



**Testimony to the Senate Committees on Finance, Environmental Conservation, and Energy and
Telecommunications**

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Finance Committee Chair Senator Liz Krueger has said that “This is the year when the rubber meets the road on climate action in New York State.” With the Climate Action Council having wrapped up its work on the CLCPA Scoping Plan, there is no doubt she is right. Yet there is also no doubt that when we hit the road, bad things can happen as well as good. And just because we have a good destination in mind does not mean we will get there in the safest and least cost way.

I have a PhD in political science from the University of Oregon and taught public policy and political economy at the collegiate level for many years before coming to the Empire Center. Throughout the past year I have been increasingly discouraged by the Climate Action Council’s failure to analyze the real net cost of the CLCPA to New York.

The Climate Action Council had in hand an integration analysis that claimed the cost of inaction outweighed the cost of action by at least \$115 billion. There are two fundamental problems with that analysis.

First, there is research on the accuracy of cost projections for multi-billion dollar, decades-long government policies, and the ugly reality is that they are nearly always too optimistic. They tend to underestimate the challenges of achieving the goals, so they frequently underestimate the costs by two, three, or even ten times the real cost.

Examples include Boston’s Big Dig, which was vastly over budget and almost 10 years behind schedule,ⁱ and California’s high-speed rail project, which was estimated to cost \$40 billion but has now ballooned to over \$100 billion,ⁱⁱ with a starting operation date pushed back from 2020 for the entire San Francisco to Los Angeles Run to a starting date of 2030 for just middle section that reaches neither city.ⁱⁱⁱ

Examples are so numerous that scholar Bent Flyvbjerg has coined the Iron Law of Megaprojects: “Over budget, over time, over and over.”^{iv}

One of the unavoidable difficulties of large projects that causes such results is the technical complexity of doing something that has never been done before. Even the experts are unable to predict the problems that will arise. A second problem is the long time frames involved, which allow for inflation and changes in project goals and design. And a third is the failure to recognize that political opposition doesn’t just stop because a policy has been announced, and every available political and legal maneuver will be utilized by citizens who, although in the minority, continue to have a right to have their voice heard.

But there is also an ugly political reason for cost over-runs, as stated by California politician Willie Brown – former mayor of San Francisco and former Speaker of the California Assembly, who said,

[W]e never had a real cost for the Central Subway or the Bay Bridge or any other massive construction project. . . In the world of civic projects, the first budget is really just a down payment. If people knew the real cost from the start, nothing would ever be approved. The idea is to get going. Start digging a hole and make it so big, there’s no alternative to coming up with the money to fill it in.^v

For all these reasons, the CLCPA is likely to cost more than advertised, and if it costs just half again as much as advertised, the net benefits disappear entirely.

Second, the analysis showing net benefits is based on the global benefits of reducing greenhouse gas emissions. That means more than half of the benefit goes to other states, even other countries, rather than to New York. This leaves New York with about \$170 billion in benefits at a cost roughly twice that

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much.^{vi} So even by the numbers given by the Climate Action Council's own consultants – even if, however unlikely, there are no cost overruns – the net benefit to the State of New York is outweighed by the costs New Yorkers will pay.

That bears repeating: By the Climate Action Council's own numbers, even if the costs of the CLCPA come in on budget, it is a net loss for the New Yorkers whom you represent.

I emphasize this because these Committees are holding this hearing to examine the legislative and budgetary actions necessary to implement the Climate Leadership and Community Protection Act and the Climate Action Council's Final Scoping Plan.

These actions are critical, because with the overall plan posing a net cost to New York, each individual policy should be examined as to whether its benefits outweigh its costs. Further, the Legislature needs to carefully examine how we are to pay for these policies.

So far, the State is lagging on both measures.

Consider electric school buses. The cost of transition will be between \$8 and \$15.25 billion.^{vii} The Clean Water, Clean Air, and Green Jobs Environmental Bond Act allocates only \$500 million to help school districts adapt, only 6.25 - 3.3 percent of the total cost. Another \$300 million may be available from a variety of state and federal sources. Where is the remaining \$7.2 - 14.4 billion to come from? Will local school districts be expected to cover the costs? If so, what other areas of spending, such as in academic programs, will they have to cut? What will be the net costs of losing such programs?

Overall, while there is no doubt that electric school buses reduce harmful emissions, does the benefit outweigh the cost? The state has not conducted a study, so it cannot say. We can say that much of the reduction can be accomplished at much lower cost through the use of new engines, cleaner biofuels, hydrogen fuel cells, or propane.

The legislature should require the DEC to conduct a comparative benefit-cost analysis that the Legislature, the Executive Branch, and local school districts can use to determine the most cost-effective route forward.

We also lack good data on both the cost and on whom the cost will fall for the transition of existing homes to electric housing. The Scoping Plan itself notes that "For many customers now heating with low-cost gas, however, bill savings do not currently offer a clear economic return on investment for adopting a whole-home heat pump." The state cannot expect many such customers to transition on their own, and to date the subsidies for heat pumps have only been sufficient to attract the wealthy.

Helping moderate- to low-income homeowners transition can require tens of thousands of dollars in home-envelope upgrades^{viii} in addition to the potentially tens of thousands of dollars cost for heat pumps. Even with assistance from the federal Inflation Reduction Act, many homeowners will be unable to afford the combined cost of envelope upgrading and heat pump installation. Just saying there are combined federal and state subsidies does not make the level of subsidy sufficient. So how will the state assist these real New Yorkers to make the transition, and what will be the real cost of doing so?

If, not being able to afford heat pumps, these people transition instead to electric-resistance heating, their heating bills can be expected to increase substantially. Will that cost fall on them, will other ratepayers cover their costs, or will the state also take on this cost?

Governor Hochul, in her 2023 State of the State Address,^{ix} proposed that no low-income New Yorker should ever pay more than 6 percent of their income for electricity. But she also did not address how any

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additional costs are to be covered. Nor did she offer any cost estimate for this ideal, yet as increasing numbers of homes electrify, and as increasing numbers of auto owners have electric vehicles that they charge at home, the cost of this open-ended commitment will multiply. How much will it be and who will pay it? To make good policy decisions, the legislature needs someone to estimate the cost, and only then can it talk wisely about whether and how to pay for it.

In another major proposal, the Climate Action Council has proposed a cap-and-invest plan for greenhouse gas emissions.^x I would first note that both the Council and the Governor have proposed to skirt the input of the people's representatives by not submitting such a plan to the Legislature, but by hiding it in the machinery of the Department of Environmental Conservation and the New York State Energy Research and Development Authority.

I would note second that there is no calculation of the proceeds likely to come from this plan. Governor Hochul has assumed it will be sufficient to "jumpstart the green economy." But to prevent energy-intensive and trade-exposed businesses from responding by fleeing the state – which would undermine CLCPA goals by creating fugitive emissions – the Climate Action Council has recommended giving away emissions allowances, which will potentially radically reduce the amount of revenues the program produces.

Further, while cap-and-trade programs are widely recognized by economists as the most cost-effective way to reduce emissions, they note that the ideal scale for such a program is global, precisely to eliminate leakage. The next best is the national or multi-national scale, where countries can impose border-adjustment tariffs to discourage emissions leakages. As a U.S. state, New York cannot impose such border-adjustments – it is, most likely, the wrong scale for such a program. While other states are also beginning to experiment with such cap-and-invest programs, there is no evidence yet that they can work at the state level. The two probable outcomes would seem to be extensive leakage as energy-intensive businesses shift operations out of state – as has been the experience with California's program^{xi} – or lower-than-anticipated revenues due to giving away allowances to keep them in-state.

And whatever the outcome there, it is likely to deter out-of-state businesses from looking to New York for future investment without promises that they will also be given free allowances for an extended period of time, undermining the effectiveness of the program. This includes many green and high-tech industries the state would like to court.

Cap-and-invest is the crown jewel of the Scoping Plan, the primary means by which much of it is to be funded, yet the Council made no effort to estimate either the likely revenues from its auctions of emissions allowances or its likely effect on the state's economy.

Finally, I remain exceptionally concerned about the CLCPA goals of 70 percent renewable electricity by 2030 and 100 percent emissions-free electricity by 2040. I have seen no serious analysis addressing the costs and benefits of trying to achieve those goals in that time frame. Having been written into law, they seem to be treated as holy writ, unalterable and unchanging, however untenable.

The New York Independent System Operator has desperately been trying to sound the alarm that we risk shutting down reliable sources of electricity generation faster than we can bring them on-line – and solar and wind are not reliable sources, thus not suitable as full replacements – and the Climate Action Council has not understood what they are saying.

The Scoping Plan itself says we will need "days, weeks, and even longer" of energy storage, but gives no attention to the truly astronomical cost of developing that storage. Today, even days of energy storage do

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not exist, and there is no medium-term prospect for the industry to build storage suitable for weeks, much less at an affordable price.

Additionally, following NYISO's concerns, the Scoping Plan references the need – in a system dependent on unreliable wind and solar power – for up to 45 gigawatts of dispatchable emissions-free resources. That reserve source of power is greater than the total of currently installed generating capacity in the state, but these resources do not yet exist, and the Climate Action Council made no attempt to analyze what it would cost to research, develop, and deploy them.

As a policy analyst, I find the Scoping Plan – and Governor Hochul's proposals – all too drearily familiar. The destination is well-intended, but both the goals and the pathways are based on hopeful thinking, an assumption that the benefits of each pathway must outweigh its costs; an assumption so strong that the need for detailed benefit-cost analysis is thrown out the window as we speed along.

The result, all too often, is a crash. The megaproject gets developed, eventually, and everyone cheers because it looks great, but the benefits never recoup the cost.

In the case of the CLCPA, much of the push seems to stem solely from the perception of climate action as a race. But there's no prize for being first. There are only prizes for ensuring the benefits of action outweigh the cost. Only by moving more cautiously, by observing the successes and failures of other states and countries and by doing benefit-cost analyses of each Scoping Plan proposal, can New York win.

ⁱ Greiman, Virginia, Roger Warburton and David Hand. 2009. "Deconstructing the Big Dig: Best Practices for Mega-project Cost Estimating." <https://www.pmi.org/learning/library/practices-mega-project-cost-estimating-6668>.

ⁱⁱ Ohanion, Lee. 2019. "California's Bullet-Train Fiasco Continues: \$20 Billion For 120 Miles?" *Hoover Institution*. <https://www.hoover.org/research/californias-bullet-train-fiasco-continues-20-billion-120-miles#:~:text=%E2%80%9CThe%20%28California%20High-Speed%20Rail%29%20Authority%E2%80%99s%20flawed%20decision%20making,dollars%20in%20cost%20overs%20for%20completing%20the%20system.%E2%80%9D>.

ⁱⁱⁱ Gonzalez, Saul. 2022. "Remember California's High-Speed Rail Project? It's Still Very Much a Reality in These Central Valley Communities." *KQED*. <https://www.kqed.org/news/11913317/remember-californias-high-speed-rail-project-its-still-very-much-a-reality-in-these-central-valley-communities>.

^{iv} Flyvbjerg, Bent. 2011. "Over Budget, Over Time, Over and Over Again: Managing Major Projects." in Peter W. G. Morris, Jeff Pinto, and Jonas Söderlund, eds. *The Oxford Handbook of Project Management*.

^v Smith, Stephen J. 2013. "A Bay Bridge Fit for Willie Brown." *Next City*. <https://nextcity.org/urbanist-news/a-bay-bridge-fit-for-willie-brown>.

^{vi} Hanley, James E. 2022. "New York's climate plan will cost hundreds of billions —and Albany is trying to hide it." *New York Post*. <https://nypost.com/2022/05/17/ny-green-new-deal-will-cost-taxpayers-hundreds-of-billions/>.

^{vii} Perry, Gillian K., and James E. Hanley. 2022. "Charging Forward: New York's Costly Rush to Electrify School Buses." *Empire Center for Public Policy*. <https://www.empirecenter.org/publications/charging-forward-new-yorks-costly-rush-to-electrify-school-buses/>.

^{viii} Anabaptist Climate Collaborative. "Sustainable Housing Building Envelope Systems." <https://sustainableclimatesolutions.org/sustainable-housing-building-envelope-systems/>.

^{ix} Hochul, Kathy. 2023. "2023 New York State: Achieving the New York Dream." <https://www.governor.ny.gov/sites/default/files/2023-01/2023SOTSBook.pdf>.

^x Climate Action Council. 2022. "Scoping Plan: Full Report." <https://climate.ny.gov/-/media/project/climate/files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf>.

^{xi} Hou, Kewai. 2020. "Cap-and-trade, But at What Cost?" *The Ohio State University Fisher College of Business*. <https://fisher.osu.edu/news/cap-and-trade-what-cost>.