

## Comments to the California Air Resources Board Regarding Modified Regulation Order, Low Carbon Fuel Standard

By Beyond Energy  
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Clerk of the Board  
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Dear Madams and Sirs:

We appreciate this opportunity to comment on the Air Resources Board's ("ARB") proposed readoption of and modified regulation order to the Low Carbon Fuel Standard ("LCFS").

Beyond Energy focuses on prospective investment in EV and Electric Forklift ("EF") infrastructure and services. Among prospective partners of Beyond Energy are EV and EF electric charging infrastructure providers, distribution centers and end users. In addition, Beyond Energy evaluates investment opportunities in the renewable energy space.

We would like to express our strong concern over the proposed requirements in §95483(e)(7) of the LCFS that would restrict the regulated party definition for electric forklifts to only Electric Distribution Utilities ("EDU"), and exclude fleet operators of EF fleets from qualifying for LCFS Credits.<sup>1</sup>

ARB's rationale articulated in the Initial Statement of Reasoning for excluding EF from qualifying for LCFS credits and the latest regulatory modifications are most likely incorrect. As ARB may or may not know, many EFs are charged by dedicated high frequency chargers with easily obtainable data. In light of this information, we propose to amend §95483(e)(7) to allow EF fleets to opt-in, while keeping EDUs as the default regulated party ("modified §95483(e)(7) rule"). Compared to the current §95483(e)(7) rule, our proposed modification of §95483(e)(7) provides better consistency in the LCFS regulation, promotes innovation, fosters investment and affords flexibility, while still allowing for the maximum amount of EF LCFS credits to be claimed. Of equal importance, modifying §95483(e)(7) will not cause undue delay to the adoption of the LCFS for the reasons set forth below.

Section I provides context and background of the EF regulated party rule. Section II proposes verbiage for modifying §95483(e)(7) to enable EF fleets to opt-into LCFS. Section III expands upon high efficiency chargers and available data, articulates why the benefits of modifying §95483(e)(7) significantly outweigh the burdens previously articulated by ARB, and explains why modifying §95483(e)(7) will not cause undue delay to the readoption of the LCFS. Section IV concludes with our closing thoughts. Thank you very much again for your time and attention to this comment.

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<sup>1</sup> The latest modification of §95483(e)(7) reads "[f]or transportation fuel supplied to electric forklifts, the Electrical Distribution Utility is eligible to generate credits for the electricity, and must meet the requirements set forth in section 95483(e)(1)(B) through (D)."

## I. Context of the Rulemaking

### 1. Public Meetings

The Board directed staff in Resolutions 09-31 and 11-39 to evaluate the feasibility of issuing credits for non-road electricity-based transportation sources to LCFS.<sup>2</sup> In particular, ARB considered allowing electric forklifts (“EF”) to qualify for LCFS credits.<sup>3</sup> Staff held several meetings in 2012 and 2013 to work with stakeholders to develop EF fleet rules. On February 13<sup>th</sup>, 2013, ARB proposed “fleet operators could become the regulated parties if interested.”<sup>4</sup> On March 5<sup>th</sup>, 2013, ARB again mentioned “regulated parties, with fleet operators able to participate if interested.”<sup>5</sup> On April 3, 2013, ARB held another electricity workgroup meeting, not mentioning the definition of a regulated party in the workshop presentation.<sup>6</sup> On May 23, 2013, ARB proposed a regulated party definition for EF fleets excluding EF fleet operators.<sup>7</sup> ARB recommended against this approach, in part, because all credits will likely all not be realized. ARB, therefore, proposed utilities to be the regulated parties for EF.<sup>8</sup>

### 2. Low Carbon Fuel Standard Re-Adoption Paper

In the LCFS Re-Adoption Concept Paper, ARB discussed the significant impact EF fleets have in potential GHG reduction, stating that increased EF use coupled with decreased internal combustion engine (“ICE”) forklift use will decrease GHG emissions and contribute to the goals of the LCFS Program.<sup>9</sup> ARB staff proposed Electric Distribution Utilities (“EDUs”) qualify for LCFS credit generation, and excluded EF fleet operators to qualify for LCFS.<sup>10</sup> ARB reasoned: (1) many forklifts don’t have dedicated meters, and battery chargers charge multiple equipment types; and (2) tracking down data would likely be cost prohibitive.<sup>11</sup>

### 3. Subsequent Public Meetings

ARB conducted a public EF meeting on May 30, 2014 on the LCFS Re-Adoption Paper, after the release by ARB of the LCFS re-adoption Paper. ARB presented Regulated Party definitions again on a July 10, 2014 meeting, containing the concept paper re-adoption.

### 4. LCFS Initial Statement Of Reasons

On January 2<sup>nd</sup>, 2015, ARB released its Initial Statement of Reasons For Rulemaking. ARB’s reasoning for EDUs as regulated parties for EFs is largely identical to the re-adoption paper.<sup>12</sup> ARB did not discuss the previously proposed alternative definition of § 95483(e)(7), allowing EF fleets to opt in as regulated parties. In addition, there appears to be no additional supporting evidence for the rationale of the construction of §95483(e)(7).

<sup>2</sup> *Staff Report, Initial Statement of Reasons For Proposed Rulemaking ES-14* (CALIFORNIA AIR RESOURCES BOARD 2014), available at <http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs15isor.pdf> (“ISOR” hereafter).

<sup>3</sup> *Id.*

<sup>4</sup> See *LCFS Electricity Workgroup Meeting Presentation*, Slide 12, ARB, February 13, 2013, available at <http://www.arb.ca.gov/fuels/lcfs/workgroups/elect/021513electricity-workshop-presentation.pdf>.

<sup>5</sup> *Low Carbon Fuel Standards Proposed Amendments*, Slide 22, ARB, March 5, 2013, available at <http://www.arb.ca.gov/fuels/lcfs/regamend13/030513presentation.pdf>.

<sup>6</sup> *Low Carbon Fuel Standards Proposed Amendments*, April 3, 2013, ARB, available at <http://www.arb.ca.gov/fuels/lcfs/regamend13/040313presentation.pdf>.

<sup>7</sup> *Low Carbon Fuel Standard Proposed Amendments*, May 24, 2013, ARB, available at [http://www.arb.ca.gov/fuels/lcfs/regamend13/052413presentation\\_revised.pdf](http://www.arb.ca.gov/fuels/lcfs/regamend13/052413presentation_revised.pdf).

<sup>8</sup> From our inquiry into the meeting records posted at the LCFS web portal, we could not find meeting transcripts for the previously mentioned workshops. Available materials consisted of a combination or both of meeting agendas and presentations.

[http://www.arb.ca.gov/fuels/lcfs/lcfs\\_meetings/lcfs\\_meetings.htm](http://www.arb.ca.gov/fuels/lcfs/lcfs_meetings/lcfs_meetings.htm).

<sup>9</sup> *Low Carbon Fuel Standard Re-Adoption Paper C-3* (ARB 2014)

<sup>10</sup> *Id.*

<sup>11</sup> *Id.* at C-3.

<sup>12</sup> ISOR, *supra* note 2.

## 5. Modified Regulation Order

On June 4<sup>th</sup>, 2015, ARB modified the LCFS regulation, and provided a copy of the updated regulatory text and additional documents.<sup>13</sup>

## 6. Stakeholder Participation

Part of the purpose of the regulatory process is to involve parties who could be subject to the regulations in public discussions. It appears, however, that utilities have provided most of the input on electric forklifts in this rulemaking. Also, from our examination of the public documents released on the ARB website, it appears that there is no additional information, records or reports on the docket that shed light on the degree to which members of the electric forklift industry and related forklift stakeholders participated in the process. To the extent that electric forklift stakeholders have not participated in the rulemaking process, we are humbled at the opportunity to contribute to this process.

## II. Suggested Modification To §95483(e)(7)

We believe the most equitable way to construct §95483(e)(7) would be to keep EDUs as the default party, and allow EF fleet operator to opt-in, as first proposed in the February 13<sup>th</sup>, 2013 meeting by ARB. The propose language is below:

§ 95483(e)(7)<sup>14</sup>

For transportation fuel supplied to electric forklifts, the Electrical Distribution Utility is eligible to generate credits for the electricity, and must meet the requirements set forth in section 95483(e)(1)(B) through (D). Upon submittal to and approval by the Executive Officer of an electric forklift fleet operator's written request to opt in and generate credits associated with a specified fleet, the electric forklift fleet operator is eligible to generate the credits for the electricity. To receive credit for transportation fuel supplied to an EF fleet, an accounting of the number of EFs in the fleet must be included as supplemental information in annual compliance reporting.

## III. Discussion

### 1. ARB Current Rationale For Excluding EF Fleet Operators From Generating LCFS Credits Is Incorrect

#### i. Nearly Quarter of EF Chargers In California are High Frequency Chargers

ARB may or may not know that many EFs in California are charged by high frequency chargers (“HFC”). HFCs, compared to legacy chargers<sup>15</sup>, have “improved energy efficiency, charge control and power factor can provide energy savings, a smaller and lighter charger and better charge control and flexibility.”<sup>16</sup> Users of HFC, compared to the poorest chargers, save approximately 10,740 kWh/yr if they were to upgrade to a HFC.<sup>17</sup> In fact, PG&E, in a study conducted in 2009, recommended purchasing HFC because of substantial energy savings potential.<sup>18</sup>

HFCs are dedicated to EFs. That is, HFCs only charge EFs.<sup>19</sup> HFCs produce easily retrievable data that could be submitted to ARB for compliance. HFCs produce energy reports, easily retrievable, which contain the following:

<sup>13</sup> *Modified Regulation Order* (ARB 2015).

<sup>14</sup> Our proposed additions are underlined.

<sup>15</sup> Legacy chargers are SCR, Ferroresonant and Hybrid Chargers. Ryan Matley, *Measuring Energy Efficiency Improvements in Industrial Battery Chargers 1*, PACIFIC GAS AND ELECTRIC COMPANY, May 12, 2009, available at <http://repository.tamu.edu/bitstream/handle/1969.1/91085/ESL-IE-09-05-32.pdf?sequence=1>.

<sup>16</sup> *Id.* at 2.

<sup>17</sup> *Id.* at 2.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

- (a) Amp hours used. This can be easily converted into kWh
- (b) Data for each individual charge
- (c) Daily usage
- (d) Percent of time charging and in use
- (e) Station ID number
- (f) Location address
- (g) Fleet operator name
- (h) Number of electric forklifts used by the fleet operator

There are roughly 110,000 forklifts in California.<sup>20</sup> One HFC charges three forklifts. Conventional chargers charge two forklifts. **We estimate 9,000 HFCs in California in 2015, meaning 27,000, or 24.5% of EF in CA are charged by HFCs.** We find it surprising that utility stakeholders would not bring the existence of HFC to ARBs attention.

ii. We Believe ARBs Rationale For § 95483(e)(7), Therefore, Is Likely Incorrect

We would like to take this opportunity to address ARB's rationale for § 95483(e)(7) point by point in light of the existence of HFCs.

ARB Rationale #1: Many forklifts don't have dedicated meters, and battery chargers charge multiple equipment types

We found nothing on the record substantiating the above statement, aside from ARB's statement that they consulted with stakeholders. As stated above, **we estimate 24.5% of chargers in California are HFC, and 27,000 EF are charged by HFCs.**

ARB Rationale #2: Tracking down metered data for thousands of forklifts would likely be cost prohibitive

We are assuming that rationale #2 does not take into account HFCs. **As stated above, tracking down data from HFCs is not cost prohibitive.** Moreover, one could make the same statement about public electric vehicle service equipment. Yet, ARB did not state this as a reason for excluding eligibility for EVSE, and EVSE is eligible to generate credits.

*2. Allowing EF Fleet Operators To Opt In To Generate LCFS Credits Better Promotes Goals of LCFS*

Reason #1 - Allowing EF Fleet Operators To Opt In To Generate LCFS Credits Better Promotes Consistency and Harmonization

As ARB is probably aware, when an agency submits a regulation to the Office of Administrative Law ("OAL"), OAL reviews the submitted regulation according to several factors, including consistency.<sup>21</sup> In addition, in the ISOR, ARB stated that one of the goals with the Re-Adopted LCFS is to promote flexibility in rules.<sup>22</sup> §95483(e)(7), as currently proposed, promotes inconsistency in treatment of regulated parties in the LCFS.

EF fleet operators are treated differently than other qualifying electricity regulated parties. The statutory scheme proposed for EV fleet operators<sup>23</sup> and public EVSP<sup>24</sup> and private charging stations<sup>25</sup> provide that the EDU is the default regulated party, and allows fleet operators, EVSP providers for public charging stations and private business that own charging stations to opt-in to become regulated parties. Furthermore, the hydrogen forklift regulated party are the fleet owners qualify for generation of LCFS credits.<sup>26</sup>

<sup>20</sup> See California Electric Transportation Coalition Electric Pathway Presentation Slide 10 .

<sup>21</sup> CAL GOV'T CODE § 11349(a).

<sup>22</sup> ISOR, *supra* note 2, at ES-1.

<sup>23</sup> Attachment A, Proposed 15-Day Regulation Order, §95483(e)(3), ARB, available at <http://www.arb.ca.gov/regact/2015/lcfs2015/regorderfinal.pdf> ("Regulation Order").

<sup>24</sup> *Id.* §95483(e)(4).

<sup>25</sup> *Id.* §95483(e)(5).

<sup>26</sup> *Id.* §95483(f).

Allowing EF fleet operators to opt in to generate LCFS credits mirrors the construction of other provisions in §§ 95483(e) & (f), better promoting consistency, and harmonizing LCFS with OAL review requirements. In addition, our proposed update both ensures that the maximum number of credits is claimed by EF fleet operators while furthering the goal of flexibility stated in the ISOR.

## Reason #2 - Allowing EF Fleet Operators To Opt In To Generate LCFS Credits Better Encourages Innovation and Fosters Investment

As part of the regulatory process, an agency is required to prepare a regulatory impact analysis that addresses how a proposed regulation: (i) affects increase or decrease of investment in the state; and (ii) incentivizes for innovation in products, materials or processes.<sup>27</sup> In addition, in the ISOR, ARB mentioned a purpose of the re-adoption of LCFS is “to foster investments in the production of the low-CI fuels.”<sup>28</sup>

Myriad scholarship has established that it is more effective to provide money directly to fleet operators in the form of credits or grants than rate reductions by utilities. For example, in a report conducted by Berkeley Transportation Sustainability Research Center for the LCFS adoption in 2007, the authors noted that consumers tend to focus on the upfront cost of purchasing a vehicle and overlook fuel efficiency as a significant vehicle attribute.<sup>29</sup> A report analyzing the effects of the Alternative Fuel Credit Program created by the Energy Policy Act of 1992 also concluded that incentives/grants given to fleet operators better encourages the development of electric infrastructure.<sup>30</sup> In addition, ARB itself has said that the best way to encourage innovation in fleets is to give credits to fleet owners.

Incentivizing electric forklifts directly through LCFS credits means more electric forklifts will be purchased. Manufacturers will have higher incentive to increase the production of electric forklifts. More entrants into the market will increase competition, thereby lowering prices. As electric forklifts become less and less expensive, manufacturers will look to provide additional value proposition, including more features, better efficiency and better financing. Accordingly, enabling EFs to be eligible to generate LCFS credits as obligated parties, will better incentivize innovation and foster investment.

### 3. *Modifying §95483(e)(7) Will Not Cause Undue Delay In Implementation of LCFS*

ARB staff mentioned to us that a potential reason, at this point in the LCFS readoption process, is that modification of rules may cause timing issues. We would like to clarify with ARB the regulatory approval process. First, a nonsubstantial modification of a regulation does not require a subsequent 15 day comment period. Even if our proposed modification of §95483(e)(7) is considered a substantial and sufficiently related modification, a second 15-day comment period would not cause undue delay to adoption of the LCFS. Regulations must be submitted and approved by OAL prior to becoming effective. In order to have a regulation become effective by January 1<sup>st</sup>, an agency must submit the adopted regulation by November 30<sup>th</sup>. OAL must review the application within 30 days. Even if, for some reason, ARB does not manage to submit the adopted LCFS regulation to OAL by November 30<sup>th</sup>, 2015, an earlier effective date may be prescribed by OAL if an agency requests an earlier effective date with good cause. Given the importance of EF to furthering the purpose of LCFS, and the impact EF fleets have on GHG emissions in California, requesting an earlier effective date, we believe, constitutes good cause.

#### i. ARB Must Consider Comments From 15 Day Comment Period And May Still Modify LCFS

“An agency must consider comments received during the 15-day comment period and may modify the proposed regulations.”<sup>31</sup> “A rulemaking agency must summarize and respond on the record to timely comments that are directed at

<sup>27</sup> CAL GOV’T CODE §§ 11346.3 (c)(1)(D)-(E).

<sup>28</sup> ISOR, *supra* note 2, at ES-1.

<sup>29</sup> Alexander E. Farrell et al., *A Low-Carbon Fuel Standard For California Part 2: Policy Analysis 21* (UC BERKELEY TRANSPORTATION SUSTAINABILITY RESEARCH CENTER 2007).

<sup>30</sup> Alexander E. Farrell et al., *The AFP Credit Market And Its Role In Future AFV Market Development 5* (UNIVERSITY OF PENNSYLVANIA 1997), available at <http://opim.wharton.upenn.edu/risk/downloads/archive/arch226.pdf>.

<sup>31</sup> *The Regular Rulemaking Process*, OAL, available at [http://www.oal.ca.gov/Regular\\_Rulemaking\\_Process.htm](http://www.oal.ca.gov/Regular_Rulemaking_Process.htm) (referencing CAL GOV’T CODE §11346.8(c)).

the proposal or at the procedures followed by the agency during the regulatory action. With each comment, the agency must either (1) explain how it has amended the proposal to accommodate the comment, or (2) explain the reasons for making no change to the proposal.”<sup>32</sup>

ii. Allowing EF Fleet Operators to Opt-In To Generate LCFS Credits Is Nonsubstantial, Not Requiring 15 Days Notice To Public

After receiving a comment, if an agency decides to modify a regulation pursuant to that comment, the agency must first decide if the change to the regulation is 1) nonsubstantial; (2) substantial and sufficiently related; or (3) substantial and not sufficiently related.<sup>33</sup> A rulemaking agency must make each substantial, sufficiently related change to its initial proposal available for public comment for at least 15 days before adopting such a change.<sup>34</sup>

We believe that our proposed modification is nonsubstantial because it was previously discussed by ARB and stakeholders, and therefore they have been put on notice of a potential change to §95483(e)(7) and have been given opportunity to comment on §95483(e)(7).

iii. Even if ARB Determines Our Proposal TO Modify §95483(e)(7) Is Substantial and Sufficiently Related, It Will Not Cause Undue Delay To Adoption of LCFS

The current comment period ends on June 19, 2015. An agency may conduct more than one 15-day opportunity to comment on modifications.<sup>35</sup> Assume, for the sake of discussion, ARB adopts our proposed modification and issues a second 15-day comment period on June 20<sup>th</sup>, the end of the 15-day period would be July 5, 2015. Assume it takes one week for ARB to evaluate the second 15-day comment period comments. This would mean that comments close on July 12, 2015.

ARB must submit a finalized report to OAL by November 30<sup>th</sup> for a January 1, 2016 effective date.<sup>36</sup> OAL has 30 working days to conduct a review.<sup>37</sup> A July 12 comment close date for a second 15-day comment, therefore, gives ARB 141 days to submit a finalized regulation and corresponding requirements to OAL. We respectfully cannot envision a situation whereby it takes more than 141 days - after all comments are received – to meet OAL requirements.

Even if, for some reason, ARB fails to submit the LCFS regulation by November 30<sup>th</sup>, adopted regulations may have an earlier effective date if an agency requests an earlier effective date and shows good cause.<sup>38</sup> Given the importance of EF to furthering the purpose of LCFS, and the impact EF fleets have on GHG emissions in California, requesting an earlier effective date, we believe, constitutes good cause.

Accordingly, we believe this section clarifies any ARB worry about timing, and means that amending §95483(e)(7) will not cause undue delay in implementation of the LCFS.

## IV. Conclusion

The regulatory process exists as it does so that agencies, stakeholders and the public work together to refine and improve regulations prior to them going into effect. Now is our opportunity to make a common sense change that will spur innovation for electric forklifts, fleet operators and electric forklift charging stations. Now is our opportunity to ensure that §95483(e)(7) is crafted with the right rationale. Now is our opportunity to significantly impact climate change, not just for California, but also other states and the United States.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> CAL GOV'T CODE § 11343.4

<sup>37</sup> *Rulemaking Process, supra* note 34.

<sup>38</sup> CAL GOV'T CODE § 11343.4(B). *See Also* OAL REVIEW PROCESS, available at [http://www.oal.ca.gov/res/docs/pdf/OAL%20Review%20Process\\_FINAL\\_June%202014.pdf](http://www.oal.ca.gov/res/docs/pdf/OAL%20Review%20Process_FINAL_June%202014.pdf).

Based on the foregoing, it appears that the rationale for §95483(e)(7) excluding electric forklift fleet operators is incorrect. We estimate 24.5% of electric forklifts – or 27,000 forklifts – are charged by high frequency chargers. These chargers produce easily retrievable data, meaning data collection will not be costly. Our proposed revision of §95483(e)(7) – allowing electric forklift fleets to opt-in, with EDUs being the default credit generator - better promotes consistency and harmonization of the LCFS, spurs innovation and investment in electric forklifts, and better incentivizes the right actors – electric forklift fleet operators and battery charging station manufacturers – to buy more electric forklifts and improve electric forklift technology. Moreover, our proposed revision of §95483(e)(7) provides more flexibility to the LCFS rules, and ensures the maximum number of EF fleet LCFS credits are generated. Finally, amending of §95483(e)(7) will not cause undue delay in the adoption of LCFS because there is still ample time prior to November 30<sup>th</sup>, and a regulation can go into effect prior to an effective date if an agency requests and has good cause.

We believe, therefore, it would be unreasonable for ARB to adopt §95483(e)(7)<sup>39</sup>, and ARB should not make a finding that, in light of our suggested modification to §95483(e)(7), §95483(e)(7) (excluding EF fleets as eligible to generate LCFS credits) either (a) would be more effective in carrying out the purpose of the LCFS; (b) would be as effective and less burdensome to affected private persons than the proposed action; or (c) would be more cost effective to affected private persons and equally effective in implementing LCFS.<sup>40</sup> §95483(e)(7), in either form, only affects which regulated parties can be eligible for LCFS credit generation for electric forklifts. Affected private persons, therefore, are electric forklift fleets and electric forklift charging station providers and manufacturers. In instance b, §95483(e)(7) is more burdensome for electric forklift fleets because they cannot generate LCFS credits. In instance c, §95483(e)(7) would not be more cost effective than our proposed modification because EF Fleets cannot generate LCFS credits.

We strongly urge ARB to modify §95483(e)(7) to allow electric forklift fleet operators to be eligible to opt-in to the LCFS to generate LCFS credits with either our suggested verbiage contained herein or similar verbiage.

We conclude our comment by again applauding ARB and California for taking a lead on climate change. Every staff member we have spoke to thus far has been incredibly kind, and well intentioned. It is a testament to ARB and the CA regulatory process to have such inspired, intelligent and dedicated staff working on one of the most important regulations of our epoch. We very much welcome ARB's comments, are available to answer any questions ARB may have on these comments, and respectfully request setting up a meeting with staff as soon as practicable.

Respectfully submitted,



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<sup>39</sup> CAL GOV'T CODE §11346.5(A) requires that an agency proposing to adopt a regulation to assess the potential for "avoiding the imposition of unnecessary or unreasonable regulations."

<sup>40</sup> CAL GOV'T CODE §11346.5 requires, in a Final Statement of Reasoning, "[a] statement that the adopting agency must determine that no reasonable alternative considered by the agency or that has otherwise been identified and brought to the attention of the agency would be more effective in carrying out the purpose for which the action is proposed, would be as effective and less burdensome to affected private persons than the proposed action, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law."