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Green Gravity, Mount Isa City Council and Glencore Commence Landmark Studies to Advance Gravitational Energy Storage

Green Gravity has commenced regional studies, minesite concept engineering, and local community engagement in Mount Isa for the deployment of up to 2 GWh of gravitational energy storage in North West Queensland. Green Gravity is working with the Mount Isa City Council and Glencore to examine the potential of utilising mineshafts at the Glencore's Mount Isa Mines for renewable energy storage.

Green Gravity, a leader in gravitational energy storage technology, and the Mount Isa City Council have completed a Memorandum of Understanding (**MoU**) to cooperate in the deployment of gravitational energy storage to the Mount Isa region.

In parallel Green Gravity has commenced concept engineering study work supported by Glencore at Mount Isa Mines. The study includes assessing the potential to sustainably repurpose multiple mineshafts within the Mount Isa Copper Operations as they cease to be required for mining operations.

The MoU between Green Gravity and the Mount Isa City Council outlines a shared commitment to investigate the role of gravitational energy storage in enhancing Mount Isa's energy infrastructure and economic resilience. This initiative aligns with the Mount Isa City Council Economic Development Strategy 2023-2028, which focuses on building a vibrant local community with a diverse industrial base and a skilled workforce. The key objectives of the MoU include:

- **Energy and Economic Development:** Assess the potential of converting disused deep mineshafts in the Mount Isa region into more than 2 GWh of renewable energy storage infrastructure.
- **Collaboration and Innovation:** Foster collaboration between industry, local government, and the clean technology sector to drive decarbonisation and innovation in the region. This includes directly assessing the potential to add manufacturing jobs to the region to support an energy storage infrastructure rollout.
- **Workforce Reskilling:** Develop strategies to retrain and upskill the local workforce, ensuring the availability of critical skills for the deployment of gravitational energy storage.
- **Community Engagement:** Engage with local stakeholders, including First Nations communities, to build awareness and support for the potential of gravitational energy storage in the region.

Potential economic and environmental impact

Gravitational energy storage represents a significant economic option for Mount Isa's future, with the potential to attract over \$1 billion in private capital over the next decade. The development of renewable energy generation and Long Duration Energy Storage (**LDES**) assets could create over 350 full-time equivalent jobs during its development phase.

By repurposing existing mining infrastructure, deploying gravitational energy storage to the region will provide low-cost, firm green energy, supporting new industrial developments and ultimately contributing to the National Energy Market via the proposed CopperString project. This initiative will play a crucial role in addressing the region's energy challenges and promoting sustainable economic growth.

Proposed collaboration

As part of the collaboration outlined in the MoU, Green Gravity and Mount Isa City Council will undertake several key work items to advance the development of the gravitational energy storage system. These include conducting a comprehensive study to assess the potential supply chain and manufacturing options for the weights used in the technology, evaluating current capabilities and skills in the region, and exploring opportunities to retrain and upskill trades, particularly those affected by the closure of the Mount Isa Copper Operations.

They will share insights from existing energy market analyses for the Northwest Queensland region, develop a model of the region's energy dynamics, and identify funding requirements for subsequent studies into power quality and load profiles.

Additionally, they will support initiatives that foster synergies between research and development, education and training, and business activities. A community engagement strategy will be developed to build awareness and support for gravitational energy storage, engaging with local stakeholders, including First Nations communities.

Finally, they will collaborate on engagements with state and federal governments to build support and secure funding for LDES, championing Mount Isa's growth and investment priorities to key agencies and prospective investors. These work items are designed to ensure the successful ultimate development of gravitational energy storage, providing significant economic, social, and environmental benefits to the Mount Isa region.

Mark Swinnerton, Founder and CEO of Green Gravity said:

“Mount Isa is an ideal location for the deployment of gravitational energy storage. The region has an abundance of solar energy resource, matched with a long history of deep underground mining leading to a large population of high-quality legacy mineshafts.”

“Our collaborative work with Glencore at the Mount Isa Copper Operations is a great example of how Green Gravity technology has the potential to create new economic pathways as mines approach closure.”

“We are excited to collaborate with Mount Isa City Council on this transformative project. Our gravitational energy storage technology has the potential to revolutionise energy storage and support the region’s transition to a greener economy.”

Maryann Wipaki, General Manager Health, Safety, Environment and Community of Glencore, said:

“This presents a potential opportunity to repurpose mine infrastructure on the closure of Mount Isa Copper Mine and contribute to the long-term resilience and success of the Mount Isa Community.”

Tim Rose, CEO of Mount Isa City Council, said:

“This MoU marks a significant step towards a sustainable and prosperous future for Mount Isa. By partnering with Green Gravity, we are exploring innovative solutions to our energy needs and creating new opportunities for our community.”

Peta MacRae, Mayor of Mount Isa, said:

“We are thrilled to partner with Green Gravity on this innovative project that promises to bring significant economic and environmental benefits to our community. The development of a gravitational energy storage system aligns perfectly with our vision for a sustainable and prosperous future. This collaboration not only supports our energy transition goals but also creates new opportunities for local employment and skills development. We look forward to working closely with Green Gravity to make this project a reality and to position Mount Isa as a leader in clean energy innovation.”

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About Green Gravity

At Green Gravity, we develop and operate cutting edge gravitational energy storage systems. We aim to become the world's lowest cost and most sustainable provider of energy storage technology.

Decarbonisation of the energy system needs rapid deployment of renewable energy. To manage the inherent variability of renewables, energy storage must be added to our electricity grids.

Green Gravity's energy storage system moves heavy weights vertically in legacy mineshafts to capture and release the gravitational potential energy of the weights. By simply using proven mechanical parts and disused mineshafts, Green Gravity's energy storage technology is low-cost, long life and environmentally compelling.

Based in Wollongong Australia, we are working with global miners, energy companies, communities and research institutes to scale up our innovative energy storage technology.

About Mount Isa City Council

The Mount Isa Local Government Area includes the Camooweal community, which is the traditional lands of the Indjalandji-Dhidhanu people and is about 190km north-west of Mount Isa.

Our city is located in north-west Queensland on the banks of the Leichhardt River. With a population of approximately 21,000, it is the major service centre for the area.

Mount Isa is situated on the traditional lands of the Kalkadoon people who followed patterns of hunting and gathering, fishing and trade for many thousands of years before the arrival of the first Europeans. Kalkadoon craftsmen were famous for the quality of their stone implements. Hand-crafted tools were traded by the Kalkadoon people with other Aboriginal groups across western Queensland, as far south as Birdsville.

Today, Mount Isa City Council celebrates a wealth of talent, success and creativity in Mount Isa's Aboriginal and Torres Strait Islander community which includes professionals, educators, artists, musicians, tradespeople, health workers, business owners, entrepreneurs, community leaders and many other passionate, dedicated and successful people.

Our Aboriginal and Torres Strait Islander communities include Traditional Custodians, who represent the original Aboriginal inhabitants of the area, as well as a diversity of Elders and people who live and work in the City.

About Glencore

Glencore is one of the world's largest global diversified natural resource companies and a major producer and marketer of more than 60 commodities. The Group's operations comprise over 150 mining and metallurgical sites and oil production assets.

With a strong footprint in both established and emerging regions for natural resources, Glencore's industrial and marketing activities are supported by a global network of offices located in over 35 countries.

Glencore's customers are industrial consumers, such as those in the automotive, steel, power generation, battery manufacturing and oil sectors. Glencore's companies employ around 158,000 people, including contractors.

About Mount Isa Mines

Mount Isa Mines operates two mining and processing streams, copper and zinc-lead-silver, to deliver natural resources that have enduring roles in society. The site hosts the world's largest zinc resource base, as well as the biggest network of underground mine development in the world.

The site includes two copper underground mines, one zinc underground mine, the copper concentrator and smelter, as well as the zinc-lead concentrator, lead smelter and zinc filter plant. Together, these represent one of Australia's largest industrial complexes.

As well as the Australian market, products are exported to countries throughout Asia, Europe and the United Kingdom, contributing billions of dollars to the Australian economy every year. Mount Isa Mines provides work for close to 3,500 employees and contractors and prioritises the support of local people, local businesses, and strong links between operations and the city of Mount Isa.

Further Information

Media Relations: media@greengravity.com

Further information on Green Gravity can be found at www.greengravity.com

Trading office: Suite 1, Ground Floor, Enterprise 1, Innovation Campus, Squires Way, North Wollongong, NSW, Australia 2500

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