



## Catalog of Mitigation Options Oil and Gas Technical Working Group

A catalog of state-level, GHG-reducing actions and mitigation options based on actions undertaken or considered by state, local and private actors. Brief descriptions of these options, and some of the related state actions underway, are available in a companion document.

### Key to Preliminary Rankings of Options in the Tables that Follow:

Potential GHG Emission Reductions <sup>1/</sup>	Potential Cost or Cost Savings <sup>1/2/</sup>
<b>High (H):</b> At least 1.0 million metric tons (MMt) carbon dioxide equivalent (CO <sub>2</sub> e) per year by 2020 (~2% of current AK emissions)	<b>High (H):</b> \$50 per metric ton CO <sub>2</sub> e (MtCO <sub>2</sub> e) or above
<b>Medium (M):</b> From 0.1 to 1.0 MMtCO <sub>2</sub> e per year by 2020	<b>Medium (M):</b> \$5-50/MtCO <sub>2</sub> e
<b>Low (L):</b> Less than 0.1 MMtCO <sub>2</sub> e per year by 2020, or 1 MMtCO <sub>2</sub> e by 2050	<b>Low (L):</b> Less than \$5/MtCO <sub>2</sub> e
<b>Uncertain (U):</b> Not able to estimate at this time	<b>Negative (Neg):</b> Net cost savings
	<b>Uncertain (U):</b> Not able to estimate at this time
<sup>1/</sup> Several options may overlap in terms of emissions reductions and/or cost impacts. Estimates assume options would be implemented independently from other options. <sup>2/</sup> Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.	

### Definition of “Priorities for Analysis” [these will be assigned by the MAG/TWG as part of this process]:

- **High:** High priority options will be analyzed first.
- **Medium:** Medium priority options will be analyzed next, time and resources permitting.
- **Low:** Low priority options will be analyzed last, time and resources permitting.

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Other Considerations: Jobs, Fuel Imports, Externalities, Feasibility	Priority for Analysis	Notes / Related Actions in Alaska
OG-1	OVERARCHING POLICIES					
1.1	Research and Development (R&D), including R&D for Advanced Fossil Fuel Production Technologies					
1.2	Incentives for Advanced Fossil Fuel Production					
1.3	Market-Based Mechanisms to Establish a Price Signal for GHG Emissions (GHG Cap-and-Trade or Tax)					
OG-2	CARBON CAPTURE AND STORAGE OR REUSE IN OPERATIONS: INCENTIVES, SUPPORT OR REQUIREMENTS					
2.1	CO <sub>2</sub> capture and storage or reuse (CCSR) in O&G operations					
2.2	CO <sub>2</sub> capture and storage or reuse (CCSR) in O&G refineries					
2.3	CO <sub>2</sub> use for Enhanced Oil Recovery					
OG-3	FUEL PRODUCTION AND PROCESSING					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Other Considerations: Jobs, Fuel Imports, Externalities, Feasibility	Priority for Analysis	Notes / Related Actions in Alaska
3.1	Oil and Gas Production: GHG Emission Reduction Incentives, Support, or Requirements					
3.2	Low-GHG Hydrogen Production: Incentives and Support					
3.3	Low-GHG fuels in refineries					
3.4	Reduce flaring					
OG-4	FUEL DELIVERY					
4.1	Natural Gas Transmission and Distribution: Incentives, Support or Regulations to Reduce Leaks					
4.2	Natural Gas Transmission and Distribution: Incentives, Support or Regulations to Improve Efficiency					