

AQRP Monthly Technical Report

PROJECT TITLE	Emission Inventory Development and Projections for the Transforming Mexican Energy Sector	PROJECT #	19-023
PROJECT PARTICIPANTS	The University of Texas at Austin (UT Austin) Ramboll	DATE SUBMITTED	12/2/2018
REPORTING PERIOD	From: 11/1/2018 To: 11/30/2018	REPORT #	2

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. I understand that the FSR and Invoice are due to the AQRP by the 15th of the month following the reporting period shown above.

Detailed Accomplishments by Task

Task 1. Base Year Emission Inventory Estimates

The team made an initial selection of emission source categories that will be the project focus. These include on-shore oil and gas exploration and production well sites (upstream sector), off-shore oil and gas exploration and production platforms (upstream sector), compressor stations (midstream sector), natural gas processing plants (midstream sector), and electric power plants. It is expected that Mexico's National Hydrocarbons Information Center (CNIH) and IHS Markit's EDIN database for Mexico will be key data resources, supplemented with investigations of data from the Texas Commission on Environmental Quality (TCEQ), Western Regional Air Partnership (WRAP), and the U.S. Environmental Protection Agency's (EPA's) Triennial National Emission Inventory (NEI). As feasible, annual emissions are expected to be developed for oxides of nitrogen (NO_x), volatile organic compounds (VOCs), carbon monoxide (CO), coarse and fine particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). The team is currently working on identifying data parameters, extracting data records, and developing the methods that will be needed for estimating base year (2016) source category emissions. Available data records from the EDIN, CNIH, and EPA's 2018 NEI databases for the various source categories are currently being compared.

Dr. McDonald-Buller is planning to give an invited talk (*Emission Inventory Development and Projections for the Transforming Mexican Energy Sector*) at the American Geophysical Union (AGU) fall meeting, session A045: Emissions of atmospheric pollutants from oil, gas, and coal operations, on December 12, 2018. A copy of the presentation will be submitted for AQRP and TCEQ review.

Task 2. Mexico Bid Rounds and Future Projection Scenarios
Not yet initiated.

Preliminary Analysis

As above.

Data Collected

As above.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

None.

Goals and Anticipated Issues for the Succeeding Reporting Period

Goals for the next reporting period include developing a draft inventory approach for on-shore oil and gas producing well sites in a single basin in Mexico and continuing to work on characterization of available data and the inventory approach for the two midstream source categories.

Detailed Analysis of the Progress of the Task Order to Date

The project is proceeding as planned.

Do you have any publications related to this project currently under development? If so, please provide a working title, and the journals you plan to submit to.

Yes No

Do you have any publications related to this project currently under review by a journal? If so, what is the working title and the journal name? Have you sent a copy of the article to your AQRP Project Manager and your TCEQ Liaison?

Yes No

Do you have any bibliographic publications related to this project that have been published? If so, please list the reference information. List all items for the lifetime of the project.

Yes No

Do you have any presentations related to this project currently under development? If so, please provide working title, and the conference you plan to present it (this does not include presentations for the AQRP Workshop).

Yes No

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Do you have any presentations related to this project that have been published? If so, please list reference information. List all items for the lifetime of the project.

Yes No

Submitted to AQRP by

Elena McDonald-Buller