DOCKETED						
Docket Number:	23-AFC-03					
Project Title:	Black Rock Geothermal Project (BRGP)					
TN #:	TN #: 253620					
Document Title:	Data Response Set 2 (Revised Responses to Data Requests 4 and 5)					
Description:	N/A					
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Submitter Role:	Applicant Consultant					
Submission Date:	12/14/2023 2:03:03 PM					
Docketed Date:	12/14/2023					

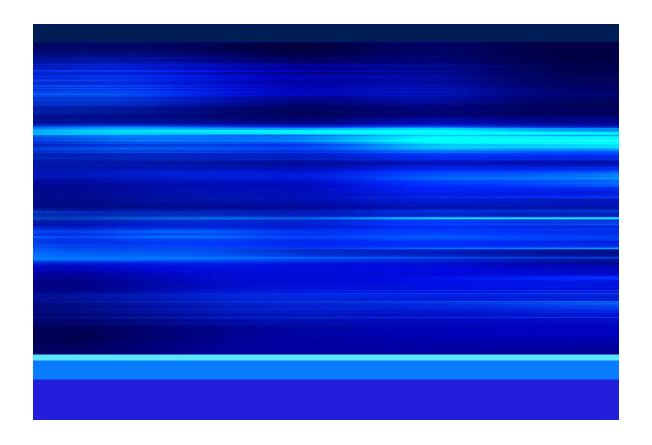
Data Response Set 2 (Revised Responses to Data Requests 4 and 5)

Submitted to California Energy Commission

Prepared by Black Rock Geothermal LLC

With assistance from **Jacobs**

Black Rock Geothermal Project (23-AFC-03) December 13, 2023



Introduction

Attached are Black Rock Geothermal LLC's¹ (Applicant) responses to the California Energy Commission (CEC) Staff's *Data Requests Set 2* regarding the Application for Certification (AFC) for the Black Rock Geothermal Project (BRGP) (23-AFC-01). This submittal includes revised responses to Data Requests 4 and 5.

The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as presented *Data Requests Set 2* and are keyed to the Data Request numbers.

New or revised graphics or tables are numbered in reference to the Data Request number. For example, the first table used in response to Data Request 28 would be numbered Table DRR 28-1. The first figure used in response to Data Request 28 would be Figure DRR 28-1, and so on. Figures or tables from the BRGP AFC that have been revised have a "R" following the original number, indicating a revision.

Additional tables, figures, or documents submitted in response to a data request (for example, supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of each discipline-specific section and are not sequentially page numbered consistently with the remainder of the document, though they may have their own internal page numbering system.

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¹ An indirect, wholly owned subsidiary of BHE Renewables, LLC ("BHER").

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2. Land Use (DR 4-5)

Background: Agricultural Land Uses (DR 4-5)

The application states in Section 5.4.1.1 that the project site is an active agricultural site currently planted with Bermuda Grass crop. Section 5.11.1.4.1 states that the Black Rock Geothermal Project (BRGP) site, adjacent production and injection well pads, associated pipelines, the IID switching station, gen-tie line, borrow pits, laydown areas, and construction camps are in, or traverse through, areas designated as Prime Farmland, Farmland of Statewide Importance, or Farmland of Local Importance. Disturbance at the construction work areas, including laydown yards, construction camps, and borrow sites would be temporary, as these sites would be restored to pre- construction conditions or conditions specified by the landowner after construction. However, the application states that there would also be permanent disturbance of farmland, including a total of: 56.36 acres of Prime Farmland; 65.65 acres of Farmland of Statewide Importance; and 2.28 acres of Farmland of Local Importance. This includes permanent disturbance directly from the BRGP and from facilities shared by all three geothermal projects, including the IID switching station.

Data Requests:

4. Please describe current land uses at the sites that would be permanently converted from Prime Farmland, Farmland of Statewide Importance, or Farmland of Local Importance If currently or recently used for agriculture, please discuss the crops currently and/or recently farmed.

Response: Several parcels that will be used for Project facilities such as the geothermal plant, well pads, pipelines, switching station, water pipelines, and gen-tie lines are currently farmed and located on Prime Farmland or Farmland of Statewide Importance. As discussed in Data Request Response Set 2, docketed on 10/27/23 (TN# 252807), a request was made to the Imperial County Agricultural Commissioner for a list of crops currently and historically farmed within the past five years at these locations. Table DRR-4, BRGP Permanent Project Use – Farmland Crops for the BRGP provides the information received from the County.

5. Please describe current land uses at the sites where Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance would be temporarily disturbed. If currently or recently used for agriculture, please discuss the crops currently and/or recently farmed.

Response: Several parcels that will be used for construction laydown, construction camps, and parking areas are currently farmed and located on Prime Farmland or Farmland of Statewide Importance. As discussed in Data Request Response Set 2, docketed on 10/27/23 (TN# 252807), a request was made to the Imperial County Agricultural Commissioner for a list of crops currently and historically farmed within the past five years at these locations. Table DRR-5 Temporary Project Use – Farmland Crops for the BRGP provides the information received from the County.

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Table DRR-4 Permanent Project Use - Farmland Crops for the BRGP

						Permanent Uses ¹						Crops				
Location	APN	Township	Range	Sections	Farmland type	Project Site	Well Pad	Well Pipelines	Gen-tie Lines	Water line	Switching Station	2019	2020	2021	2022	2023
Black Rock	020-110-008	11 South	13 East	33	Prime & Statewide & Local	x	x	x	x	x		Alfalfa	Alfalfa	Alfalfa Alfalfa Seed	Alfalfa, Alfalfa Seed, Sugarbeet	Alfalfa, Alfalfa Seed, Bermuda Seed, Forage Hay/Silage
Black Rock	020-110-031	12 South	13 East	4	Prime & Statewide		х	х				Alfalfa Seed	Potato, Alfalfa Seed	Potato, Alfalfa Seed	Sugarbeet, Alfalfa	Sugarbeet, Alfalfa
Black Rock	020-110-035	11 South	13 East	33	Urban, Prime & Statewide				x	x		Alfalfa	Alfalfa	Alfalfa	Alfalfa, Wheat	Alfalfa
Black Rock	020-110-040 020-110-055	11 South	13 East	33	Prime & Statewide & Local & Other				x	х		Alfalfa	Alfalfa	Alfalfa	Alfalfa	Alfalfa
Black Rock	020-120-054	11 South	13 East	34	Prime & Statewide				x			Alfalfa, Hemp/Cannabis	Hemp/Cannabis	Onion Seed	Sugarbeet	Alfalfa
Black Rock	020-130-018	12 South	13 East	9	Prime			х				Cantaloupe, Celery	Carrot Cantaloupe Sudan Grass, Alfalfa, Lettuce (head), Sunflower	Lettuce (head), Lettuce (leaf), Cantaloupe, Alfalfa	Lettuce (head), Lettuce (leaf), Sudan Grass, Alfalfa, Carrot, Celery	Lettuce (head), Lettuce (leaf), Sudan Grass, Corn (human) Alfalfa, Celery
Black Rock	020-130-019	12 South	13 East	9	Prime & Statewide		х	х				Lettuce (leaf), Corn (human)	Celery	Celery	Lettuce (leaf)	Lettuce (head)
Black Rock	020-100-038	11 South	13 East	27	Urban & Prime & Statewide				х		х	Bermuda Seed	Bermuda Seed	Bermuda Seed	Bermuda Seed, Wheat	Bermuda Seed

Notes:

1. Project features do not necessarily cover the entirety of the parcel.

Table DRR-5 Temporary Project Use - Farmland Crops for the BRGP

Location	APN	Township	Range	Sections	Farmland type		Temporary	Uses	Crops					
						Laydown ⁵	Camp ⁵	Borrow Pit ^{1,5}	2019	2020	2021	2022	2023	
Auxiliary	020-100-036	11 South	13 East	26	Farmland of Statewide Importance	х		Х	Sugarbeet	Alfalfa, Alfalfa Seed	Alfalfa, Alfalfa Seed, Sugarbeet	Alfalfa, Sugarbeet, Wheat	Alfalfa, Sugarbeet	
Auxiliary	020-100-038	11 South	13 East	27	Urban & Prime & Statewide	х			Bermuda Seed	Bermuda Seed	Bermuda Seed	Bermuda Seed, Wheat	Bermuda Seed	
Auxiliary	020-110-008	11 South	13 East	33	Prime & Statewide & Local	х			Alfalfa	Alfalfa	Alfalfa Alfalfa Seed	Alfalfa, Alfalfa Seed, Sugarbeet	Alfalfa, Alfalfa Seed, Bermuda Seed, Forage Hay/Silage	
Auxiliary	020-110-031	12 South	13 East	4	Prime & Statewide	х			Alfalfa Seed	Potato, Alfalfa Seed	Potato, Alfalfa Seed	Sugarbeet, Alfalfa	Sugarbeet, Alfalfa	
Auxiliary	020-110-035	11 South	13 East	33	Urban, Prime & Statewide	х			Alfalfa	Alfalfa	Alfalfa	Alfalfa, Wheat	Alfalfa	
Auxiliary	020-110-039	12 South	13 East	5	Urban & Farmland of Statewide Importance	х			Alfalfa	Alfalfa	Alfalfa	Alfalfa, Sugarbeet	Alfalfa	
Auxiliary	020-110-055	11 South	13 East	33	Prime & Statewide & Local & Other	х			Alfalfa	Alfalfa	Alfalfa	Alfalfa	Alfalfa	
Auxiliary	020-110-046	12 South	13 East	4	Prime Farmland	х			Bermuda Seed	Bermuda Grass, Bermuda Seed	Bermuda Grass	Bermuda Grass	Bermuda Grass	
Auxiliary	020-120-054	11 South	13 East	34	Prime & Statewide		x		Alfalfa, Hemp/Cannabis	Hemp/Cannabis	Onion Seed	Sugarbeet	Alfalfa	
Auxiliary	020-120-056	12 South	13 East	3	Prime		х		Bermuda Seed	Bermuda Seed	Bermuda Seed	Wheat	Bermuda Seed	
Auxiliary	020-120-057	12 South	13 East	3	Prime & Statewide & Local		х		Bermuda Seed	Bermuda Seed	Bermuda Seed	Bermuda Seed, Wheat	Bermuda Grass	
Auxiliary	020-010-035	11 South	13 East	13	Other Land ⁴			Х	No crops ²	No crops ²	No crops ²	No crops ²	No crops ²	
Auxiliary	022-100-011	11 South	14 East	30	Farmland of Local Importance ²			Х	No crops ²	No crops ²	No crops ²	No crops ²	No crops ²	
Auxiliary	020-120-049	11 South	13 East	36	Farmland of Local Importance ²			Х	No crops ²	No crops ²	No crops ²	No crops ²	No crops ²	
Auxiliary	020-100-037	11 South	13 East	26	Farmland of Local Importance ^{2,3}			X	No crops ²	No crops ²	No crops ²	No crops ²	No crops ²	

Notes:

- 1. Borrow pit acreage has decreased in size since the submittal of the AFC in April 2023. Updated boundaries are shown in Figure 1-4R of the Black Rock Geothermal Project Revised General Arrangement Refinement Package TN #253293
- 2. No crops = No records for the past 5 years were provided by the Imperial County Agricultural Commission for these parcels, however the Agricultural Commission was able to identify that the parcels have not been farmed and are currently dirt.
- 3. One borrow pit is split between two APNs, 020-100-036 and 020-100-037. The portion of the borrow pit on parcel 020-100-036 is located on Prime Farmland and Farmland of Statewide Importance. The portion of the borrow pit on parcel 020-100-036 is located on Farmland of Local Importance and has not been farmed in the past five years and is dirt.
- 4. Other Land is defined as land not included in any other mapping category. Examples include, but are not limited to, rural developments; brush, timber, and areas not suitable for livestock grazing; strip mines and borrow pits; and water bodies smaller than 40 acres.
- 5. Project features do not necessarily cover the entirety of the parcel.