



U.S. Department of Energy Categorical Exclusion Determination Form

Submit by E-mail

Proposed Action Title: Onboard Dynamics, Inc. - Vehicle-Integrated Natural Gas Compressor

Program or Field Office: Advanced Research Projects Agency - Energy

Location(s) (City/County/State): Fort Collins, CO; Sandy, OR; Portland, OR; Longmont, CO; Bend, OR; Los Angeles, CA

Proposed Action Description:

Funding will support the project team's small-scale, research and development activities to develop an on-vehicle, engine-compressor system capable of filling a 10 gasoline gallon equivalent (gge) natural gas tank from 0.1 bar to 250 bar in under 60 minutes. Specifically, the project team will: (1) assemble and test the engine; (2) integrate engine compressor into the vehicle; (3) design and test engine compressor in the test cell; and (4) assemble and conduct internal and field testing of engine compressor for dedicated mobile trailer-mounted compression unit. Field testing will occur at a SoCalGas customer fleet facility. If successful, the compressor system will advance the adoption of natural gas light-duty fleet vehicles in the U.S. by enabling a low-cost solution for refueling.

The project team will comply with applicable local, state, and federal regulations and incorporate appropriate control technologies and best management practices in all project activities. Onboard Dynamics, Inc. is required, under the terms of its ARPA-E Cooperative Agreement, to secure all necessary permits prior to use of the newly installed test cell at its facilities. Project tasks will be conducted on a small-scale basis in dedicated laboratory, testing, and fabrication facilities at Onboard Dynamics, Inc. and Westberg Consulting, LLC (Bend, OR); Czero, Inc. (Fort Collins, CO); US Metal Works, Inc. (Sandy, OR); Advanced Precision Machining, LCC (Longmont, CO); SoCalGas (Los Angeles, CA); and NW Natural (Portland, OR).

Categorical Exclusion(s) Applied:

B3.6 - Small-scale research and development, laboratory operations, and pilot projects

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer:

(This form will be locked for editing upon signature)

Date Determined: 04/06/2016



U.S. Department of Energy Categorical Exclusion Determination Form

Submit by E-mail

Proposed Action Title: Onboard Dynamics, Inc. (Onboard) - Vehicle-Integrated Natural Gas Compressor

Program or Field Office: Advanced Research Projects Agency - Energy

Location(s) (City/County/State): Bend, OR

Proposed Action Description:

Onboard, in conjunction with Oregon State University (OSU), proposes to continue small-scale research and development activities to develop a dual-function engine that can: (1) provide motive power and (2) compress and store natural gas that can be used later as fuel for a vehicle.

No modifications will be made to existing facilities to accommodate the proposed work. All project activities will take place in Onboard's laboratory facility located in Bend, OR and OSU's laboratory facility located in Bend, OR.

Categorical Exclusion(s) Applied:

B3.6 - Small-scale research and development, laboratory operations, and pilot projects

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Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

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Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer:

Date Determined: 07/14/2014