

Memorandum

To: Interested Parties
From: Peter Iwanowicz, Executive Director
Re: Key provisions of the draft climate action scoping plan
Date: January 2022

The New York State Climate Action Council (“the Council”), of which I am a member, released the [draft climate action scoping plan](#) (“Climate Plan”) for public review and comment on December 30, 2021 and in so doing opened a public comment period of at least 120 days. Governor Hochul embraced much of the draft Climate Plan in her State of the State Address and seems ready to claim it as her climate agenda for the year.

Having a Governor that views addressing the climate crisis as a “want to” rather a “have too” is energizing.

The draft Climate Plan was created pursuant to the Climate Leadership and Community Protection Act (CLCPA), a law [The New York Times called “One of the World’s Most Ambitious Climate Plans.”](#) While I have concerns about the draft plan and will be working to improve it, I do believe that it largely lives up to this bold appellation.

The draft Climate Plan, like the CLCPA, recognizes that the climate crisis requires a near complete shift off combustion as an energy source for all sectors of New York’s economy. The systems that power our vehicles, our homes, our businesses, and industries will all be “electrified” and the electrons to supply these systems will come from 100% emissions-free sources.

As this dramatic and necessary shift takes place, the draft climate plan centers equity and justice for the people and the communities of New York that are on the frontlines of the climate crisis and works to achieve a just transition. To secure all of this, the final plan must incorporate the guidance provided to the Council from the state Climate Justice Working Group.

Before getting into highlights of the draft Climate Plan, there are some important pieces of the CLCPA that are worth noting as they have led to some of the boldest recommendations in the draft.

The CLCPA required the Council to assess emissions on a 20-year global warming potential rather than the standard 100-year warming potential. Because the CLCPA

also requires the state to address emissions related to the importation of fuels, the plan has a very aggressive timetable for **ending the use natural gas decommissioning its infrastructure.**

In addition, the draft Climate Plan does not consider biofuels to be carbon neutral as other plans do. This effectively – and rightly – limits their role to niche applications during a transition phase. While the draft Climate Plan suggests a role for the combustion of waste gases from landfills, wastewater treatment plants, and farms (so called biogas), such role would be an inefficient use of this waste derived energy source and would require expansion of gas infrastructure. The plan identifies better uses of this fuel as a local source of hydrogen that can be used for on-site electrical generation via fuel cells. This approach is the best path forward.

Though we are in the early stages of CLCPA implementation, the state is already rejecting pipeline¹ and power plant permit applications.^{2,3} The reason being they have been deemed “inconsistent” with the climate law. Agencies are also prioritizing reduction of combustion “co-pollutants” and committing to clean energy investments in disadvantaged communities.

As required by the CLCPA, the State Department of Environmental Conservation (DEC) also assessed the damage caused by each ton of greenhouse gas emitted; commonly called the Social Cost of Carbon.⁴ In the 2020 assessment, the DEC found that each ton of carbon dioxide caused more than \$120 in damage. The figures are higher for other greenhouse gases.

Multiply this by each ton of carbon dioxide emitted in New York⁵ each year and the annual damage cost is a staggering \$23.3 billion dollars per year.

The draft climate plan also contains an analysis that assessed the benefits and costs of acting on climate.⁶ ***The bottom line: failure to act and transition our economy to 100% clean renewables will cost \$90 billion more than executing the draft plan.***

The benefit-cost analysis also found that the net benefits for acting ranged from \$90 to \$120 billion. We’d hit the higher end of this range if we moved rapidly and completely away from the combustion of fuels (fossil and non-fossil) to full electrification of our energy systems.

¹ https://www.dec.ny.gov/docs/permits_ej_operations_pdf/nesewqcdenial05152020.pdf

² https://www.dec.ny.gov/docs/administration_pdf/nrgastoriadecision10272021.pdf

³ https://www.dec.ny.gov/docs/administration_pdf/danskammer10272021.pdf

⁴ https://www.dec.ny.gov/docs/administration_pdf/vocguidrev.pdf

⁵ <https://climate.ny.gov/-/media/Project/Climate/Files/Draft-Scoping-Plan.ashx>

⁶ <https://climate.ny.gov/-/media/Migrated/CLCPA/Files/2021-10-14-CAC-Meeting-presentation.ashx>

The draft Climate Plan recommends spending at least \$10 billion annually. Throughout the plan are recommendations for key areas where this funding will help New Yorkers, especially those living in Disadvantaged Communities, afford the transition. The plan also calls for massive assistance for local governments who'll be on the vanguard of implementing the changes needed along with funding to assure good jobs in the clean energy economy that the plan will create.

Here is my main takeaway for the benefit-cost analysis:

the faster we move to full electrification the fewer people will get sick, the fewer lives we will lose, the more jobs we will create, and the faster we will reap the net economic benefits.

* * *

Presented below is my summary of the sector strategies in the draft Climate Plan. I am purposely drawing your attention to the strategies that will attain full electrification as quickly as possible. Anything less means more people get sick (some of whom die prematurely), fewer jobs are created, and we miss out on the more than \$120 billion in net benefits that action on climate will generate.

The plan does contain policies and programs that would use biofuels for a transition instead of full electrification and some “negative emissions” strategies like carbon capture and storage, but the main thrust is to rapidly move off fossil fuels.

Buildings

With an honest accounting of methane's near-term global warming potential and a recognition that the current gas distribution system is rather leaky, the building sector turns out to be the largest contributor of greenhouse gases in New York (32% of all emissions). Thus, the draft plan recognizes that it is critically important that this sector be fully electrified. Doing so will lead to rapid growth for residential energy efficiency services, creating 100,000 new jobs.

Key policies include:

- A ban on any fossil fuels in new single-family homes and low rise (3 stories or less) residential units built after 2024 and for high rise (more than 3 stories) residential units in 2027.
- By 2050, 85% of homes and commercial building space statewide should be electrified with heat pumps.
- By 2024 the Public Service Commission (PSC) will prohibit new gas service to existing buildings.

- 2030: Adopt zero emission standards that prohibit gas/oil replacements (at end of useful life) of heating and cooling and hot water equipment for single-family homes and low-rise residential buildings with up to 49 housing units.
- 2035: Adopt zero emission standards that prohibit gas/oil replacements (at end of useful life) of heating, cooling, and hot water equipment for larger multifamily buildings (4 stories and higher or 50 or more housing units) and commercial buildings.
- 2035: Adopt zero emission standards that prohibit gas appliance replacements (at end of useful life) for cooking and clothes drying.
- 2035: DEC should adopt zero emissions standards that prohibit gas/oil use in large fuel burning equipment.

The draft plan contemplates sources of gas derived from waste, what the industry calls “renewable natural gas or RNG” that can help decarbonize this sector.

The capacity of RNG is quite limited and other sections of the climate plan rightly envision localized use of this fuel (in non-combustion technologies such as fuel cells) and the draft plan also assumes a strategic decommissioning of the gas infrastructure. I believe that it is better to move to full electrification as quickly as possible rather than committing resources in a chase for RNG as a fuel source for buildings or in vehicles. We don’t have time, nor should we spend money moving this fuel via new pipelines to far off locations.

Transportation

Each year, New Yorkers send \$30 billion a year to out of state oil and gas interests. As we electrify, that money will largely stay here as it is so tied to oil used in vehicles.

That’s not only a big market shift, but it also represents a huge amount of wasted economic potential. Using oil to power a vehicle is such a waste compared to an electric drive. A full 75-cents of every dollar pumped into a vehicle’s tank is pure waste (heat and exhaust). This is just a factor of how limited internal combustion is. Loss for the same dollar of energy in an electric vehicle battery is just 10-cents.

The transportation sector is the second largest for state greenhouse gas emissions (28%). Though a massive challenge, the draft Climate Plan envisions that by 2050 all motor vehicles will need to be emissions-free. Knowing where this was all headed, the Legislature got a jump on things and passed (and Governor Hochul approved), a law in 2021⁷ that effectively bans the sale of internal combustion engines for use in passenger vehicles, trucks, buses, farm and construction vehicles and equipment and most lawn and garden equipment starting in 2035.

⁷ See Chapter 423 of 2021

Other key components of the plan include:

- By 2030, a third of all passenger vehicles (3 million) and 10-percent of medium- and heavy-duty vehicles will be zero-emissions.
- By 2035, all passenger vehicles in the state's fleet will be zero-emissions
- 100% of all transit buses to be zero-emissions as per set replacement schedule.

The draft Climate Plan contains two emission reduction strategies for this sector that are based on a form of carbon pricing for this sector: the Transportation Climate Initiative or TCI and clean fuel standards. The Climate Justice Working Group opposes these approaches and advised the Council to reject them. Currently, there are no participating states in TCI, so that program does not seem a viable pathway.

A clean fuel standard does not fit with the equity construct of the CLCPA. The draft plan states it clearly, that revenues from clean fuel standards will not be “..for public investment, thus, the investments of revenue would not provide a mechanism for addressing any hotspots that would otherwise be created,” making it more difficult to address any regressive impact of increased fuel prices.⁸

I agree with the Climate Justice Working Group and believe the best pathway to fund the CLCPA is via an economywide polluter penalty, like the Climate and Community Investment Act. It prices pollution, directs the spending of proceeds in a way to avoid being regressive and it covers all sectors unlike TCI or clean fuel standards.

Electricity

This sector is responsible for 13% of statewide greenhouse gas emissions. The draft plan is guided by strong statutory requirements:

- By 2030, 70% of electricity must come from clean renewable generation (e.g. wind, hydro and solar).
- The entire electricity generating sector must be “zero-emissions” by 2040.
- One important item to note: combustion of waste is not now and will not be in 2040 a zero-emissions energy generating technology.

Industry

This sector is responsible for 9% of greenhouse gas emissions. The draft plan envisions a heavily reliance on incentives to achieve near-term reductions in this sector. To achieve reductions by 2030, the plan has identified four pillars for industry:

- energy efficiency;
- fuel switching to low carbon fuels like renewables;

⁸ See Chapter 17 of the draft, “Economy-Wide Strategies”

- the successful decarbonization of electrical supply; and
- negative emissions.

Three out of the four pillars are self-explanatory, the fourth, negative emissions is about technologies that could capture and then store carbon emissions. Carbon capture and storage is one such negative emissions technology that has not advanced much in the past decade. The draft plan finds that to truly address this sector's emissions by 2050 will require electrification and 100% emissions-free electricity.

Agriculture and Forestry

This sector is responsible for 6% of the greenhouse gases emitted in the state, the vast majority of which comes from livestock (92%). Unlike other sectors, this section of the draft plan is short on policies that will directly lower pollution and instead relies heavily on natural sequestration measures to achieve necessary reductions.

The draft plan does recommend the reduction of methane and nitrous oxide (N₂O) emissions from agriculture, but again it based on managing the problem rather than setting regulatory emissions reductions. Since high levels of N₂O are related to overuse of synthetic nitrogen fertilizers and its responsible for 9% of the Ag sector emissions, it would stand to reason that there should be aggressive measures to lower nitrogen fertilizers. The draft plan only talks about the “efficient use of nitrogen fertilizer.”

The Ag and Forestry section of the plan did not address the emissions from vehicle and equipment used in this sector, a clear oversight of a source of emission to be addressed under the CLCPA.

So, we have work to do on this portion of the plan.

Waste

This sector is responsible for 12% of the state greenhouse gas emissions with 78% of the sector's emissions coming from landfills, 15% from wastewater treatment and 7% from incineration. Methane is the major issue related to waste, but there are significant co-pollutants that must be addressed with incineration. As mentioned in the electricity sector above, incineration will not be a means of generating electricity in New York after 2040 as it fails to meet the statutory definition of “zero-emissions.”

Key components of the waste emissions reduction strategy are:

- Addressing waste from a lifecycle basis to reduce the impacts of products and packaging;

- Diversion of waste from landfills (especially organic waste) so that by 2050 they are only used for specific waste streams where reduction and recycling are not possible;
- Require producers (packaging materials and products) to be responsible for their materials via extended producer responsibility or EPR; and
- Stress the use waste generated biogas (farms, landfills and wastewater treatment plants) for local non-combustion systems to reduce methane emissions and generate electricity without increasing co-pollution.

Gas System Transition

The draft plan envisions a strategic decommissioning of the gas infrastructure and recognizes consolidation and the ultimate closure of gas utilities.

The draft plan recommends:

- elimination of statutory provisions that would prevent this transition such as the existing requirement to supply on the application of a building owner or an occupant; and
- new building codes to prohibit the use of gas appliances (space heating, hot water and cooking) in new construction.