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Comments on Draft CEC Investment Plan

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California Air Resources Board**

**Advisory Committee Meeting
January 8, 2009**

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General Comments

Draft Staff Paper

- Good framework for setting priorities and allocating resources
- Goal-driven approach appropriate
 - 2050 GHG goal should be target
 - Paper lays out the 2050 GHG reduction needs clearly

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General Comments

- **What is needed to meet 2050 goal (80% reduction) should drive funding decisions**
 - Where is greatest market potential?
 - Technologies/fuels that have lowest carbon footprint and have big market potential
 - Where is greatest need for gov't funds?
 - Higher risk propositions
 - Removal of barriers such as infrastructure
 - Where are the opportunities to leverage our funds?
 - Where there is willing industry investment

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General Comments

- **What fuels/vehicles are most likely needed to meet the 2050 goal?**
 - PHEVs (super ultra low C category)
 - BEVs (super ultra low C category)
 - H2 FCVs (super ultra low C category)
 - Biofuels (ultra low C category)
- Highest priority for funding should focus on these technologies and categories

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Specific Comments

Super-ultra-low-carbon Category (electric drive; >82% GHG reduction)

- Insufficient funding to support fuel cell vehicle rollout in 2010 and Gov's H2 Highway
 - Failure to meet infrastructure needs could singularly kill fuel cell vehicle commercialization – we are at that point now!
 - Add ~ \$10 million more per year
- Eliminate support for retrofit PHEV/BEV vehicles
 - Doesn't support OEM development efforts
 - Retrofits are niche products, not sustainable

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Specific Comments

Ultra-low-carbon Category (biofuels; >60% GHG reduction)

- Emphasis should be on bio-fuel production processes
 - Not clear if alcohols or HC blending stock
 - Lower emphasis on fuel dispensing infrastructure expansion until high potential fuel types identified
- Greater specificity in plan would help bidders have confidence of favorable consideration, yielding better proposals

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Specific Comments

Low-carbon Category (natural gas, propane, biodiesel; >40% GHG reduction)

- Too much funding for the highest carbon footprint category
 - Doesn't support pathway to 2050 (need super-ultra-low-carbon vehicles instead)
 - Decrease funding by at least \$10 million/year
 - Eliminate support for development of advanced HD natural gas and propane engines
- How natural gas and propane achieve >40% GHG reduction should be clarified (seems too high)

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Summary

- Draft staff paper a solid start
- Improvements should include:
 - Funding allocations based on meeting 2050 goal (instead of 2020 goal)
 - Allocations should favor fuels/technologies with greatest need and large market potential
 - Increase funding to the super-ultra low carbon category (+\$10 million/year)
 - Decrease funding for the low-carbon category

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