



NGIF ACCELERATOR ANNOUNCES COMPLETION OF RADMAX'S PROJECT TO TRANSFORM EMISSIONS REDUCTION AND POWER GENERATION

SPOKANE, WA (October 24, 2024): As part of our commitment to advance clean technology innovation, NGIF Accelerator is excited to announce the successful completion of RadMax and TAKEnergy's project: Electrical Power Generation with Natural Gas Expander. This pilot project has demonstrated the feasibility of the RadMax Expander-Generator (RXG) as a solution for reducing methane emissions at natural gas wellheads and pressure letdown stations while generating electrical power.

With funding of \$72,460 from NGIF Accelerator, US-based RadMax in partnership with TAKEnergy has been able to derisk their technology, successfully completing over 4,200 runtime hours of data collection and analysis at ATCO's distribution facility, proving the RXG's technical and economic viability. The project highlights the RXG's potential to provide a reliable and cost-effective source of electricity to power upgraded existing pneumatic devices.

Other key outcomes of the project include clean electrical power generation of 2-5 kW from natural gas pressure reductions, emissions reduction ability, operational efficiency with stable speeds across varying pipeline pressures and electrical loads, and minimal operating costs with zero need for external fuel or gas preheating.



Image: RadMax/TAKEnergy's technology demonstration at ATCO's live site with some NGIF industry members, Tourmaline, Birchcliff, Petronas, CNRL and ATCO.

"The completion of this project marks a significant achievement in our ongoing efforts to innovate and implement clean technologies in the natural gas sector. The results demonstrate that the RXG recaptures energy otherwise lost and reduces emissions associated with natural gas production," said

John Adams, President and CEO of NGIF Accelerator. “Our Industry Grants program and its focus on de-risking clean technologies through field trials and pilots are part of NGIF’s integrated model of industry validation, customer creation, and technology commercialization.”

The project’s success positions the RXG as a potential game-changer in the energy sector, addressing both sustainability goals and cost efficiencies. Based on the data collected and the operational insights gained, RadMax is now prepared to commercialize the RXG technology.

“RadMax is grateful for NGIF’s sponsorship and support in providing an invaluable opportunity to test a prototype product and collect real-time data in an actual working environment. This project has helped us to better understand the requirements of the natural gas production and distribution community. The collected data will help move the product into the final stages of commercialization. We look forward to further working with the oil and gas industry to test additional products at the wellhead or other pressure letdown locations,” said Paul Porter, RadMax President and Chief Technology Officer.

“TAKEnergy was pleased to work with RadMax, ATCO and NGIF Accelerator as the project execution and technology commercialization partner. The end results demonstrated the viability and reliability of small-scale expander technology to take energy wasted during pressure letdown and convert that into clean, usable electricity. We are excited to roll out this technology and provide another solution to help the natural gas industry meet its sustainability goals,” said James Cleland, President, TAKEnergy.

“Canadians want and need the affordable, reliable, clean energy service offering they have come to expect from the natural gas industry. When we created NGIF, it was our vision to bring the entire natural gas value chain together to support cleantech development that enhances environmental and economic performance for the sector. I am glad to see our vision in action as NGIF continues to support technologies like RadMax’s natural gas expander,” said Timothy M. Egan, President and CEO, Canadian Gas Association and Chair, NGIF Capital Corporation.

Industry Grants’ Participants and Project Partners:



About the NGIF Accelerator

[NGIF Accelerator](#) is the not-for-profit arm of NGIF Capital and operates all technology and innovation programs. The NGIF Accelerator mandate is to de-risk and accelerate technology development by supporting startups through their pilot projects, field trials, and industry validation. It will coordinate with federal and provincial governments to co-fund projects to advance market commercialization. NGIF Accelerator currently operates the Industry Grants program and administers the NGIF Emissions Testing Centre program.

About the Industry Grants Program

The [Industry Grants program](#) is industry-led and offers non-dilutive grants to fund early-stage startups for technology development and field demonstration. The program specifically de-risks pre-commercial technology solutions that have the potential to increase the environmental performance of the natural gas sector. Each project in the program will accelerate technology readiness level progressions through controlled pilot testing and field trials to advance commercialization.

About RadMax Technologies

RadMax Technologies, Inc., a wholly-owned subsidiary of REGI U.S., Inc., is developing multiple improved axial vane-type rotary devices using our patented RadMax™ rotary technology for commercialization. This technology allows for revolutionary designs of lightweight and high-efficiency engines, compressors, expanders, and pumps. For more information, please visit radmaxtech.com.

About TAKEnergy

TAKEnergy Inc. is a Calgary-based business formed in 2021 by five energy and manufacturing executives to address two critical market needs: help Canada's natural gas industry meet zero methane emission targets and help industrial and commercial clients meet their sustainability goals by providing small-scale green power. To see how TAKEnergy is doing this, please visit www.takenergy.com.

About Canadian Gas Association

The [Canadian Gas Association](#) (CGA) is the voice of Canada's gas energy delivery industry, including natural gas, renewable natural gas (RNG), and hydrogen. Its members are distribution and transmission companies, equipment manufacturers, suppliers and other service providers. Today, natural gas meets almost 40 per cent of the country's energy needs.

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