Methane Policymaking: California Opportunities

Planning and Conservation League
Methane Assembly

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Ours is the first generation to understand climate change and the last generation that can do something about it.

Every fraction of a degree of warming brings us closer to irreversible tipping points

Vulnerable communities and developing countries are being hit the hardest
Theory of Change

RMI’s Climate Intelligence Program advances data-enabled solutions that differentiate asset-level emissions performance, focusing on four key pillars:

1. Improving emissions visibility and context.
2. Analyzing and attributing emissions through the supply chain.
3. Digitally enabling commodities to successfully differentiate their emissions performance.
4. Establishing governance and accountability measures for standardizing performance across products and markets.
Approach to Estimating Oil and Gas Emissions

Leveraging both bottom-up and top-down data as inputs

- The Oil Climate Index plus Gas (OCI+) is an engineering systems tool relying on publicly available bottom-up operating data as inputs.
  - **Examples**: resource characteristics, asset age, production volumes, shipping distances.

- OCI+ also uses top-down measurement data from satellites to identify differences in the emissions intensities of similar sources of oil and gas.
  - **Examples**: NOAA VIIRS data for flaring; various methane satellites.

- OCI+ is open-source, peer reviewed collaboration between RMI, Stanford, and the University of Calgary.

- CARB uses the underlying OPGEE model for the Low Carbon Fuel Standard
OCI+ Results: Methane’s Role in O&G Emissions

One-half of oil and gas industry emissions come from methane leakages

Source: RMI’s OCI+; *Note: Assumes 20-year global warming potential (GWP)
The oil and gas industry is the \#2 source of human-made methane.

But it is \#1 for reduction potential.
California Natural Gas and Climate Situation

• California imports **90% of its gas** from Colorado, New Mexico, and other North American producers

• When **>3.2% of gas leaks**, natural gas is more polluting than coal

• Empirical studies find that many **US gas systems leak >3.2%**

• Carbon Mapper is spotting significant methane leakage from **San Joaquin Valley** oil and gas operations

• Offshore **platforms could also be leaky** like in the Gulf of Mexico (with an upper limit of >65% gas leakage rates in shallow water)

• **What exactly is in the gas that leaks?** 70-90% methane and the rest is toxics and impurities
California Policy Responses

• **Adopt a low-methane leakage gas certification standard** for California’s domestic and imported gas
  - Methane intensity calculation
  - Deployment of monitoring technology
  - Company practices evaluation

• **Collect gas compositions** from operators specifying methane and toxics contents from production and shipping segments

• **Form a buyers’ alliance** of those states that also import most of their gas, including AZ, NV, OR, WA

• **Support California’s efforts** to comply with the Global Methane Pledge that the US government initiated at the Glasgow Climate Conference (COP 27) to reduce methane emissions 30% by 2030
To achieve great things, two things are needed: a plan and not quite enough time.

— LEONARD BERNSTEIN
Thank you!

For more information

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