

# Technology Advancement and AB 32

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## 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

- Policies 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