

## **TLU-1 California GHG Emission Standards [Lead: Lewison]**

**Description:** Adopt the California GHG emission standards (also known as the “Pavley” standards or “Clean Car Program”) in order to reduce the net emissions of GHG’s from passenger vehicle operation.

**Design:** New cars and light trucks in all states must comply with Federal emission standards, and, generally speaking, states have the choice of adopting a stronger set of standards applicable in California. In 2005, California finalized a set of standards that would require reductions of GHG emissions of about 30 percent from new vehicles, phased in from 2009 to 2016, through a variety of means. The standards must still be approved by USEPA, and face a court challenge.

**Goals:** Implement program beginning with vehicle model year 2011

**Related Policies/Programs in place:** Federal regulation of tailpipe emissions and fuel economy.

**Types(s) of GHG Benefit(s):** CO2 reductions.

### **Estimated GHG Savings and Costs Per Ton (for quantified actions):**

	<u>2012</u>	<u>2020</u>	<u>2050</u>	<u>Units</u>
GHG Emission Savings		1.9		MMTCO2e
Net Present Value (2006-2020)		-\$1,207		\$million
Cumulative Emissions Reductions (2006-2020)		10.5		MMTCO2e
Cost-Effectiveness		-\$114.83		\$/tCO2e

### **Data Sources, Methods, and Assumptions:**

- **Data Sources:** CCS, Draft New Mexico Greenhouse Gas Inventory and Reference Case Projections, July 2005; Mary Braun, Tony Dutzik, Jeanne Bassett, A Blueprint For Action: Policy Options to Reduce New Mexico’s Contribution to Global Warming, Spring 2006; Elizabeth Ridlington, Tony Dutzik, and Christopher Phelps, Cars and Global Warming: Policy Options to Reduce Connecticut’s Global Warming Pollution from Cars and Light Trucks, Spring 2005.
- **Quantification Methods:** The New Mexico PIRG used a model of a light duty vehicle fleet to compare the difference between base case emissions and emissions with fleet penetration over time of vehicles that meet lower GHG emissions standards consistent with California regulations. This model was developed by Elizabeth Ridlington and was used to model emission reductions in Arizona and Connecticut as well as New Mexico. The PIRG model calculated

light duty vehicle fuel use and emissions based upon scientifically valid methods. (See discussions in NM PIRG report, pp. 20-22, 49-51 and ConnPIRG report, pp. 27-31.)

CCS compared the PIRG model results to results for New England states and California that were obtained using comparable modeling methods. CCS found that while all three modeling efforts were scientifically valid and comparable, some of the PIRG model assumptions and methods were relatively conservative, while the California and New England modeling results were relatively optimistic. CCS further refined the PIRG model results consistent with a middle range scenario that produced results less conservative than the PIRG results and less optimistic than the California and New England results. While PIRG projected a 13.7% reduction in light duty vehicle emissions with this policy for Arizona, the CCS refinement estimates a 15.5% reduction in emissions for Arizona. CCS applied this same refined percentage reduction in emissions to the CCAG reference case for New Mexico to obtain a net estimated reduction of 1.9 MMTCO<sub>2e</sub> in 2020.

**Key Assumptions:**

The three modeling efforts have established a generally acceptable scientific method of projecting GHG emissions reductions from this policy. The CCS comparison of the three modeling methods provides some independent professional validation of the models and their results. The key assumption of the emissions reduction projected by CCS is that the most likely scenario for emissions reductions is one that would fall between the more conservative scenario projected by the AZ PIRG model and the more optimistic scenario projected by the California and the New England models.

**Key Uncertainties:** Fleet turnover rates for light duty vehicles and future patterns of consumer purchase choices between passenger cars and light duty trucks (i.e. SUVs).

**Contributing Issues:** Some reduction in criteria pollutants is likely.

**Feasibility Issues, if applicable:** Light Duty Vehicle GHG emissions standards can be met with existing 'off-the-shelf' automotive technologies that are already in the marketplace.

**Status of Group Approval:** (Pending or Complete)

**Level of Group Support:** (Unanimous Consent, Supermajority, Majority, or Minority)

**Barriers to consensus (if less than unanimous consent):**