

DOCKETED

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Black Rock, Elmore North and Morton Bay Geothermal Projects California Energy Commission Informational Hearing

August 31, 2023



LAND ACKNOWLEDGMENT



We acknowledge the traditional homelands of the Indigenous people of California's Imperial Valley. The Kwaaymii, Cahuilla, and Quechan Tribes inhabit lands in this region. We honor them as America's First Peoples along with their past, present, and future. We honor with gratitude the land itself and the people who have stewarded it throughout the generations.

ABOUT BHE RENEWABLES



A Leader In Clean Sustainable Energy

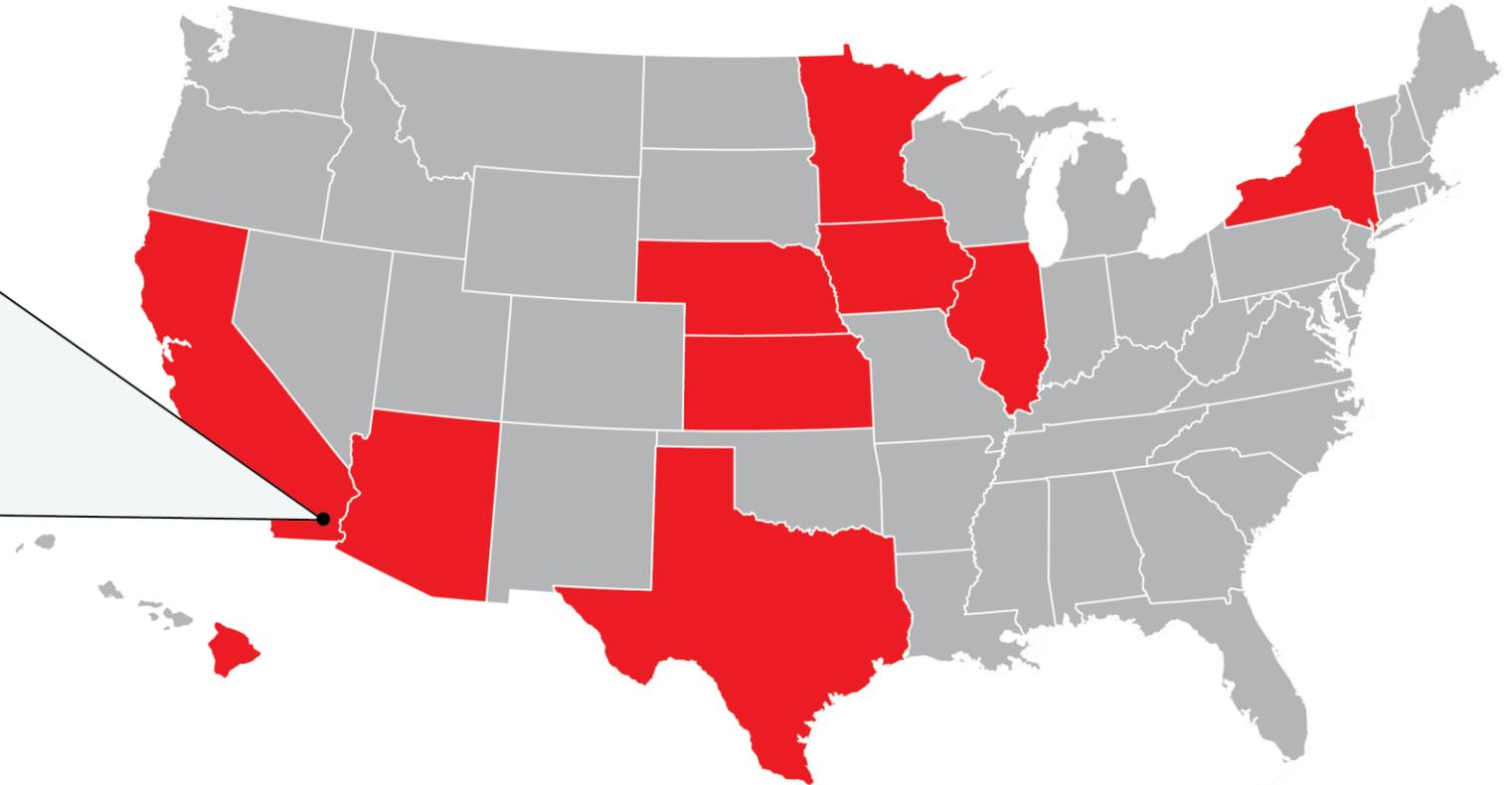
CalEnergy

CalEnergy is a wholly owned subsidiary of BHE Renewables that produces geothermal energy in Calipatria, California

10 power plants

345 MW capacity

230 employees



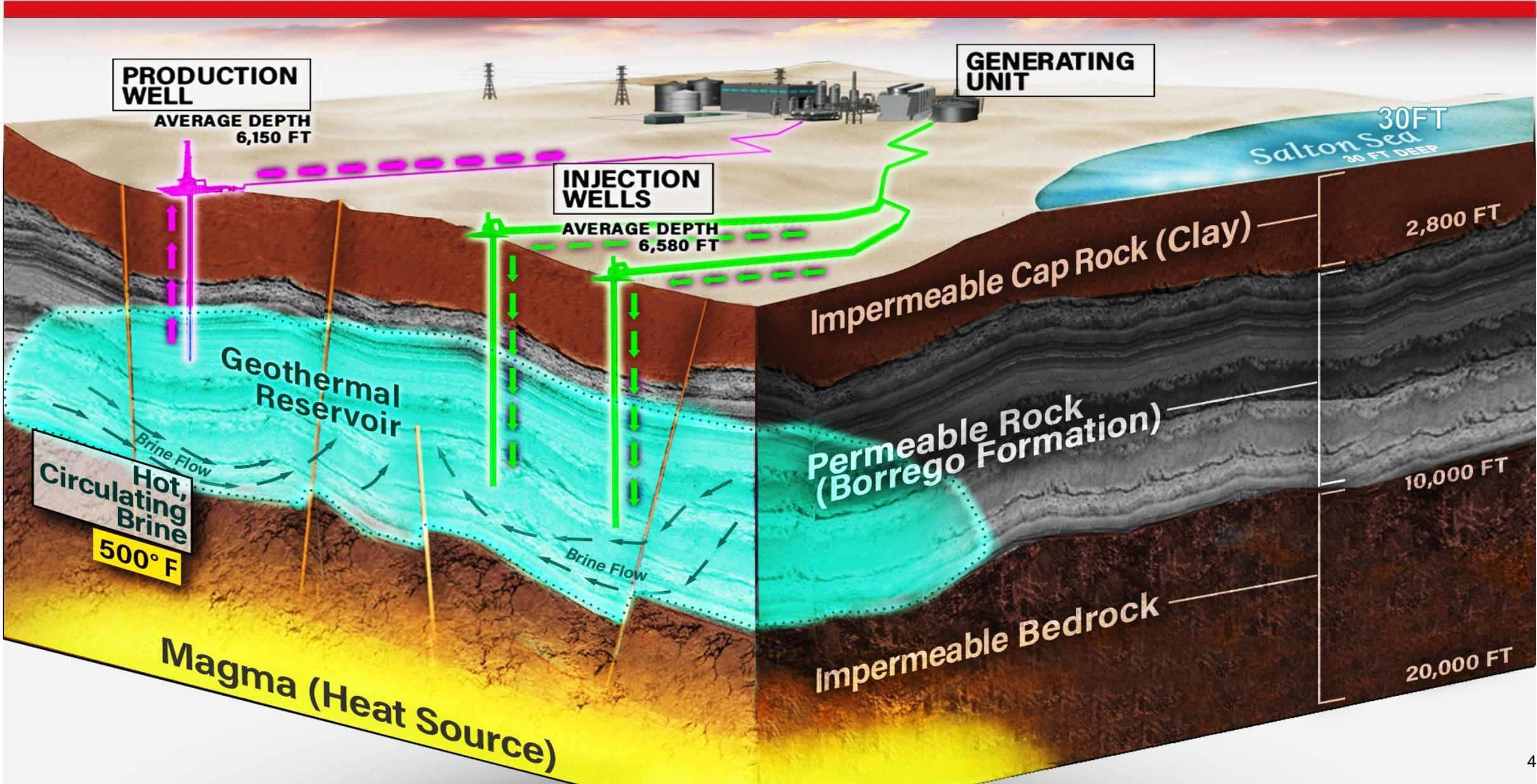
Wind: 2,307 MW

Solar: 1,536 MW

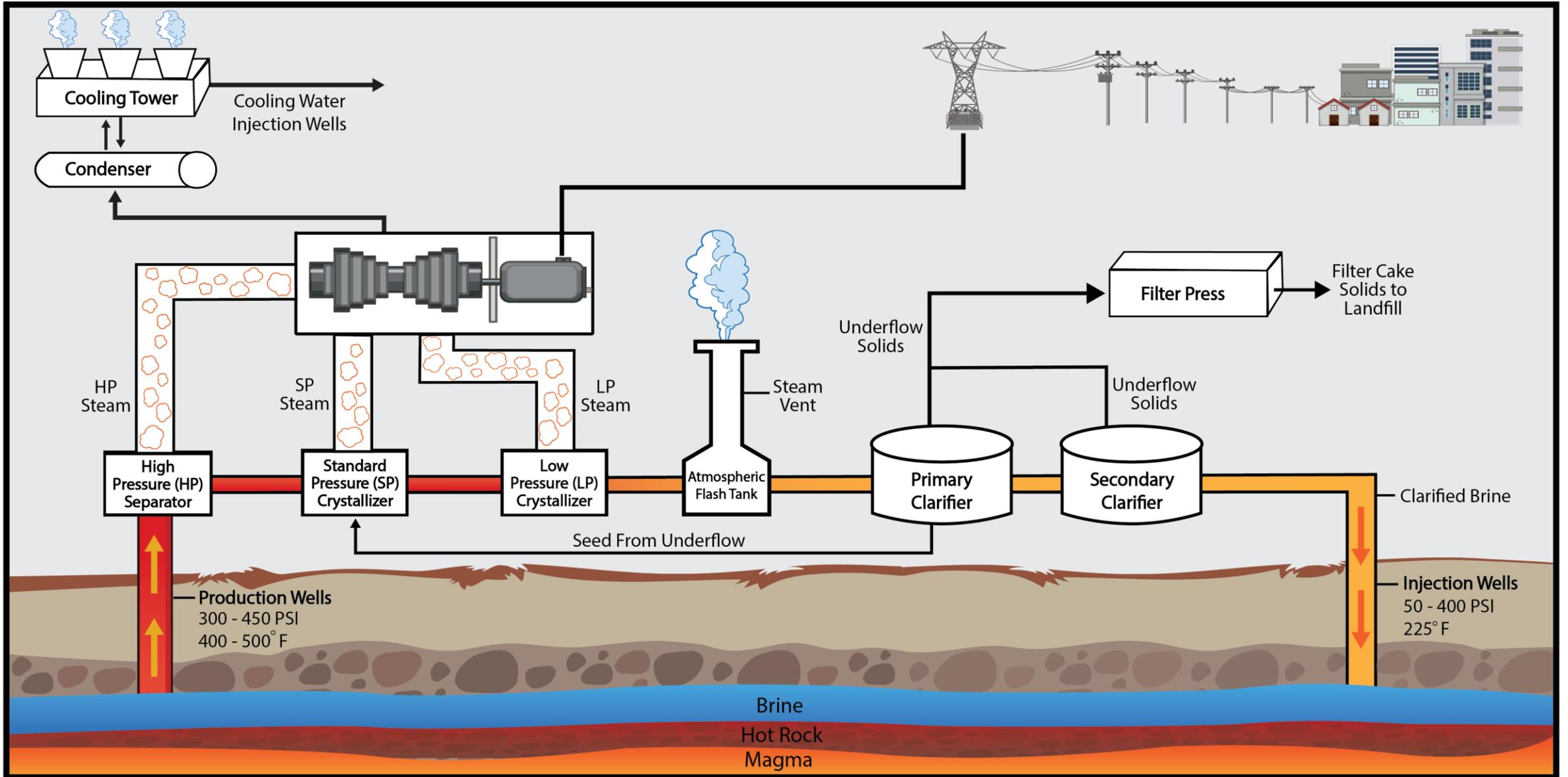
Hydro: 10 MW

BHE Renewables has a combined generation capacity of 5,168 MW across 10 states

GEOHERMAL RESOURCE



GEOHERMAL POWER PRODUCTION PROCESS



GEOHERMAL WATER USAGE



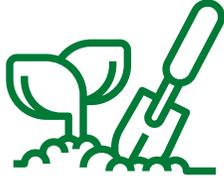
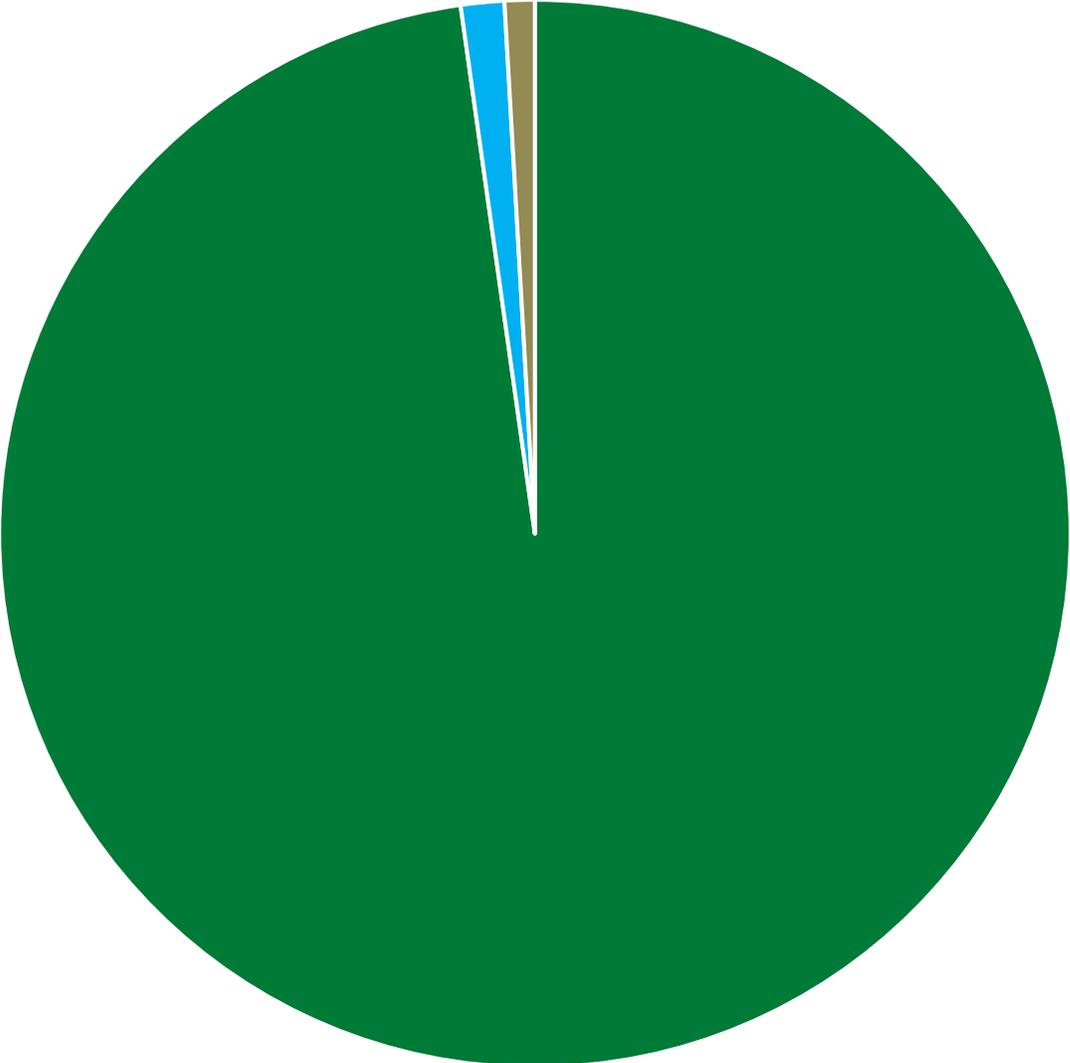
How We Use Water

- Used to keep salts and other minerals dissolved in the brine
- Ensures the resource remains sustainable and renewable
- We continue to evaluate new technologies and processes to reduce and recycle water as much as possible

Proposed Projects

Operational Water Usage	Acre-Feet Annually
Black Rock	1,125
Morton Bay	5,560
Elmore North	6,480
Total	13,165

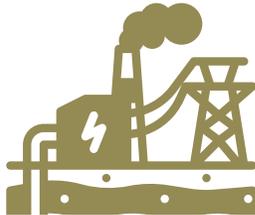
IID WATER ALLOCATION IN 2022 – 2,500,878 ACRE-FEET



~97.8% Agriculture



~1.3% Drinking Water

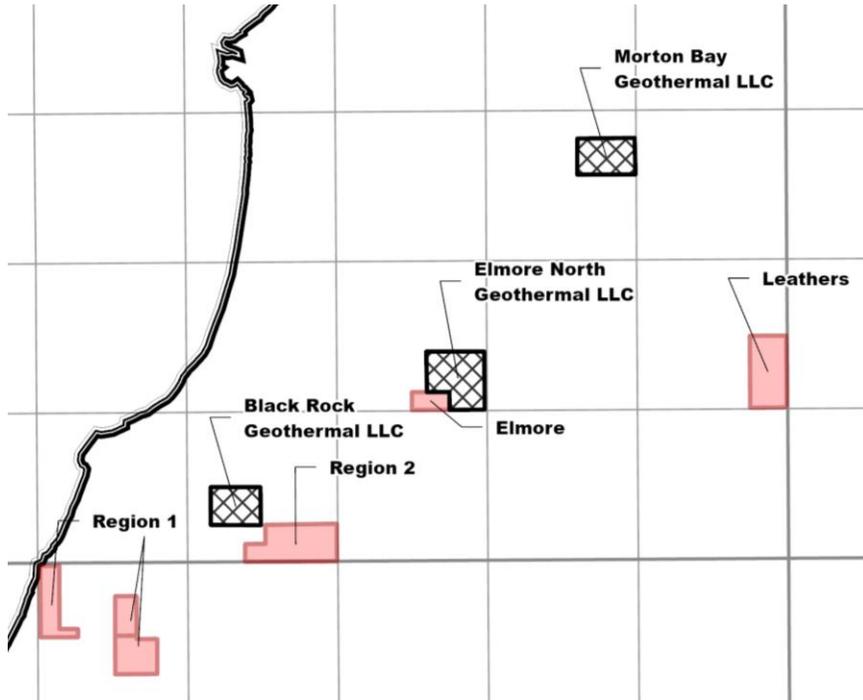


**~0.9% Industrial/
Commercial**



**~0.5% Proposed geothermal
Projects water use based
on 2022 allocations**

GEOHERMAL DEVELOPMENT SUMMARY



Facilities	Black Rock	Morton Bay	Elmore North
Geothermal Wells	12	20	20
Gross Generation (MW)	87	157	157

Geothermal Development Projects (401 MW)

Resource Adequacy: California determined projects have adequate geothermal resources to support designed output

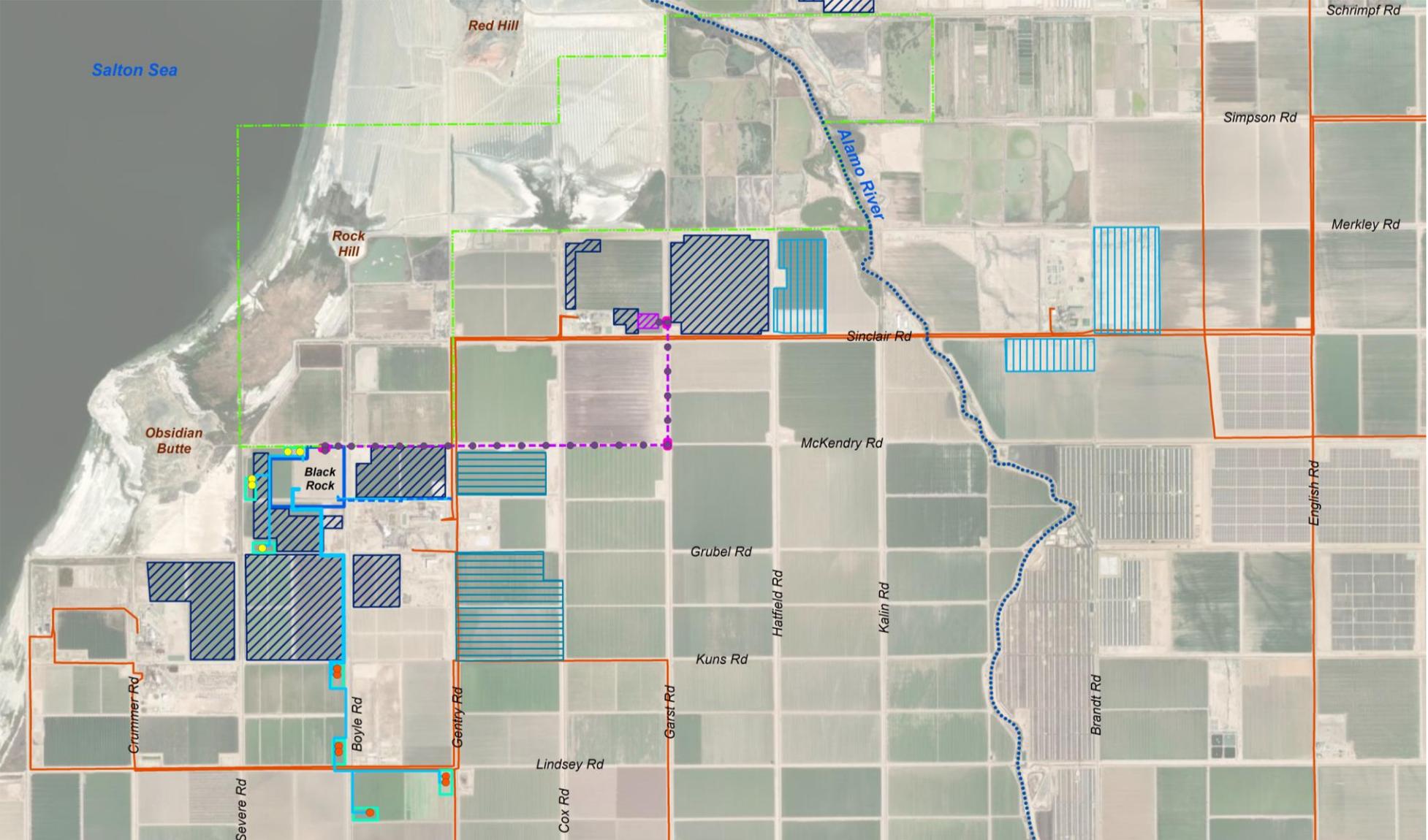
Transmission: Less than 6 miles for Projects generation interconnection lines

Construction Labor: Anticipate use of and support by union labor

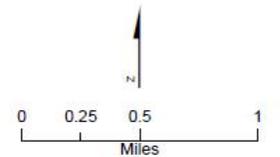
Commercial Operations Date: 2026 – 2028

Geothermal Expansion: Approximately 200 new jobs

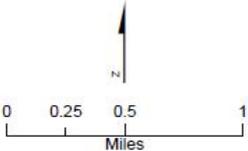
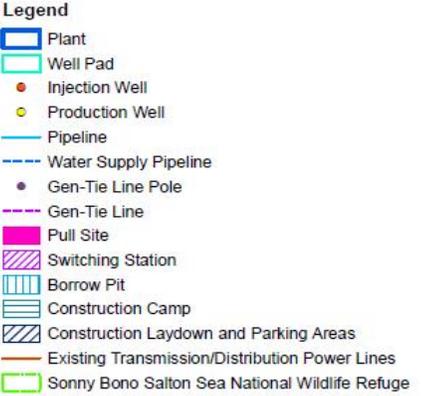
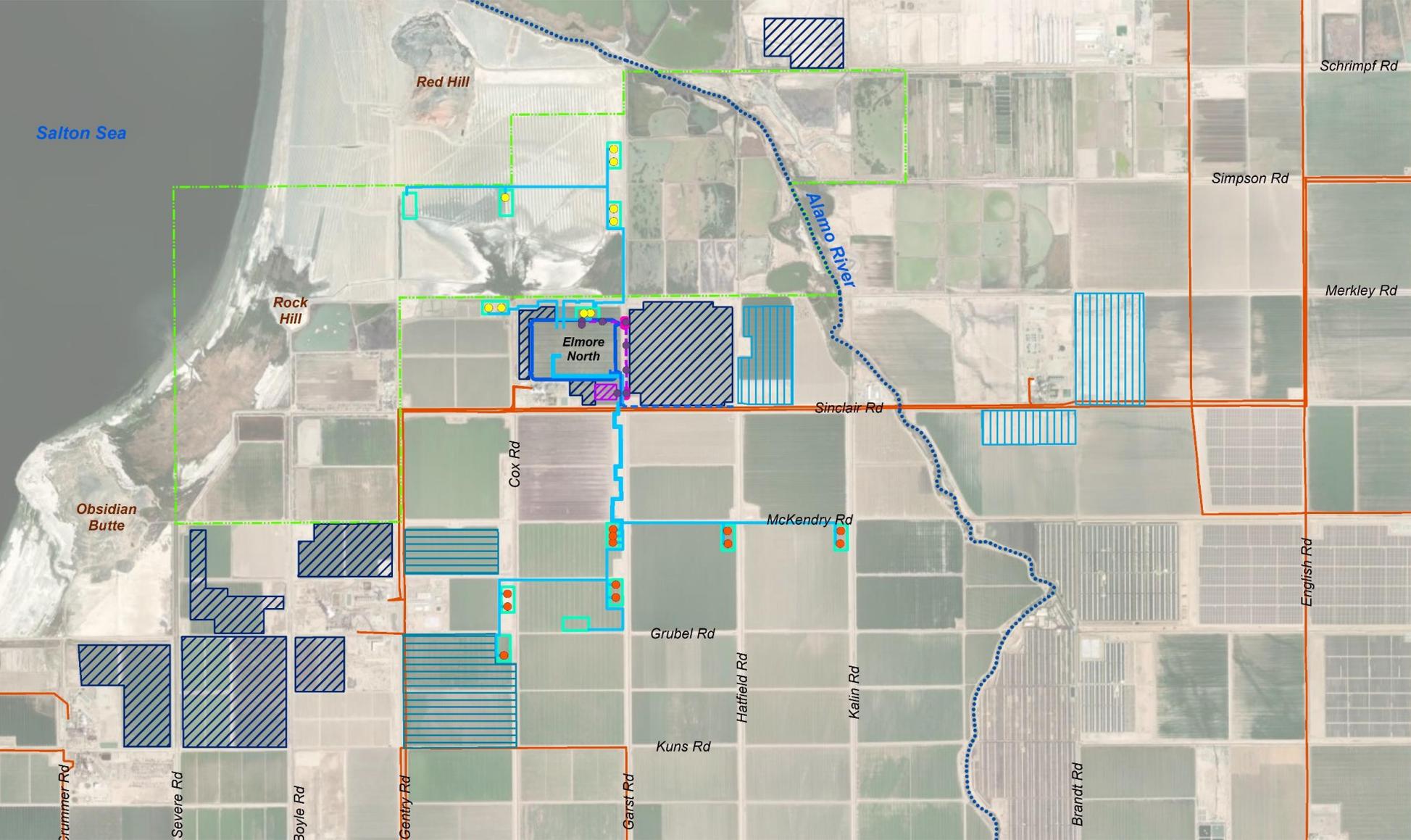
BLACK ROCK GEOTHERMAL PROJECT



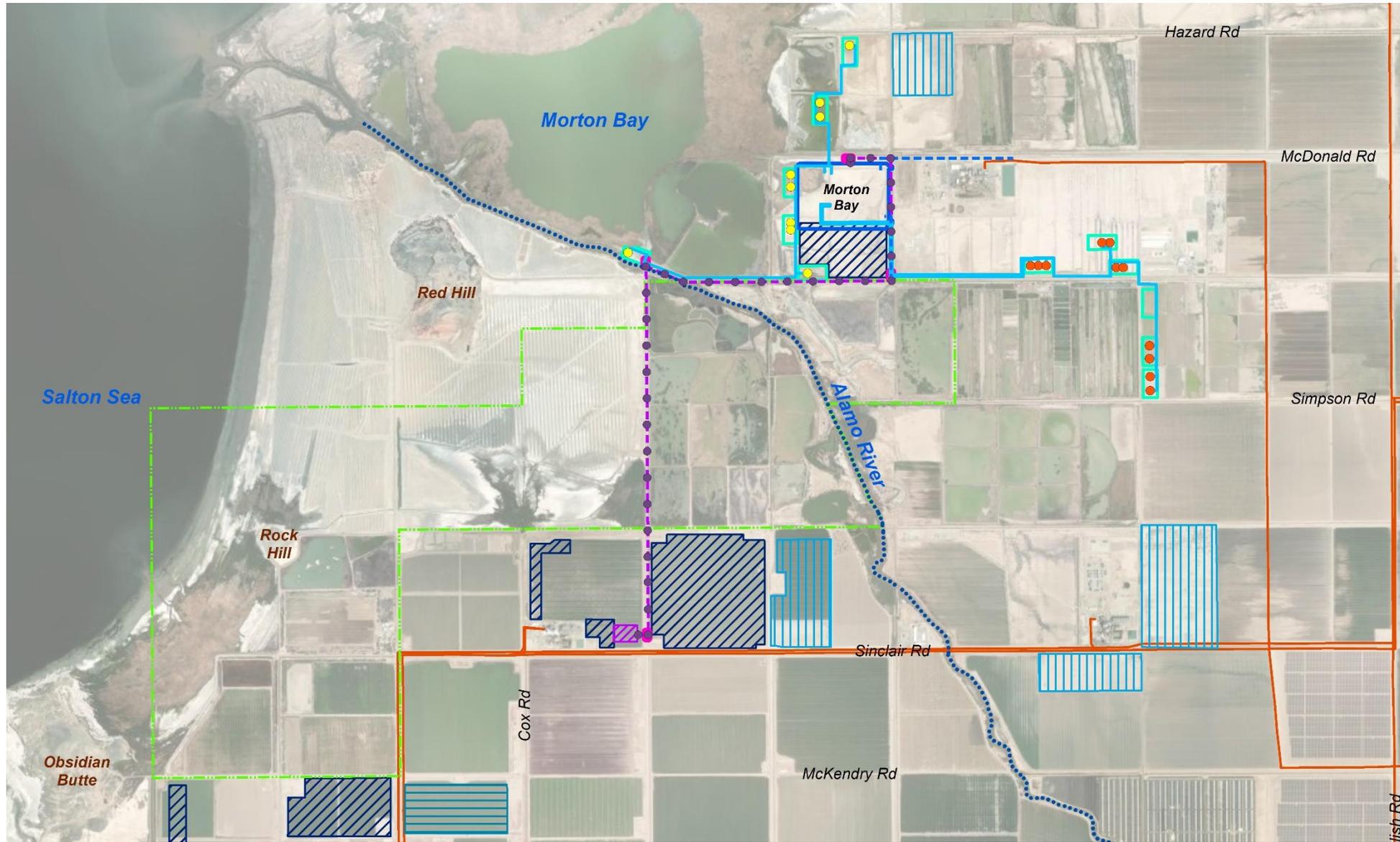
- Legend**
- Plant
 - Well Pad
 - Injection Well
 - Production Well
 - Pipeline
 - Water Supply Pipeline
 - Gen-Tie Line Pole
 - Gen-Tie Line
 - Pull Site
 - Switching Station
 - Borrow Pit
 - Construction Camp
 - Construction Laydown and Parking Areas
 - Existing Transmission/Distribution Power Lines
 - Sonny Bono Salton Sea National Wildlife Refuge



ELMORE NORTH GEOTHERMAL PROJECT

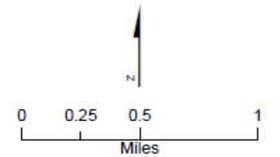


MORTON BAY GEOTHERMAL PROJECT



Legend

- Plant
- Well Pad
- Injection Well
- Production Well
- Pipeline
- Water Supply Pipeline
- Gen-Tie Line Pole
- Gen-Tie Line
- Pull Site
- Switching Station
- Borrow Pit
- Construction Camp
- Construction Laydown and Parking Areas
- Existing Transmission/Distribution Power Lines
- Sonny Bono Salton Sea National Wildlife Refuge

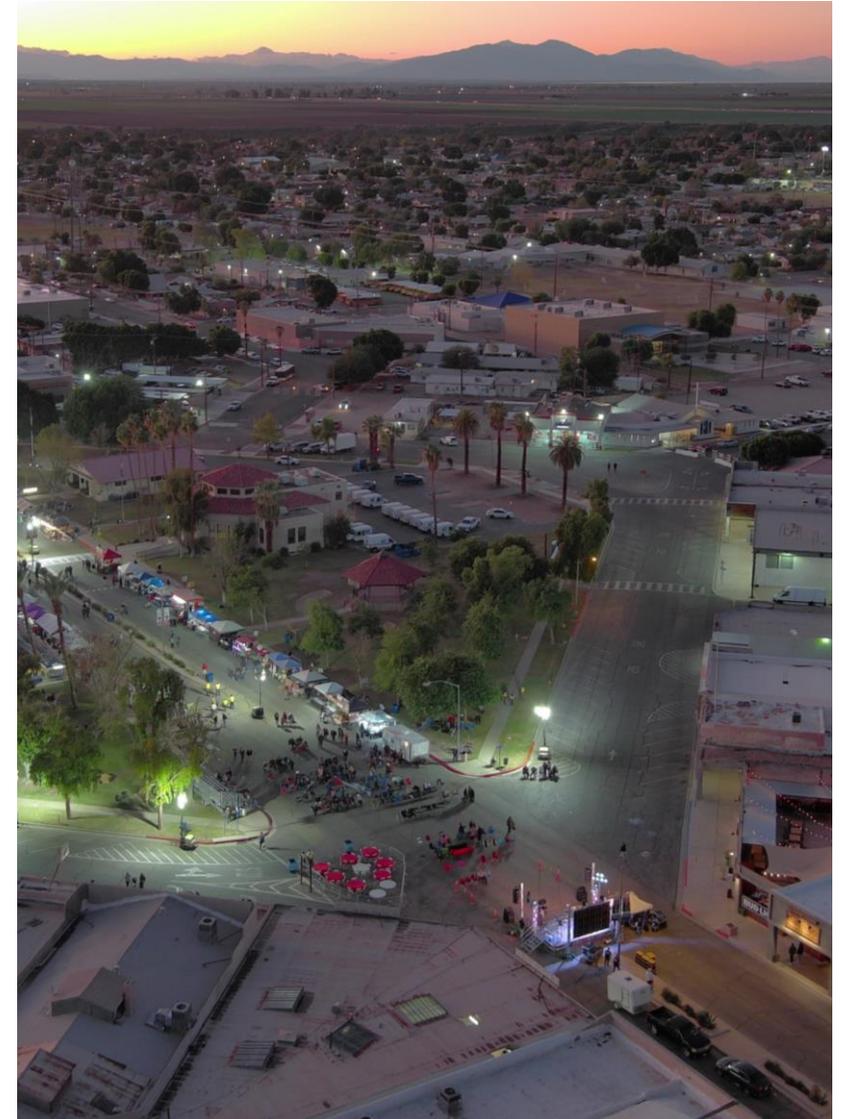


ECONOMIC BENEFITS OF PROPOSED PROJECTS



Projected Construction Taxes	Black Rock	Elmore North	Morton Bay
Sales and Use Taxes	\$25m	\$40m	\$41m
Imperial County allocation	\$4m	\$6.5m	\$6.6m
Annual Operating Taxes			
Sales and Use Tax	\$891k	\$16m	\$16m
Imperial County allocation	\$201k	\$368k	\$368k
Property Taxes	\$5.9m	\$9.4m	\$9.4m

- Imperial County spends approximately 80% of tax revenue on police and fire, health and sanitation and public assistance to support the community
- **Proposed Projects will power 265,000 homes**
- **Support local businesses**
- **More jobs per MW than other forms of generation**



WORKFORCE DEVELOPMENT

- Supporting development of regional workforce development programs, including Imperial Valley College's one-year certification and training programs for lab technicians, instrument technicians and plant operators
- Our goal is to primarily hire local residents of Imperial County and members of tribal nations

Imperial Valley Employment

New Geothermal Projects	Total Employment
Temporary Construction	~1,600 (combined peak monthly)
Permanent BHER Operations	~200 (full-time staff)

- Opportunities for local contracting such as drilling and well maintenance, cleaning and seasonal outage support



COMMUNITY ENGAGEMENT



Committed to Being a Good Neighbor

- Over 2022 - 2023, BHE Renewables' and BHE Foundation's charitable investments and commitments in Imperial Valley to increase opportunities and quality of life in the region total over \$775k
- 2023 - employees and family members have volunteered over 300 hours
- MLK Day – three Little League fields
- Earth Day – planted a garden for WomanHaven

Economic Impact

- \$86.5 million paid in property taxes to Imperial County since 2008

Supporting Education

- BHE Renewables is an active partner with schools K-College and regularly participates in career days and classroom supply drives

Collaborating with Business

- BHE Renewables is engaged as a board member with many economic entities in the region including: Coalition for Labor, Agriculture, and Business, Imperial Valley Regional Chamber, Imperial Valley Economic Development Corporation, and Imperial County Workforce Development Board

2022 – 2023 ORGANIZATIONS SUPPORTED IN IMPERIAL COUNTY



- 45th District Ag Association
- American Legion Auxiliary Unit 135
- American Legion Post 60
- Amigos de Alejandro, Inc.
- Boys & Girls Club of Imperial Valley
- Brandt Company
- Brawley American Citizens Club
- Brawley ASB/BUHS Boy's Golf
- Brawley Cattle Call Rodeo Committee
- Brawley Chamber of Commerce
- Brawley Elks #1420
- Brawley Little League
- Brawley Union High School
- Brawley Wildcat Gridiron Club
- BUHS Football
- Burn Institute of Imperial Valley
- California Mid-Winter Fair & Fiesta
- Calipatria Chamber of Commerce
- Calipatria High School
- Calipatria Hornet Gridiron Club
- Calipatria Little League
- Calipatria PAL
- Calipatria Unified School District
- Calipatria School District Safety/Wellness Fair
- Cancer Resource Center of the Desert
- City of Brawley Dept. of Parks and Rec.
- Cody's Closet
- COLAB of Imperial County
- CHARLEE Family Care
- CUHS Robotics
- El Centro Chamber of Commerce
- El Centro Firefighters Association
- Elmer Sears Lettuce Tournament
- Forgotten Angels
- Fleet and Family Readiness – EC Navy Base
- Frankie L. Chavez Memorial Scholarship
- Friends of Meyer Memorial Library
- Forgotten Angels
- Geothermal Rising
- Holtville High School
- Humane Society of Imperial County
- Las Chabelas Restaurant – Bike Drive
- Los Amigos de la Comunidad
- Los Vigilantes
- Imperial County Farm Bureau
- Imperial County Office of Education
- Imperial School District
- Imperial Quarterback Club
- Imperial Valley-Opoly
- Imperial Valley 911 Stair Climb Committee
- Imperial Valley Cancer Support Center
- Imperial Valley College
- Imperial Valley Community Foundation
- Imperial Valley Economic Development
- Imperial Valley Expo - 45th D.A.A.
- Imperial Valley Food Bank
- Imperial Valley LGBT Resource Center
- Imperial Valley Press
- Imperial Valley Regional Chamber
- Imperial Valley Wellness Foundation
- IV Patriotic Planning Committee
- IV Regional Chamber Foundation
- MANA de Imperial Valley
- Meyer Memorial Library
- "NATE" Mata Memorial Scholarship
- National Child Safety Council
- Niland Food Pantry
- North County Coalition for the Arts
- North End Alliance 111
- Pioneers Memorial Hospital Foundation
- Ronald McDonald House
- Salton Sea Refuge
- Society of Hispanic Professional Engineer
- Soroptimist of El Centro
- Southwest High School
- Spears Hawaiian Shaved Ice
- Sport's Boosters Inc
- Spread the Love Charity
- Sure Helpline Crisis Center
- The Living Desert
- United Way of Imperial County
- Westmorland Food Pantry
- Wing USA
- Woman Haven

BECAUSE WE CARE



