

# Flint Geothermal LLC

F. Lee Robinson - Manager

## Summary of Grant Award DE-EE0002828

Provided for Under the American  
Recovery and Reinvestment Act of 2009

Funding Opportunity Announcement:

DE-FOA-0000109 (7-22-09)

Topic Area 1: Validation of Innovative  
Exploration Technologies



# Flint Geothermal LLC

Geothermal Peer Review – Crystal City - May 19, 2010

- Project Title -

**“Use Remote Sensing Data (selected visible and infrared spectrums) to locate high temperature ground anomalies in Colorado. Confirm heat flow potential with on-site surveys to drill deep resource wells.”**



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- Project Objective:

A cost effective three (3) Phased Program to locate and confirm up to Five (5) commercial geothermal resources in Colorado.

The heat resources to be prioritized will be those able to support a minimum electrical generation capacity of 10 MW by location.



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- Three Phased Program:
- Phase I - Acquisition, Processing and Analysis of Remote Sensing Data – Prioritize up to 5 sites
- Phase II - Conduct on Site Mapping and Direct Assessment Surveys
- Phase III - Drill Two (2) Deep tests



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- **Phase I Participation**

- Flint – Project Manager

- University of Colorado (Boulder) - Earth Science and Observation Center (ESOC) with the Cooperative Institute for Environmental Sciences (CIRES):

- Access and Analyze Remote Sensing Data: Moderate Resolution Imaging Spectrometer (MODIS), Landsat Thematic Mapper (TM) and Enhanced Thematic Mapper Plus (ETM+) and Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER)
- Prioritize up to Five (5) Prospect Areas in Colorado
- Develop Algorithm for data access & application elsewhere



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- **Phase II Participation:**

Flint — Project Management

CU (Boulder) — Participate in the ground testing

- Geothermal Development Associates (Reno) —

On site Geology & Mapping, Chemistry, Geophysical, electrical and Magnetic surveys and Temperature Gradient wells. Map and Prioritize Two (2) encouraging Prospects for deeper drilling. Recommendations and Well prognosis

- Aspen Drilling LLC — Assist in permitting, drill & case Temperature Gradient wells and provide “boots-on-the-ground”, as requested.



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- Phase III Participation:
- Flint — Project Management
- Geothermal Development Associates (Reno) —  
On site well geological consulting, water chemistry, recommendations for logging. Record results. Reservoir Analysis; Recommendations.
- Aspen Drilling LLC – Assist in permitting, drill & test  
Two (2) Slim Hole Deep Wells. Provide “boots-on-the-ground”, as requested.



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- Program Costs

	<u>Direct</u>	<u>Contribution</u>	<u>Total</u>
• <u>Phase I</u>	\$298,548	\$187,500	\$396,048
• <u>Phase II</u>	\$2,468,593	\$1,417,500	\$3,886,093
• <u>Phase III</u>	\$2,011,093	\$1,492,300	\$3,503,393
• <u>Total</u>	\$4,778,234	\$3,007,300	\$7,785,534

(Grant Request)

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- Program Schedule (Jan'10 – Jun'12)

- Proposal Submitted to DOE on: 07/22/09
- Notice of Selection - Award Negotiations: 10/30/09
- Award # DE-EE0002828 Issued 01/29/10
- Begin Work - in progress since 12/01/09
- Phase I Data Acquisition Current

