

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

From: California Energy Commission
 715 P Street, 3rd Floor
 Sacramento, CA 95814

Project Applicant: The Regents of the University of California on behalf of the Davis campus

Project Title: Developing and Evaluating Two Design Approaches for Space Conditioning Heat Pumps Using Ultra-Low GWP Refrigerants

Project Location – Specific: 215 Sage St Ste 100

Project Location – City: Davis 95616 **Project Location – County:** Yolo

Description of Nature, Purpose and Beneficiaries of Project:

The purpose of the project is to develop and evaluate two next-generation residential heat pump technologies that use ultra-low global warming potential refrigerants while maintaining safety, high efficiency, and cost-effectiveness. The project will test and optimize an air-to-water and an air-to-air heat pump pathway, each integrated with thermal energy storage to improve performance, grid flexibility, and emissions reductions. The results will inform California energy policy and industry decisions by assessing technical, environmental, grid, cost, and equity implications of future refrigerant transitions.

Name of Public Agency Approving Project: California Energy Commission

Name of Person or Agency Carrying Out Project: The Regents of the University of California on behalf of the Davis campus

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, § 15301 ; Cal. Code Regs., tit. 14, § 15306
- Statutory Exemptions. State code number.
- Common Sense Exemption. (Cal. Code Regs., tit. 14, §15061(b)(3))

Reasons why project is exempt:

The activities would include developing high efficiency ultra-low global warming potential heating, ventilation, and air conditioning (HVAC) heat pumps to be tested in an existing laboratory and installed or used in existing buildings, especially, residential buildings. The equipment and materials would include, but may not be limited to, heating, ventilation, and air conditioning units; building energy controls (e.g., heating, cooling, lighting); and evaluation, measurement, and verification equipment (e.g., power meters, flow meters, sensors, and data loggers). The physical work would include installing this equipment. The project would not involve adding residential units or substantially enlarging buildings.

Authority cited: Sections 21083 and 21110, Public Resources Code. Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

The above activities fall under two categorical exemptions. First, the operation, repair, maintenance, permitting, licensing, and minor alteration of existing public or private structures, facilities, and mechanical equipment, involving negligible or no expansion of use, falls under California Code of Regulations, title 14, section 15301. Second, the project includes data collection and analysis to be conducted in residential buildings and in existing laboratories of the grant recipient team. California Code of Regulations, title 14, section 15306 exempts basic data collection, research, experimental management, and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. The proposed project's data analysis activities will have no significant effect on the environment and fall within the categorical exemption of section 15306.

This project does not involve impacts on any particularly sensitive environment; does not involve any cumulative impacts of successive projects of the same type in the same place that might be considered significant; does not involve unusual circumstances that might have a significant effect on the environment; will not result in damage to scenic resources within a highway officially designated as a state scenic highway; the project site is not included on any list compiled pursuant to Government Code section 65962.5; and the project will not cause a substantial adverse change in the significance of a historical resource. Therefore, none of the exceptions to categorical exemptions listed in CEQA Guidelines section 15300.2 apply to this project, and this project will not have a significant effect on the environment.

Public Agency

Contact Person: Felix Villanueva **Area code/Telephone/Ext:** 916-232-8997

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: Felix Villanueva **Date:** _____ **Title:** Utilities Engineer

- Signed by Public Agency**
- Signed by Applicant**

Date received for filing at OPR: _____

Authority cited: Sections 21083 and 21110, Public Resources Code. Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.