



# U.S. Department of Energy

## Categorical Exclusion Determination Form

Program or Field Office: Advanced Research Projects Agency - Energy

Project Title: (0206-1510) UMass - Electrofuels via Direct Electron Transfer from Electrodes to Microbes II

Location: \*- Multiple States - California, Massachusetts

Proposed Action or Project Description:

American Recovery and Reinvestment Act:

Funding will support R&D activities involving microbial electrosynthesis of liquid biofuel and biofuel precursors in in-lab and meso-scale bioreactors.

Proposed work consists of increasing liquid biofuel and biofuel precursor production in three target microbes using adaptive evolution, genetic engineering, and metabolic modeling techniques at UMass's research facilities in Amherst, MA.

Proposed work also consists of designing, fabricating, and optimizing three in-lab bioreactors and one meso-scale bioreactor at Genomatica, Inc.'s facility in San Diego, CA.

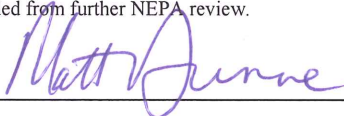
Categorical Exclusion(s) Applied:

X - B3.6 Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects

\*-For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR10 21 [Click Here](#)

This action would not: threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders; require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include such categorically excluded facilities; disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; or adversely affect environmentally sensitive resources (including but not limited to those listed in paragraph B.(4)) of Appendix B to Subpart D of 10 CFR 1021). Furthermore, there are no extraordinary circumstances related to this action that may affect the significance of the environmental effects of the action; this action is not "connected" to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

Based on my review of information conveyed to me and in my possession (or attached) concerning 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: Sep 21, 2011

Comments:

Webmaster:





# U.S. Department of Energy

## Categorical Exclusion Determination Form

Program or Field Office: Advanced Research Projects Agency - Energy

Project Title: (0206-1510) Univ. of Massachusetts Amherst - Electrofuels via Direct Electron Transfer from Electrodes to Microbes

Location: \*- Multiple States - Massachusetts; California

Proposed Action or Project Description:

American Recovery and Reinvestment Act:

Funding will support laboratory and bench-scale research and development of bioprocess and microbe engineering for purposes of producing energy-dense, liquid transportation fuels from biological-based non-photosynthetic systems.

Proposed work consists entirely of RD&D work to be completed in research laboratories and facilities at the University of Massachusetts Amherst in Amherst, MA; and research laboratory and facilities of Genomatica Inc. in San Diego, CA. All work to be performed will be limited to in-lab research, experimentation, testing, analysis, and development.

Categorical Exclusion(s) Applied:

X - B3.6 Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects

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NEPA Compliance Officer: 

Date Determined: Sep 17, 2010

Comments:

Webmaster:



# U.S. Department of Energy

## Categorical Exclusion Determination Form

**Program or Field Office:** Advanced Research Projects Agency - Energy

**Project Title:** University of Massachusetts Amherst - Sulfide-Mediated Electrosynthesis

**Location:** \*- Multiple States - Massachusetts; California

**Proposed Action or Project Description:**

American Recovery and Reinvestment Act:

Funding will support laboratory and bench-scale research and development of bioprocess and microbe engineering for purposes of producing energy-dense, liquid transportation fuels from biological-based non-photosynthetic systems.

Proposed work consists entirely of RD&D work to be completed in research laboratories and facilities at the University of Massachusetts Amherst in Amherst, MA; and research laboratory and facilities at the University of California San Diego in San Diego, CA. All work to be performed will be limited to in-lab or on-site experimentation, testing, analysis, and development.

**Categorical Exclusion(s) Applied:**

X - B3.6 Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects

\*-For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR10 21 [Click Here](#)

This action would not: threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders; require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include such categorically excluded facilities; disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; or adversely affect environmentally sensitive resources (including but not limited to those listed in paragraph B.(4)) of Appendix B to Subpart D of 10 CFR 1021). Furthermore, there are no extraordinary circumstances related to this action that may affect the significance of the environmental effects of the action; this action is not "connected" to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

Based on my review of information conveyed to me and in my possession (or attached) concerning 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: Sep 17, 2010

Comments:

Webmaster:



# U.S. Department of Energy

## Categorical Exclusion Determination Form



**Program or Field Office:** Advanced Research Projects Agency - Energy

**Project Title:** (0206-1510) Univ. of Mass. Amherst - Electrofuels via Direct Electron Transfer from Electrodes to Microbes

**Location:** \*- Multiple States - Massachusetts, California

**Proposed Action or Project Description:**

American Recovery and Reinvestment Act:

Funding will support laboratory and bench scale research and development on microbial electrosynthesis for use in the production of energy dense, liquid transportation fuels from biological-based non-photosynthetic systems.

**Categorical Exclusion(s) Applied:**

X - B3.6 Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects

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Based on my review of information conveyed to me and in my possession (or attached) concerning 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: Jun 2, 2010

Comments:

Webmaster:

