Outline

• ETAAC Views on MAC Report
• Why Technology Advancement Policies-TAPs?
• What Technology Advancement Policies?
• And Where Should the Money Come From?
• Role of TAPs in Overall AB 32 Plan Revisited
ETAAC Views on MAC Report

• Polices that put a “price” on GHG emissions like a cap and trade program stimulate technology advancement.
• But such policies are in general not sufficient to advance technologies as fast as would be desirable to minimize the costs of achieving our objectives.
• Using both types of policies in unison seems much more sensible than either type on its own.
Why Technology Advancement Policies?

• Diffusion of Existing Technologies
  – Poor information
  – Bad decision making capabilities
  – Principal agent problems
  – Access to low cost financing

• Development of New Technologies
  – Appropriability/spill over externalities, especially “valley of death” phenomenon
  – Scale up externality (often need new science and eng.)
  – Learning externality
  – Supply of innovation externalities (R&D workers)
What Technology Advancement Policies?

• Overarching principle – highest returns possible – implies market like policies
• Streamlining siting, permitting and trans. access
• R&D subsidies
• New technology subsidies, inc. financing
• Technology standards – someone else pays
• Information and demonstration programs
And Where Should the Money Come From?

• Could do some with standards
• Cap and trade auction revenues
• GHG fees (Sinclair Paint case precedent)
• Feebates
• Utility surcharges
• General revenues
Role of TAPs in Overall AB 32 Plan Revisited

• Cap and Trade
  – Provides incentives for innovation
  – Allows new technologies to be introduced expeditiously
  – Provides benchmark for costs across all sectors

• Technology Advancement Policies
  – Go beyond C&T incentives, but also augment them
  – Can reduce cost of reaching targets, possibly significantly
  – Can leverage California’s technology leadership position
ETAAC-Five Major Strategies

• Accelerate GHG emission reductions
• Balance a portfolio of economic and technology policies
• Create innovative public funding to complement private investment
• Foster international and domestic partnerships
• Leadership across state agencies
ETAAC- Five Major Opportunities

- Accelerate efficiency measures
- Remove carbon from energy sources
- Rethink transportation to lower demand and carbon emissions
- Reduce GHG emissions from industry, agriculture, forestry and water
- Capture cleantech employment, economic, health, and environmental justice co-benefits