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November 1, 2019

Vicki Arroyo
Executive Director
Georgetown Climate Center
600 New Jersey Avenue, NW
Washington, DC 20001

RE: High Level Framework For A Draft Regional Policy Proposal To Reduce Greenhouse Gas Pollution From Transportation (October 1, 2019)

Dear Executive Director Arroyo:

Shell appreciates this opportunity to comment on The Georgetown Transportation & Climate Initiative ("TCI") High Level Framework For A Draft Regional Policy Proposal To Reduce Greenhouse Gas Pollution From Transportation ("Framework"). Shell has business interests across the TCI jurisdictions, including retail locations and terminals that supply gasoline, diesel, ethanol, biodiesel, and other fuels throughout the region. We are an active participant in the RGGI program, the California Cap and Trade program, and other Cap and Trade programs globally. We are also investing in cleaner lower carbon fuel options such as cellulosic biofuels, renewable natural gas, electric vehicle recharging, and hydrogen vehicle refueling. As such, we have a substantial interest in the proposed Framework.

Shell has long recognized the climate change challenge. Our overall goal is to provide more energy to meet growing world demand while providing cleaner energy to reduce carbon emissions. We believe that effective policy is essential to drive low-carbon business growth and affect consumer choices. We welcome governmental efforts to achieve long-term climate goals. We particularly welcomed the United Nations Paris Agreement on climate change and have made a company-wide global commitment to reduce the carbon intensity of the energy products we sell with our Net Carbon Footprint ambition. We believe that the transition to a low-carbon economy is best underpinned by meaningful government-led carbon pricing mechanisms. The TCI Framework is a step in the right direction.

An effective transition to lower emission mobility will require the coordination and integration of policies that impact vehicles, fuels, infrastructure and consumer choice. As new technologies will not be cost competitive immediately, time-limited incentives for all low carbon technologies will be needed to bridge the gap and ensure an effective transition. The Framework can contribute to reducing transport emissions by sending a strong signal to consumers to consume fuel more efficiently while at the same time providing the support needed to deploy technologies that can reduce emissions, such as advanced biofuels, refueling infrastructure for electric and hydrogen vehicles, and Carbon Capture Use and Storage (CCUS) technologies.

It is against this supportive mindset that we offer comments on a few specific issues in the Framework.

Affected Fuels and Emissions

The Framework explains that the "proposed program would cap emissions of carbon dioxide from the combustion of the fossil component of finished motor gasoline and on-road diesel fuel in the region. The TCI jurisdictions are evaluating whether and how to include and treat biofuels in the program. Affected fuel would include fuel destined for final sale or consumption in a TCI jurisdiction, upon removal from a storage facility (i.e., a "terminal rack") in the TCI jurisdiction, or, for fuel removed from a facility in another jurisdiction, upon delivery into the TCI jurisdiction."

Shell recommends biofuels be excluded from the program like the exclusion of biofuels from California's Cap and Trade program. This approach will provide an incentive for greater biofuel usage. We also recommend that TCI support the use of renewable fuels within the aviation and heating oil sectors as an offset generating activity. This approach is like the treatment of these fuels within the federal Renewable Fuel Standard ("RFS")

Regulated Entities

To ensure a level competitive playing field, all gasoline and diesel sold for consumption in the TCI jurisdictions must be subject to regulation. This must include for example, fuel that is trucked from terminals in neighboring states to retail locations within the TCI jurisdictions. If it is not, it will create carbon leakage from the program and an unlevel playing field for businesses in the TCI jurisdictions. Terminals in the TCI jurisdictions also supply fuel across state lines. Gasoline and diesel exported out of the TCI jurisdictions should not be regulated to avoid disadvantaging businesses in the TCI jurisdictions.

Flexibility, Allowance Allocation, and Stringency

The Framework explains that the program would incorporate allowance banking and multi-year compliance periods and include price-based mechanisms for cap flexibility and cost containment (e.g. cost containment reserve, emissions containment reserve, minimum reserve price). The Framework further explains that price-based flexibility mechanisms would be implemented through auction design, and that linkage with programs in other jurisdictions might be another way to add flexibility and contain costs.

Shell supports inclusion of flexibility and cost containment mechanisms. Compliance flexibility allows businesses to select strategies that best suit their unique needs and evolving circumstances, while delivering real emission reductions more efficiently and at less cost than rigid measures. Price-based mechanisms help to achieve GHG emission reductions while sending a clear and transparent signal throughout the economy. This in turn prompts behavior change that reduces emissions and spurs the investment and commercialization of advanced technologies. Well-designed cost containment provisions also increase regulatory certainty and facilitate investment.

Linking is another way to add flexibility and contain costs. Shell supports designing the program in a manner that will encourage linking with RGGI and other similar programs. We would also encourage the TCI jurisdictions to enlist the participation of neighboring jurisdictions. A geographically broader program, especially if linked with other programs, may help to reduce cross border dislocations and increase liquidity. The TCI proposal should ensure consistency with existing programs on the point of regulation, cost containment and the use of offsets for compliance. Adopting policies that are aligned with existing programs serve as a valuable means to ultimately encourage other jurisdictions to follow suit.

Offsets

In addition to allowances, it's important for the program to allow obligated entities to meet a portion of their obligation with offsets. Offsets serve as a cost mitigation measure when other low carbon technology options are unreasonably expensive or unavailable, thereby potentially easing the cost of the energy transition to businesses and consumers. They provide flexibility for other non-regulated projects to help meet the targets through innovative means. Offsets with established protocols from other compliance programs should be recognized. Eligibility determined under the terms and conditions of existing offset program protocols will encourage early investment in offset projects leading to increased market liquidity, and in turn make it more economic for businesses to meet the region's carbon reduction goals.

Investment of Proceeds

The Framework explains that each jurisdiction would independently decide how proceeds are invested to achieve carbon emission reductions and other policy goals—like improved air quality and more affordable access to public transportation. We recommend that jurisdictions consider programs that advance the overall purpose of the program and invest in reducing carbon emissions.

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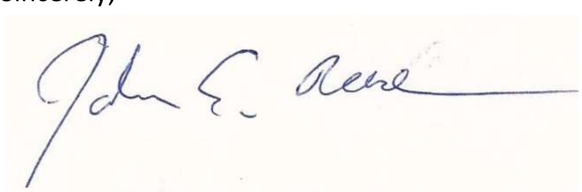
We appreciate this opportunity to comment on the Framework. If you should have any questions concerning these comments, please feel free to contact me at 713.201.4450 or John.Reese@Shell.com.

Sincerely,



John E. Reese
Downstream Policy & Advocacy Mgr., Americas

GENERAL MOTORS

Barbara Kiss, Director
Energy and Environment
Global Public Policy

General Motors Global Headquarters
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November 5, 2019

To the Transportation and Climate Initiative (TCI) Leadership:

Subject: GM Comments on the Transportation and Climate Initiative's Framework for a Draft Regional Policy Proposal

General Motors LLC (GM) appreciates TCI's efforts to design a cap-and-invest program to reduce emissions from the transportation sector in the Northeast and Mid-Atlantic states and Washington, DC. We value the opportunity to provide comments herein on the Framework for a Draft Regional Policy Proposal.

GM takes the challenge of climate change seriously and recognizes the role of the transportation sector in contributing to global greenhouse gas emissions. This is a driving force behind our vision of a future with zero crashes, zero emissions, and zero congestion. Addressing climate change in an effective and sustainable manner requires a clear, stable, economy-wide approach. The best policies are broadly applied and incentivize economic actors to respond in ways that achieve emissions reductions at the lowest societal cost. GM agrees with the consensus opinion of most economists that predictable policies that place a monetary value on carbon dioxide emissions—including cap-and-invest systems—are the most cost-effective policy options. To achieve the greatest reductions and maximize efficiency, we believe such policies should be applied economy wide on a national basis.

As we work toward the longer-term goal of a single, nationwide market-based policy to reduce emissions, GM takes this opportunity to express support for the concepts underpinning TCI's regional framework. We applaud TCI's focus from the outset on designing a policy to reduce carbon emissions from the transportation sector through a pricing mechanism. And we believe the proposed cap-and-invest program would create opportunities for participating jurisdictions to invest in critical complementary policies to catalyze the transition to an all-electric future.[1]

GM has made significant investments in vehicle electrification and leads the way among full-line automakers in advancing clean energy technology through our products, plants, and actions. The Chevrolet Bolt EV is a prime example of our unwavering commitment: we were the first automaker to invest in and launch a truly affordable, mass-market, long-range electric vehicle

[1] https://www.georgetownclimate.org/files/Final_TCI-statement_20181218_formatted.pdf

(EV). It has been widely praised and represents just the first step on our path to an all-electric future, with more EV models to debut in the coming years including entries into the truck segment.

However, automaker investments and EV model availability are just two of several critical factors that must play a role in transforming and ultimately decarbonizing the transportation sector. Currently the market for EVs remains relatively small, with high battery costs driving up retail vehicle prices and inconsistent charging availability undermining consumer confidence in the utility of EVs. Therefore, there is an urgent need for public policies that support the growth of a profitable EV market. TCI's proposed regional policy proposal would generate new revenues for participating jurisdictions to do just that.

GM encourages TCI, and participants in the program, to invest the program's proceeds in funding for critical complementary policies:

- **EV Purchase Incentives.** Because EVs are still as much as a decade away from true cost parity with conventional vehicles, EV purchase incentives are crucial. Participating jurisdictions should fund robust purchase incentives—for example, rebates or tax credits—available at the point of sale to put EVs within reach for more consumers.
- **Public Charging Infrastructure.** While the majority of EV charging today is done at home, the full range of travel, lifestyles, and vehicle use-cases cannot be accounted for by home charging alone. Moreover, the visible presence of public charging infrastructure inspires consumer confidence that EVs can take them everywhere they need to go. Participating jurisdictions should, in coordination with utilities, strategically invest in public charging stations at key locations across communities, as well as along highway corridors. States should also consider providing incentives such as rebates or tax credits for private entities to construct charging infrastructure.

While each participating jurisdiction would decide independently how to invest their share of the program revenues, TCI suggests that jurisdictions could identify "shared priorities for investment" to more efficiently deliver greater benefits.[2] GM supports this approach and recommends that participants work together toward shared goals.

GM commends TCI for proposing a market-based policy for reducing emissions from the transportation sector. We believe this can be an effective and efficient approach, reducing the societal cost of achieving emissions reductions, especially when applied on a national basis. We also encourage TCI and participating jurisdictions to use this opportunity to direct additional funding toward critical complementary policies in support of vehicle electrification as the nascent

[2] https://www.transportationandclimate.org/sites/default/files/TCI-Framework_10-01-2019.pdf

but critical EV industry continues to mature. We appreciate this opportunity to provide comments and look forward to the outcome of the remainder of the policy design process.

Sincerely,

Barbara Kiss, Director
Energy and Environment
Global Public Policy

Comments on the Transportation and Climate Initiative Framework for a Draft Regional Policy Proposal
November 5, 2019

National Grid appreciates the opportunity to comment on the Transportation and Climate Initiative (TCI) Framework for a Draft Regional Policy Proposal (Framework). We commend the leadership of the TCI states and the progress that TCI has made over the last year in working to develop a regional policy to reduce transportation CO_2 emissions.

National Grid is an electricity, natural gas, and clean energy delivery company serving more than 20 million people through our networks in New York, Massachusetts, and Rhode Island. National Grid also operates the systems that deliver gas and electricity across Great Britain, National Grid is transforming our electricity and natural gas networks with smarter, cleaner, and more resilient energy solutions to meet the goal of reducing greenhouse gas emissions by 80 percent by 2050. Our Northeast 80x50 Pathway is an industry-leading analysis for how to reach that goal in the states we serve, focusing on the power generation, heat, and transportation sectors.

National Grid is committed to achieving deep decarbonization across the Northeast. The transportation sector, which is currently the largest emitter of greenhouse gases, is poised for meaningful and necessary reductions. As outlined in our Northeast 80x50 Pathway, we support an economy-wide price on carbon. We commend the inclusion of a market-based, cap-and-invest construct in the Framework as an important contribution to our collective decarbonization efforts. This approach will encourage cost-effective emission reductions in the sector while raising revenues to fund publicly beneficially investments to support transformation of the transportation sector.

Aggressive action to reduce transportation CO_2 emissions is necessary if our states are to achieve their 80x50 objectives and meet their 2025 targets under the Zero Emission Vehicle Memorandum of Understanding.[1] Emissions from the transportation sector currently account for more than 40% of the Northeast's CO_2 emissions. Electrification of transportation is critical to transportation decarbonization. As our Pathway analysis notes, achieving an interim 2030 goal of 40% reductions by 2030 will require adoption of 10 million electric light duty vehicles in the region (equivalent to 50% electrification), far in excess of forecast adoption rates.

Achieving the necessary degree of transportation electrification to meet 80x50 goals will require substantial investments in the near term – a recent study by MJ Bradley and Associates estimated that investments of \$12-\$25 billion over the next 10-12 years would be needed.[2] However, the potential benefits to our customers and our region as a whole are large, with economic and environmental benefits estimated at over \$300 billion between now and 2050.[3] In addition to significant CO_2 reductions, electrification of transportation will lead to meaningful reductions of nitrogen oxide, volatile organic compounds, particulate matter emissions from vehicle tailpipes, all

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[1] *On October 24, 2013, the eight governors of California, Connecticut, Maryland, Massachusetts, New York, Oregon, Rhode Island, and Vermont signed a Zero Emissions Vehicle Memorandum of Understanding (ZEV MOU) with a goal of reducing greenhouse gas and smog-causing emissions. Under the ZEV MOU, the signatory states collectively committed to having at least 3.3 million ZEVs on our roads by 2025, along with the infrastructure to support these vehicles.*

[2] *Estimated investment needed in the region to achieve 60-80% reductions from the transportation sector by 2050, with most of this investment going to electrification. MJ Bradley and Associates. "Decarbonizing Transportation: The Benefits and Costs of a Clean Transportation System in the Northeast and Mid-Atlantic Region. October, 2018. https://www.ucsusa.org/sites/default/files/attach/2018/10/reducing-emissions-northeast-report-full.pdf.*

[3] *Ibid.*

of which have more local effects. Utility customers will benefit from downward pressure on rates that results from increased revenue due to higher usage and more efficient utilization of distribution system assets. Vehicle owners will benefit from reduced fuel and vehicle maintenance costs. In addition, the region will benefit from the economic development associated with the construction, operation, and maintenance of EV-related infrastructure, and would retain the economic benefits of regionally-produced transportation energy.

National Grid is committed to leading by example on the electrification of the transportation sector:

- National Grid will be implementing nearly $35 million in electric transport related initiatives - such as charging infrastructure, customer outreach/education, and grid integration - over the next three years in all our jurisdictions;
- Launched an electric vehicle (EV) adoption program for employees, facilitating the sale/lease of more than 350 EVs since the program launch in 2018;
- Installed over 100 charging ports at 20 of our facilities to date, with more planned soon;
- Committed to investing 5% of corporate fleet budget to EVs;
- Owns and manages 150 Level 2 stations across our jurisdictions and have installed three DC fast charging stations in the Commonwealth with state grant funding; and
- National Grid played a leadership role in the national Alliance to Save Energy's "50x50 Commission," a diverse group of stakeholders working to reduce energy use in the transportation sector by 50% by 2050 while also meeting future mobility needs.

National Grid offers specific comments on the following elements of Framework:

Emissions cap and trajectory: The TCI cap and emissions trajectory should be ambitious, and set at levels that that will ensure meaningful emissions reductions from the program in support of state decarbonization goals, while also raising sufficient revenue to fund investments that advance states' clean transportation objectives and create affordable and clean transportation options. National Grid expects that TCI's modeling of various policy and investment scenarios will provide important insights into appropriate cap levels. Sensitivity analysis of key but uncertain variables such technology costs, federal climate policy, and fuel prices, will also be important to ensuring a robust program design that can remain impactful under multiple versions of the future.

Allowance auctions and investment of proceeds: National Grid supports the Framework position that nearly 100% of allowances will be auctioned. Auctions provide a fair and transparent mechanism to distribute emissions allowances. National Grid supports the inclusion of a minimum reserve price to ensure that a meaningful price signal is provided to the market and that states will be able to depend on a minimum level of revenue for investment.

Given the substantial near term investments that will be required to achieve decarbonization goals, effective use of auction revenues in support of these investment needs will be critical to TCI's success. We support the Framework's position that each state would determine how to invest revenues in manners consistent with its transportation policy priorities, but suggest that how to most effectively and equitably advance transportation electrification be a foremost consideration as states evaluate how to invest proceeds. Potential high-impact uses of proceeds include:

- Providing a sustainable source of funding for consumer rebates for EV purchases;
- Funding the build-out of publicly accessible charging infrastructure with a mix of high-speed DCFC and moderate speed "level 2" chargers; and
- Increasing availability of public transportation, especially low-carbon and clean public transport options including electric buses.

We also commend the Framework for recognizing that there may be efficiencies to gain from cross-state collaboration in making investments.

Equity: National Grid agrees that equity must be a foundational objective of TCI. The program should be designed and implemented in a manner that ensures the benefits and burdens of the program are shared equitably across communities, and access to clean transportation options for underserved and overburdened populations is expanded.

Containment of emissions and costs: There is significant uncertainty involved in the setting of an emissions cap and what that might mean for allowance prices under the program. Allowance prices that are significantly above or below expected levels can threaten program goals and undermine stakeholder support. RGGI contains two important mechanisms that alleviate some of the risk associated with uncertain cap levels:

- Emissions containment reserve, which automatically decreases the cap levels in a controlled manner, if allowance prices fail to shift the marketplace as needed;
- Cost containment reserve, which injects additional allowances if prices become too high and exceed a certain threshold.

National Grid believes that both of these mechanisms, when set at appropriate trigger levels, can provide additional cost and benefit certainty to participants and stakeholders, and help support the effectiveness of TCI.

Flexibility and linkage: Flexibility is important to maximize the cost-effectiveness of TCI. Banking and multiyear compliance periods enable affected entities to smooth compliance costs over time, and help to minimize volatility in allowance prices. The ability to bank allowances for future use can also help to accelerate emissions reductions in early years of the program. National Grid agrees with the intention expressed in the Framework to incorporate these mechanisms and draw upon examples from RGGI, which pioneered a three year compliance period, as well as other programs.

As the Framework discusses, linkage to other programs such as RGGI is another means of providing flexibility and limiting costs. Linkage provides an avenue to maximize efficiency across separate emissions trading programs such that overall emissions reduction costs are lower. Linkage with RGGI, for example, would establish a multi-sector framework that would drive the most cost effective emissions reductions across the two sectors, and lower the overall cost of emissions reductions to the region. However, the decision on whether to link programs is a nuanced one, requiring consideration of cost shifts and distributional impacts among the linked programs, as well as implications for allowance values and auction proceeds, and warrants thoughtful analysis. National Grid believes that the potential benefits of linkage are sufficient to advise that TCI be designed in a manner that does not preclude or impede the ability to link with programs such as RGGI (i.e., “linking ready” as described in the Framework).

National Grid appreciates the opportunity to provide input on the Framework. We look forward to supporting the next phase of the development of this important regional effort.