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To Executive Director Arroyo and TCI Participant states:

We thank those involved in the Transportation and Climate Initiative (“TCI”) for the robust public outreach and input opportunities over the past few years, most recently on its program framework and draft memorandum of understanding (“MOU”). Adding on to previously submitted comments dated November 5, 2019 by Connecticut Green Bank (“Green Bank”), Electrify America, and Climate Neutral Business Network, the undersigned partners seek to provide the following input on final program design, particularly relating to state-level regulatory implementation.

To briefly reiterate previous comments:

- 1) **Transportation electrification is a mission-critical investment that delivers substantial benefits toward the achievement of TCI goals.** In poll after poll, the lack of ubiquitous electric vehicle (“EV”) charging infrastructure is identified as a key constraint for the expansion of EV market uptake. The provision of EV charging is essential to consumer confidence and can therefore accelerate market demand for EVs and increase electric miles driven.
- 2) **Within “cap and invest” program implementation, certain regulatory features can help avoid unintended consequences.** In particular, a state set-aside reserve mechanism would sustain the promise of voluntary carbon capital markets, which are already available in to make vital contributions in TCI regions toward accelerating regional EV charging deployment. TCI cap design can be an enabling force to crowd-in such private carbon capital investment, or – alternately without states applying such set asides – it may produce unintended consequences and preclude participation of additional resources that support TCI objectives.
- 3) The “regional” cap and “local” investment principles of TCI should consider a “regional” cap and a **“regional” investment principle** as well. The Northeastern states would benefit from a portion of the revenues being pooled together and then devoted towards a **regional infrastructure bank, or another kind of public-sector focused entity**, that could leverage those funds on behalf of states and attract multiples of private capital investment to modernize and decarbonize the transportation infrastructure in the Northeast. For example, a United State Green Bank, as proposed in 2019 by Senators

Murphy Van Hollen, Blumenthal, Whitehouse, and Markey,<sup>1</sup> would support a “group of states” advancing “Clean Energy Projects”<sup>2</sup> as well as “Climate Change Mitigation or Adaptation Projects”<sup>3</sup> that when combined with allowance revenues from TCI through a regional infrastructure bank could drive more investment into the interconnected transportation infrastructure in the Northeastern US. TCI participating states should consider regional allowance pools that can invest proceeds to modernize and decarbonize the transportation infrastructure in the Northeast.

The following comments seek to assist policymakers by providing further detail on the second point above. We provide background on voluntary sources of carbon capital that already exist to support TCI goals. Relating to the Model Rule and MOU Appendix 2.I (3), we then describe how the TCI set-aside reserve can be applied to preserve continued access to such private carbon capital markets, and also the further option of establishing this GHG value as TCI compliance offset allowances, including a state-level example.

## BACKGROUND

A years-long collaborative process between stakeholders referred to collectively as the Electric Vehicle Charging Carbon Coalition (“EVCCC”) opened up private carbon capital as a new source of investment for EV charging systems. This coalition developed a carbon credit business case and a methodology for accelerating transportation electrification through opening access to private carbon capital market funding.<sup>4</sup> This methodology considers the GHG emissions difference between conventional internal combustion energy (“ICE”) vehicles and comparable electric vehicles, taking into account the carbon intensity of the electricity feedstock, and using EV recharging stations as the point of measurement. A diverse coalition of leading public and private partners<sup>5</sup> worked through third-party certification agency Verra over a two-year period to fully establish this methodology under preeminent voluntary market certifier Verified Carbon Standard (VCS), a carbon offset protocol for which Verra is the secretariat. The methodology, VM0038, was approved in September 2018.<sup>6</sup> VM0038’s underpinnings derive from VMD0049, Activity Method for Determining Additionality of Electric Vehicle Charging Systems, which identifies more than 40 countries that meet the additionality test of needing to overcome early

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<sup>1</sup> <https://www.murphy.senate.gov/download/green-bank-act-2019>

<sup>2</sup> Including solar, wind, geothermal, biomass, hydropower, ocean and hydrokinetic, fuel cell, advanced battery, carbon capture and sequestration, next generation biofuels, alternative fuel vehicle infrastructure, and alternative fuel vehicles.

<sup>3</sup> Including afforestation, reforestation, and land conservation, regenerative agriculture, transit-oriented development and mass transit infrastructure, waste and recycling, water treatment, and wetland protection.

<sup>4</sup> <https://verra.org/methodology/vm0038-methodology-for-electric-vehicle-charging-systems-v1-0/>

<sup>5</sup> Climate Neutral Business Network; Electrify America / Audi of America; Exelon; EVgo Services LLC; Siemens; Connecticut Green Bank; and Carbon Neutral Cities Alliance (including Portland; San Francisco; Seattle; Palo Alto; NYC; Minneapolis; Vancouver BC; and Sydney and Adelaide AU)

<sup>6</sup> Press release: <https://ctgreenbank.com/new-funding-source-for-ev-charging/>

market barriers.<sup>7</sup> The coalition that developed this methodology was awarded in March 2019 with an Innovative Partnership Certificate through the national Climate Leadership Awards for the diversity of voices shaping the outcome, which included equipment manufacturers, EV charging companies, financial institutions, utilities, and the Carbon Neutral Cities Alliance. The certificate recognizes organizations working collaboratively on leading edge climate initiatives; partnerships have collectively established objectives to measurably address greenhouse gas reduction goals and/or adaptation and resilience activities.

Many EV market participants are invested because they value GHG emissions reductions. However to date there has not been a way to monetize that value or encourage those actions more directly. Capitalizing the value of and accounting for the climate change benefits of transport decarbonization is difficult, due to the diffuse nature of the benefits created, and due to the scattered ownership across many decentralized point sources. Vehicle charging infrastructure is one place to document the actual measure and extent of use of this new technology, and to allow data aggregation to a level that facilitates the capture of that value. The new VCS EV charging credits achieve this remarkable goal, creating a new private capital market accessible to all EV charging investors to enable them to now capitalize upon this monetary value to accelerate EV charging deployment. This is especially important when so many EV charging investments are made by “downstream” smaller organizations often situated in more disadvantaged communities – households, workplaces, cities, local businesses – rather than by the “upstream” capped corporate entities themselves. As described further below, TCI’s set aside reserve mechanism will prevent this value from being negated.

These resulting EV charging carbon credits create a performance-based system, where EV chargers earn funds based upon the level of charging services delivered (in kilowatt-hours dispensed), and thus greenhouse gas emissions reductions secured. The availability of crediting can be 21-to-30 years for a single site in a region where additionality remains applicable.<sup>8</sup> Business case modeling by the EVCCC has shown the private carbon capital market contribution

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<sup>7</sup> Subject to broadly-solicited market input from a diversity of sources and in the evaluation of certification entity Verra, this methodology set considers an additionality test relating to market penetration of electric vehicles in a given jurisdiction (e.g., a state). Beyond 5% market share of EVs in a particular region, Verra would disable crediting for new projects in that region as of Verra’s next assessment at 5-year intervals because early market barriers are determined to have been surmounted by that point, with enough of a critical mass of EV drivers to support fee-based charging in that jurisdiction. A separate “regulatory surplus” test considers that if EV charger deployment becomes government-mandated in certain fashions, then the renewal of carbon crediting terms for existing EV charging projects is similarly disabled – in this case at the renewal of 10-year intervals.

<sup>8</sup> In the methodology’s accompanying Activity Method for Determining the Additionality of Electric Vehicle Charging Systems, a penetration rate of 5% of on-road vehicles was determined by the EVCCC and certifiers to be an appropriate threshold whereby enough EVs would be in use to provide EV charger systems with sufficient transaction volume to overcome key structural barriers to the EV charging business model. The additionality of credits certified under this methodology is determined at the geographic level rather than at the activity level, which helps simplify the examination of qualifying projects. Regions’ eligibility under the 5% threshold is reassessed under Verified Carbon Standard every 5 years to maintain relevancy for the “positive list” of qualifying regions, which in the U.S. may be divided by state.

to EV charging deployment to be salient; this new layer of financing can potentially provide a 5-10% return on the capital costs of EV charger deployment over just a 10-year crediting period.

This sort of long-term, performance-based crediting is also favored by larger EV charging network companies which can use these revenues to sustain and maintain networks (e.g., through an operations and maintenance fund). This, in contrast with the sort of upfront incentive most easily envisioned applying to cap proceeds, which can be withdrawn or repurposed by states at their prerogative. Carbon credit capital may thus hold the promise for long-term, performance-based certainty, although each funding source can and should be seen as complementary and synergistic.

For its part, the Green Bank in 2020 is piloting a test transaction using this methodology, in service to support the myriad of smaller scale organizations investing in EV charging, as partners, who would otherwise be disadvantaged in independently pursuing credit certification. These innovative plans entail the Green Bank aggregating environmental attributes on partners' behalves as a service, helping them capitalize greenhouse gas emissions reductions in voluntary markets. The Green Bank's proposed service supports states' diversity and equity interests, since it would enable small scale EV charging investor/operators to cost-effectively access private carbon capital markets to accelerate their own charger investments. Moving the margin on charging infrastructure profitability should increase deployment of chargers, thus supporting local economic development (e.g., through deployment of electrified transit and school buses). Further information can be found at [www.ctgreenbank.com/evoffsets](http://www.ctgreenbank.com/evoffsets).

As a result, the Green Bank will be serving TCI stakeholders' interests as a public organization attracting new private sector carbon capital market funding. This assumes such carbon capital would continue to be accessible in the TCI region, using a well-designed fuels cap and set aside reserve application.

Fortunately the current TCI design includes such a set aside reserve which states can adopt/apply at their discretion to preserve access to this complementary voluntary capital market, as articulated in the MOU: "Participating Jurisdictions may set aside a small number of allowances to be used to achieve other TCI Program goals."

However, if states adopting the TCI cap were to not apply this set aside provision, they would inadvertently disallow voluntary market activity, whereupon carbon capital market resources might be unwittingly withdrawn from such TCI states. We want to caution states about overlooking these resources, which would otherwise help support states' decarbonization efforts and ask that the final bill be sure to include EV charging credits as eligible to draw upon the TCI set asides.

## MODEL RULE AND MOU APPENDIX 2.I (3)

The MOU provision for Regulated Entity Compliance and Flexibility describes the following, pertinent to this conversation.

(3) Offsets. The Model Rule may provide, as a compliance alternative, the limited use of offsets. The Model Rule may provide for the award of offset allowances to sponsors of approved CO<sub>2</sub> (or CO<sub>2</sub> equivalent) emission offsets projects for reductions that are realized on or after the date of this MOU. Offset allowances may be used for compliance by State Fuel Suppliers.

We applaud the inclusion of this language and strongly encourage states' careful consideration when adopting TCI implementing regulations.

For example, without states' application of the TCI set aside, by the interpretation of Verified Carbon Standard and by the design of the adopted methodology, an ***in-region transport sector*** carbon credit project would be double-counted with cap reductions in states like TCI that adopt an upstream compliance cap on transportation fuels. This means that without the inclusion of some form of voluntary credit recognition, a TCI compliance cap will prevent EV charging systems in TCI states from creating certifiable carbon credits, such as the VCS EV charging credits. Moreover, the GHG value of downstream, non-capped actors' in-region projects will simply revert to the capped fossil fuel importers (a deep irony)<sup>9</sup>. Northeast and Mid-Atlantic states should seek to avoid inadvertently disabling voluntary markets' ability to deliver on shared objectives of transport decarbonization.

The remedy to this problem is already in TCI's draft design if states decide to apply it: the TCI set aside reserve. If the model rule allows its application to voluntary market in-region transport projects like EV charging, the set aside would avoid this double counting with the cap and ensure continued access to the complementary voluntary market carbon capital. The set-aside, applied in this way, would open up an innovative source of projects for voluntary carbon capital investment – ***in-region transportation*** projects. Such investment will accelerate ***local*** investment in those leading edge transportation technologies such as EV charging, securing TCI's low carbon goals even more rapidly, while enhancing local economic development and diversity/equity goals. It is notable that these *in-region* offset credits therefore deliver ***local benefits inside the TCI region*** in contrast to the set of offset projects typically invoked as "compliance credits" under a cap design, which have traditionally all been located outside the cap region and therefore provide their benefits and GHG reductions to other stakeholders.

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<sup>9</sup> Set aside reserves were also used in California, to avoid similar such ironic "property taking" concerns in the energy sector. This let local stakeholders retain GHG allowance value under the cap for investments in rooftop solar projects, for example; the default alternative would have been to give it away for free to the capped utility, which had no role in the project's deployment.

Incorporating such in-region, transportation voluntary credits represents an essential flexibility mechanism in TCI design, allowing for the maximization of private capital resources and thus reducing reliance on cap system funds, and containing in-state compliance costs. Harnessing a complementary private capital market holds the promise of accelerating in-region investment in mission-critical transportation technologies deemed “additional,” producing faster attainment of GHG reduction goals while supporting the TCI cap’s level of ambition. We thank TCI for integrating previous input on this matter into the model rule, at the option of states to adopt.

As a distinct further step, TCI could also adopt a model rule that would allow for the limited use of offsets for compliance purposes. Rather than merely relying upon compliance offset credits to be sourced from out of the region, where economic and long-term GHG benefits redound to other states, these compliance offsets also would ideally be sourced from in-region, related activities. Such an application also represents an essential flexibility mechanism in TCI design, giving capped entities an even larger set of offset projects from which to optimize compliance and minimize costs. Such a provision would also no longer limit compliance transportation sector investment to capped entities’ own operations within the TCI region, but would help facilitate downstream transportation investments across a state’s entire system.

Applying set asides to capitalize either voluntary or compliance credits would also help align crediting and incentives between TCI and the Regional Greenhouse Gas Initiative. This is because technologies like EV charging affect capped entities and technologies under both caps. Utilities deploying EV charging can then secure carbon credit value under TCI as credits (private or compliance), which helps defray the increased GHG impacts of generating more electricity for beneficial electrification which will have increased their compliance burden under their RGGI cap.

One example of a state incorporating this strategy comes from the State of Washington, whose Clean Air Rule had looked to incorporate both local transport and energy projects as compliance offsets under its cap by applying its set aside for this purpose<sup>10</sup>, including the aforementioned EV charging methodology. By accrediting credible methodologies from voluntary market certifiers into their cap offset design, in-state eligible carbon projects could become compliance credits within their system. Operationally, these credits were still certified through voluntary market certifiers such as the American Carbon Registry or VCS; Washington planned to review such certifiers’ results and apply any further local screens they decided were important – this, with the idea to avoid the need to build an offset compliance certification system element from scratch, resulting in easier administration. Applying that same model to TCI for EV charging credits, for example, regional credits used for compliance would be segregated within the Verified Carbon Standard central credit registry to ensure there is no ambiguity in status. More broadly, Washington thus established a precedent for how a set-

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<sup>10</sup> The Clean Air Rule set aside specifically included a provision allowing its application to in-region carbon offset credit projects.

aside as described above could be designed and deployed to help accelerate local state-of-the-art transportation investment.

In conclusion:

- If shrewdly applied by states and allowable under the final design, TCI set aside reserves can preserve voluntary private capital market access to accelerate investment in local, in-region transportation projects that will more rapidly achieve TCI goals
- Whether incorporated as voluntary or compliance credits, these in-region transport projects stand in contrast to traditional offsets because they deliver their economic development, diversity/equity and GHG benefits within the TCI region (not outside it).
- Washington state provides implementation precedents that demonstrate how TCI states can stand up such a system on a streamlined, cost effective basis by integrating in voluntary market certification systems on a state-supervised basis.
- Inadvertent application of the TCI cap design would, by contrast, preclude on-going access to this new private carbon capital market for local EV charging investors, undermining confidence and ironically award all GHG reduction value to the fossil fuel capped entities – outcomes which well managed set aside reserves have avoided in other leading states' capped systems.

Thank you for your consideration and for your efforts in advancing clean transportation.

Sincerely,



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