

Feasibility Study and Plant Design of Geothermal Energy



Conclusion

- 20MW of clean energy produced
- Novel to Alberta hybrid geothermal design
- Hybrid design promotes the retrofitting geothermal wells to existing Natural Gas Plants
- Flue Gas separation, CO₂ captured and sequestered
- Net Present Value of \$207M

References

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TERRA INDUSTRIA







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	Operational Life	25-years* *Typical reservoir lifetime I expected to be 50-years, however, due to the novelty of the design a conservative estimate of 25-years is used
	Payback Period	15-years
	Net Present Value	\$207M
	Fixed Capital Investment	\$477M
	Annual Operating Cost	\$20.9M
- 00	Annual Revenue	\$35.3M

	Governing Body	Description
	Government of Alberta ^[1]	Aimed at governing the safe and responsible development of geothermal plants in Alberta. ^[1]
	Government of Alberta ^[1]	Governs new wells production and developments in Alberta. ^[1]
ent	Alberta Energy Regulator ^[1]	Regulate licensing involved with geothermal development in Alberta. ^[1]
1]	Alberta Energy Regulator ^[1]	Looks at procedures and schedules based on the intended use, depth, and other factors of the geothermal cycle. ^[1]
	Alberta Energy Regulator ^[1]	Looks at liability and risks that need to be taken into consideration for any new projects especially geothermal. ^[1]

