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Mr. John Courtis
Manager, Alternative Fuels Section
California Air Resources Board
1001 I Street
Sacramento, CA 95814

May 2, 2014

Dear Mr. Courtis:

GlassPoint appreciates and supports ARB's rulemaking efforts regarding the Low Carbon Fuel Standard (LCFS) regulation. We are pleased to offer these comments in response to the April 18, 2014 public rulemaking workshop. Additionally, GlassPoint appreciates ARB's release of draft regulatory language covering Innovative Crude Production. Having the ability to see the proposal in writing is helpful in many ways.

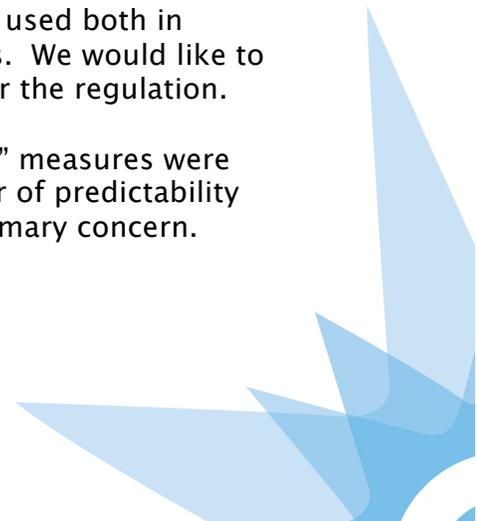
GlassPoint strongly supports the following proposals:

- **Producer Opt-In** mechanism as proposed appears to work well.
- **Comparison Baselines** appear to be scientifically based and workable.
- **Credits Calculation** mechanism is well designed.

GlassPoint would like to express concern about the following issues:

- **Maximum Innovative Credit Allowable:** The proposed mechanism for calculating maximum allowable credits will negatively impact near-term project development. We believe that a modest adjustment to the draft language will reduce project uncertainty, to the benefit of all stakeholders.
- **Reintroduction of Minimum Threshold:** In the March 11 workshop presentation, ARB proposed to remove the 1g/MJ minimum threshold. During the April 18 workshop, staff proposed a reintroduction of some level of a minimum threshold.
- **Alternate Process Configurations:** Solar energy will be used both in delivering steam and in alternate process configurations. We would like to clarify how alternate configurations will be treated under the regulation.
- **Cost Controls:** While cost containment and "price collar" measures were not specific topic of the April 18th workshop, the matter of predictability for investors in carbon-reduction projects remains a primary concern.

We offer comments details on these matters below.





Maximum Innovative Credit Allowable:

The proposed mechanism, which is tied to the year-by-year reduction schedule in the Table 1 gasoline standard, would allow at most 1.22g/MJ reductions in 2014 and 2015. This is far too low.

In the case of solar steam generation, this initial value corresponds to a maximum of only 4% and 8% of oilfield steam from solar energy (depending on field SOR). GlassPoint firmly believes that this very low level would likely delay solar steam projects. Small projects are less economical, and larger projects would see credits excluded in early years of operations, damaging the financial returns necessary to securing investment. Delaying deployment to later years is also problematic. The Federal solar energy tax incentives expire in 2016; delayed deployment will result in higher costs for all stakeholders.

While the “maximum allowable” figure grows to 10g/MJ by 2020, the year-by-year compliance curve and allowable solar steam fraction are still unknown. The way the “maximum allowable” concept has been defined, it is inextricably connected to the compliance curve in Table 1. During the March 11 workshop, ARB staff indicated that Table 1 requirements may be subject to “curve shaping”. Without knowledge of the final year-by-year targets, GlassPoint is currently unable to determine whether planned projects would receive full credit for their CO₂ reductions during their early years of operation. Eliminating this interaction between the maximum credit allowable and the final compliance curve would reduce uncertainty for prospective investors in emissions-reducing projects. Therefore GlassPoint respectfully recommends that the maximum innovative credit level be fixed throughout the period at the 2020 value (referring to Cl_{gasoline} for 2020), which would eliminate this uncertainty.

Minimum CI Reduction Threshold:

As many of the key candidates for “innovative crude production” are large fields whose output is infeasible to partition, and as it is anticipated that projects will likely be multi-step in nature to mitigate risk, a minimum g/MJ would need to be quite small so as to not negatively impact the goals of reducing crude production CI. GlassPoint respectfully suggests that a minimum threshold, if re-introduced, be expressed in total tons CO₂ per year of reduction per project.

Alternative Process Configurations:

In addition to direct solar steam generation, solar thermal energy is contemplated and planned for other uses in thermal enhanced oil recovery projects in California. Solar preheating of boiler feedwater, for example, is currently underway at one of our projects, and further such projects are in consideration. Some thermal recovery operations are injecting hot water, rather than steam, as part of their planned field development. GlassPoint would like to clarify whether such projects will be treated equally, according to their CO₂ reductions, under the “innovative method” rules, and whether same baseline



assumptions (88% LHV efficient gas-fired boiler) will be used. GlassPoint appreciates ARB's efforts to establish scientifically based default scores for solar steam, and hopes that such simple scoring can be applied to alternative process configurations as well.

Cost Controls:

GlassPoint understands that cost controls were not on the agenda for the March 18 workshop, and that much thought is going into this issue, but since the final decision in this area are so critical to the success of various program components, we feel compelled to comment again on this topic.

Current uncertainty about forward credit pricing is a key obstacle to investment in emissions-reducing infrastructure. Paradoxically, a completely uncontrolled market may result in higher costs to all stakeholders, as the potential for very low prices causes delays in project investments, and such delays cause credit shortages and high prices. Solar projects take multiple years to plan, finance, and build, and forward understanding of potential market scenarios is essential to create investor confidence adequate to proceed with projects. GlassPoint looks forward to ARB's proposals for cost control, which we believe can benefit all stakeholders.

Thank you for the opportunity to comment and we look forward to continuing to work with ARB to ensure the viability of the Low Carbon Fuel Standard.

Sincerely,

/s/

John O'Donnell
Vice President, Business Development