

A herd of bison grazing in a lush green field with a dense forest in the background. The scene is captured in a cinematic style with soft lighting.

Geothermal Exploration, Data Sovereignty, and Indigenous Power

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Executive summary

Geothermal energy offers a clean, reliable way to power our future, but the search for it carries a hidden risk for Indigenous communities. To find underground heat, companies use advanced technologies to scan beneath the earth. While these surveys are often pitched as low-impact and environmentally friendly, they create highly detailed, permanent digital maps of the subsurface. The danger is that these maps do not just show heat—they also reveal valuable minerals, oil, and gas.

Because digital data persists, information collected today for a clean energy project could be sold, shared, or reused decades later to justify mining or drilling on Indigenous lands without the community's renewed consent. This practice, known as *data colonialism*, strips Indigenous Nations of their power to decide what happens on their territories. If communities do not control the data gathered from their lands, they risk losing out on economic opportunities and having their self-determination undermined by outside interests who hold the keys to this valuable information.

To prevent history from repeating itself, Indigenous Nations must assert *data sovereignty*—the right to control how their information is collected, stored, and used. Rather than treating all data as equally benign or equally sensitive, Indigenous Nations and partners should take a risk-informed approach by classifying datasets by likelihood of secondary use, potential to attract extractive interest, and resolution or granularity. By treating digital data with the same protective care as the land itself, Indigenous Peoples can ensure that the transition to renewable energy builds a foundation for justice, economic autonomy, and true self-determination.