

# SB 1440 Implementation

December 6, 2019



Together, Building  
a Better California

**SB 1440 is intended to explore how California's gas delivery system can support the cost-effective reduction of SLCPs and CO<sub>2</sub> through the delivery of biomethane.**

**1**

**How might we consider “cost effectiveness” for short-lived climate pollutant reduction/ GHG reduction as we’re considering developing renewable gas procurement targets/ goals?**

**2**

**What does “cost effective” short-lived climate pollutant reduction/ GHG reduction mean? How should we be thinking about this question? How might we have considered this question historically vs now in a rapidly changing climate?**

**3**

**How might we consider procurement targets or goal development?**

**4**

**How might we consider achieving these targets or goals? What procurement strategy might we consider and why?**



# Defining Cost-Effectiveness Presents Challenges

Any RNG procurement goal or target should be cost-effective and complement existing programs. However, defining cost-effectiveness can prove challenging.

What "costs" are avoided?

By which end-use sectors?

Avoided Cost Category	Unit	Res / C&I / Ag	Transportation	Electric
Natural gas commodity cost	\$/MMBtu			
Cap-and-Trade compliance obligation	\$/MT CO <sub>2</sub>			
Upstream Methane Emissions	\$/MT CH <sub>4</sub>			
RECs (for CO <sub>2</sub> benefit)	\$/MWh			
LCFS (for CO <sub>2</sub> and CH <sub>4</sub> benefit)	\$/MT CO <sub>2</sub> e			
SLCP abatement cost*	\$/MT CH <sub>4</sub>	TBD		
Social cost of carbon	\$/MT CO <sub>2</sub>			
Social cost of methane	\$/MT CH <sub>4</sub>			

\*Cost of meeting CA's SLCP reduction target for methane from SB 1383

A hybrid approach to goal or target-setting will likely be needed.

**Top Down**



<b>Example</b>	California “needs” <i>X amount</i> of biomethane
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- *Modeling of pathways to meet California’s decarbonization objectives*

**Bottom Up**



<b>Example</b>	There is <i>X amount</i> of biomethane available for California’s consumption
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- *Forecasts of supply potential*
- *Forecasts of commodity costs*
- *Customer affordability*



# Many Approaches to Setting an RNG Procurement Goal or Target

While a volumetric or percentage-based goal or target simplifies procurement, some consideration for changes in throughput will be needed.

Metric for Goal or Target	Benefits	Challenges
<b>Volumetric</b> ___ BCF / year	<ul style="list-style-type: none"> <li>Simplifies procurement activities</li> </ul>	<ul style="list-style-type: none"> <li>Only indirectly connected to GHG and SLCP reductions</li> <li>Does not adjust as throughput declines, potentially increasing customer bills/rates</li> </ul>
<b>Percentage</b> ___ % of throughput	<ul style="list-style-type: none"> <li>Reflects differences among gas suppliers' throughput</li> <li>Adjusts as throughput declines</li> </ul>	<ul style="list-style-type: none"> <li>Could pose a risk of over procurement if throughput declines are greater than predicted</li> </ul>
<b>Carbon intensity</b> ___ ton CO <sub>2</sub> / MMBtu	<ul style="list-style-type: none"> <li>Could better accommodate eventual inclusion of hydrogen in the procurement program</li> </ul>	<ul style="list-style-type: none"> <li>Difficult for procurement planning</li> <li>Could create a "moving target" as direct regulations evolve</li> <li>Unclear who would determine the GHG reductions associated with a potential contract</li> </ul>
<b>GHG emissions</b> ___ ton CO <sub>2</sub>	<ul style="list-style-type: none"> <li>Aligns with objective of SB 1440</li> <li>Ensures demonstrable progress towards the state's GHG (and SLCP) reduction goals</li> <li>Could better accommodate eventual inclusion of hydrogen in the procurement program</li> </ul>	<ul style="list-style-type: none"> <li>Difficult for procurement planning</li> <li>Could create a "moving target" as direct regulations evolve</li> <li>Unclear who would determine the GHG reductions associated with a potential contract</li> </ul>

Lessons learned from past procurement programs should guide the formulation of an RNG procurement goal or target.

**1 Go slow to start**

**2 Who buys and who pays matters**

**3 Need for rules-based cost containment mechanism**

**4 One inclusive low carbon fuel program; not carve outs**