

DOCKETED

Docket Number:	19-ERDD-01
Project Title:	Research Idea Exchange
TN #:	224587
Document Title:	GTI comments regarding 19-ERDD-01
Description:	N/A
Filer:	System
Organization:	Daniel S. LeFevers/GAS TECHNOLOGY INSTITUTE
Submitter Role:	Applicant
Submission Date:	8/24/2018 11:03:47 AM
Docketed Date:	8/24/2018

Comment Received From: Daniel S. LeFevers
Submitted On: 8/24/2018
Docket Number: 19-ERDD-01

GTI comments regarding 19-ERDD-01

Additional submitted attachment is included below.

**GAS TECHNOLOGY INSTITUTE'S COMMENTS ON THE NOTICE OF REQUEST
FOR COMMENTS ON DRAFT SOLICITATION ON DEMONSTRATING INNOVATIVE
SOLUTIONS TO CONVERT CALIFORNIA'S RESIDUAL FOREST BIOMASS
RESOURCES INTO RENEWABLE NATURAL GAS**

Dated: August 24, 2018

DANIEL S. LEFEVERS
Director, State and Consumer Program
Gas Technology Institute
1700 S. Mt. Prospect Rd.
Des Plaines, IL 60018
(847) 544-3458
daniel.lefevers@gastechnology.org

Subject: Demonstrating Innovative Solutions to Convert California's Forest Biomass
Resources into Renewable Natural Gas

Gas Technology Institute (GTI) is a leading research, development and training organization addressing energy and environmental challenges to enable a secure, abundant, and affordable energy future. For more than 75 years, GTI has been providing value to the energy industry, government and consumers by developing technology-based solutions and analyses for a more efficient energy system and a cleaner environment.

GTI is an independent organization, established as a not-for-profit corporation. GTI is tax-exempt under Section 501(c) (3) of the Internal Revenue Code and has staff located in California, Illinois and other States throughout the US.

GTI research initiatives and developed technologies address issues affecting energy markets across supply, delivery, and end use. GTI offers an integrated systems perspective to expand the supply of affordable energy, ensure a safe and reliable

energy delivery infrastructure, and promote the efficient use of energy resources. GTI is active in developing technology and analysis for the production, distribution and use of biomethane.

We appreciate this opportunity to comment in regard to the draft solicitation on Demonstrating Innovative Solutions to Convert California's Residual Forest Biomass Resources into Renewable Natural Gas. Comments are below.

GTI is active in the area of technology development and demonstration in the conversion of forest, urban and agricultural wood wastes to RNG. We have a 20 ton per day gasification test facility at our research headquarters in Des Plaines, Illinois that has gasified over 20 different types of wood wastes and we have recently completed a site specific engineering design outlining the conversion of a woody biomass electric power production facility into an RNG producing facility utilizing thermal gasification and methanation technologies.

It is our contention that commercial technologies exist for substantial production of pipeline quality RNG from forest wood wastes. The deployment and integration of these technologies at an existing biomass power facility can produce approximately 3 billion cubic feet (BCF) of pipeline quality RNG on an annual basis.

Up to 9 BCF of RNG can be produced with the integration of Power-to-Gas technology into a large scale forest wood waste to RNG facility. This integration offers the opportunity for negative carbon RNG production at a substantial scale to help address the climate goals of California. Understanding the economic and technical issues surrounding this integration is complex, and providing funding to better quantify the technical and economic issues surrounding the integration of thermal gasification and power-to-gas technologies would help further the opportunity for the large scale production of a zero or negative carbon natural gas replacement.

GTI is recommending that the CEC consider targeting some portion of the funding considered under this draft solicitation to research and analysis as opposed to technology demonstration. This research and analysis could be focused on how to

further reduce the carbon footprint of RNG produced from forest wood wastes.

Thank you for this opportunity to comment,

A handwritten signature in black ink, appearing to read "Daniel S. Lefevers".

DANIEL S. LEFEVERS
Director, State and Consumer Program
Gas Technology Institute
1700 S. Mt. Prospect Rd.
Des Plaines, IL 60018
(847) 544-3458
daniel.lefevers@gastechnology.org