

National Initiative to Develop an Oil and Gas Emissions Calculator Tool

NACAA Fall Meeting
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Then and Now

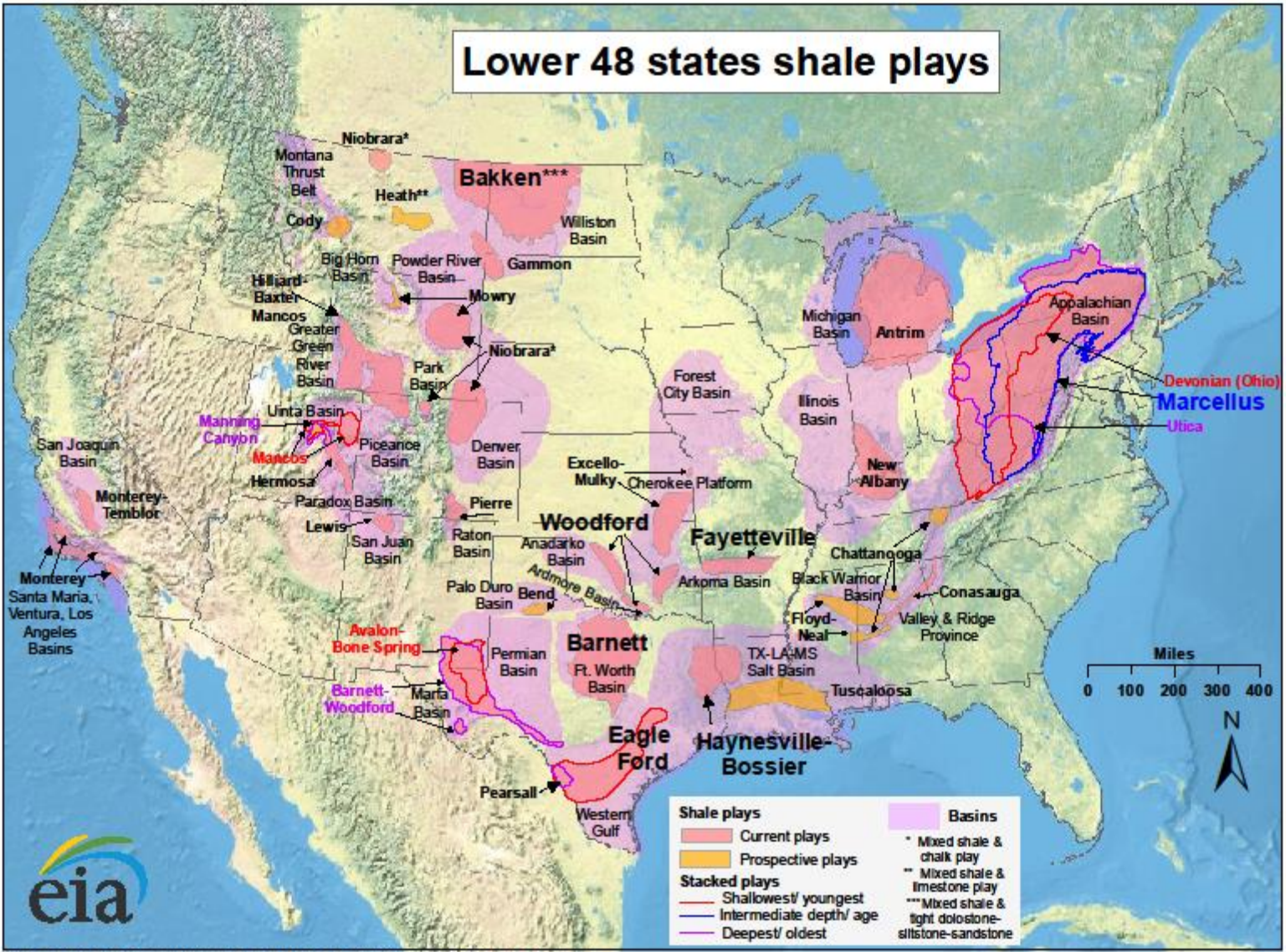


National Oil and Gas Committee

▶ Members

- EPA OAQPS – Roy Huntley and Jennifer Snyder
- States – approximately 25 on Committee
- MJOs/RPOs – CenSARA, LADCO, MAMARA, and WRAP
 - Representing 37 states

Lower 48 states shale plays



Source: Energy Information Administration based on data from various published studies.
 Updated: May 9, 2011



Committee History

- ▶ In late 2011, the Committee morphed from the ERTAC Emissions Inventory Group
- ▶ Purpose was to work with EPA to develop better 2011 NEI default numbers for area oil and gas sources
 - Idea that a national emissions calculator could be used by EPA and the states for not only 2011 NEI, but future years NEI and SIP work
 - Available funding could be maximized by enhancing the calculator ERG developed for TCEQ

EPA Inspector General Report

- ▶ Review of whether EPA has the data to make key decisions (ex: regulatory, enforcement, permits, risk assessment)
- ▶ Results released in Febr. 2013 report – <http://www.epa.gov/oig/reports/2013/20130220-13-P-0161.pdf>
 - Conclusion – “EPA needs to improve air emissions data for the oil and natural gas production sector.”
 - Recommendation – “EPA develop and implement a comprehensive strategy for improving air emissions data...., prioritize which oil and gas production emission factors need to be improved, develop additional emission factors as appropriate, and ensure the NEI data...are complete.”
 - Also recommended EPA ensure the states submit required data and develop default calculation guidance.
- ▶ EPA’s response was heavily dependent on development of the tool – http://www.epa.gov/oig/reports/2013/13-P-0161_Agency_Response.pdf

Tool – From Concept to Reality

▶ Challenges:

- FY12 uncertainty of EPA funding
 - CenSARA moved forward to develop tool for its states
- Varying levels of O & G experience in state environmental agencies and relationships with state oil and gas commissions
- Varying levels of permitting point and area O & G activities
- Varying data sources – IHS, HDPI, EIA, Drilling Rig, etc.
- Varying levels of knowledge about the O & G industry
- Need to have a tool ready for use by EPA staff in April 2013

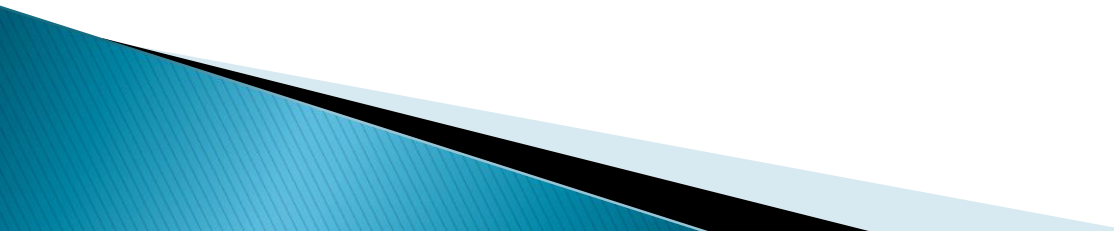
Process

- ▶ Conference calls throughout 2012 and into 2013 to “learn from each other” and advise EPA on tool development and data to use
- ▶ Focus on “top ten” NO_x and VOC sources such as drilling rigs, condensate tanks, dehydrators, and pneumatic devices
 - Some not included are salt water injection engines, well pad construction equipment, and workover equipment
- ▶ CenSARA tool became prototype for EPA tool

Issues for V.1 of Tool

- Time constraints resulted in EPA calculating majority of default activity and emission factors based on CenSARA region
 - Shales, basins and plays across the country are unique, resulting in highly questionable numbers for other states
- WRAP developed data from operator surveys was not included
- Tool assumed all wells are unconventional (ie, fracked) but in the LADCO and MARAMA regions many are conventional wells
- Time constraints left little time for states to qa/qc and revise data before initial 2011 NEI submittal deadline

Unresolved Issues

- ▶ The ever changing nature of equipment used where and when is always going to challenge development of accurate emissions inventories
 - ▶ There is a subset of sources whose emissions are not linear with production
 - ▶ States should not be placed in the position of estimating emissions for activities on tribal lands
 - ▶ It's a struggle to obtain more accurate activity data from the operators
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Next Steps

- ▶ States have until December 31, 2013, to update data in the tool for a final 2011 NEI
- ▶ Committee will continue to work with EPA to develop version 2 of the tool, improve default numbers, and make tool more-user friendly
 - Doors of communication opened with GHG and NSPS/NESHAP groups to learn how their data can help
- ▶ EPA agrees to periodically update emissions modeling platform for transport, NAAQS, NATA modeling work
 - Baseline and future years