their own hydroelectric or solar power solutions.

However, Indigenous leaders are increasingly finding ways to overcome these challenges, creating new tools and financial vehicles that will enable their communities to take charge of their energy needs and chart a brighter economic future.

Enter, Nations Royalty.

Founded in 2024 by the self-governing Nisga'a Nation and backed by some of Canada's most successful mining entrepreneurs, Nations Royalty is a mining royalty company that was established on the principle that Indigenous wealth should stay in Indigenous hands. Today, Nations Royalty is the largest, majority-Indigenous owned public company in Canada and is quickly becoming a vital tool for Indigenous communities seeking to build wealth and reinvest in their community infrastructure.

Based on the tried and tested mining royalty model, Nations Royalty allows Indigenous communities who have negotiated Impact Benefit Agreements (IBAs) for mining and natural resource projects taking place on their land to pool these payments in exchange for shares in the company. By doing so, communities can unlock the maximum value of their payment through a portfolio of diversified royalties – lowering the risk associated with holding a single asset and gaining an interest in multiple assets across a wide variety of geographies and commodities.

Leveraging capital markets, the company also enables Indigenous communities to access the present value of their royalty payments. Instead of waiting years (and sometimes decades) for a mining project to become operational and only then collecting a royalty cheque on a year-to-year basis, communities who vend their royalty into the company can access the full value of each of those payments today, providing capital to accelerate initiatives that positively impact their people. This transforms passive

royalty payments into strategic investments that can fuel financial growth, self-determination and economic reconciliation.

Armed with access to the full value of their mining royalties in advance, communities are empowered to use these funds to invest in the projects that meet their needs and priorities – including clean energy infrastructure that can help them move off diesel power, build local generation capacity or own a stake in regional power solutions. The reality is that Indigenous People are ready, willing and able to take control of their energy future and do so in a way that advances positive environmental stewardship.

By unleashing the full power of mining royalty payments and IBAs, Nations Royalty presents an opportunity for these communities to fundamentally grow their role in energy projects. Through financial empowerment, communities can move beyond acting as key stakeholders in these projects and instead, regain control of their energy futures as full owners. Instead of waiting months or years for clean energy projects to be approved and funded, visionary Indigenous leaders can leverage their existing assets to move those projects ahead on their timelines in a way that honours Indigenous values of culture, history, people and land. Rather than relying on public funding or private equity to make projects possible, communities are building the potential to use their own resources – maximized through innovative vehicles like Nations Royalty – to take charge and deliver on the infrastructure that they need.

While Nations Royalty is a relatively new player in the Indigenous resource space, its potential to accelerate and magnify results for Indigenous communities is huge. Indigenous-owned royalty payments are one of the last sources of existing royalties anywhere in the world that have not been pooled together into a public company. In 2023, over CAD \$700 million was paid to Indigenous communities through Impact Benefit Agreements, representing thousands of high-quality, long-life projects.

As Canada charts a path toward a cleaner, more equitable energy future, innovative models like Nations Royalty demonstrate the power of Indigenous leadership and innovation. By unlocking the present value of resource royalties and channeling them into proactive investment, Indigenous communities are no longer at the mercy of external timelines, bureaucratic hurdles or outside investors. Instead, they have the tools to create new opportunities, become owners and architects of their energy destiny – investing in clean power, infrastructure, and community priorities on their own terms. ❖

The key to unlocking a zero-emissions future: Green hydrogen



Left: Xcelior CHARGE FC™, New Flyer's next generation, zero-emission hydrogen fuel cell-electric bus. It delivers longer range, better energy recovery and is smart city capable, making it the most advanced hydrogen fuel cell-electric bus in North America. (Photo courtesy of NFI.)



In the global quest to reach net-zero emissions and strengthen energy security, a new frontier is rapidly emerging: green hydrogen. Recognized as one of the most promising clean energy carriers of the future, hydrogen has the potential to decarbonize heavy industry, revolutionize transportation, and support countries in their transition away from fossil fuels. Here in Manitoba, the opportunity to become a leader in this green revolution is not just theoretical – it's already underway, with bold initiatives like H2MB Inc. laying the groundwork for a new clean energy economy.

WHAT IS HYDROGEN AND WHY GREEN HYDROGEN MATTERS

Hydrogen is the most abundant element in the universe, but it rarely exists in its practical form: as a molecule of two hydrogen atoms – H_2 . It must be extracted from other compounds – most commonly fossil fuels. Once isolated, the energy contained in the bonds binding hydrogen atoms together can be used as a fuel source.

Green hydrogen on the other hand, can be produced using renewable electricity to split water (H_2O) into hydrogen and oxygen via electrolysis. Unlike today's conventional hydrogen production, making up over 98 per cent of the 100 megatons produced globally annually already, green hydrogen involves no fossil fuels and emits no greenhouse gases in its production, making it a truly clean energy solution. It offers an alternative to electrification for hard-to-decarbonize sectors, enabling a flexible and scalable path toward net-zero goals.

USE CASES: HOW GREEN HYDROGEN CAN DECARBONIZE OUR ECONOMY

Green hydrogen isn't just a clean fuel – it's a versatile commodity. Its applications span a wide range of sectors:

- **Heavy Industry:** Fertilizer production, steel manufacturing, cement production, and chemical refining are difficult to decarbonize. Green hydrogen offers a pathway to reduce their very large carbon footprints significantly.
- **Transportation:** Medium- and heavy-duty (MHD) trucks, trains, buses, ships and even aircraft are being redesigned to

run on hydrogen fuel cells and modified combustion engines, offering a clean alternative to diesel and jet fuel.

- **Power Storage:** Green hydrogen can serve as a large-scale energy storage solution, converting surplus renewable electricity into a storable, dispatchable fuel for later use as both power and heat for commercial or residential applications, including emerging microgrid solutions to unleash the potential of renewables deployment.

A NEW PILLAR OF GLOBAL ENERGY SECURITY

Beyond its environmental benefits, hydrogen is gaining attention as a tool for geopolitical resilience. Many countries are actively seeking stable, democratic trading partners to help diversify their energy supplies and reduce reliance on oil & gas imports. In this context, Canada – rich in renewable energy and technological innovation – is emerging as a highly attractive supplier.

Nations such as Germany and Japan are already forging international partnerships to secure hydrogen imports. Canada, and more specifically Manitoba, is well-

positioned to meet this growing demand and contribute to global energy stability through green hydrogen exports – perhaps one day via a renewed Port of Churchill and our access to the emerging Northwest Passage shipping route.

MANITOBA'S ADVANTAGE: RENEWABLE POWER, GLOBAL POTENTIAL

Manitoba has a natural edge in the race to lead the green hydrogen economy. The province is powered by over 98 per cent renewable electricity – mostly hydroelectric – which provides the low-cost, zero-carbon energy required to produce green hydrogen competitively. With abundant water resources, robust infrastructure, and a strategic geographic location in the heart of North America and with access to deep arctic water, Manitoba has all the ingredients to become a global hydrogen hub.

This isn't just about environmental stewardship – it's a significant economic

opportunity. Both spurring local activity in a growing "green economy" and exporting green hydrogen to global markets can unlock new revenue streams, create skilled, modern jobs, and elevate Manitoba's role on the international energy leadership stage.

SPOTLIGHT ON H2MB INC.: A GREEN HYDROGEN PIONEER

At the forefront of this movement is H2MB Inc., a Manitoba-based company with a mission to develop the province's first commercial-scale green hydrogen production facility. By leveraging Manitoba's renewable energy advantage and working with local industries, H2MB aims to deliver the lowest-cost green hydrogen in North America.

Their initial facility will use electrolysis powered by clean hydroelectricity to produce green hydrogen at scale. The company's ambition is not only to serve local decarbonization initiatives – such

as fueling zero-emission transportation – but also to supply international markets hungry for clean energy imports. In doing so, H2MB is working toward positioning Manitoba as a leader in the energy transition.

A ZERO-EMISSIONS FUTURE STARTS HERE

As the world looks beyond fossil fuels, green hydrogen is emerging as a keystone of the zero-emissions future. With the global hydrogen economy expected to surpass \$2.5 trillion by 2050, early movers like Manitoba have a rare opportunity to lead.

By combining natural advantages with visionary projects like those spearheaded by H2MB Inc., Manitoba can be more than just a participant – it can be a catalyst for change. Green hydrogen isn't just a technology; it's a transformational opportunity. And the path to global impact starts right here at home. ❖

Canada's Natural Resource Partner

Whether it's environmental engineering, exploration or extraction – taking place in the Yukon, Golden Triangle or Ring of Fire – our trucks are another tool to help you lead the way for Canada. Project rentals available.



Locations in Winnipeg,
Ontario and across Canada.

drivingforce.com





Reuse waste heat and reduce your energy costs with heat recovery technology

In industrial manufacturing, heat recovery is a key strategy that can be implemented to improve energy efficiency, reduce costs, and minimize your environmental impact. By capturing and reusing waste heat, you can reduce your industrial facility's energy consumption, lower your operating costs, and improve the sustainability of your operations.

The successful implementation of heat recovery techniques and systems requires careful planning and significant investment. Luckily, Efficiency Manitoba can help make your heat recovery project easier and more affordable with their technical expertise and financial incentives through their Custom Energy Solutions Program.

WHAT IS HEAT RECOVERY?

Many industrial facilities generate a substantial amount of heat as a waste

byproduct of its equipment and systems operations. Instead of letting the heat escape, it can be recovered and reused, ensuring as much energy as possible is used for productive purposes (like generating electricity or heating your building) instead of dissipating into the atmosphere.

Heat recovery refers to the manner of capturing and reusing waste heat produced during industrial processes to use energy more efficiently. This process has the potential to save a significant amount of energy while minimizing negative impacts on the environment. Looking into heat recovery options for your facility is an essential step in reducing its overall energy consumption.

THE BENEFITS OF HEAT RECOVERY

Incorporating heat recovery processes into your operations has a multitude of benefits:

- **Energy savings:** When you recover waste heat and use it to generate usable heat or electricity for your facility, you're offsetting the need to use energy from the grid. That means relying less on external energy and saving electricity and/or natural gas.
- **Cost savings:** Though initial investments in heat recovery systems can be significant, the long-term savings in energy costs, reduced fuel consumption, and operational efficiency can lead to substantial cost reductions.
- **Reduced greenhouse gas emissions:** If your facility uses natural gas, heat recovery can offset a portion of that consumption. This reduces greenhouse gas emissions, which is good for the environment.
- **Improved operations:** Reusing energy you've already generated in your operations means your facility can



HELPING INDUSTRIAL BUSINESSES SAVE

We work with industrial businesses in Manitoba to help identify significant energy-saving opportunities.

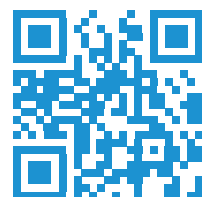
Our programs offer financial incentives and technical support for various industrial technologies including:

- Compressed air
- Pumps, fans, and blowers
- VFDs for fans and pumps
- Industrial refrigeration
- Waste heat recovery
- Steam and water boiler systems
- Other process systems



GET IN TOUCH TO START SAVING
customsolutions@efficiencyMB.ca
efficiencyMB.ca/industrial
1-844-944-8181

Scan the QR code
for more details.



Efficiency Manitoba is ready to work with you to implement heat recovery (and other energy-efficient solutions) in your facility.

run more efficiently, increasing the productivity of your processes.

SAVE ON PROJECT COSTS WITH EFFICIENCY MANITOBA'S CUSTOM ENERGY SOLUTIONS PROGRAM

If you're interested in benefitting from the savings heat recovery can offer your industrial facility, Efficiency Manitoba is here to help. Their signature industrial offer, the Custom Energy Solutions Program, provides a performance-based incentive to industrial, large commercial, and agricultural customers who take on energy-saving projects. You can receive an incentive of up to \$0.15/kWh of annual electricity saved and \$0.30/m³ of annual natural gas saved. So, the more

energy your project saves, the higher the incentive.

HEAT RECOVERY IN ACTION

Efficiency Manitoba has already supported several industrial companies in implementing heat recovery into their operations. For example, J.R. Simplot Company participated in the Custom Energy Solutions Program to make their potato processing operations more energy efficient. As part of their large plant expansion at its Portage la Prairie facility, they implemented a blow-down heat recovery system in their steam boiler plant. This project is saving J.R. Simplot Company an estimated 108,800 m³ of natural gas every year, and they received

nearly \$75,000 in incentives through the program.

START SAVING ENERGY TODAY

Efficiency Manitoba is ready to work with you to implement heat recovery (and other energy-efficient solutions) in your facility. Be sure to contact them in the early stage of your project; their team can help you identify optimal energy-saving opportunities for your facility and find ways to maximize your overall long-term savings.

To learn more about their offers for energy-efficient industrial technologies and systems, visit efficiencyMB.ca/industrial. ❖



for better business
and better recovery

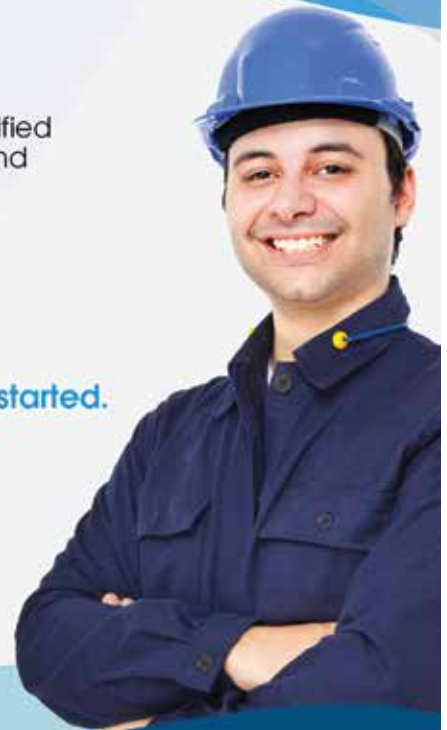


- Help workers heal faster with modified or alternate duties and a timely and safe return to health and work
- Retain valuable employees
- Reduce your WCB costs

The WCB is here to help you get started.



Please scan to download
Return to Work resources:



INNOVAIR

Industrial

Supplying Manitoba and Saskatchewan
with industrial gases since 1946

Manitoba Owned  Proudly Canadian

P: 204.772.9476 | TF: 800.667.3344 | E: Industrial.Sales@innovairgroup.com | innovairindustrial.com



REPAIRS & REPLACEMENTS
FOR ALL OIL & GAS OEMS:



WESTENDRAD.CA

On Site & In Shop Repairs
Back-Up Generators
100% Leak-Free

Taking pride in Canada's nuclear excellence



By George Christidis, Interim President and CEO, Canadian Nuclear Association



For over 60 years, Canada has been a world leader in nuclear power – from being one of the first countries to generate electricity from a nuclear reaction, to becoming a key player in peaceful nuclear technology development and export, to growing into a modern leader in the production of life-saving medical isotopes.

Over the past five years, advances in the Canadian nuclear sector have accelerated, and the industry is now seeing remarkable momentum. All across the country, there are nuclear technology projects planned and underway that are set to further cement the sector's central role as a provider of high-quality jobs, economic growth, energy security, and environmental sustainability.

Canadian nuclear is something we can all be proud of.

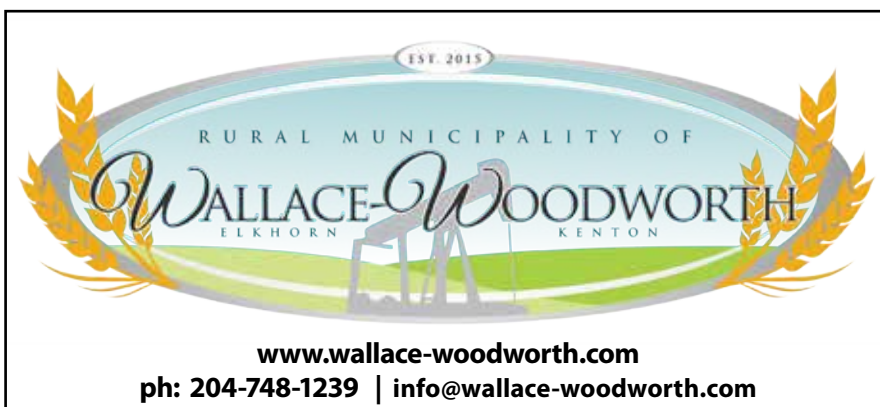
You can be proud of Canadian nuclear whether you come from a province that relies heavily on nuclear for power generation, like Ontario or New Brunswick; or a province that provides high-quality uranium ore to fuel the world's nuclear fleet, like Saskatchewan; or a province with a rich history of nuclear research & development, like Manitoba, which once hosted one of the world's most prominent nuclear research facilities employing over 1,200 scientists, engineers, and technicians. In fact, we can all be proud of Canadian nuclear for the life-saving medical isotopes it has been supplying for over seven decades. At a time when Canadians are looking for reasons to focus on what we're good at and invest in infrastructure and jobs

here at home, look no further than nuclear.

We have accomplished so much together over the last five years: started construction in Ontario on the first small modular reactor (SMR) in the G7; achieved a final invitation to host Canada's first deep geological nuclear waste repository following an historic consent-based siting process; achieved world-first results in advanced reactor developments in New Brunswick and fusion technology in British Columbia; launched the world's first Green Bond Framework that includes nuclear power, to massive success; and delivered large-scale refurbishments on time and on budget, bucking the trend of cost overruns we are seeing in some other jurisdictions. Based on these successes, we're preparing for the next generation of new builds in both Eastern and Western Canada.

We have so much to be proud of, and every year more and more Canadians are recognizing the promise and value of nuclear.

A big part of growing support is the understanding that nuclear means jobs. According to a recent public opinion poll commissioned by the Canadian Nuclear Association (CNA), about 60 per cent of Canadians believe nuclear development



Polling data from the same CNA study shows now that Canadians are increasingly coming to understand that nuclear has, can, and will play a central role in meeting Canada's emissions reductions targets. In fact, seven in 10 Canadians believe nuclear should play a role in reaching net-zero emissions.

would create well-paying jobs and improve energy reliability.

This economic case is undeniable. From the successful refurbishment projects of our CANDU fleet in Ontario, to new SMR opportunities in New Brunswick, to the expansion of our world-class uranium mining industry in Saskatchewan, nuclear projects create high-skilled jobs and stimulate local economies across the country. The sector supports over 89,000 Canadian jobs and contributes \$17 billion annually to GDP – numbers that are set to grow dramatically in the coming years.

Nuclear power is also foundational to our country's climate ambitions, something that was poorly understood for far too long. Polling data from the same CNA study shows now that Canadians are increasingly coming to understand that

nuclear has, can, and will play a central role in meeting Canada's emissions reductions targets. In fact, seven in 10 Canadians believe nuclear should play a role in reaching net-zero emissions.

This combination of economics and climate also explains why support for nuclear remains remarkably non-partisan, with clear support from Canadians whether they affiliate themselves with the federal Liberals, Conservatives, or New Democrats. While politicians from across the spectrum battle about whether Canada's future lies in oil & gas or renewable energy technologies, virtually nobody is arguing about nuclear power.

Support is also growing as Canadians come to understand the vital importance of energy sovereignty. Following the invasion of Ukraine by Russia and the

consequent energy crisis, and more recently the rapidly changing dynamics of global trade fueled by dramatic policy decisions in the United States, Canadians are realizing that we can't always rely on allies or trading partners for our most critical needs.

The bottom line? Nuclear energy isn't just another power source – it's a national unifying force and a strategic asset that is delivering quality jobs today while building energy resilience and environmental progress for tomorrow. The nuclear power, research, and medicine projects moving forward across the country aren't just energy and health infrastructure; they're investments in Canadian self-sufficiency, prosperity, and long-term sustainability. That's something to be proud of. ❖



DEL Communications Inc.
SUITE 300, 6 ROSLYN ROAD, WINNIPEG, MANITOBA, CANADA
www.delcommunications.com

DEL Communications Inc.
your key to success.

WE OFFER OUTSTANDING PERSONAL SERVICE AND QUALITY IN THE AREAS OF...

- Creative design
- Advertising sales
- Trade publications
- Qualified sales & editorial team



QUINTEX
UNIFORMS | MATS | LINENS +

Tough Environments Call For Durable Uniforms

Let us handle the essentials so you can focus on powering the future.

Manitoba's Uniform, Mat, & Linen Service Experts Since 1911.





Driving digital transformation and innovation in Manitoba's energy sector

By Debbie Burke, Director, Oil, Gas and Chemicals at BBA

Western Canada's energy sector is evolving with digital transformation unlocking new opportunities for operational efficiency, sustainability, and resilience. While companies have long invested in instrumentation and control systems, many are just beginning to fully leverage the power of their data.

The challenge is no longer collecting data but transforming it into actionable insights that drive smarter and more proactive decision-making.

For decades, operational decision-making has relied on historical data and human experience. While effective, this approach often results in reactive strategies and gaps in knowledge transfer. By developing advanced analytics, the foundation for successful AI and machine learning implementation, companies can better leverage the data that they already collect.

Today, AI and advanced analytics are enabling real-time forecasting, risk management, and process optimization, helping

companies enhance productivity while reducing environmental impacts.

FROM DATA TO ACTIONABLE INSIGHTS

With AI-driven analytics, organizations can move beyond traditional reporting to predictive and adaptive strategies. Operators can become more agile and resilient during times of fluctuating demand, regulatory changes, labour shortages or extreme weather. Those who integrate digital intelligence into their operations will be better positioned to anticipate challenges, optimize resources, and accelerate innovation.

Effective change management approaches focus on three essential pillars for success: people, processes, and technology. People come first because successfully implementing new technology requires a shift in mindset – and people to champion and lead that change.

We've got you covered, Manitoba!

For over 45 years, BBA experts have worked side by side with project teams to solve complex problems and drive sustainable solutions through innovation.

- RENEWABLES AND ENERGY STORAGE
- DECARBONIZATION AND CARBON CAPTURE
- DIGITALIZATION AND CYBERSECURITY
- MINING STUDIES

100+ experts
in the Prairies

SUPPORTED BY 1,400+
PROFESSIONALS GLOBALLY



Engineering
Environment
Field services

BBAconsultants.com





Investing in personnel dedicated to implementation and change management are essential for better returns on investments in technology.

BRIDGING THE GAP BETWEEN INNOVATION AND IMPLEMENTATION

Despite the growing availability of digital solutions, scaling them for commercial use remains a challenge. Many promising technologies fail to move beyond pilot projects due to operational integration hurdles. Experienced change management leadership, and key roles for tool creation and continuous improvement are required for rapid and sustained AI adoption.

Both technology innovators and industry adopters play a role in lowering risk and accelerating industry-wide adoption of new tools. For innovators, they must ensure that digital solutions clearly showcase the primary commercial opportunity and pathways to implementation in phases.

For industry adopters, the key is committing resources toward increasing the competency of internal change leaders, as well as providing the right delivery model that includes testing and refining for operational integration.

This comprehensive approach ensures that innovative solutions are not only developed and available for widespread use but are also continually improved upon and successfully integrated into operations for tangible benefits.

THE DIGITAL FUTURE OF MANITOBA'S ENERGY SECTOR

Digital application design and implementation are most successful when we can use the right delivery model and the right people. Operations staff play a crucial role in guiding the technology experts developing the solutions. Together, they can ensure the right processes, and the work that is done in the field, are reflected in the tools that will drive data-based business decisions.

Digital transformation is not an isolated initiative – it's an industry-wide shift that will define long-term success. Companies that actively develop digital strategies, build internal capabilities, and foster a culture of innovation will lead the sector forward.

When properly integrated and used effectively by teams, digital tools simplify operations, meet the technological expectations of new generations, and mitigate the effects of unforeseen events.

With clear objectives and product development and implementation resourcing from business leaders, technology developers and corporate users can accelerate the transition from experimentation to large-scale deployment, enhancing productivity and sustainability in Manitoba's energy sector. ❖

Grid sets sights on two upcoming drill programs in southeastern Manitoba

By Brandon Smith, CFA, MFE, Chief Development Officer, Grid Metals Corp.



Grid Metals is focused on critical metals exploration and development in southeastern Manitoba and expects to be drilling two critical metals projects in the next few months. The company plans to test a potential high-grade nickel/copper target at its Makwa project and conduct a cesium-focused drill program at its Falcon West project which is bisected by the Trans-Canada highway.

In December 2024, Grid Metals announced an option and joint venture agreement with Teck Resources Limited (Teck) to explore and develop the Makwa nickel project with a focus on the discovery of a Tier 1 magmatic nickel-copper-PGM-cobalt deposit. Since signing the deal, an aerial geophysical program has been completed with a number of high priority targets identified, and Teck has confirmed its intention to

advance the agreement through initial drilling. The phase one drill program will be an approximately 2,500-metre drill program and is expected in Q3/2025 after field work is completed this summer.

At Falcon West, Grid has been hard at work understanding the cesium potential of the project after another junior exploration company, Power Metals, has received considerable investor attention for its Case Lake cesium project in northeastern Ontario. Cesium is very rare and niche critical mineral and has several significant industrial applications, including petroleum exploration, aerospace, electronics, and next-generation solar panel technology. Cesium products command exceptional pricing with cesium carbonate trading for up to USD\$180,000/tonne. It's also a unique metal from the sense that the scale of economic deposits is on the order of tens of thousand of tonnes, not million of tonnes. As a result of the work completed to date, a drill permit has been submitted at Falcon, and the company expects to commence a cesium-focused drill program in the next few months. Based on historical drill results, including 3.3 m at 10.3 per cent Cs_2O and 3.2 m at 4.6 per cent Cs_2O within 25 m from surface, Grid's modelling suggests the potential to outline a globally significant near-surface cesium resource.

Grid believes success at either of these two drill programs would be extremely well received by the market and can't wait to get the drill bits turning! ♦



Careers in energy: Connecting talent with opportunities



By Lisette Cameron, Analyst, Careers in Energy

Canada's energy industry plays a crucial role in driving the national economy and offers a wide array of dynamic career opportunities. As the industry evolves, its workforce must evolve alongside it. Careers in Energy (CIE), a division of Energy Safety Canada (ESC), is at the forefront, helping to shape a safer, more sustainable workforce. Together, CIE and ESC provide a wide range of training, labour market insights and resources to help individuals build rewarding careers while maintaining the highest safety standards across the energy industry.

"Canada's energy system is evolving, it's diversifying and integrating, and it will continue to provide high-quality, well-paying jobs for years to come," says Vineeta Maguire, President and CEO of Energy Safety Canada.

12 NEW CAREER PATHWAYS: A ROADMAP TO SUCCESS

CIE has developed 12 new energy career pathways, designed to help individuals understand the knowledge and skills required for various roles within the energy industry. These pathways cater to both newcomers and experienced professionals looking to grow or pivot within the industry.

Each pathway outlines the education, skills and personal attributes required at different career stages, helping workers transfer their expertise across various energy sectors. Key pathways include:

- Emissions Measurement Professionals
- Energy Services Labourers and Operators

ESC has been the trusted partner for safety training, resources, data and certifications, working closely with industry to drive measurable safety improvements and foster a shared commitment to protecting workers.



- Engineers
- Environmental Health and Safety Professionals
- External Relations Advisors
- Facility and Process Operators
- Geoscientists
- Government Relations Professionals
- Inspection and Testing Technicians
- Sustainability Professionals
- Technologists
- Truck Drivers

Learn more about Career Pathways at [CareersinEnergy.ca/career-pathways](https://careersinenergy.ca/career-pathways).

GUIDING YOUR JOURNEY: MAPPING CAREER PATHS

CIE's interactive career pathways go beyond listing qualifications – they provide detailed insights into the key activities, core competencies and abilities required to succeed in specific energy sectors. Whether you're interested in established sectors like oil & gas or energy services, or emerging fields such as low-carbon hydrogen or biomass-based fuels, these pathways can help you chart your path to success.

PATHWAYS FOR NEW AND EXPERIENCED WORKERS

For both newcomers to the energy industry and mid-career professionals, CIE's career pathways offer clear guidance on entry points, development requirements and potential career advancement. Each pathway is supported by research and data analysis conducted by industry professionals. These insights are rigorously validated, ensuring they reflect the current workforce needs and trends.

LEVERAGING EXISTING TALENT: A RESOURCE FOR EMPLOYERS

Energy employers can also gain significant value from CIE's career pathways. The pathways help organizations better understand the strengths of their existing workforce and how to leverage the foundational skills of new graduates and workers across diverse energy sectors. Upskilling the current workforce can be an efficient and effective way to meet the industry's evolving demands.

ABOUT ENERGY SAFETY CANADA AND CAREERS IN ENERGY

ESC is the national safety association for Canada's energy industry. For over 75 years, ESC has been the trusted partner for safety training, resources, data and certifications, working closely with industry to drive measurable safety improvements and foster a shared commitment to protecting workers.

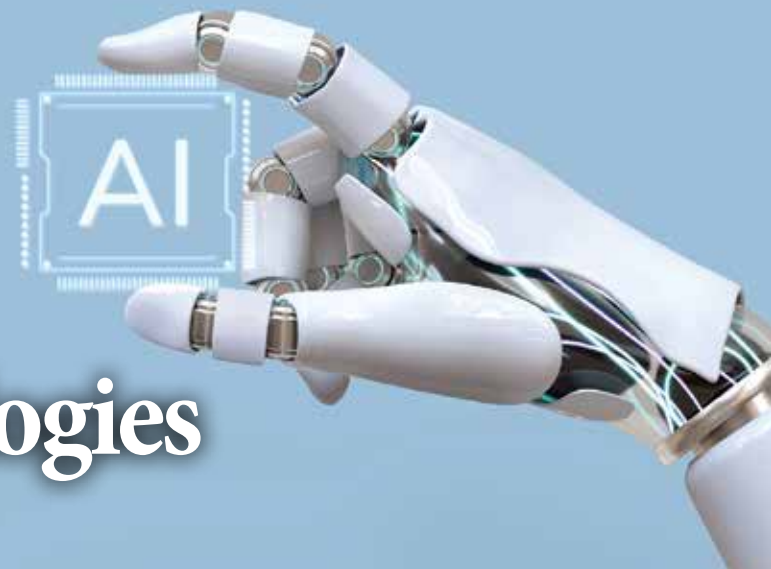
For more information, visit EnergySafetyCanada.com.

CIE is the trusted source of labour market intelligence, trends, tools and resources in Canada's evolving energy industry. CIE offers a wide range of resources to help a variety of audiences – including job seekers and employers – navigate the complex energy landscape. These resources include:

- National and Regional Labour Market Outlooks to 2035
- 170 career profiles
- Diversity, employment, job trends and outlook data dashboards
- Quarterly and annual labour market update reports
- Job vacancy reports
- Virtual reality experiences
- Employer resources and toolkits

For more information, visit [CareersinEnergy.ca](https://careersinenergy.ca). ❖

Transforming Manitoba's oil & gas sector with new technologies



While Manitoba's oil & gas industry is smaller than those of provinces like Alberta or Saskatchewan, it's undergoing a significant transformation of its own. Driven by innovation, economic pressures, and environmental considerations, the sector is evolving, embracing digital tools and automation to enhance efficiency, sustainability, and community engagement.

AUTOMATION AND ARTIFICIAL INTELLIGENCE

Automation is revolutionizing operations across the oil & gas industry. Companies are adopting AI-driven systems for predictive maintenance, equipment monitoring, and operational control, thus improving operational efficiency, reducing impacts on the environment, and addressing labour shortages.

- **Predictive maintenance:** Companies in Manitoba's oil patch are now analyzing equipment data to find potential failures before they happen. Allowing for timely interventions and limiting disruptions reduces costly downtime and extends the life of critical assets. For instance, pump jacks and compressors can be monitored in real-time using sensors connected to AI platforms, allowing maintenance teams to intervene rather than react.
- **Improved decision-making:** AI-powered analytics platforms are helping operators process large amounts of data from well sites, including pressure, flow rates, and temperature. This enables more informed drilling and production decisions, increasing yield while cutting waste. This shift to data-centric operations means tighter margins and more sustainable extraction practices.
- **Reducing on-site risk:** With the introduction of automated control systems, many routine and potentially hazardous procedures (i.e. pressure testing or valve control) can now be performed remotely. This lessens the need for constant on-site supervision, improving worker safety and operational reliability, especially in remote regions like the Southwest.

- **Addressing the Labour Gap:** Like much of the energy sector, Manitoba faces challenges in attracting and retaining skilled labour. Automation helps fill that gap. From automated drilling rigs to unmanned inspection drones, technology is helping oil companies do more with fewer personnel – without compromising quality or safety.

IMPROVING THE PROCESSES WITH OTHER INNOVATIONS

- **Blockchain technology** is being explored to enhance transparency and efficiency in royalty payments and contract management. Initiatives like Blockchain for Indigenous Rights International (BIRI) aim to streamline royalty settlements, reducing administrative costs and disputes.
- **Digital twin technology** creates virtual replicas of physical assets, enabling real-time monitoring and simulation. In Manitoba, this approach allows for better planning, risk assessment, and decision-making without the need for physical presence. Remote monitoring systems provide operators with continuous data, facilitating proactive management and reducing the need for on-site interventions.
- **Environmental Stewardship:** New technologies are also helping reduce the environmental footprints of oil & gas operations. Innovations such as mobile natural gas generators and battery systems are being piloted to cut greenhouse gas emissions.
- **Community Engagement:** Technology is bridging gaps between the industry and Indigenous communities. Platforms that provide real-time data and transparent reporting allow communities to make informed decisions about resource management and benefit-sharing. This collaborative approach fosters stronger partnerships and supports Indigenous economic development initiatives. ♦



Shipment of Critical Minerals Ready to Depart Port of Churchill, Aug. 2024

Commitment from Hudbay will double critical mineral shipments from the Port of Churchill in 2025

On Mar 3, the Arctic Gateway Group (AGG) announced a significant expansion of their critical mineral export partnership with Hudbay Minerals Inc. (Hudbay).

Building on last year's successful shipment of zinc concentrate from the Port of Churchill to international markets, this year Hudbay and AGG will double the volume of critical minerals shipped through the Port of Churchill. AGG also plans to triple current critical mineral storage capacity at the Port of Churchill, setting the stage for the continued growth of critical mineral exports from the Port of Churchill.

"AGG is proud to work with Hudbay as we continue to ramp up our operations and are on a strong growth pathway," said Chris Avery, CEO of Arctic Gateway group. "We've restored the Hudson Bay Railway to the best condition it has been in over 25 years, and we're keeping it strong by investing in new advanced railway tools. We've proven that we're

ready to haul, store and export Western Canada's critical minerals to international markets and have secured the confidence of private sector partners to do so. Most important, we're 100 per cent owned by a local Canadian group – meaning our business success will directly translate into local benefits for Indigenous and Bayline ownership communities."

"We see tremendous potential in Arctic Gateway, especially for increased shipments of critical minerals through the Port of Churchill," added Rob Carter, Hudbay's Vice President of the Manitoba Business Unit. "These minerals are essential for the technologies that will power our future, and they're abundant in Manitoba. We are committed to working alongside our partners to create a thriving and sustainable future for this region and for all Manitobans, leveraging the Port of Churchill and Hudson Bay Railway as a vital export gateway. The future of the Port of Churchill and Manitoba's critical

mineral sector is bright and Hudbay is ready to play a leading role in that future."

The Government of Canada and Province of Manitoba have both reaffirmed their commitment to Arctic Gateway Group's operations and investing in Canada's Arctic Trade Corridor. As a result, 2025 will see more work undertaken to upgrade the Port of Churchill and prepare for future import and export growth, including planning for wharf rebuilding, dredging preparation, grain elevator maintenance and upgrades, facility investments, and long-term site design improvements to meet the needs of current and future customers.

"The Port of Churchill and Hudson Bay Railway are open for business, and ready to make Canada's supply chains stronger and economy more resilient," Avery added. "We offer capacity and optionality to help make sure the vast resources of Western Canada get to foreign markets." ❖

Index to advertisers

Annugas Compression Consulting Ltd.	5
BBA.....	27
Border Energy Ltd.....	13
Corex Resources Ltd.....	3
DL Parts for Trailers	23
Driving Force	19
Efficiency Manitoba	21
Fort Garry Fire Trucks.....	IFC
Global Energy Show Canada 2025	9
Graham Industrial.....	OBC
Innovair Group	16
Primec Controls Canada	7
Quintex Services Ltd.	25
R.M. of Wallace-Woodworth	24
WestEnd Radiators.....	23
Workers Compensation Board of Manitoba.....	22



DE
Communications Inc.

**THE KEY TO
PUBLISHING SUCCESS.**

SUITE 300, 6 ROSLYN ROAD, WINNIPEG, MANITOBA, CANADA
www.delcommunications.com

**WE OFFER OUTSTANDING PERSONAL
SERVICE AND QUALITY IN THE AREAS OF:**

- Trade Publications (Magazines & Directories)
- Qualified Sales & Editorial Team
- E-Newsletters • Websites
- Online Directories
- Creative Design • Advertising Sales

CANADIAN ENERGY

POWERING GLOBAL OPPORTUNITY



30,000+
Global Energy
Show attendees



22,500+
represented
companies



1,000+
conference
delegates



500+
exhibiting
companies



350+
expert
speakers



10 NECs
20 IECs



8
award
categories



460,000
sq ft
exhibition hall

CONNECT WITH 500+ COMPANIES FROM VARIOUS INDUSTRIES:



GOVERNMENT
ENTITIES



SERVICE & SUPPLY
COMPANIES



GAS & LNG
COMPANIES



INTEGRATED
ENERGY
COMPANIES



TRANSMISSION &
DISTRIBUTION



REFINERIES &
MAINTENANCE



CLEAN
TECHNOLOGY
COMPANIES



POWER
GENERATION &
UTILITIES



TECHNOLOGY
PROVIDERS



LEGAL & INDUSTRY
ANALYSTS



NATIONAL &
INTERNATIONAL
OIL COMPANIES



FINANCERS &
INVESTORS



BUILDING BETTER



GREAT PLAINS
CONTRACTING

POINTS
ATHABASCA

Your Construction Solutions Partner
grahambuilds.com

GRAHAM

