Comments from California Climate Action Registry On the California Energy Commission's Phase I Review On Petroleum Industry Protocols For Estimating and Reporting Greenhouse Gas Emissions

I. Introduction

The California Climate Action Registry (Registry) provides the following comments to the California Energy Commission (CEC) on its Phase I review of two protocols to account for and report greenhouse gas (GHG) emissions in the oil and gas sector. The protocols in the evaluation include the American Petroleum Institute's (API) 2004 *Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil and Gas Industry* (Compendium) and the International Petroleum Industry Environmental Conservation Association's (IPIECA) 2003 *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions* (IPIECA Protocol). The CEC has commissioned ICF Consulting, Inc. and TIAX, LLC to carry out the work. The overall purpose of the review as we understand it, conducted in two phases, is to evaluate GHG emission estimation methodologies and GHG emission inventory protocols for oil and gas companies to participate in the Registry.

The objective of the Phase I Compendium review is to assess the applicability and appropriateness of emission quantification techniques and emission factors to oil and gas sector operations within California, identify the strengths and weaknesses of methodologies for estimating GHG emissions associated with both upstream and downstream oil operations, including estimation methodologies for natural gas operations such as exploration, production, processing, and transport.

The objective of the Phase I IPIECA Protocol review is to evaluate the applicability and appropriateness of its guidance to entities in California's oil and gas sector and identify differences in the IPIECA Protocol with Registry guidance or prescribed state statutes in the California Health and Safety Code (Registry sections).

The Registry appreciates the CEC's efforts in supporting and managing the evaluation of the API Compendium and the IPIECA Protocol. This analysis will facilitate the Registry's goal to develop GHG emission inventory protocols that would enable oil and gas companies to participate in our program.

II. Registry Feedback on the Phase I Review

The Registry understand why the review pays special attention to the oil and gas sector in California – the CEC's principal focus is on statewide matters and we are first and foremost a registry for GHGs emitted in California. However, as the Registry accepts both California and U.S.-wide emission inventories (Section 42840 of the California Health and Safety Code) we hope that the review, particularly in Phase II, will not be limited to only recommendations on how emission accounting and reporting

procedures might be improved for oil and gas operations in the state, but also more generally.

a. The API Compendium

The Registry concurs with the review of the Compendium that site-specific information results in an emissions inventory with greater accuracy than an inventory that relies on default emission factors. We recommend this approach, but in cases where reporters can not establish site-specific factors the Registry has in the past allowed industry-standard, default emission factors, and would anticipates doing so in both a natural gas protocol and an oil and gas protocol. We look forward to suggestions in Phase II as to how to update specific default emission factors in the Compendium that may have been rendered inaccurate by enhanced technologies or improved operating practices. Additionally, we hope that Phase II will provide recommendations for emission calculation methodologies for sources that the Compendium omits or for methodologies the review deems inapplicable or out of date.

b. The IPIECA Protocol

The Registry is encouraged that the Phase I review shows large areas of general agreement between the IPIECA Protocol and the Registry's General Reporting Protocol (GRP) in the topic areas of its analysis, including reporting boundaries, organizational boundaries, are reporting principles.

An area of difference between the GRP and the IPIECA Protocol involves select "required" reporting elements (see Table 1). In instances where the Registry has no guidance, we would benefit from an assessment of the appropriateness of incorporating the "required" elements from the IPIECA Protocol into a Registry protocol. For example, the IPIECA Protocol "requires" that organizations incorporate elements such as emissions reductions due to projects or reductions banked, sold or purchased into their entity wide reports. However, this mixing of entity accounting and project accounting is inconsistent with the GHG Protocol.

In the discussion of geographic boundaries the review points out that in any future Registry oil and gas protocol, the Registry will need to be clear about which offshore activities should be included within an entity's report. The Registry agrees this will be an important component of defining geographical boundaries in this sector, and hopes that the review will make some recommendations on this front in Phase II.

The section that reviews operational boundaries provides a helpful discussion on emission sources the Registry should incorporate into any protocol it develops for the oil and gas sector. We hope that the phase II report will build on its suggestion that the Registry's oil and gas protocol may want a more comprehensive list of direct emissions sources, and develop this list. Additionally, we hope the recommendations will include information on calculating the combustion, process, and fugitive emissions from this list of sources, whether from the API Compendium or another reference document.

III. Conclusion

The Registry looks forward to the specific Phase II recommendations regarding the Compendium's emission quantification techniques and emission factors as well as suggestions on how to incorporate guidance from the IPIECA Protocol into Registry industry-specific protocols for the oil and gas sector. One general consideration that the Registry hopes Phase II will undertake involves the scope of a natural gas protocol relative to an oil and gas protocol (either a single guidance document that covers upstream downstream emissions or multiple protocols that further break apart the sector). That is, recognizing there is some significant overlap in the oil and gas sub-sectors, what activities should be covered by a natural gas protocol versus an oil and gas protocol(s)? This may of course depend on the extent to which the two industries are vertically and horizontally integrated.