

# LLNL CATEGORICAL EXCLUSION DETERMINATION FORM

<b>ESPM LOG NO:</b> 17-14746	<b>NNSA/LFO LOG NO:</b> NA-17-06
<b>1. PROJECT/ACTIVITY TITLE:</b> Wood to Fuel for California's Transportation Sector using Autothermal Pyrolysis	<b>DATE:</b> October, 2017
<b>2. PROJECT DESCRIPTION:</b>	
<p>The purpose of the Proposed Project is to demonstrate commercial production of bio-based fuels from forest residues in California. DOE has a need to develop innovative science and technology-based solutions that improve national energy security and surety while reducing environmental impact. Under the Proposed Project, LLNL would be funded by the CEC to perform a small-scale renewable energy research project to generate low-carbon, renewable fuels from wood waste (i.e., wood chips). LLNL's role in the Proposed Project would be to provide planning, oversight, guidance, and expert analysis relating to biofuel production technology. LLNL would also prepare reports on behalf of the project partners, as required by the CEC. The LLNL Livermore Site would be used for meetings, administrative tasks, and office-type work only.</p> <p>To execute the Proposed Project, LLNL would partner with Iowa State University (ISU), Easy Energy Systems (EES), and Sierra Pacific Industries (SPI). The project partners would scale-up ISU's innovative, pre-commercial autothermal process-intensified (AT-PI) pyrolysis technology from the existing 1 ton-per-day unit to a modular 50 ton-per-day system. EES would manufacture and test the AT-PI equipment (the system) at their existing facilities in Minnesota and Iowa, in accordance with their existing procedures and requirements. SPI would host the system in a on a previously disturbed area of an existing sawmill. The SPI wood feedstock would normally be used as fuel for a cogeneration unit at a nearby SPI sawmill or sold for other low value uses (e.g., landscaping).</p> <p>Decommissioning would involve removal of the system in accordance with SPI and local jurisdictional requirements, and transporting the system back to EES. The SPI site would be returned to its status prior to commencement of the project.</p>	
<b>3. Categorical Exclusion(s) Applied:</b>	
B5.15 Small-scale renewable energy research and development and pilot projects.	

\*-For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR 1021

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:

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