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CTR Environmental and Community Fact Sheet

Additional submitted attachment is included below.

Environmental & Community Fact Sheet



CONTROLLED
THERMAL
RESOURCES

Imperial Valley, CA
2022



The power of California's Lithium Valley

CTR's Hell's Kitchen Lithium and Power project is situated within heart of the largest known geothermal resource in the world. The Salton Sea Geothermal Field in Imperial Valley, California represents a proven and defined geothermal power and mineralized brine resource.

Utilizing sustainable technologies to produce lithium from geothermal brines, this immense resource can now be fully realized.

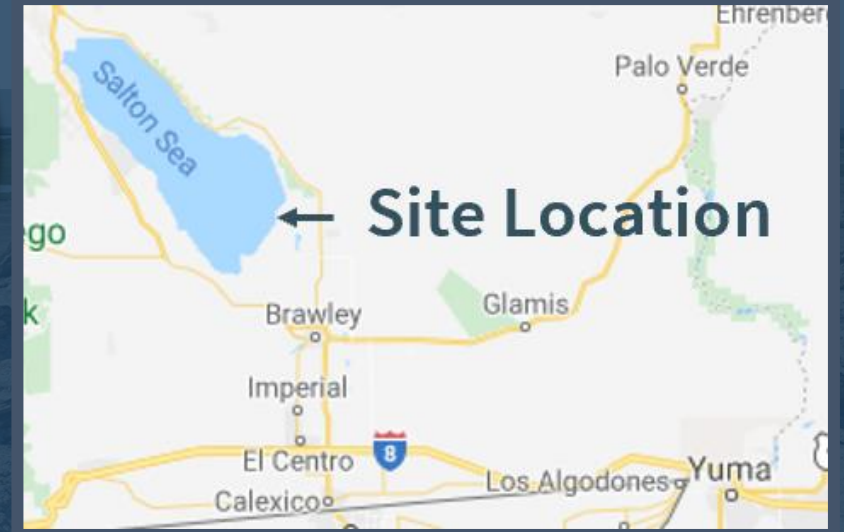
Geothermal operations have operated in this field for 40 years

Key Facts

Salton Sea Geothermal Resource Power:
~3,000MW

1 MW can power up to 1,000 homes with clean 24/7 electricity

Salton Sea Geothermal Resource Lithium:
~600,000 tonnes per year*



*NREL Report 2021 - [Techno-Economic Analysis of Lithium Extraction from Geothermal Brines](#). LCE – Lithium Carbonate Equivalent

Creating Jobs and Economic Growth

PROJECT JOBS

A total of **1,880 jobs**:

- **1,400** full time project jobs
- **480** ongoing union construction jobs through to project completion

ANCILLARY JOBS*

Over **2,400 ancillary jobs**:

- **581** direct jobs
- **109** indirect jobs
- **1,715** induced jobs projected at full operating capacity

Hell's Kitchen Direct Project Jobs

Stage 1
220

Stage 2
939

Stage 3
1,400

TOTAL PROJECT & ANCILLARY JOBS AT FULL OPERATING CAPACITY: 4,000+

4,000+
Jobs for
Imperial
Valley

95%+
Workforce
Local to
Imperial
Valley



What will CTR's Stage 1 look like?

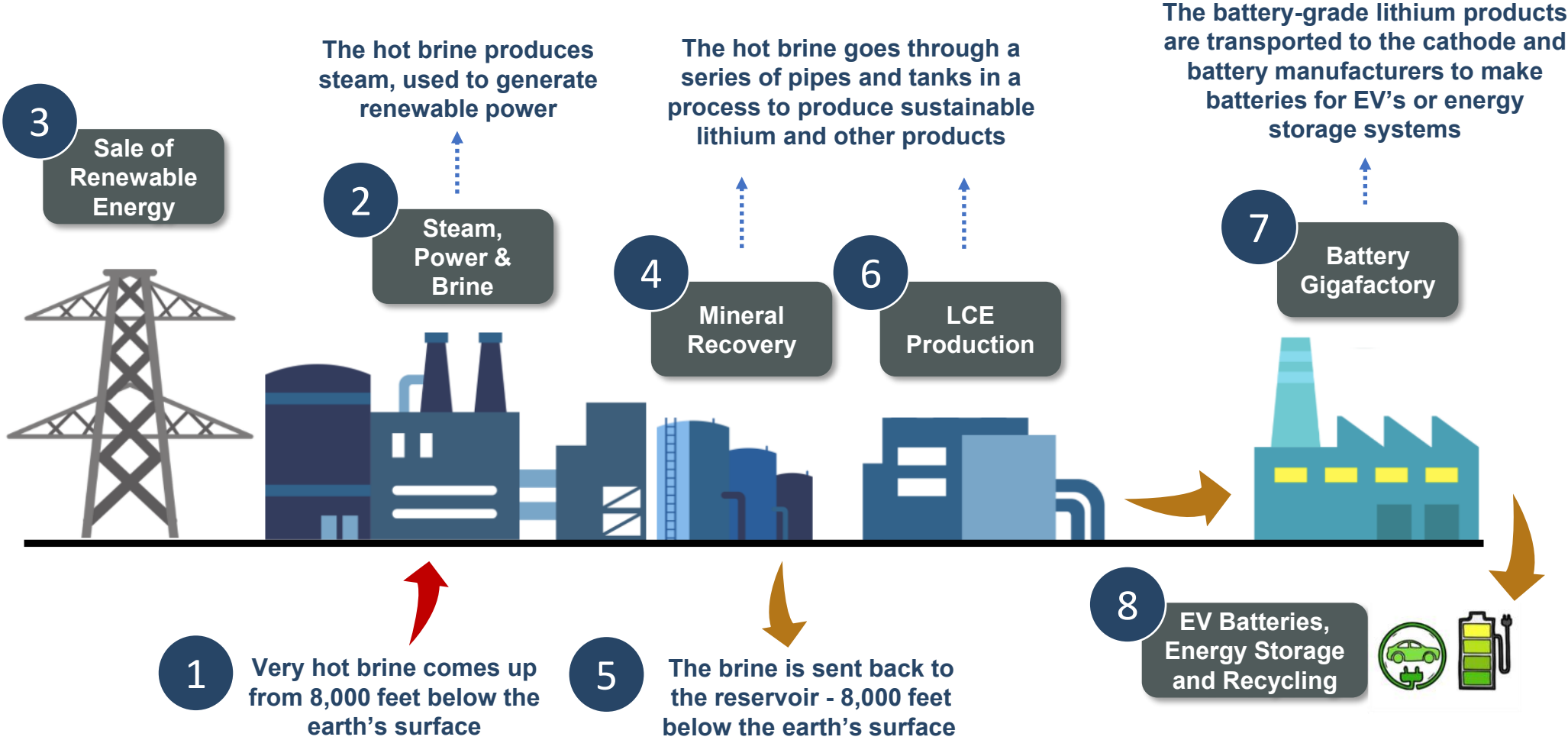
Artist impression of our first 49.9-megawatt power plant and 20,000 tonne lithium facility.

The size of this development is expected to be less than 50 acres.

[VIEW ANIMATED VIDEO HERE](#)



How does lithium production from geothermal work?



No open pit mines or evaporation ponds at the Salton Sea!



- CTR's facilities have no connection to the Salton Sea, nor does lithium production.
- CTR's Stage 1 development is located 1.5 miles from the Salton Sea shoreline.
- The Salton Sea does not need to shrink any further to recover lithium (as it comes from deep underground).
- We do not take water from the sea and our operations are not connected to the sea. The Salton Sea is a geographical reference point only.
- There are no production 'tailings' (like rock ore, clay or hazardous materials) that need to be removed from the site or put into landfill.
- There are no evaporation ponds used.
- There is no open pit mining.
- The roads connecting our project to Highway 111 will be designed to minimize dust.
- The project is approximately 4 miles from the township of Niland.

Environmental and Community 20 Point Checklist

1. Aesthetics/View lines

- a. The Project is improving an environmental disaster area into managed land to help with onsite dust abatement.
- b. There are no residences with a view of the site and there is no viewshed from a designated scenic highway.

2. Agriculture and Forestry Resources

- a. The Project is not converting existing farmland into non-agricultural uses.

3. Air Quality

- a. The Project will be operating within the same parameters as existing geothermal plants that have been operating for over 30 years.
- b. The Project will receive an Air Permit in accordance with all rules and regulations required from the Imperial County Air Pollution Control District.
- c. The lithium facility is a closed-loop system which produces near-zero offsite emissions (e.g., minimal to no waste streams).

Environmental and Community 20 Point Checklist

4. Biological Resources

- a. The Project will create improvements through land development and dust abatement, in an area the California state has designated as “high emissive soils with a negative impact on the environment”.
- b. A minor portion of the Project site (~100 acres out of ~7,200 acres) are existing degraded areas and CTR intend to build facilities on these degraded land areas.

5. Cultural Resources

- a. There are no existing buildings or historic resources onsite.
- b. A Cultural Resources Technical Study will be conducted to identify any archaeological resources.

6. Energy Use

- a. The Project will run with renewable, baseload (24/7) energy.
- b. The Project will help the California state meet its Renewable Portfolio Standard goals by 2030.

Environmental and Community 20 Point Checklist

7. Geology / Seismic Activity / Soils

- a. The Project will create an improved environment through dust abatement.
- b. The project does not create any waste or water streams that would affect soil health.
- c. The current soil health in the project area is highly degraded.
- d. The region is prone to seismic activity given the nature of the geology. It is important to note that no major earthquakes have been attributed to geothermal production in the 38+ years of operations. A new report also suggests geothermal operations can in fact, lessen major earthquake activity in a region. You can read more about this [HERE](#)

8. Greenhouse Gas Emissions

- a. The Project will help the State meet its Clean Energy goals by 2030.
- b. The Project includes renewable energy generation and lithium production in a closed-loop system. Geothermal power generates minimal to insignificant greenhouse gas emissions approximately ten times less than a natural gas plant.

9. Hazards & Hazardous Materials

- a. The Project does not generate hazardous waste.
- b. The Project does not a landfill for process waste disposal.

Environmental and Community 20 Point Checklist

10. Hydrology / Water Quality

- a. The Project does not use evaporation ponds, leach ponds, open pit mines, waste tailing piles or tailing ponds.
- b. CTR is investigating ways to capture any unusable, degraded water and recycle it.

11. Land Use / Planning

- a. The Project's land use and planning permits will be registered with Imperial County (e.g., Conditional Use Permit).
- b. All planning and land use will adhere to the laws and regulations governing operations in the area.

12. Mineral Resources

- a. The Project will produce products with elements listed on the U.S. Critical Minerals List and is considered critical to U.S. national security.
- b. This sustainably produced lithium will assist in the global transition to electric vehicles which is essential to curb global carbon emissions.

13. Noise

- a. Noise generated from this Project will meet or be less than all federal and state requirements.
- b. There are no sensitive receptors near the Project site.

Environmental and Community 20 Point Checklist

14. Population / Jobs / Housing

- a. CTR expects to create approximately 220 direct jobs in Stage 1; 940 direct jobs in Stage 2; and an estimated total of 1,400 direct jobs at full project capacity in a California disadvantaged community.
- b. The Project is creating jobs with an average salary that is almost twice the current average salary in the community. (Source: www.ivedc.com)
- c. There are enough unemployed, and willing people in the region to meet the job increase demand of the overall project development.
- d. Over 95% of all jobs will be sourced from Imperial County.
- e. There are Imperial County plans to develop affordable and sustainably built housing in the county to meet further population growth. CTR is collaborating with the local counties, cities, non-profit organizations, and builders to assist in these efforts.

- f. CTR is working with Imperial County and various education providers to support education development in high school, college, and university programs as well as recruitment and on-the-job training programs.

15. Public Services

- a. The Project will not be a drain on existing service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.
- b. The Project team is working with County officials to facilitate and support any additional needs for emergency management as a result of this project development.

Environmental and Community 20 Point Checklist

16. Recreation

- a. The Project area is not designated as an active recreation area.
- b. The Project will enhance future recreation because it will help to mitigate the dust that prevents the public from enjoying open space.

17. Transportation

- a. The Project will not conflict with local transit, roadway, bicycle and pedestrian facilities.
- b. Any necessary roadway improvements as a result of this project development will be made based on the results of the appropriate traffic studies.

18. Tribal Cultural Resources

- a. Tribal consultation is ongoing and will continue including the completion of a Cultural Resources study as part of the permitting process.
- b. Preliminary consultation with the Tribes to date indicates that there are no Tribal Cultural Resources on the project site.

- c. CTR welcomes ongoing collaboration with Tribal representatives appointed to the Lithium Valley Commission, as well as planning for further site visits and discussions on activities relating to Tribal needs, workforce training and other community initiatives.

19. Utilities / Service Systems

- a. The Project will purchase water and power from Imperial Irrigation District (IID)
- b. The Project will sell power to the Imperial Irrigation District (IID) connecting to the grid at an existing interconnect point.

20. Wildfire

- a. The Project is not located in an urban-wildlife interface that would subject people to wildfire dangers.
- b. The Project includes land management of exposed dry lakebed (playa).

How will new development help with ongoing Salton Sea environmental issues?

The residents and communities around the Salton Sea – especially at the North End, have suffered the ongoing negative effects of the shrinking Salton Sea for many years.

While geothermal power production is not responsible for these dust emissions, finding solutions is still a high priority for the community and our company will do its part to decrease dust emissions on our lease area.

The state and local governments are supportive of geothermal and lithium development in this area as it could:

- Help reduce dust from the exposed lakebed playa as part of the development.
- Bring additional economic prosperity and investment to the region to fight this ongoing problem through avenues such as property tax.
- Shine a spotlight on the Salton Sea and Imperial County to attract more support and attention to the current environmental issues affecting the community.
- Support government in their community initiatives and Salton Sea environmental programs to address the dust issue.



What kind of economic benefits will there be for the community?



- Current economic modeling from Imperial County suggests that the County could double its current property tax income over the next 8 years.
- The Imperial Valley geothermal industry is the single largest property taxpayer and private employer. Localization of U.S. lithium production and its ancillary uses could triple that work force and subsequent property taxes.
- CTR, in support of Imperial County, has undertaken a housing initiative in concert with the project development. We aim to work with local builders and municipalities to develop quality, affordable homes in the community, for the betterment of the community.

What kind of economic benefits will there be for the community?



Attracting elements of the auto supply chain to the region, instead of China, a much larger economic base could be created here in the Valley.

According to the Imperial Valley Economic Development Corporation's (IVEDC) Economic Impact Assessment:

- ✓ “For every \$1 spent on payroll, CTR’s project is estimated to generate an additional \$1.23 for the community in local taxes and earnings, which would more than double the initial local investment.”
- ✓ “The creation of 1,400 jobs will result in an estimated \$161.4 million in initial earnings and an additional \$197.9 million in local taxes and ancillary job earnings.”
- ✓ “Controlled Thermal Resources Hell’s Kitchen Lithium and Power Project can have a significant economic impact in our region with an estimated local impact of 4,285 jobs and \$359.3 million in overall earnings and taxes generated for the community.”

Source: IVEDC: Controlled Thermal Resources Hell’s Kitchen Lithium and Power Project - Economic Impact Analysis

What jobs will be created?



- CTR expects to create many direct and indirect good paying jobs in Imperial County.
- Construction: 480 ongoing jobs over 8 years or until all project stages are complete.
 - Stage 1 - 220 direct jobs
 - Stage 2 – 940 direct jobs
 - Stage 3 – up to 1,400 direct jobs upon completion of all 3 project stages
- The average wages are expected to be almost double that of the current median wage in Imperial County.
- Over 95% of these jobs will be filled by residents of Imperial County.
- It is also estimated by IVEDC that CTR's project will create 2,500 ancillary jobs in the region. So that's more hairdressers, teachers, bakers, retail and hospitality jobs to mention a few.

What kind of education and training is planned?



Education

- Over 90% of these jobs will go to residents with a high school diploma or equivalent.
- A smaller percentage will require community college diplomas or university degrees.
- This project will create equal opportunities for all levels of education and skill sets.
- CTR is working closely with the County's Workforce Development team, the local high schools, Imperial College and SDSU to assist in providing information to support STEM programs and other education programs.

Training

- CTR is working closely with Imperial County and education providers now to establish what types of jobs and education requirements are needed.
- CTR will also work closely with local high schools to create 'from-school-to-job' employment opportunities.
- Once employed, CTR intend to provide on-the-job training programs, including apprenticeship programs and mature-aged training programs.
- It is CTR's hope that we will create a safe and exciting environment for this generation and the next generations to learn and grow and thrive.
- The majority of the direct jobs will be operators and maintenance personnel, plus engineers, accountants, chemists, laboratory technicians, and other office personnel.

Project timing



- CTR expects to deliver the first 49.9MW of clean power by late 2023 and its first 20,000 tonne lithium train in 2024.
- U.S. and global automakers have all committed to selling electric vehicles much earlier than anyone expected.
- The auto companies now need hundreds of thousands of tonnes more lithium than is currently produced, and they need it by 2024/25.
- A recent report from the [National Renewable Energy Lab](#) suggests that the Salton Sea Geothermal resource could produce up to perhaps 600,000 tonnes of lithium every year in a sustainable and responsible way. In addition to the community benefits, this immense resource could help reduce carbon emissions and quite literally, help save the planet!
- The time to take advantage of this once-in-a-generation opportunity is now.



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