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LCFS Branch Chief  
California Air Resources Board

December 15, 2022

*Via electronic submittal:* [LCFS Comment Docket](#)

Re: Rondo Energy Comments on November 9, 2022 Workshop: Potential Future Changes to the LCFS

Rondo Energy appreciates this opportunity to submit comments regarding potential changes to the LCFS regulation. Rondo Energy (Rondo) supports CARB's ongoing efforts to solicit the latest information and the lowest-cost, lowest-risk pathways to achieve California's climate, environmental, and economic goals. Rondo submitted previous comments to earlier LCFS workshops and incorporates them by reference here.<sup>1,2,3</sup>

Rondo is a California-based company delivering zero-carbon energy for industrial processes and power generation, including for producing transportation fuels and feedstocks, using a new technology: electric thermal energy storage (ETES). Rondo's Heat Battery systems store wind and solar power and provide continuous industrial heat without combustion, replacing boilers and furnaces across many sectors of the economy. The Rondo technology enables cost-effective replacement of fossil fuel combustion with renewable electricity as the source of industrial heat. The recently published 2022 Scoping Plan Update highlights the need to replace traditional combustion technology, and we are proud to be on the front edge of this transition and 'Aligning with recent climate policy' (workshop slide 10).

Using zero-carbon energy to produce today's liquid fuels and feedstocks can provide rapid reductions in the Carbon Intensity (CI) of California's total transportation fuel mix, and long-term benefits in air quality, particularly in highly impacted communities.

California's policies are a critical driver in the transition to a lower carbon future. Marketplace confidence in the reliability and stability of those policies is an essential element for the investments needed in low-carbon energy infrastructure. As changes are considered to policies and mechanisms which are already included in the current LCFS, consideration must be given to the impact on market willingness to finance and build low-carbon energy systems.

Historically, it has been difficult to curb refining, biofuel facility and feedstock extraction emissions because of a lack of cost-effective low-carbon heat solutions. Electric thermal energy storage (ETES), including the Rondo Heat Battery, coupled with wind and solar power now offers an immediately feasible, cost-effective, and equitable way to decarbonize the many industries that collectively contribute a significant portion of California's GHG emissions.

The workshop slides<sup>4</sup> revisit the concept that Petroleum Project crediting could be removed from the program, in part due to a lack of use of the regulatory mechanism. We believe this is a significant policy reversal and the wrong signal to send to the investment and compliance marketplace. Reducing the carbon intensity of all the State's transportation fuels is fundamentally the goal of the LCFS program. Petroleum Project credits were designed to create incentives to

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<sup>1</sup> <https://www.arb.ca.gov/lists/com-attach/51-lcfs-wkshp-oct20-ws-U2EGMAExB2UBN1Jh.pdf>

<sup>2</sup> <https://www.arb.ca.gov/lists/com-attach/77-lcfs-wkshp-aug18-ws-BzVTZ1dmA2kFMggx.pdf>

<sup>3</sup> <https://www.arb.ca.gov/lists/com-attach/151-lcfs-wkshp-dec21-ws-ATNWYIFgBWcBNwA3.pdf>

<sup>4</sup> <https://www2.arb.ca.gov/sites/default/files/2022-11/LCFSPresentation.pdf>

produce petroleum fuels with lower CI processes. Multiple technologies and projects for lower emission and net-zero energy production are in development based on this credit program. Many have been multiple years in development, subject to both technology and project delays, but are expected to reach market readiness in the next few years. These projects can deliver long-term benefits in air quality and CO2 emissions, but require regulatory certainty to be built. Sending a signal to the market that an entire credit program may be removed brings back questions about whether the LCFS is an “investable” market, and again raises questions about the prospective stability of all credit programs. Rondo does not understand how removing incentives for technologies that have been in development serves the mandate and the goals of the LCFS.

Rondo’s ETES technology will apply broadly across California’s industrial economy. One example is the effort Rondo has underway in the cement sector. We recently submitted comments to the SB 596 Net-Zero Cement workshop, which discuss the opportunities for ETES to contribute to cost-effective cement decarbonization<sup>5</sup>. While longer-term policies for cement are expected enable a transition to low-carbon heat sources in the future, the LCFS provides market conditions for that transition to take place now. LCFS provisions for every fuel type have been an important driver of technology, and the Petroleum Project credits are no exception. Numerous efforts in alternate fuel sources, carbon management, and zero-carbon energy have all been driven by the LCFS’s technology-neutral, science-based approach to measuring and crediting emissions reduction.

One key characteristic of the Petroleum Project credits is that the economic and environmental benefits of the planned projects are, essentially, all in-state. Importing biofuels from overseas and digester gas from out of state makes no improvement for local communities, air quality, or jobs. By contrast, the Petroleum Project credit programs have different impacts. Building in-state wind and solar projects to power fuel production delivers jobs and tax base, and turns off combustion in particularly low-income and environmentally impacted communities, and does so much earlier than would otherwise occur. These co-benefits to generating industrial heat with renewable energy instead of fossil fuels has direct and local air quality benefits in the state’s most impacted communities. Such local, direct, and near-term criteria air pollutants reductions are precisely what environmental justice advocates are searching for out of the Scoping Plan, LCFS, Cap-and-Trade, AB 617 work and many other CARB programs.

Retaining today’s Petroleum Project credit programs within the LCFS is important because it signals the long-term reliability of the LCFS, drives innovation in decarbonization technology, and supports decarbonization lessons that can be exported to other sectors. Rather than eliminating crediting programs, Rondo respectfully suggests that CARB focus on setting more aggressive CI reduction curves as part of this forward-looking rulemaking effort.

Thank you for the opportunity to provide these comments. We look forward to continued discussions.

Sincerely,

/s/

John O’Donnell  
CEO, Rondo Energy

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<sup>5</sup> <https://www.arb.ca.gov/lists/com-attach/9-SB596-wkshp-Oct20-ws-USNROFU6AjVVPAlW.pdf>

