August 13, 2021

Transportation & Climate Initiative of the Northeast and Mid-Atlantic States
Georgetown Climate Center
600 New Jersey Avenue, NW Washington, DC 20001

RE: TCI Draft Proposed Strategies for Regional Collaboration

Dear TCI Leadership,

The Coalition for Renewable Natural Gas (RNG Coalition)[1] offers this letter in continued support of the Transportation and Climate Initiative (TCI). We appreciate the chance to provide input on the *Draft Framework for Public Engagement (Guiding Principles)*, *Draft TCI-P Model Implementation Plan for Low Carbon Transportation*, and *Draft Proposed Strategies for Regional Collaboration* (Draft Materials) released on June 10, 2021.[2]

A TCI Cap-and-Invest (C&I) policy has the potential to achieve a large amount of the region's greenhouse gas (GHG) emission reduction targets. In prior comments[3] we've called your attention to the importance of reinvesting C&I proceeds into proven GHG abatement strategies—such as Renewable Natural Gas (RNG)—and described the advantages of complementary policies in helping to achieve near-term caps in existing C&I programs. We also highlighted the need for a quicker escalation of the CCR trigger price, alignment with the social cost of carbon, and expanding program scope to cover other end uses of distillate fuel oils and natural gas.

In our comments on the Draft Materials today, we focus primarily on the *Draft Proposed Strategies for Regional Collaboration* (Draft Strategies) by highlighting complementary strategies that would advance TCI goals and the need for the TCI to further consider tools to tackle emissions from major transportation sectors including marine, aviation, and medium- and heavy-duty vehicles in the near term.

About the RNG Coalition and the RNG Industry

The RNG Coalition is the trade association for the RNG industry in the United States and Canada. Our diverse membership is comprised of leading companies[4] across the RNG supply chain. Together we advocate for the sustainable development, deployment and utilization of RNG, so that present and future generations have access to domestic, renewable, clean fuel and energy in the TCI region and across North America.

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[1] http://www.rngcoalition.com/

[2] TCI, "Transportation & Climate Initiative jurisdictions release finished Model Rule and seek additional public feedback on plan to cut transportation pollution," June 10, 2021. https://www.transportationandclimate.org/tci-p-updates-june-2021

[3] See our comments submitted November 5th, 2019, February 28th, 2020, and May 7th, 2021.

[4] The RNG Coalition represents over 295 member organizations.

The RNG industry is nascent relative to other renewables industries but has shown extraordinary growth in recent years, driven by policies designed to promote environmental and economic goals—including but not limited to clean air, improved waste management, increased job development, energy independence, and resource diversity.

Between 1982 and 2011, 30 RNG projects were developed—most of which were incentivized by various state's Renewable Portfolio Standard Programs (RPS) and underwritten by the monetization of Renewable Energy Credits (RECs) that RNG-sourced electricity generated under such programs. Expanding rapidly throughout the last decade, there are now 190 operational RNG production facilities in North America with 232 under construction or in substantial development.[5]

Most of the RNG projects developed since 2011 have been incentivized by transportation decarbonization programs, including the Unites States Environmental Protection Agency's (EPA) Renewable Fuel Standard Program[6] and California, Oregon, and British Columbia's Clean Fuel/Low Carbon Fuel Standards (CFS/LCFS).[7] Given the success of these programs in promoting decarbonization through RNG in the transport sector, we look forward to the opportunity to explore how best to utilize RNG in pursuit of the TCI decarbonization goals.

Regional Collaboration Should Support Alternative Fuels for Difficult-to-Electrify Sectors

The Draft Strategies currently include elements of support towards light-duty vehicle electrification, low carbon transit, and long-term electrification of medium- and heavy-duty transportation. This is a positive start. However, while one of TCI's goals is to reduce emissions from all transportation sources, there is currently no guidance in the Draft Strategies on how emissions from the marine and aviation sectors will be tackled. Additionally, there is no mention of how the region will deploy low carbon fuels, such as RNG, to decarbonize medium- and heavy-duty vehicles in the near term[8] (as electrification scales) using commercially available technologies.

Any fossil-fuel powered vehicle, such as conventional trucks, added to the fleet today and in the years to come will still be generating emissions for years and potentially decades due to the high reliability of

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[5] Based on RNG Coalition's production facility data as of August 3, 2021: https://www.rngcoalition.com/rng-production-facilities

[6] RNG has grown substantially thanks to the RFS program, making up over 95% of the lowest-GHG-emission cellulosic biofuel production category and generation of D3 RINs (given for fuels that create at least a 60% reduction in lifecycle greenhouse gases). For more information, see EPA's program summary: https://www.epa.gov/renewable-fuel-standard-program/renewable-fuel-annual-standards

[7] RNG is increasingly being used to decarbonize natural gas end-use applications in stationary sectors, marked by the emergence of new utility procurement programs such as Oregon's nation leading RNG procurement requirement. See Oregon Public Utilities Commission's adoption of RNG procurement rules under Oregon Senate Bill 98: https://apps.puc.state.or.us/orders/2020ords/20-227.pdf

[8] The South Coast Air Quality Management District—an agency that is a global leader in advocating for, and adopting zero-emission technology, with a deep knowledge of the pace of electrification—recently vocally stated that it remains important to consider non-zero-emission vehicle solutions in the heavy-duty space: https://www.dropbox.com/s/vw9grskr671gl0p/SCAQMD%20letter.pdf?dl=0

modern vehicles.[9] Additional regional collaboration on non-electrification technologies would enhance alternative fuel supply, starting from today's base of available liquid and gaseous alternative fuels and refueling stations, to achieve immediate emission-reduction for both interstate and domestic travel of persons and goods.

Recent work by MJ Bradley & Associates[10] explores the potential benefits of using renewable biofuels in medium- and heavy-duty onroad vehicles, as well as residential and commercial heating, as a complementary strategy to electrification and other efficiency measures in the TCI region. This study found that the use of RNG and biomass-based diesel fuel across these sectors could reduce annual GHG emissions by as much as 52 million metric tons (MT) in 2030 (a 19 percent reduction from today's emissions from these sectors) in the wider TCI region, and by as much as 194 million MT in 2050 (a 47 percent reduction from today).

TCI Goals Will Be More Likely Achieved by Implementing a Complementary Clean Fuel Standard

TCI jurisdictions should consider collaborating to design a regional Clean Fuel Standard (CFS, also known as a Low Carbon Fuel Standard or LCFS). The implementation of such policy would more fully address the goals of TCI, namely:

- "Reduce carbon dioxide (CO_2) emissions from transportation sources
- Improve air quality and public health, increase resilience to the impacts of climate change, and provide more affordable access to clean transportation choices
- Promote local economic opportunity and create high quality jobs
- Maximize the efficiency of this multijurisdictional program to ensure greater benefits
- Advance equity for communities overburdened by pollution and underserved by the transportation system"[11]

Several jurisdictions that share those goals have successfully embraced both carbon pricing and a CFS program. British Columbia, one of the first North American jurisdictions to adopt a carbon price in 2008,[12] adopted a renewable fuel standard in 2010 and runs an LCFS program since 2013.[13] The B.C. LCFS is the single most effective action in the province's GHG emission reduction plan, CleanBC.[14] It will

[9] David R Keith *et al*, "Vehicle fleet turnover and the future of fuel economy" (Environ. Res. Lett., 2019), 14 021001. https://iopscience.iop.org/article/10.1088/1748-9326/aaf4d2

[10] M.J. Bradley & Associates, *The Role of Renewable Biofuels in a Low Carbon Economy* (2020). https://mjbradley.com/reports/role-renewable-biofuels-low-carbon-economy

[11] TCI-P Memorandum of Understanding, Dec. 2020. https://www.transportationandclimate.org/sites/default/files/TCI%20MOU%2012.2020.pdf

[12] Government of British Columbia, "British Columbia's Carbon Tax." https://www2.gov.bc.ca/gov/content/environment/climate-change/clean-economy/carbon-tax

[13] Government of British Columbia, "B.C. Low Carbon Fuel Standard." https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/transportation-energies/renewable-low-carbon-fuels

[14] Government of British Columbia, "CleanBC." https://cleanbc.gov.bc.ca

reduce the carbon intensity of transportation fuels used in the province by 20% by 2030 from a 2010 baseline.

California's LCFS has the same 20% reduction target as B.C. and is currently one of the most successful programs in the world achieving GHG emission reductions in the transportation sector.[15] California also enforces a price on carbon via a cap-and-trade program.[16] The other West Coast states of Washington[17] and Oregon[18] are following California's lead on this issue and simultaneously targeting carbon pricing for transportation and clean fuel programs.

Member States in the European Union currently run their own CFS programs under the umbrella of the Renewable Energy Directive.[19] In July 2021, the European Union announced plans to create a cap-and-trade program to put a carbon price on road transportation and buildings.[20] It also proposed a more stringent target for reducing the greenhouse gas intensity of transport fuels by 13% by 2030 and covering all transport modes.[21]

Canada implemented an economy-wide carbon pricing backstop in 2019 for any province that does not meet the minimum carbon price set by the federal government.[22] The price is currently set at C$40 / MT CO_2e and will increase yearly to reach C$170 / MT CO_2e in 2030 (US$135 at today's exchange rate). In December 2020, the Canadian government released a draft regulation creating a nation-wide CFS program targeting a 16% reduction of fuel carbon intensity by 2030.[23] The final regulation is expected to be published by the end of 2021. Canada's carbon price and CFS send a clear medium-term policy signal to businesses. Both tools will be set at levels that are stringent enough to drive meaningful emissions

[15] California Air Resources Board, "Low Carbon Fuel Standard." https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard

[16] California Air Resources Board, "Cap-and-Trade Program." https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard

[17] Bobby Magill, "Inslee Signs Washington State Carbon Pricing Legislation," *Bloomberg Law*, May 17, 2021. https://news.bloomberglaw.com/environment-and-energy/inslee-signs-washington-state-carbon-pricing-legislation

[18] Office of the Governor – State of Oregon, Executive Order Mo. 20-04, "Directing State Agencies to Take Actions to Reduce and Regulate Greenhouse Gas Emissions." https://www.oregon.gov/gov/Documents/executive_orders/eo_20-04.pdf

[19] European Commission, "Renewable energy directive." https://ec.europa.eu/energy/topics/renewable-energy/directive-targets-and-rules/renewable-energy-directive_en

[20] Council of the European Union and European Council, "Fit for 55." https://www.consilium.europa.eu/en/policies/fit-for-55/

[21] European Commission, "Commission presents Renewable Energy Directive revision," July 14, 2021. https://ec.europa.eu/info/news/commission-presents-renewable-energy-directive-revision-2021-jul-14_en

[22] Government of Canada, "Fuel Charge Rates." https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/fcrates/fuel-charge-rates.html
The Government of Canada also implemented a regulatory trading system for industry – the federal Output-Based Pricing System, making the price on carbon economy-wide: https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system.html

[23] Government of Canada, Canada Gazette, Part I, Volume 154, Number 51: Clean Fuel Regulations. https://gazette.gc.ca/rp-pr/p1/2020/2020-12-19/html/reg2-eng.html

reductions in transportation and across the economy. There is growing interest in LCFS programs in North America with more jurisdictions edging toward the adoption of such programs.[24]

British Columbia and California have over a decade of experience in managing carbon pricing and LCFS programs concurrently. Should TCI jurisdictions consider the adoption of an CFS, they would benefit from the access of over a decade of assessable market experience from those jurisdictions. It is important to note that the strong economic performance of those jurisdictions co-existed with a stringent LCFS program. Working together to harmonize policies, CFS program implementation, and enforcement would allow TCI jurisdictions to address questions of regional supply, share information and expertise, send a stronger market signal, and pave a trail for other to follow. Those benefits have been observed by the Pacific Coast Collaborative when assessing the collaboration between California, Oregon, Washington, and British Columbia with regards to CFS.[25]

We strongly encourage TCI jurisdictions to follow the leadership of the jurisdictions mentioned above by adopting a more robust carbon price and stringent complementary regulations, such as a CFS, to drive meaningful emission reductions in the short time we have left to reverse the course of catastrophic climate change.[26]

Conclusion

RNG use, and its associated GHG reduction and waste cycle benefits, should be a key focus in TCI discussions—especially when states begin to consider possible reinvestment options for C&I revenues. The Draft Strategies provide a good starting point to draw a roadmap to decrease emissions in the transportation sector while achieving the rest of TCI's goals.

However, with the current levels of carbon price featured in the Model Rule, regional collaboration should also include more meaningful complementary actions, such as a CFS, to achieve TCI goals. Tackling all transportation sector emissions, including in the sectors that are hard to electrify, is critical. Reinforcing the use of already commercially available alternative fuels will reduce emissions sooner and avoid diesel use to linger at too high levels. Complementary regulations such as a region wide CFS program will be necessary to reach those outcomes and achieve TCI's goals in the transport sector.

The RNG Coalition would like to thank the TCI for the opportunity to provide comments on the Draft Materials. We respectfully urge you to move swiftly toward adoption of the Model Rule by participating jurisdictions and additional policy tools. Our members look forward to constructing RNG projects in the TCI region and contributing toward the success of the program's goals.

Sincerely,

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[24] For example, both New York (Assembly Bill A862A, Woerner) and Massachusetts (S.2370, Pacheco) have LCFS-legislation introduced.

[25] Pacific Coast Collaborative, *Reducing Greenhouse Gas Emissions from Transportation Fuel with Low Carbon Fuel Standards* (2019). https://46h83069gmc37jdhm425hbh3-wpengine.netdna-ssl.com/wp-content/uploads/2019/03/PCC_LowCarbonFuelStandard_Brief_032719.pdf

[26] Intergovernmental Panel on Climate Change, *AR6 Climate Change 2021: The Physical Science Basis*. https://www.ipcc.ch/report/ar6/wg1/

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