

#### Western States Petroleum Association

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# Catherine H. Reheis-Boyd

President

May 6, 2011

CARB LCFS Periodic Review Advisory Panel portal LCFSADVPANMEMBERS-WS

Michelle Buffington – [mbuffing@arb.ca.gov](mailto:mbuffing@arb.ca.gov), Richard Corey – rcorey@arb.ca.gov

**Re. Advisory Panel Draft Work Plan and Topic 5 - Ultra Low Carbon Fuel Comments**

Dear Michelle:

The Western States Petroleum Association (WSPA) would like to provide comments on the recently released Low Carbon Fuel Standard Periodic Review Advisory Panel Draft Work Plan, and the Outline Paper Topic 5 - Ultralow Carbon Fuels. Both were released in preparation for the April 26th Advisory Panel meeting and staff requested all comments to be submitted by no later than May 6.

1. **WORKPLAN**:
2. Points of Agreement

* We generally agree with the approach and questions to be addressed by the Work Plan.
* We agree this must be a living document since we expect more questions and issues to arise as the process develops.
* We generally agree with the tools and processes ARB will be relying on to assess the issues listed in the Work Plan.
* We appreciate the inclusion of the crude oil treatment/HCICO issue in the Work Plan since this is currently a critical issue for our industry.

1. Areas of Concern

* The Work Plan implies changes to the LCFS will be based on initial year compliance data. As stated in the Work Plan itself, ARB may have only 2 to 3 quarters of LRT data and at best a single annual report upon which to evaluate the LCFS. No projection of future feasibility can be solely, if at all, based on past history because of the dramatic increases in CI reduction in future years. An evaluation of feasibility in future years must be based on the expected availability of the required low carbon fuels and the vehicles that would use them. Additionally, no HCICO penalty was applied in 2010 nor much of 2011 as no compliance procedures and enforcement mechanisms for this feature of the program exist.
* The progress against targets and the review of the compliance schedule needs to look at least 5 years into the future and not merely look back at the data from 2011. ARB needs to reconstruct its 2008 to 2009 forecast base for each of the existing and potential LCFS fuels with volumes by year out to 2020. It will be impossible to recommend adjustments to the compliance schedule or to any aspects of the program unless this “outlook” review is performed. An infeasible compliance schedule could have significant adverse economic impacts on the state. The 5 year minimum timeframe covers the 3 year schedule for the periodic reviews plus a 2 year allowance to respond to potential changes called for in the next review. In other words, the earliest that rulemaking could be effected based on the 2015 Periodic Review would be 2017. So this review in 2011 needs to consider the feasibility of the LCFS up until that time.
* The review by the Panel needs to clearly identify the specific fuels, the volumes, and the CIs projected to be available for each compliance year out to 2020 to comply with the program schedule – including the availability and potential market cost of credits generated by opt-in parties. Given the substantial volumes of low carbon fuels required, this type of concrete analysis will provide the only credible basis for assessment of program feasibility and description of potential compliance scenarios. Further, the review should consider what fraction of the scarce national/international low CI fuels is being redirected to California to satisfy the compliance schedule and if such redirection is indeed reducing GHG emissions in a holistic sense.
* We would like to recommend the Panel consider asking an expert on “innovation cycles” to attend one of our meetings to discuss the reality of how long and what steps are normally followed in the development of new/innovative technology through to commercialization and what hurdles or barriers exist in any major push for innovation such as revising the transportation fuels market. In addition, perhaps some venture capitalists could add to the conversation.
* We also recommend the Panel hears from independent technical experts in the developing technologies that are required for feasible compliance over the next 5 years. That will help inform us of the feasibility of these technologies coming on-line in comparison with the volumes actually needed.
* Part of this analysis needs to include a review of the national RFS2 program and other national or state LCFS programs to determine the interplay between all of these programs and whether there will be sufficient low carbon fuels for all of these programs, and if not, what will be the likely impact of this on fuel prices and fuel movement in the marketplace.
* There also needs to be a careful review of certain barriers to using certain types or levels of low CI fuels – such as biodiesel, E85, and E15 – so that there are realistic projections of the amounts that will be “permitted” in the marketplace.
* In addition, an evaluation of infrastructure capabilities and needs will be required. How will the fuels get from production facilities to consumers in the state? Will new or significantly expanded facilities be required to accomplish this, what will the cost be, what will the timing be based on CEQA and other considerations, and how will this be done?
* Additionally, for those fuels requiring new vehicle technology, what is the near-term and long-term vehicles market projections (BEVs, PHEVs, FCVs, etc.) needed to meet later compliance years? The lack of available vehicles or the mis-matching of fuels and vehicles, may be more problematic in achieving compliance than all the other issues.
* We believe there should be an economic impact review of the program in terms of potential impacts to the state as well as to its consumers, as well as potential negative job impacts. This needs to include an analysis of the impact of the program on the economy in general, on state revenues as a result of lost taxes, as well as the potential impact on the state’s consumers. The review should also include an examination of the ramifications to the petroleum industry if the compliance targets are unachievable.
* Also, there should be an examination of what the appropriate periodicity is to program changes and which changes can occur without negative consequences such as stranded investments, impacts on venture capital availability, etc. This includes the issue of sustainability and how it will eventually be incorporated in the program.
* It should also include an examination of the ramifications to the consumer if the LCFS drives increased market volatility or increased prices.
* According to AB32, the LCFS is supposed to minimize “leakage”, that is “a reduction in emissions of GHGs within the state that is offset by an increase in emissions of GHGs outside the state.” This could be an issue relative to EPA’s RFS2 program, because ARB’s timeline is more aggressive than EPA’s for actual low CI fuel availability. Low CI fuels from outside California will be diverted to the state, effectively increasing the CI of fuels at the source location, and increasing overall GHG emissions due to the extra shipping to California. This issue of leakage needs to be included in the Work Plan to determine if there are real net world-wide reductions in GHGs due to the LCFS.
* There must be a fresh review of environmental impacts based on new information. As new fuels are introduced we must have certainty that there will be no unintended environmental impacts and/or the unanticipated ancillary costs of mitigating any increase in regulated emissions as these fuels come into the marketplace. ARB is currently dealing with these issues as part of the biodiesel specification regulation. Tradeoffs between criteria pollutants and GHG emissions or carbon intensity have traditionally not been permitted. In addition, ARB needs to ensure their actions do not defer carbon intensity reduction inadvertently.
* The Work Plan is an ambitious list of important questions and issues and while all are important they have different levels of urgency. Therefore, the Work Plan issues should be prioritized. The Advisory Panel should identify the urgent implementation issues and where needed recommend establishment of separate Implementation Work Groups to address them. Longer term policy issues should also be identified and consensus on timing, methodology, data sources, and review processes needed for policy decisions should be established so that as sufficient LCFS data becomes available policy implications can be assessed in a manner acceptable to all stakeholders.
* The goal of the Work Plan is not clear. A statement of the work product that will flow from the Work Plan should be included. The statement is needed to provide direction to the panel.

1. **ULTRALOW CARBON FUELS (ULCF)**

Points of Agreement

* The Outline is a good comprehensive list of issues and questions regarding ULCFs.

Areas of Concern

* WSPA does not support the addition of a ULCF category into the LCFS at this time. We recognize that monitoring the progress of these technologies can be a useful component of the program reviews, however, but only support a ULCF category for that purpose.
* The document implies movement away from one of the founding principles of the LCFS which is that it’s a market based regulation that rewards or penalizes fuels on the basis of their carbon intensity. As such, the program should not pick winner and losers. This market based approach must remain a guiding principle and WSPA opposes layering an additional incentive approach on top of the LCFS. Inclusion of volume mandates violates the market based approach, and mandates are not economically efficient.
* Credit multipliers would reduce the real world GHG benefits of the LCFS and would undermine the integrity of LCFS credits. Inclusion of credit multipliers is in essence already included in the LCFS CI program and, as such, supersedes any need for a subset ULCF program add-on that picks winners and losers, and moves away from a market based approach.
* The implication in the document is that further financial incentives are needed to accelerate the pace of development of ULCFs. The LCFS already provides incentives for ULCFs because of their low carbon intensity. Similarly, RFS2 provides significant incentives for cellulosic ethanol.
* There are already a multitude of incentive programs at the federal, state and local levels for the proposed ULCFs. We question why there would be a need for additional incentives to be superimposed on the framework of the LCFS program.
* When ARB does monitor the technological progress of fuels (per our first bullet), perhaps ARB needs to review the definition of a ULCF. Given the importance of extremely low carbon fuels to the ultimate success of the LCFS and the intent of incentivizing the development of new technologies, we suggest that the definition be based on carbon intensities below the lowest values currently included in the Lookup Tables.  There are several reasons for this recommendation:
  + All of the pathways in the Lookup Tables represent currently available fuel production technologies.  Monitoring of ULCFs should track the development of game-changing new low carbon technologies.
  + While it could be argued that some of the existing Lookup Table pathways do require technological breakthroughs (e.g., electricity and hydrogen), these breakthroughs are mainly on the vehicle side.  The LCFS is not a vehicle program.
  + Other existing pathways (e.g., biogas) are opportunistic in nature and are thus in more need of development/demonstration than technology breakthroughs.

Based on the lowest CI pathway (biogas to CNG) as a gasoline replacement which calculates to about an 88% reduction, WSPA recommends that ULCFs be defined as producing a CI reduction of at least 90% from baseline.

* Other non-financial considerations regarding the pace of development of ULCFs must be thoroughly reviewed. For example, the low energy density of biomass requires great volumes of feedstock to be transported to the production facility. How do logistical constraints on gathering, transporting vast amounts of feedstock to the production facility impact the progress of development of these biomass based fuels?
* Consideration of incentives at this point is inappropriate since the Panel has not yet reviewed the status of low carbon fuels – both currently as well as projections of volumes into the future – in order to determine whether actions of ANY kind are actually needed.
* The other consideration is the volumes of ULCFs that could be produced, even if incented. If only a low volume can be technologically produced, for example, the Panel should consider whether it makes sense to incent those fuels, regardless of whether they are deemed to be ULCFs.
* Additionally, for those fuels requiring new vehicle technology, what is the near-term and long-term vehicles market projections (BEVs, PHEVs, FCVs, etc.) needed to meet later compliance years?
* There must be a strong linkage with topics 9 and 10, i.e. environmental impacts, with respect to ULCFs. As new fuels are introduced we must have certainty that there will be no unintended environmental impacts and/or the unanticipated ancillary costs of mitigating any increase in regulated emissions as these fuels come into the marketplace. In addition, ARB needs to ensure their actions do not defer carbon intensity reduction inadvertently.
* The document suggests that consumers will adopt new fuels and vehicles if offered. The Work Plan appropriately addressed examining new vehicle penetration rates but the plan would benefit from seeking input from consumer groups regarding ULCFs. A realistic look at marketplace dynamics and options needs to be examined.
* If an incentive program for ULCFs is found to be warranted, this may best done thru mechanisms other than adding additional complexity to the LCFS which in itself is a far reaching regulation with enforcement and verification mechanisms which are in their infancy.

Our collective goals should be to not only ensure cleaner air and a lower global release of GHGs, but also to ensure an adequate, reliable and affordable supply of transportation fuels in the state.

I would be happy to discuss these positions, or if you or ARB staff have any questions, please do not hesitate to contact me or Gina Grey of my staff.

Sincerely,

