

NEWS >>>

First Tellurium Takes Delivery of New Tellurium-based Thermoelectric Generator

New device holds potential for significant energy savings for internal combustion engines and electric vehicles as well as drones, solar power and other applications.

Vancouver, BC, Canada, January 31, 2024 – First Tellurium Corp. (CSE: **FTEL**, OTC: **FSTTF**), reports that the Company has received a prototype of its tellurium-based thermoelectric generator, first [announced](#) in October 2023. The generator, developed in the U.S. by First Tellurium’s 51%-owned thermoelectric-focused research and development company (1406975 BC Ltd.), represents a transformative step in thermoelectric technology, energy efficiency and sustainability. Potential applications include the automotive, solar power and defense industries, amongst others.

Making Transport More Efficient

For the automotive industry, the device is designed to harness waste heat from both internal combustion engines and battery cooling systems in electric vehicles, then convert that heat to electrical energy. The recovered electricity can be used to significantly increase fuel efficiency. The generator is compact and lightweight, weighing only 70 grams (2.5 ounces), and requires only minor modifications to vehicles. These advantages streamline adaptation while reducing carbon footprints and contributing to fuel cost savings.

“This is game-changing technology for transportation, and we’re thrilled to have the prototype in hand,” said First Tellurium President and CEO Tyrone Docherty. “The world’s transition to electric vehicles will take decades. Any technology that can reduce the carbon footprint of combustion engines during that transition, while making EVs more efficient, should be in high demand.”

First Tellurium’s initial [announcement](#) about the device generated interest in the automotive and Greentech sectors. “I was surprised, and enthused, by the number of people who reached out to sign an NDA with us,” said Docherty. “While we won’t risk engaging any other parties until patent applications are in place, clearly there is great interest in anything that will help auto manufacturers achieve the demanding new standards and timelines for carbon emissions and fuel efficiency.”

Extending Battery Life for Drones

Following completion of the first prototype in October 2023, the device underwent further refinements to make it even more compact and efficient. Its size and light weight make the generator ideal for use in drones. Early testing indicates it can significantly extend drone battery life, offering advantages for a broad industry base including defense.

Solar Applications

The thermoelectric modules can also be coupled with solar thermal water heaters to generate electricity, in addition to heating water more efficiently.

Tellurium is the Key

Tellurium is the key for the new thermoelectric technology, as it is with the superior lithium-tellurium (LiTe), solid-state batteries under development by First Tellurium's partner Fenix Advance Materials, and highly efficient cadmium-tellurium (CdTe) solar panels that now account for [approximately 55%](#) of new installations in the United States.

Using Domestic Sources of Tellurium

Adhering to mandates from both the Trudeau and Biden administrations for sourcing critical metals domestically in Canada and the U.S., tellurium for manufacturing the generator will be sourced from North American suppliers.

"This will ensure resilience in design while guarding against supply chain disruptions," said Docherty. "Our longer-term intent is to become a key supplier of tellurium for the device from our holdings in [British Columbia](#) and [Colorado](#)."

Docherty added, "The inventor of the thermoelectric generator approached us because of our tellurium knowledge, first-mover status in tellurium exploration, and also because we hold two of the leading [tellurium properties](#) in North America if not the world. We were the first, and we remain the only, junior mining company focused on tellurium."

Patent Status

First Tellurium is working with patent lawyers to prepare and file patent applications for the device. "We're now in a position to finalize patent applications," said Docherty. "There are a number of innovative structural features and useful industrial use cases that we need to protect, not only for design and use of the device, but also for how it's manufactured."

Tellurium's Expanding Utility

Docherty noted that for First Tellurium's long-term business strategy, tellurium is a launch point for many new applications to come. "There are numerous new tellurium-based innovations in the pipeline," said Docherty, "including advances in medicine, water desalination, nanotechnology and electronics. Looking further ahead, it's important to note that our Deer Horn Property holds the critical minerals tungsten, zinc and bismuth as well as copper and silver, all key to the green energy transition. High-grade gold adds significantly to the value of both properties."

Prototype Demonstration in February

First Tellurium plans to demonstrate the new prototype, introduce the inventor, and discuss device applications at an event in Vancouver in late February. Scheduled presenters include First Tellurium's Qualified Person Dr. Lee Groat of the University of British Columbia, who will report on the Company's 2023 exploration season and plans for 2024. Don Freschi of Fenix Advanced Materials will provide an update on the LiTe battery under joint development with Fenix and UBC Okanagan.

The date, time and other details of the event will be announced in early February.

About First Tellurium Corp.

First Tellurium’s unique business model is to generate revenue and value through mineral discovery, project development, project generation and cooperative access to untapped mineral regions in Indigenous territory with sustainable exploration.

Our Klondike tellurium-gold property in Colorado and polymetallic Deer Horn Project in British Columbia anchor a diversified search for metals, working in alliance with Indigenous peoples, NGOs, governments and leading metals buyers. This is the future of mineral exploration—generating revenue by exploring responsibly and leveraging diverse partnerships.

First Tellurium proudly adheres to, and supports, the principles and rights set out in the United Nations Declaration on the Rights of Indigenous Peoples and in particular the fundamental proposition of free, prior and informed consent. First Tellurium is listed on the Canadian Stock Exchange under the symbol “FTEL” and on the OTC under the symbol “FSTTF”. Further information about FTEL and its projects can be found on www.firsttellurium.com.

On behalf of the board of directors of
First Tellurium Corp.

“Tyrone Docherty”

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Forward-looking information

All statements included in this press release that address activities, events or developments that the Company expects, believes or anticipates will or may occur in the future are forward-looking statements. These forward-looking statements involve numerous assumptions made by the Company based on its experience, perception of historical trends, current conditions, expected future developments and other factors it believes are appropriate in the circumstances. In addition, these statements involve substantial known and unknown risks and uncertainties that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will prove inaccurate, certain of which are beyond the Company’s control. Readers should not place undue reliance on forward-looking statements. Except as required by law, the Company does not intend to revise or update these forward-looking statements after the date hereof or revise them to reflect the occurrence of future unanticipated event.