

The Health Effects Institute

# Energy Research Program

## A Brief Overview with Emphasis on Year 1

Scoping Meeting for Human Health Study Critique  
Boston, MA  
January 17, 2018





# Health Effects Institute's Energy Research Program

**Why a new research program?** To fill knowledge gaps left by past and ongoing research about potential population exposures and health effects from unconventional oil and natural gas development (UOGD) across the United States

**Approach?** A national multi-year research partnership between industry and government to leverage costs, gain access to UOGD sites, and foster a supportive environment to enable quality science

**Who will benefit?** Regulators, community groups, the oil and natural gas industry, environmental organizations, public health experts, and others who can use the research to inform policy development



*HEI's Energy Research Program*

# ORIGIN OF THE PROGRAM



## Strategic Research Agenda on the Potential Impacts of 21st Century Oil and Natural Gas Development in the Appalachian Region and Beyond

HEI Special Scientific Committee on Unconventional Oil and Gas Development in the Appalachian Basin

Funding provided by:

- Richard King Mellon Foundation
- Henry L. Hillman Foundation
- Claude Worthington Benedum Foundation
- Henry C. and Belle Doyle McElroy Fund of The Pittsburgh Foundation

# Strategic Research Agenda

- Released in 2015 after extensive stakeholder consultation and expert review
- The Committee identified key research questions as a foundation for moving forward
- Building on this effort, the HEI Energy Research Program will fill knowledge gaps about potential population exposures and health effects across the US



*HEI's Energy Research Program*

# GOVERNANCE STRUCTURE AND FUNDING



# HEI: a Public-Private Partnership for Research since 1980

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- An independent, nonprofit corporation
- Chartered to provide policy-relevant high-quality and impartial, science on the effects of air pollution on health (original research, including accountability studies, reanalyses of key studies, and critical reviews).
- Funded jointly by government and industry and, frequently, other public and private organizations in the United States and around the world

# Energy Research Program Governance

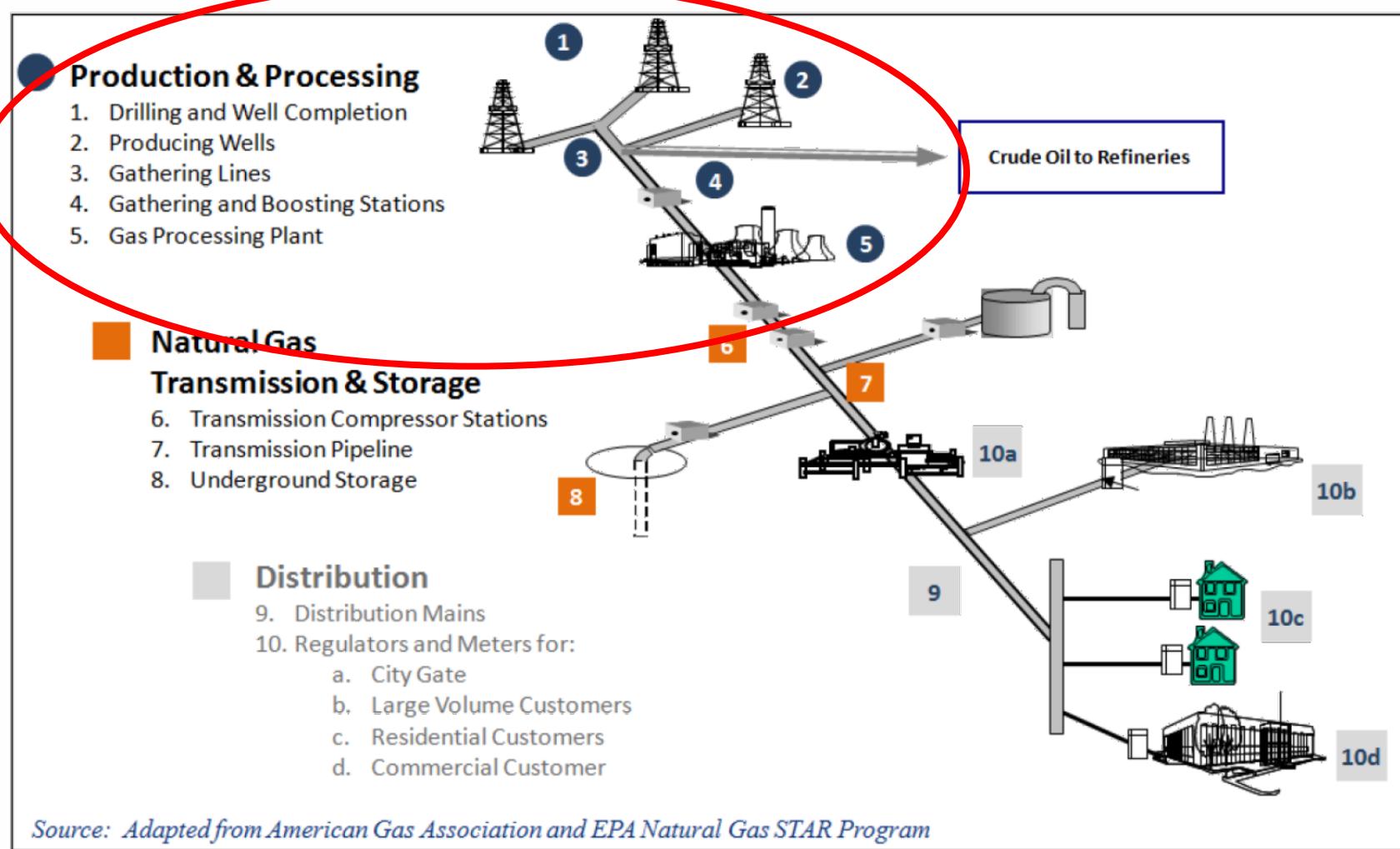
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- Modeled directly after the one HEI has used for 35 years to answer questions about air quality and health
- Key elements:
  - Initial Energy Research Committee oversees impartial, policy-relevant literature reviews, research planning, and original research
  - An Energy Advisory Committee provides expert guidance to the Research Committee
  - All work is conceived, implemented, and peer-reviewed independently from sponsors of the research program
  - HEI effectively engages and shares data (all + and – results) with stakeholders

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# TECHNICAL SCOPE WITH EMPHASIS ON YEAR 1 GOALS

# Overview of Oil and Gas Operations



Source: Adapted from American Gas Association and EPA Natural Gas STAR Program

# HEI's New Energy Research Program

**Goal:** Answer questions about *potential human exposure and health effects* from UOGD

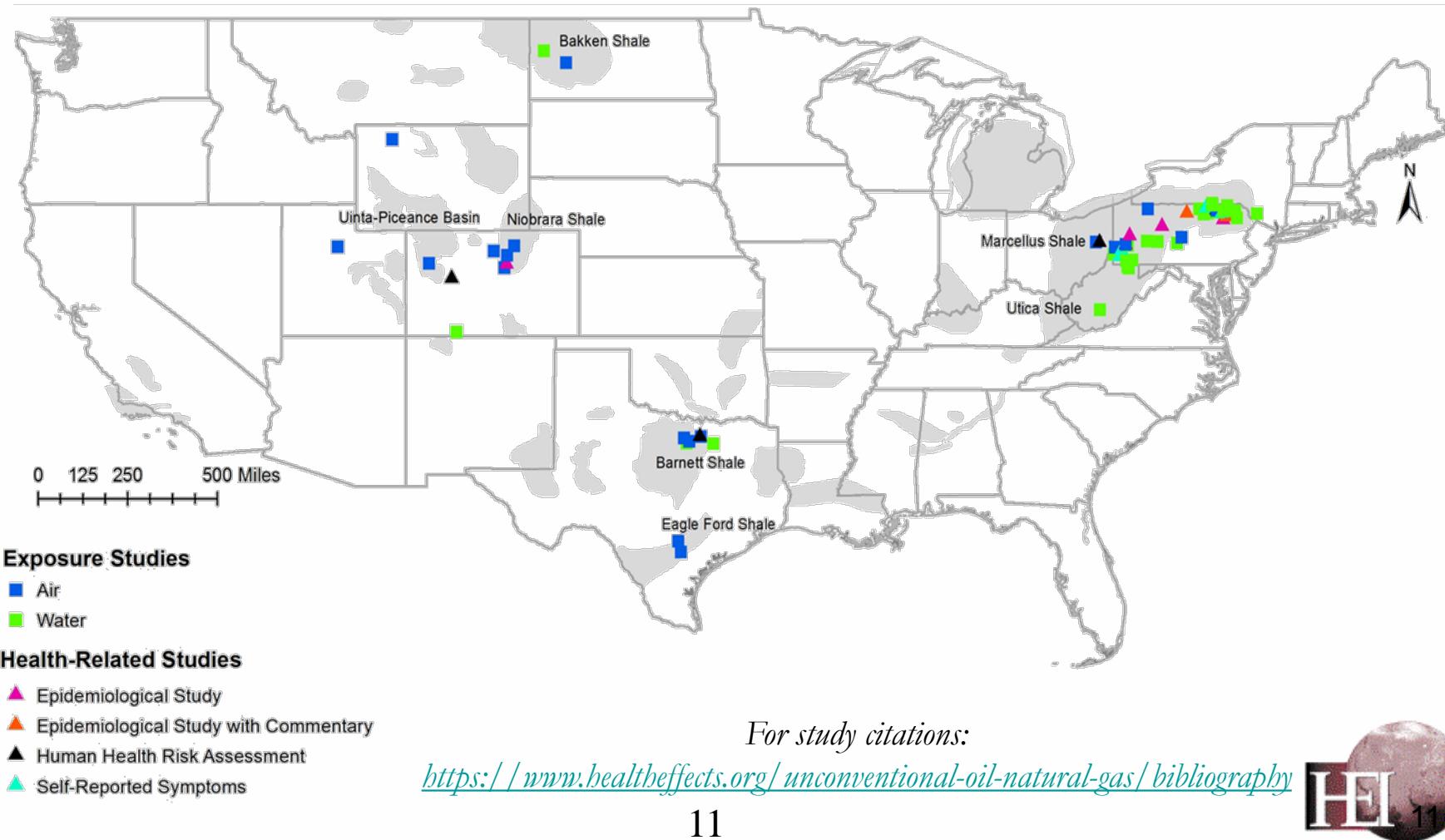
**How:** Using the same model that HEI has used for 35 years to answer questions about air quality and health



Throughout the research program, HEI engages with a broad range of stakeholders at key decision points

# As we begin the program, peer-reviewed literature about potential exposures and effects continues to be published

## Unconventional Oil and Gas Peer-Reviewed Exposure and Health Study Locations



# Also much work beyond the peer-reviewed scientific literature



# Year 1 Products

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HEI's Initial Energy Research Committee will prepare:

- Report that summarizes (1) its review of the human health literature and what it does and does not tell us and (2) research recommendations
- Report that summarizes (1) its review of the exposure, toxicological, and risk literature and what it does and does not tell us and (2) research recommendations
- An HEI Solicitation based on research recommendations from the Committee, with research beginning in Year 2

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# THE PATH FORWARD

# Next Steps

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- Announce HEI's Energy Research Program and Introduce the Initial Energy Research Committee – TODAY
- Post brief summary of today's meeting at HEI's website (February 2018)
- Release the Initial Energy Research Committee's human health literature critique – following peer review (Summer 2018)
  - The Committee will consider comments received at this meeting as well as any sent to HEI by February 5, 2018
- First of two *Exposure and Risk Screening Workshops* (May-June 2018)

Thank you for joining us today

WE WELCOME YOUR QUESTIONS,  
COMMENTS, AND RECOMMENDATIONS