

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
 Sacramento, CA 95814

Project Applicant: Intertie Incorporated

Project Title: Deployment and Demonstration of a Novel DC-Coupled HVAC Technology in the Central Valley

Project Location – Specific: 1239 Hoblitt Ave

Project Location – City: Clovis 93612 **Project Location – County:** Fresno

Description of Nature, Purpose and Beneficiaries of Project:

The proposed project aims to develop and demonstrate a DC-fed HVAC module powered by onsite DC-coupled solar photovoltaic (PV) systems and energy storage, utilizing a novel DC hub architecture. The demonstration will take place at a commercial building in Fresno County, California. This innovative architecture provides a cost-effective method for powering DC-fed HVAC units using onsite renewable energy, with the capability to seamlessly switch to grid power when solar or storage resources are unavailable, at no additional cost.

The purpose of this project is to validate the feasibility of a DC-fed HVAC system packaged with off-the-shelf DC brushless motors and components. The system will operate as part of a highly controlled DC nanogrid, interfacing with Intertie's existing DC-coupled solar-plus-storage solution. By leveraging DC hub technology, this project aims to help California achieve critical energy goals for commercial buildings, including zero-net energy (ZNE), zero-net grid impact, and zero carbon emissions.

The project addresses the challenges of meeting California's goal of achieving ZNE in 50% of commercial buildings by 2030. Since HVAC systems are among the largest consumers of electricity in commercial buildings, this initiative demonstrates how advanced DC-fed HVAC technology, coupled with solar PV and energy storage, can significantly enhance efficiency, reduce grid dependency, and eliminate HVAC loads during peak demand periods.

The primary beneficiaries of this project include commercial building owners, operators, and occupants, who will gain access to more efficient, reliable, and cost-effective HVAC solutions. Additionally, the project supports California's broader environmental and energy objectives by advancing technologies that reduce carbon emissions and grid impact, ensuring a sustainable energy future for the state.

Name of Public Agency Approving Project: California Energy Commission

Name of Person or Agency Carrying Out Project: Intertie Incorporated

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));

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

Categorical Exemption. State type and section number

Cal. Code Regs., tit. 14, § 15301 ; Cal. Code Regs., tit. 14, § 15304

Statutory Exemptions. State code number.

Common Sense Exemption. (Cal. Code Regs., tit. 14, §15061(b)(3))

Reasons why project is exempt:

This project fits within Cal. Code Regs. tit. 14, sect. 15301 because it involves minor alteration and installation of equipment at an existing facility, with no expansion of capacity. This installation is at an existing, developed site on land that is not environmentally sensitive. No historical resources or buildings will be affected. Noise and odors will not be generated by these installations in excess of existing permitted amounts. The installation will not increase traffic to these sites and will not require permits for air, water, conditional use, building expansion, hazardous waste, or rezoning. Additionally, Cal. Code Regs., tit. 14; 15304 applies as this project will involve minor trenching and laying of concrete bases. This will not make any alterations to water or vegetation.

Lead Agency

Contact Person: Harrison Reynolds **Area code/Telephone/Ext:** 916-776-0692

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: Harrison Reynolds **Date:** 2/28/2025 **Title:** Associate Energy Specialist

Signed by Responsible Agency

Signed by Lead Agency

Signed by Applicant

Date received for filing at OPR: _____