

**Proposed Amendment between California Energy Commission
and
CSU Fullerton Auxiliary Services Corporation**

Title: Estimation of Methane Emissions from the California Natural Gas System
Amount: \$0.00
Term: 6 months
Contact: Guido Franco
Committee Meeting: 4/4/2011

Recommendation

Approve this no cost time extension amendment with CSU Fullerton Auxiliary Services Corporation for six months to test more field sites for fugitive methane emissions. The Contractor is not requesting additional funding for these tests, and the resultant data will contribute towards the design of technically and environmentally sound control measures being developed by the Air Resources Board. Natural gas is the fossil fuel of choice in California and it is the main fuel used in in-state power plants so any regulatory measures affecting the natural gas sector have the potential to impact ratepayers. Staff recommends placing this item on the consent agenda of the Commission Business Meeting.

Issue

Per AB 32, the Air Resources Board (ARB) is required to implement greenhouse gas (GHG) reduction regulations as prescribed in the Scoping Plan. One of the ARB's control measures identified in the Scoping Plan is the reduction of fugitive methane emissions from the natural gas system. However, the estimated methane emissions from the natural gas system are highly uncertain; hence, improper and costly control measures could be imposed on natural gas utilities without accurate information about actual emissions.

This project was designed to measure fugitive methane emissions from the natural gas system in California to inform the regulations being developed by ARB. According to the original work plan, most of the field tests would have to be complete by May of 2011. Due to the relaxation of ARB schedule and recent participation of local air districts, more field tests can be scheduled and conducted in the coming summer and fall 2011. By having this extension, more field data will be collected for the project and incorporated in the final report, which will contribute towards technically and environmentally sound control measures that could potentially lower utilities' compliance costs and reduce electricity prices to consumers.

Background

Methane is a potent greenhouse gas, with a global warming potential (GWP) of 21. This means that one pound of methane has the same warming effect as 21 pounds of carbon dioxide. At the same time, considerable uncertainties remain in the emissions estimation for methane due to the multiplicity of natural and man-made sources releasing this gas to the atmosphere. A study released in 2005 by the California Energy Commission's Public Interest Energy Research (PIER) Program suggested that methane emissions from the natural gas system can be controlled at a net benefit or at relatively low cost. CalEPA and ARB have used the results of this PIER study and concluded that reducing fugitive

methane emissions in California must take place as a contribution to the overall effort of bringing 2020 emissions levels in California to that of 1990.

Staff from ARB and the Energy Commission is working very closely together and with the research group to facilitate the timely transfer of information and to ensure the data and information is useful in the formulation of control measures. Utilities are involved via a technical advisory committee and making their facilities available for testing.

Proposed Work

This six month extension will allow Contractor to test more field sites and incorporate the data in the final report, which will be used by ARB to develop AB32 compliance measures for this source category. With the requested extension the Contractor will be able to test additional facilities, which will increase the statistical robustness of future emission estimates.

Justification and Goals

This project "[will] advance energy science or technologies of value to California citizens..." (Public Resources Code 25620.(c)), and is part of a "full range of research, development, and demonstration activities that . . . are not adequately provided for by competitive and regulated markets (Public Resources Code 25620.1.(a)).

This project also addresses California's goal to implement all strategies identified by the Climate Action Team as needed to meet the Governor's GHG emission reduction goals, including recommendations developed as part of the 2005 IEPR per the Energy Action Plan 2005.

This will be accomplished by:

- Developing current, reliable, and California-specific emission factors for the natural gas system in California
- Supporting regulatory programs to achieve effective and efficient methane emission reductions from California's natural gas system
- Minimizing adverse environmental impacts from these emission sources