



USASK SIGNATURE AREAS

ENERGY AND MINERAL RESOURCES FOR A SUSTAINABLE FUTURE



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Developing clean energy solutions and working for equal access for all

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From discovery research to practical applications, the University of Saskatchewan's (USask) *Energy and Mineral Resources for a Sustainable Future Signature Area of Research* is leveraging unprecedented opportunity, talent, infrastructure and partnerships to innovate and implement the energy and mineral solutions our world needs. As the global energy demand continues to grow in the midst of a pressing climate crisis, USask researchers are developing sustainable, equitable and feasible solutions to benefit both people and the planet. From ideas and technologies to public policy and implementation science, the work of this Signature Area is addressing the needs of both local and global communities.

The research being done within the *Energy and Mineral Resources for a Sustainable Future Signature Area* today has the potential to make a profound impact on our future. This interdisciplinary work is supporting sustainable community development, advancing One Health applications and better securing the agricultural and food resources of tomorrow. Reflecting the work and collaborations of researchers across a wide range of natural and social sciences, humanities and applied science, USask is driving global leadership across the sector.

A key factor in the success of this Signature Area is the intersection of northern, rural and Indigenous input, leadership and expertise. These perspectives and priorities are embraced through steering and advisory committees that reflect diverse disciplines and backgrounds to support the development and application of localized renewable and nuclear energy infrastructure.

Research in this field also embraces USask infrastructure such as the Canadian Light Source and the Saskatchewan Centre for Cyclotron Sciences that enable a deeper understanding of critical minerals, expand nuclear sciences and innovate medical applications. Bolstered by multi-level government interest and investment, USask researchers are introducing real alternatives to the fossil-fuel industry that can power, feed and support our communities. These invaluable resources are not only the backbone of our daily life, but hold the key to unlocking a more sustainable future for all.

Notable Areas of Focus:

- Accessible and sustainable energy solutions that engage and benefit rural, northern and Indigenous communities.
- The advancement of nuclear science and technology toward cleaner energy and medical applications.
- Critical mineral innovations to help meet international demands for low-carbon and renewable energy technologies and food production.