Comments Reflect a Representative Sample of Inputs from Environmental Organizations

- Not intended to suggest 100% consensus
- Several organizations have relatively narrow focus across the spectrum of issues
- Individual groups to provide detailed comments in writing
- Individual experts on select topics may be available on phone to address questions
A History of Success

- Agree with ETAAC assessment that California has repeatedly demonstrated ability to substantially improve environment while enjoying economic growth and supporting population growth
- Support emphasis on new-, mid- and long-term goals
  - Urgent need for reductions
  - Policies and investments should pave way for, and not compromise, ability to meet vital 2050 emission reduction targets
• Agree that complementary policies are needed to stimulate innovation

• Support the principle to prioritize emission reductions having public health and socio-economic co-benefits—as well as need to address environmental justice.
  
  • Urge CARB to conduct more extensive outreach to E.J. community leaders throughout state in effort to learn how to achieve E.J. community goals
Financial Sector: Positive Vision and Practical Optimism

• Recommendations provide a valuable contribution in directing policy and market incentives toward fostering innovation

• California Carbon Trust concept offers great promise; applaud emphasis given to:
  – directing investments in California
  – advancing Environmental Justice goals
  – achieving long-term reductions beyond 2020

  – Need clear mechanism to assure that E.J. communities will be empowered through Trust disbursements and other clean technology investments
Financial Sector: Positive Vision and Practical Optimism (cont’d)

- Using policy levers to encourage diffusion of new technology as important as R&D and too often ignored
- Cleantech Workforce Training is useful step to ensure sufficient skilled labor to support new industry
  - Disadvantaged communities could be assisted consistent with AB 32’s community empowerment directive
Financial Sector: Positive Vision and Practical Optimism (cont’d)

- Market mechanisms beyond auctioning (C&T) should be considered
  - Fees and rebates should be employed to harness market forces in transition to low-carbon technologies
- Municipal Assessment Districts a good idea
  - Any suggestions on how ARB might encourage municipalities to participate?
Transportation Challenges Exceed Technology and Markets

• Pleased to see report acknowledge
  – Measures to reduce travel demand and technology-forcing vehicle and fuel standards needed to achieve 2020 and 2050 limits
  – Public education campaign needed to help consumers understand climate threats and impacts of their choices

• Support development of GHG standards for medium- and heavy-duty vehicles; phase II for light duty vehicles
Transportation Challenges Exceed Technology and Markets (cont’d)

- Feebates – emissions benefits above and beyond regulatory standards; most effective would be implemented fleet-wide. Should be added to Transportation Chapter.
- Appreciate recommendation to coordinate existing funding (e.g., Moyer) to address GHGs; however, new funding is needed
- Agree that LCFS, if fully implemented, will reduce GHGs from transportation fuels on a per-gallon basis. Standard might not be sufficient to incentivize the most advanced fuels, e.g. cellulosic ethanol, electricity and H2, needed to move to near-zero fleet
  - Incentives needed for R&D to ensure that vehicle/fuel/infrastructure technologies are harmonized to move the cleanest systems into the market
Transportation Challenges Exceed Technology and Markets (cont’d)

- Support report’s recommendations for VMT reduction; recommend adding items to improve transit, including:
  - electronic fare collection;
  - electrification of passenger rail service;
  - time-of-arrival information;
  - and bus rapid transit (BRT)
- Diesel reductions should be prioritized because of multiple benefits: Health benefits, traditional GHG + black carbon reductions
A Healthy Environment and Healthy Economy

- Industrial sector – Chapter doesn’t explicitly address cap-and-trade; may presume state will take this approach
- Energy efficiency standards for combustion devices could be backstop for devices traditionally untargeted; may be needed to get reductions across the board
- Loan assistance programs, information sharing and public/private partnerships are excellent approaches to improve technology deployment
- Report is mostly silent on other potential direct regulatory approaches:
  - GHG-specific measures for other large-emitters
  - Fuel switching away from fossil fuels
Building on Success in the Energy Sector

- Agree that individual programs can benefit discrete technologies
  - Different technologies play different roles in California’s energy system, e.g., peak shaving, demand reduction, energy diversity
- Renewable energy will play increasingly important role
  - State should set clear requirements for the amount of renewables needed to support 2020 and 2050 limits
  - State could identify priorities for resources and regions and associated timetables to achieve those targets
  - In addition to continued expansion of renewable energy resources, we recommend that utilities plan for and execute a steady decrease in their reliance on carbon-emitting resources over time.
Building on Success in the Energy Sector (cont’d)

• The “Possible Solution” section cites the (alleged) need for storage to firm intermittent resources such as wind and solar – in order to shift them from off-peak to on.
  • This should be clarified to note that solar power is generally on peak. Some suggest that wind and solar compliment each other.
  • CEC Intermittency Analysis Project report – new storage not necessary for 33% renewables goal

• We recommend inclusion of molten salt and “flash” hot water storage technologies currently being developed for large-scale applications in other regions
Building on Success in the Energy Sector
(cont’d)

• Technology-specific considerations:
  – The report should note that California has more potential for solar development than for any other resource, including both central station and distributed generation. Wind has tremendous economic potential.
  – ETAAC should emphasize peak shaving potential of energy efficiency, demand response, solar heating and cooling, etc., especially in Southern California. Support could be targeted to low-income communities.
  – Distributed generation and demand reduction may require greater emphasis in areas that are transmission constrained.

• Report should recommend that barriers (e.g., demand charges and exit fees) to expanded use of combined heat and power be removed.
Agriculture Sector: Opportunity & Uncertainty

- Ag systems are dynamic –
  - management practices among farms
  - inherent nature of biological systems
- Estimates of emission reductions should acknowledge such uncertainty
- Basis for GHG projections should be elaborated.
  - ARB 2004 data appears to show higher emissions from 2.8 million cattle than ETAAC shows from 3.6 million head
Agriculture Sector: Opportunity & Uncertainty (cont’d)

- More research needed on the impact of feed additives on methane digesters
- Agricultural Biomass Utilization section discusses more than agricultural waste – title should be changed to reflect content
  - Increasing harvest of ag and forest residues beyond current 5 million dry tons will require more intensive management; with implications for nutrient cycling and water use
  - Increase harvest for biomass purposes will lead to increased emissions from transporting the dispersed resources, per AB 1007 report
  - Systems-wide analysis should be conducted to determine total benefits and impacts
  - State should establish independent 3rd party institution to research, test and certify technologies that can meet California environmental performance standards
Agriculture Sector: Opportunity & Uncertainty (cont’d)

- Expanding growth of crops for fuel will require more intensive management
  - Uncertainty about GHG footprint should be acknowledged; key uncertainty is N2O contribution
- Agree that conservation tillage likely to sequester carbon compared with status quo; provide co-benefits; uncertainties may remain
- Better estimates of land available for riparian and farmscape sequestration could be determined using GPS; interaction between fertilizers and new plant growth should be researched for N2O impacts
Agriculture Sector:
Opportunity & Uncertainty (cont’d)

- Precision farming – great potential for pesticide and fertilizer reduction
- While section mentions water management efficiency, topic is not adequately covered, given that agriculture consumes 75-80% of state’s water. Increased water efficiency in ag sector can reduce GHGs two ways:
  - Reducing emissions from over-irrigated soils
  - Avoiding the energy use to transport H₂O to agricultural areas
Forests: Source of Emissions and Reservoir for CO2

- Forest section – solid set of recommendations
- Recommend consideration of additional points:
  - Forests should be recognized as significant source of CO2; report should address how incentives can be used to mitigate
  - Biomass energy and fuels management should be treated as distinct activities in policy development
    - Climate benefits are assessed at different scales
Forests: Source of Emissions and Reservoir for CO2 (cont’d)

- Modification of forest protocols should track with Scoping Plan and be consistent with other sectors
- ARB likely to maintain authority over GHG accounting and should provide oversight for forest accounting methodologies to ensure consistency
- California-Grown measure is good way to promote climate benefits of forests while keeping business and environmental benefits in state.
Resource Recovery – Include Sections on Recycling and Waste Reduction (cont’d)

- Sections contemplated dealing with recycling and waste reduction absent in Discussion Draft
  - Missing significant opportunity to cost-effectively reduce GHG emissions from mining, manufacturing, forestry, transportation and electricity sectors, while reducing methane emissions from landfills
  - 25% reduction in materials typically collected curbside could deliver 5 MMTCO2E of GHG reductions
References to waste issues in draft focus exclusively on conversion technologies, rather than on proven recycling and composting technologies

- No quantifiable evidence that conversion technologies are as or more effective than other management options
- State should evaluate all end-of-life management options, including composting and anaerobic digestion, before endorsing any conversion technologies
Resource Recovery – Include Sections on Recycling and Waste Reduction (cont’d)

- The draft report lacks any reference to composting strategies, despite multiple GHG benefits, including:
  - Avoided landfill emissions
  - Greater carbon sequestration in crop biomass and soil
  - Reduced need for GHG-releasing fertilizers and pesticides
  - Decline in energy-intensive irrigation
  - Well-established, technology supports in-state agriculture
  - Composting is explicitly identified as the highest and best use for organic material under California law
# Global Warming Action Coalition

- **American Lung Association of California**
- **Audubon California**
- **California League of Conservation Voters**
- **California Tax Reform Association**
- **California Wind Energy Association**
- **Californians Against Waste**
- **CalPIRG**
- **Center for Clean Air Policy**
- **Center for Energy Efficiency and Renewable Technologies**
- **Climate, Community and Biodiversity Alliance**
- **Climate Protection Campaign**
- **Coalition for Clean Air**
- **Community Environmental Council**
- **Earthjustice**
- **Environment California**
- **Environmental Defense**
- **Friends of the Earth**
- **Global Green USA**
- **Kirsch Foundation**
- **Natural Resources Defense Council**
- **Pacific Forest Trust**
- **Planning and Conservation League**
- **Redefining Progress**
- **Sierra Club California**
- **The Nature Conservancy**
- **The Utility Reform Network**
- **Tomales Bay Institute**
- **Transportation and Land Use Coalition**
- **Union of Concerned Scientists**