

Notice of Exemption**Form D**

To: Office of Planning and Research
PO Box 3044
1400 Tenth Street, Room 113
Sacramento, CA 95812-3044

From: California Energy Commission
1516 Ninth Street, MS-48
Sacramento, CA 95814

Project Applicant: General Engineering & Research, L.L.C.

Project Title: Scale-up of Magnetocaloric Materials for High Efficiency Magnetic Refrigeration

Project Location – Specific: 10459 Roselle St Ste A

Project Location – City: San Diego 92121

Project Location – County: San Diego

Description of Nature, Purpose and Beneficiaries of Project:

The purpose of this project is to scale-up in house manufacturing capabilities to accommodate 1kg/day LRIP of MCE materials in useful forms for economical prices. This goal will be accomplished by achieving the following objectives:

- Install equipment and develop procedures to accommodate 1kg/day production;
- Work with Pacific Northwest National Laboratory to develop new heat treatment technique to reduce processing time/cost;
- Develop processes to form MCE materials into spheres and thin plates;
- Optimize processing to meet cost and performance requirements.
- Magnetic refrigeration can provide up to 50% reduction in energy consumption.
- Energy reduction, particularly during peak demand times on warm days for air conditioning, will reduce strain on the grid resulting in greater reliability.
- Rate payer will benefit greater electricity reliability and lower costs by reducing the energy demand.

Name of Public Agency Approving Project: California Energy Commission

Name of Person or Agency Carrying Out Project: General Engineering & Research, L.L.C.

Exempt Status: (check one)

- Ministerial Exemption (Pub. Resources Code § 21080(b)(1); Cal. Code Regs., tit 14, § 15268);
- Declared Emergency (Pub. Resources Code § 21080(b)(3); Cal. Code Regs., tit 14, § 15269(a));
- Emergency Project (Pub. Resources Code § 21080(b)(4); Cal. Code Regs., tit 14, § 15269(b)(c));
- Categorical Exemption. State type and section number
Cal. Code Regs., tit 14, § 15303
- Statutory Exemptions. State code number.
- Common Sense Exemption. (Cal. Code Regs., tit 14, §15061(b)(3))

Reasons why project is exempt:

This project will install and demonstrate four distinct systems for magnetocaloric material low rate production operation at an existing fully permitted facility without any environmental impact and minimal internal facility modification. The sites currently hosts smaller scale operations with equipment of less capacity. The technology to be installed and operated is expected to integrate with little modifications to the property. The technology to be installed at the facility includes an arc melt rotating disk atomization furnace, vacuum hot press, anneal furnace, and heat treatment technology. For these reasons, the project falls under the categorical exemption listed in 14 C.C.R. § 15301 and will not have a significant effect on the environment.

Lead Agency

Contact Person: James Lee **Area code/Telephone/Ext:** 916-445-5301

If filed by applicant:

- 1. Attach certified document of exemption finding.
- 2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature:  **Date:** 7/8/2019 **Title:** ECSI

Signed by Responsible Agency

Signed by Lead Agency

Signed by Applicant

Date received for filing at OPR: _____

Governor's Office of Planning & Research
JUL 09 2019
STATE CLEARINGHOUSE