**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:** 

U.S. Department of Energy (National Renewable Energy Laboratory)

**Project Title:** 

Developing Innovative Low Emission Natural Gas Engine and Vehicle Technology for Medium-

and Heavy-Duty Vehicles

**Project Location:** 

Address	City	County	
500 Jackson St	Columbus, OH 47201		
1700 S Mount Prospect Rd	Des Plaines, IA 60018		
445 Maple Ave	Torrance, CA 90503	Los Angeles	
1751 Torrance Blvd Unit K	Torrance, CA 90501	Los Angeles	

## Description of Nature, Purpose and Beneficiaries of Project:

The purpose of this agreement is to research and develop technology that advances the beneficial use of natural gas as a low emission alternative fuel for medium- and heavy-duty vehicles. The technologies include a high efficiency natural gas engine architecture, a smart compressed natural gas fueling system with low cost pre-cooling, a transient plasma ignition system, and a natural gas plug-in hybrid electric truck.

Research and development for these technologies will take place in existing laboratory settings and primarily include data collection to support technology advancement. Existing safety standards related to natural gas vehicle, engine, fueling station, and on-board storage technology will be followed to mitigate risks. This agreement is intended to lead to ratepayer benefits including lower total cost of ownership of natural gas vehicles, air quality improvements by enabling wider adoption, and greenhouse gas emission reductions by improving fuel efficiency and enabling renewable natural gas usage in the transportation sector.

Name of Public Agency Approving Project:	California Energy Commission			
Name of Person or Agency Carrying Out Project:	U.S. Department of Energy ( <u>National Renewable Energy</u> <u>Laboratory</u> )			
Exempt Status: (check one)				
Ministerial Exemption (Pub. Resources Code	e § 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 § 2	21080(b)(4); Cal. Code Regs., tit 14, § 15269(b)(c));			
X Categorical Exemption. State type and section	on number			
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:

This project is exempt under Cal. Code Regs., tit. 14, Section 15306, because it focuses primarily on information collection efforts related to the research, design, and development of natural gas vehicle technologies. The project involves engine development, related infrastructure technology development, subsystem development, and vehicle integration. Data collection on performance and emissions parameters will be done within existing laboratory environments. All four project locations are existing permitted facilities.

The project includes on-road vehicle demonstration activities for two natural gas plug-in hybrid electric trucks. These trucks will be similar to existing prototypes that have been demonstrated on the road. Existing safety standards will be used to mitigate risks associated with building, testing, and demonstrating these trucks. Project activities will not result in a serious or major disturbance to an environmental resource.

Lead Agency Contact Person:	Peter Chen	Area code/Telephor	Area code/Telephone/Ext: 916-327-1312		
	ed document of exemption	finding. the public agency approving the pr	roject?	Yes	☐ No
Signature: Signed by I	Responsible Agency	Date: 8/2/19	Title: _	Mechanica	1 Engiliee
	Lead Agency	Date received for filing	at OPR	.3overnor's Office of	of Planning & Research
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