2017 Scoping Plan Update: Assembly Bill 197 Analyses
Background Information

AB 197 (Garcia, Chapter 250, Statutes of 2016) requires the following for each potential reduction measure evaluated in any scoping plan update:

- The range of projected greenhouse gas emissions reductions that result from the measure.
- The range of projected air pollution reductions that result from the measure.
- The cost-effectiveness, including avoided social costs, of the measure.

Estimated Greenhouse Gas Emissions Ranges
- GHG estimates by measure in 2030.
- Provided by PATHWAYS Modeling
  - Accounts for interactive affects between sectors.
  - Not designed to look at policies and measures as standalone actions.
- Ranges to account for uncertainty in measure performance.
- Keep in mind general modeling uncertainty of GHGs.

Estimated Criteria and Toxic Air Contaminant (TAC) Emissions Ranges
- PATHWAYS does not include criteria and TAC emissions.
- Criteria and TAC emissions are expected to decline across the state over time, but there still may be localized air quality impacts.
- Estimates allow for rough comparison of measures within the table and are at the state level, not regional levels.
- Criteria and TAC ranges are shown in tons per day, as they are episodic emissions events with residence times of a few hours to days, unlike GHGs, which have atmospheric residence times of many decades.
- These estimates assume a 1:1 relationship between changes in GHGs, criteria pollutants, and toxic air contaminant emissions, and that is not always the case.
- The values should not be considered estimates of absolute changes for other analytical purposes.
- The ranges are estimates that represent current assumptions of how programs may be implemented; actual impacts may vary depending on the design, implementation, and performance of the policies and measures.
- Keep in mind general modeling uncertainty for ranges of GHGs.
Social Cost of Carbon Ranges
- Use a range of social cost of carbon (SC-CO2) ranges from U.S. EPA.
- SC-CO2 estimates avoided damages from the emission of one metric ton of carbon in a single year.
- Ongoing discussion on the SC-CO2 values themselves and if they are too low.
- Keep in mind general modeling uncertainty for ranges of GHGs.
- Simple multiplication of the SC-CO2 values with the GHG reductions by measure in 2030.

Cost-Effectiveness Ranges
- Based on GHG estimates by measure in 2030.
- As individual measures are designed and implemented, they will be subject to further evaluation and refinement and public review, which may result in different costs.
- The ranges are estimates that represent current assumptions of how programs may be implemented and may vary greatly depending on the design, implementation, and performance of the policies and measures.
- Importantly, there are interactions between measures that are not captured in the analysis when you consider each measure separately, such as net impacts costs for renewable energy and reduced costs for reduced energy demand.
- These values only consider the cost per metric ton of GHGs reduced and do not account for cost savings from health benefits associated with reductions in co-pollutants, or other benefits.