Scope Definition: Flaring – 1 of 2

Key Findings

- While industry has taken measures to reduce emissions both voluntarily and under federal and state regulatory requirements, the routine flaring of associated gas is often characterized as a visible example of the industry's greenhouse gas emissions and continued loss of the nation's natural resources that threatens the industry's license to operate.
- Increased oil production has outpaced associated gas gathering and processing infrastructure.
- Planned infrastructure in Permian and Bakken will aid gas takeaway and allow reduced flaring.
- Challenges are likely to remain despite added infrastructure that warrant industry support and implementation to minimize flaring events and emissions when flaring is inevitable to continue production.
- Opportunities exist to address challenges:
  - Identify and utilize an alternative beneficial use of the associated gas to prevent flaring where gas gathering infrastructure is not available.
  - Ensure good combustion when flaring is unavoidable.

Scope Definition: Flaring – 2 of 2

Opportunity Statement: To further secure the industry's license to operate, the industry is committed to minimize flaring while continuing to produce oil and natural gas in the U.S.

Boundary: Within Scope

- Share and advance best practices, e.g.,:
  - Technology and design that reduces flaring
  - Alternative beneficial use of associated gas
  - Good combustion for flaring that does take place
- Consider challenges related to new versus existing operations
- Explore plausibility of basin-specific versus company-wide solutions
- Consider takeaway capacity including future and persistent challenges

On the Boundary:

- Analyze plausibility of flaring performance targets

Boundary: Beyond Scope

- Flaring necessary for safety reasons or process upset conditions
- Flaring necessary to meet environmental regulatory requirements

Scope Definition: Refining Actions

Opportunity Statement: Potential additional reduction in refining energy demand can lead to lower greenhouse gas emissions from the production of needed fuels and petroleum products for consumers worldwide.

Boundary: Within Scope

- Collection and review of members' current energy saving and/or carbon intensity reduction efforts
- Use collection as basis for sharing ideas among member energy managers
- Establish Best Practices where applicable
- Collaboration with other industry trade organizations (e.g. AFPM)
- Engagement with other energy intensive manufacturing industries via trade associations to broaden the learning and engagement
- Actions that can be promoted to enhance API effectiveness to influence government policy making to reduce GHG emissions

Boundary: Beyond Scope

- Operations standards around lower energy use
- Quantification of emission/energy value relative to other motor fuel refining centers

On the Boundary:

- Development of additional connections with Energy Star Program
- Identify actions which should generate value for any potential emissions policy to make sure company actions are promoted

Scope Definition: Climate-related Reporting

Opportunity Statement: Develop and promote reporting of common oil and natural gas industry-defined climate-related intensity indicators, across companies and that can be aggregated to show trends over time

Boundary: Within Scope

- Development and promotion of comparable climate reporting indicators, naming conventions, and guidance for voluntary reporting (models are existing OGCI Indicator Tables (pp. 50-52) and *EEI-AGA ESG/Sustainability Template*)
- Promotion of ESG/sustainability and climate-risk reporting generally
- Building on foundation of *IPIECA-API-IOGP Sustainability Reporting Guidance*, OGCI, EEI-AGA, and relevant others
- Dialog with external stakeholders, especially institutional investors and banks, most interested in climate-related comparable indicators
- Reporting of Scope 1, 2 and 3 emissions (incl. negative emissions)
- Convening of companies to share good practices

On the Boundary:

- Scenario analysis

Boundary: Beyond Scope

- Performance targets
- Reworking of guidance already commonly reported by and comparable across companies
- Technical measurement guidance [already underway in update of *API GHG Compendium*]

Scope Definition: Technology Innovation

Opportunity Statement: Demonstrate that oil & gas will be part of the long-term energy mix by facilitating technological innovation to lower carbon emissions from the production and use of oil & gas. Communicating the potential for technology is essential so that oil & gas can endure and grow in a carbon constrained economy.

Boundary: Within Scope (things that can be done)

- Partner with Universities and Product Users
- Advocate for Funding of Innovative Technologies
- Showcase Breakthrough Technologies (e.g., Conference etc.)
- Establish, Expand, or Partner with an oil and gas information sharing network (e.g., US version of Canada's Oil Sands Innovation Alliance (COSIA) or expand The Environmental Partnership)

On the Boundary:

Sponsor/co-sponsor Technology Prize (e.g., NRG COSIA Carbon Xprize)

Boundary: Beyond Scope

- Direct Investment