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Sunrise Energy Metals to Partner With I-Pulse and Greenvale Mining for Geothermal Pulsed-Power Drilling Technology in the Millungera Basin

Stored Energy in the Millungera Basin Estimated to Exceed 611,000 Petajoules, or 600x Australia's Annual Electricity Consumption

MELBOURNE, Australia – Sunrise Energy Metals Limited ("Sunrise" or the "Company": ASX:SRL and OTC:SREMF) Co-Chairman, Robert Friedland, and Managing Director Sam Riggall, are pleased to announce a partnership with leading U.S.-based private technology company I-Pulse to deploy and validate its G-Pulse pulsed-power drilling technology in the Millungera Basin, a large-scale geothermal resource located in Queensland, Australia.

Under the Agreement with Sunrise and current permit holder Greenvale Mining Limited (ASX:GRV) ("Greenvale"), I-Pulse will assume operational control and invest a minimum of $5 million to earn an 80% interest in the Millungera Basin Geothermal Project. Neither Sunrise nor Greenvale will have any obligation to fund until completion of the earn-in, at which point a joint venture will be established for the project with the JV parties being I-Pulse (65%), Greenvale (20%) and Sunrise (15%).

> **"Early-stage mapping and drilling on two areas of the Millungera Basin by the Geological Survey of Queensland has identified it as one the largest and most prospective geothermal basins on the Australian continent," Sunrise Managing Director, Sam Riggall said.**
>
> **Mr Friedland added, "The key enabler for unlocking Australia's vast geothermal potential is drilling technology, and this partnership with I-Pulse brings state-of-the-art capability in pulsed-power drilling. The solution to long-life, carbon-free, non-interruptible power already lies**

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directly beneath our feet. We look forward to working with I-Pulse and Greenvale to unlock the almost limitless potential of subsurface heat sources on the Australian continent."

I-Pulse subsidiary G-Pulse is focused on deploying high pulsed power technology to address one of the most challenging and expensive stages of geothermal development — drilling deep wells into extremely hard rock formations to access hot granites deep beneath the Earth's surface. Using this technology, the company plans to advance detailed technical programs designed to unlock the full geothermal potential of the Millungera Basin.

The Geological Survey of Queensland assessment of the geothermal potential of the Millungera Basin estimated over 611,000 petajoules of stored energy (~170,000 TWh) across the Basin using a 90% confidence level, approximately 600 times Australia's annual electricity consumption (~280 TWh in 2024).[1]

In November 2025, Sunrise (via its wholly owned100% subsidiary SRL Hot Rocks Pty Ltd) executed the "Farm-in Agreement – Millungera Basin JV" with Greenvale (refer to the Company's ASX announcement of 29 January 2026: "December 2025 Quarterly Activities and Cash Flow").

THE MILLUNGERA BASIN

Location

The Millungera Basin is located in north-west Queensland, approximately 200 km east of Mount Isa and in close proximity to the towns of Cloncurry and Julia Creek (Figure 1). The Basin extends more than 300 kilometres in a north-south direction and is 40 to 50 kilometres wide, covering an area of approximately 15,000 km². It lies within the Central Australia Heat-Flow Province, a large region of elevated geothermal activity encompassing parts of Queensland, South Australia, Northern Territory and Western Australia.

[1] Geological Survey of Queensland technical report, Queensland Geology 14: An assessment of the geothermal energy potential of northern and eastern Queensland (Talebi et al., 2014). Also, an independent 2022 assessment by Ascendience Geoscience commissioned by Greenvale Mining Ltd — reviewing the GSQ studies — estimated the Millungera Basin contains stored thermal energy (at 90% probability) in excess of 611,000 petajoules. Note that only a fraction of stored thermal energy is recoverable as electricity given conversion losses, mechanical and thermal inefficiencies, transmission losses and other operating factors. For Australian electricity generation data see https://www.energy.gov.au/publications/australian-energy-statistics-table-o-electricity-generation-fuel-type-2023-24-and-2024.

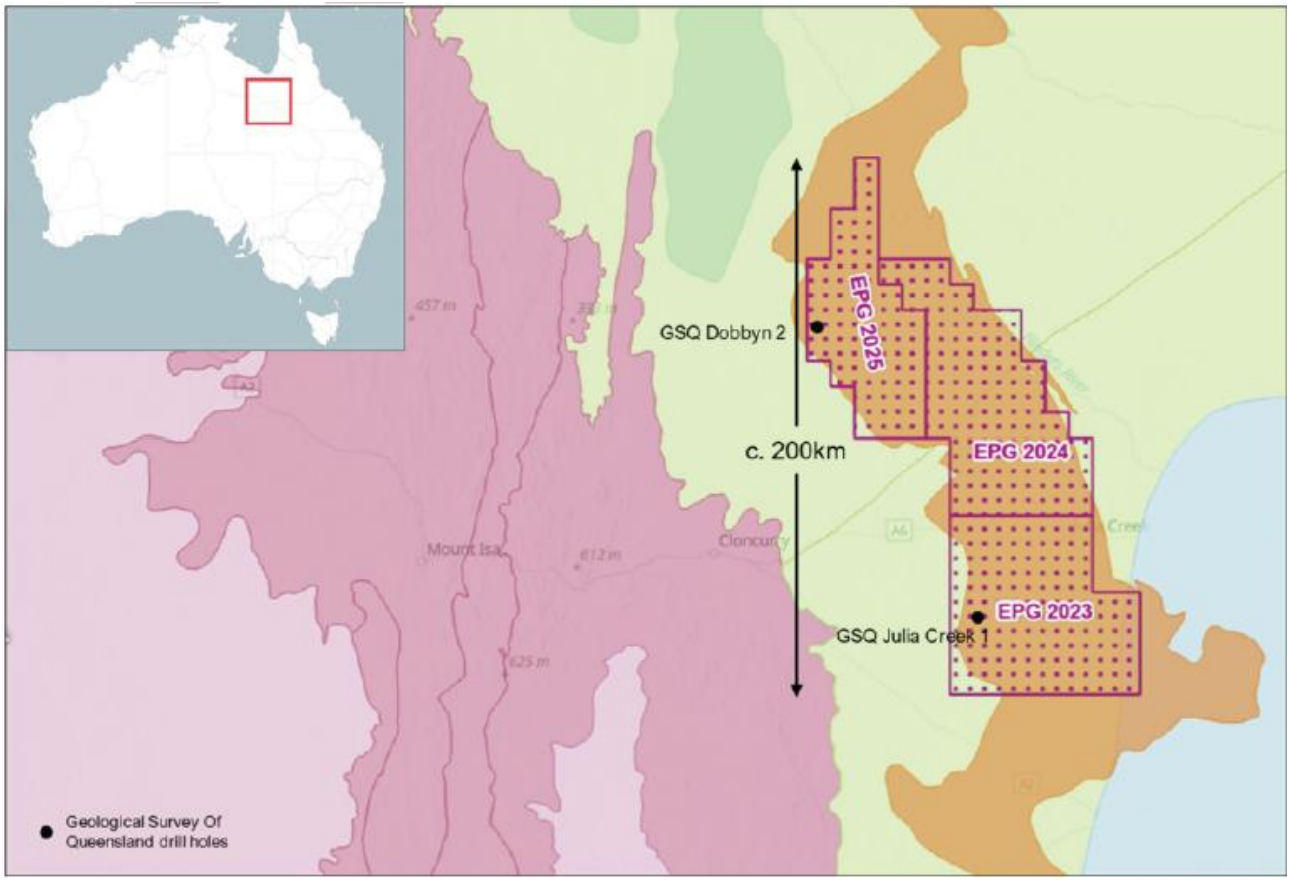

Figure 1: Millungera Basin location (in brown) to the east of the Mt Isa Inler (in red) and EPG permit areas, north-west Queensland. Inset shows position within Australia.

Geological and Structural Setting

The Millungera Basin was discovered through deep seismic reflection surveys conducted by Geoscience Australia in 2006–2007. It contains geological formations dating back approximately 540 million years. Two fully cored exploratory wells — GSQ Julia Creek 1 (in the south) and GSQ Dobbyn 2 (in the north) — were drilled by the Geological Survey of Queensland to characterise the basin's stratigraphy and thermal properties.

The wells intersected a consistent geological sequence. Overlying the Millungera Basin sediments are the formations of the Eromanga and Carpentaria Basins, which act as a thermal insulating blanket. These cover sequences — comprising Allaru Mudstone, Toolebuc Formation, Wallumbilla Formation, and Hooray Sandstone — exhibit low thermal conductivity (0.99–3.11 W/mK), effectively trapping heat generated from below.

Within the Millungera Basin itself, the drilled sequence is dominated by highly siliceous, hematite-altered quartzose sandstone (comprising approximately 85–90% of the intersected Millungera sequence), with minor interbeds of siltstone and claystone (each less than 10%). These sandstones are indurated, commonly fractured and faulted, and exhibit pervasive hydrothermal alteration — indicating a history of hot fluid movement through the rock.

Beneath the Millungera Basin, several granitic bodies are interpreted from seismic data, representing a potential radiogenic heat source for a hot rock geothermal system. The granitic intrusions underlying the basin are inferred to be similar to the Mesoproterozoic Williams Supersuite, whose Williams and Naraku batholiths have heat production values of 6.72 and 7.50 μW/m³ respectively — enriched in heat-generating radiogenic elements.

GEOTHERMAL POTENTIAL

Heat Flow Estimates - Among the Highest in Australia

Heat flow modelling of the two GSQ wells by the Geological Survey of Queensland produced values well above the global crustal average[2] of 60 mW/m²

GSQ Julia Creek 1 (southern basin): 113.0 ± 2.9 mW/m²
GSQ Dobbyn 2 (northern basin): 107.5 ± 1.7 mW/m²
Global crustal average: 60 mW/m²

Both values exceed the averages of all six recognised geothermal fields in Australia, as shown in Table 1 below.[3]

Table 1: Heat Flow Values — Millungera Basin vs Australian Geothermal Fields

Prospective Area	Avg Heat Flow (mW/m²)	Std Dev	Min	Max	Count
Millungera Basin	**107–113**	—	—	—	2
Cooper Basin	102	13	67	140	40
SA Heat Flow Anomaly	102	43	50	275	39
Gippsland Basin	103	—	—	—	1
Eastern Tasmania	85	14	48	118	40
Otway Basin	73	17	50	123	31
Northern Perth Basin	57	12	47	73	5

Source: Global Heat Flow Database, compiled in Faulkner et al. (2012). Millungera Basin values from GSQ Julia Creek 1 and GSQ Dobbyn 2 well modelling.

2 Global average crustal heat flow of 60 mW/m² per Cull (1982). Central Australia Heat-Flow Province average of 82±25 mW/m² per McLaren et al. (2003).

3 Heat flow values from the Global Heat Flow Database as compiled in Faulkner et al. (2012), Table 10. University of North Dakota (2011).

Stored Thermal Energy Estimates

Based on temperature and thermal conductivity data collected from the two GSQ wells, and the mapped extent of the inferred granitic bodies at depth, estimates of stored thermal energy were made at a 90% probability level (Table 2).[4]

Table 2: Inferred Stored Thermal Energy — Millungera Basin (90% probability)

Tectonic Unit	Stored Thermal Energy (PJ)	Electric Power Potential (MWe)	Annual Electricity Generation (GWh)
Millungera Basin – South	> 296,000	> 1,460	> 11,510
Millungera Basin – North (Area A)	> 185,000	> 912	> 7,190
Millungera Basin – North (Area B)	> 130,000	> 640	> 5,045
Total	**> 611,000**	**> 3,012**	**> 23,745**

Source: See Greenvale Mining Limited ASX announcement of 6 September 2022, modified from Talebi et al. (2014). Monte Carlo simulation at 90% probability.

ABOUT I-PULSE

I-Pulse is a private American technology company co-founded by Robert Friedland and Laurent Frescaline to bring high pulsed power technology into civilian industries. I-Pulse technology repeatedly compresses and releases brief yet immensely powerful electrical discharges, enabling breakthroughs across multiple sectors. These include unlocking competitive geothermal baseload energy, efficient critical mineral production, agricultural crop protection, and disruptive industrial welding, metal forming, and crimping solutions. Founded in 2007, I-Pulse has offices in New York and London, and research, development and manufacturing facilities in Albuquerque (New Mexico), Detroit (Michigan), and Toulouse (France).

This announcement is authorised for release to the market by the Managing Director of Sunrise Energy Metals Limited.

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4 See also Greenvale Mining Limited ASX Announcement, 6 September 2022. Table 1: Result from Monte Carlo simulation, estimation of stored thermal energy at 90% probability (modified from Talebi et al., 2014).

About Sunrise Energy Metals Limited (ASX:SRL: OTCQX:SREMF) – Sunrise Energy Metals Limited is developing the Syerston Scandium Project in New South Wales, Australia, with the aim of delivering the world's first source of mineable, high-grade scandium. Sunrise also owns the Sunrise Nickel-Cobalt Project, one of the largest and most cobalt-rich nickel laterite deposits in the world. For more information, visit www.sunriseem.com.

Forward Looking Statements Disclaimer

Certain statements in this news release constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. These statements reflect the Company's current expectations regarding future events, performance and results, and speak only as of the date of this announcement.

Readers are cautioned that actual results may vary from those presented.

All such forward-looking information and statements are based on certain assumptions and analyses made by Sunrise Energy Metals' management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; delays in financing or project funding; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this announcement are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this announcement.