**RE: 2030 Target Scoping Plan Update**

From Sue Hall, CEO of Climate Neutral Business Network CNBN, on behalf of the EV Charging Carbon Coalition (EVCCC).

* ARB is asking for input regarding the optimal design of the CA cap/trade system in 2020 and beyond.
* For California (CA) to deliver on its climate change goals, it is essential that its renewable portfolio standard (RPS) investments thrive – and that the transportation sector also delivers deep GHG reductions. To drive such high levels of renewables deployment, significant battery storage capacity is needed to address RPS intermittency challenges. This compounds the interdependencies between the RPS and the electric vehicle (EV) transportation sectors, given the latter’s essential battery storage capacity systems. Both RPS and EV transportation are therefore interdependent, mission critical technologies for CA to successfully mainstream.
* From our discussions with a broad spectrum of leaders, we appreciate that CA utilities have recently been raising questions regarding how the GHG impacts associated with the kWh delivered to drive EV transportation/charging networks could be better accounted for under CA cap/trade system – in order to make sure that incentives are well aligned to maximize the kind of EV charging investments that are needed, not only to achieve CA’s overarching GHG goals but also for its essential RPS goals to be realized.
  + - * For example, currently CA utilities can receive credits under LCFS for EV charging systems’ reductions. But by contrast, under cap and trade (which LCFS’s credits are designed to parallel since allowances from EV’s conventional vehicles’ displacement under cap and trade are already flowing to fuels distributors), utilities face a compliance strain resulting from the increase in kWh delivered to power EV’s – and their associated increase in GHG impact under cap/trade. At the same time, utilities face a compliance challenge with RPS: even today (and certainly in the future when higher levels of renewables are required to come on line) there is not yet sufficient battery storage capacity available to handle the renewable kWh that could be delivered (e.g. during afternoons). Thus compliance with RPS will require more EV/EV charging systems to generate that battery storage capacity – but under cap/trade utilities currently only face a disincentive to invest in EV charging, hindering EV/battery expansion. Thus there are a series of interlocking incentives between the LCFS, RPS and cap/trade systems whose consistency the following proposed solution seeks to address.
    - Many speakers at the recent CEC Oct 5 workshop referenced these same GHG accounting inconsistencies between utility and transportation sectors as a challenge that needs to be addressed by ARB, CEC etc.
      * Marvin Moon from LADWP, for example, proposed one solution in which utilities could earn more than the 1:1 hold harmless proposal for kWh delivered to EV transportation: rather on a 4:1 basis the broader benefits which EV charging systems generate from the displacement of conventional vehicles’ GHG impacts could instead be accounted as allowance benefits.
* Building on these insights, one option which we would like to put forward to ARB to consider — which would parallel the innovative approach already in place in WA state under its new Clean Air Rule (CAR) — would be for utilities and other EV infrastructure investors to be given ownership of the full suite of GHG reductions delivered by EV charging as “domestic” CA credit projects (that is including ownership the GHG reduction credits due to the conventional transportation fuels displacement)
* Double counting under the cap would be avoided by allowing such EV charging domestic credits to draw upon the underutilized renewable set aside reserve already established in the CA cap/trade system.
  + - * In this way the utilities/EV charging networks/infrastructure owners can own the projects’ allowance credits while not disrupting the flow of allowances arising under the cap which already flow to (and would continue to be earned by) the fuels distributors.
      * Furthermore, this solution would not put further allowance pressures on other covered entities, which an increased allocation for utilities’ EV charging might otherwise catalyze (e.g. 4:1 vs. 1:1).
      * WA state is using this same set aside reserve provision for carbon credit “[sponsored projects](http://www.ecy.wa.gov/climatechange/CarbonRuleFAQ.html)” in WA state to avoid double counting concerns under its CAR – and avoid the conflicts between sectors which otherwise arise under cap/trade around such mission critical technologies.
* By drawing upon its set aside reserve, CA (like WA state) would be using an under-leveraged set aside resource to help accelerate the two interdependent mission critical technologies which are essential to delivering upon its GHG goals: namely renewables (already included in the set aside and enshrined in RPS) and EV transportation (proposed to now be included in this same set aside reserve, and which is essential if the RPS goals are to be reached).
* The creation of these “in-state” EV charging credits, whose double counting is avoided, would provide essential carbon capital incentives to drive EV charging investments — by both utilities directly and by other private and public partners which, in parallel, are also investing their own capital into EV charging infrastructure systems. This solution thus channels these new “in-state” carbon incentives to the entities which are putting their own investment capital at risk to achieve these GHG reductions (aka the utilities, network service providers, private/public partners etc). This approach would therefore meet ARB and stakeholders’ interests to expand new funding resources to accelerate progress in the EV charging deployment/education domain – to maximize the speed with which its GHG can be attained.
  + - * All stakeholders’ capital investment in the EV charging technologies stand to gain access to these new carbon returns in equitable fashion, based upon their ownership of the EV charging systems
      * A portion of such credits can also be reserved from each project for its utility provider to cover the kWh impacts arising from each project and thus make sure that the utility’s increased kWh GHG impacts (from EV charging units they do not directly own) are addressed. Utilities would therefore at minimum be held harmless.
      * The carbon business case (see below) confirms that for EV charging such carbon revenues are highly salient. Adopting in-state credits for EV charging is therefore a significant leverage point.
* As a market based instrument, this approach also locates the carbon revenue incentives at the locations where capital investment in “mission critical technologies” is made. This is not always at the location of the carbon cap. Such in-state credits, which WA has already adopted, give the flexibility (and credibility) to drive carbon market-based revenues to places where accelerated investment is therefore most mission critical.
* CNBN has been discussing these kinds of creative solutions with many stakeholders including members from the newly formed EV Charging Carbon Coalition, the EVCCC. Building upon the carbon business case which GM sponsored, members include Audi/VW Group, EVgo, Exelon, CT Green Bank, Siemens and the Carbon Neutral Cities Alliance (CNCA) cities, including San Francisco and Palo Alto.  The EVCCC has already developed the carbon business case arising from such EV charging carbon credits which can contribute a salient 5-10% return on capital from US voluntary carbon markets – and ten times this return from LCFS credits. At $14/ton CA allowance pricing the return on capital for EV charging systems would be 14% -- a highly salient driver for expanded in-state investment.
* The EVCCC is also now developing a new carbon methodology (for the US/international voluntary carbon markets with the Verified Carbon Standard (VCS)) which would also provide a credible basis upon which such domestic CA EV charging credits could be adapted and certified within the CA cap/trade context.
  + - * Several voluntary methodologies have been incorporated into the CA cap/trade system
      * WA state has preliminarily already indicated that it wishes to incorporate the new EVCCC EV Charging methodology, once accredited by VCS, into its roster of compliance methodologies in order to generate EV charging in-state compliance credits under CAR
* We would therefore welcome further discussion of this creative avenue to see how it could best be shaped to address the cap/trade allowance concerns which utilities were recently raising -- in ways that would maximize investment in EV charging solutions by all parties in CA which are so mission critical to achieving the state’s long-term GHG, RPS and EV transportation goals.
* Several other leading CA institutions have asked that we submit this comment to ARB including the City of San Francisco
* We would propose that this creative solution be considered in more depth as a formal part of ARB’s post 2020 design dialogue.
  + - * CEC also asked that we submit a similar comment during their Oct 5 workshop to help address the interagency coordination challenges which were recently raised in letters submitted to several CA agencies on this topic.
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