

Addenda #99 – May 2026, Part 1

Re: Ch. 9, Progressive States Climate Policies

Ch. 11, Vehicle Electrification by ~~2050~~ 2035, Impossible!!

Ref: Addenda #37 – February 2024 & Update May 2026

In the New York 2023 fiscal year state budget, Governor Kathy Hochul mandated the electrification of all school buses in NY state by 2035, allowing only electric buses to be purchased by districts starting in 2027.

“With this bold action, New York will deliver on its U.S. Climate Alliance COP26 commitment. Requiring state fleet purchases to be zero-emissions vehicles will drive demand for the EV economy, further generating new jobs opportunities for New Yorkers.”

There has been a lot of discussion about the costs involved with converting New York State’s fleet of 45,000 diesel school buses.

1. The purchase of a standard Type C, 70+ passenger electric school bus exceeds \$400,000 per bus (depending on size and options) verses \$150,000 for a diesel school bus. ¹
2. The maintenance and charging infrastructure required to operate the buses. Building a new transportation center to handle the maintenance and servicing its fleet of 86 electric school buses would require, cost Penfield Central School District taxpayers \$31 million (plus loan interest over thirty years) before state building aid and transfer from the district’s “capital reserves” fund. A similar proposal for a new transportation center to maintain and service its fleet of 97 electric school buses, would have cost West Genesee Central School District taxpayers \$34 million (plus loan interest over thirty years) before state building aid and transfer from the district’s “capital reserves” fund. ¹
3. The additional future costs for charging the buses. The amount of electricity consumed to charge a large fleet of electric buses pushes the delivery service rate of the utility company into a different rate classification, significantly increasing prices paid by the district. ^{1,2}

School superintendents lobbied state legislators against the mandate altogether or for a timeline extension, citing the increased costs to the district and its taxpayers and warning lawmakers that the 2027/2035 target dates were unrealistic. District taxpayers voted down purchases of electric school buses included in budget propositions. New York Senate Republicans introduced an amendment to fully repeal New York’s electric school bus mandate, but Senate Democrats (under intense pressure from green energy and environmental groups) voted it down. Then, under pressure from Governor Hochul, who is running for reelection in November, something totally unexpected occurred...

New York lawmakers delayed the deadline for school districts to purchase *only* electric buses from 2027 to 2032 and delayed the date for school districts to complete fleet transitions from 2035 to 2040. Climate and environmental activists criticized the delay, claiming that it prolongs children’s exposure to harmful diesel exhaust and undermines the state’s emissions reduction goals. Climate alarmists urged lawmakers to continue moving forward aggressively using state and federal grants available for purchasing electric buses. ²

Observation #1: “Moving forward aggressively,” is a theme that comes straight from the top climate alarmist, U.N. Secretary-General António Guterres. In *The Sustainable Development Goals Report 2025* Guterres stated, “With just five years to reach the Sustainable Development Goals, we need to shift into overdrive.” Taking “*urgent action*” and pushing ahead despite opposition, is necessary for the plans success. Any delay gives the public more facts and reasons why these climate policies are too expensive and unachievable.

Observation #2: There is nowhere near enough money available to fund the transition of New York States total fleet of approximately 45,000 diesel and gas school buses. This is a fact that I explained in my December 2025 Update to Addenda #37.

Fact: Democrats allocated \$5 billion dollars to the *Clean School Bus Program* in 2021, to transition more than 466,700 gas and diesel school buses to electric. That amounts to a federal grant of roughly \$10,700 for each electric school bus, which costs \$400,000 or more. President Bidens school bus replacement program is underfunded by roughly \$146 billion.

Fact: New York Governor Kathy Hochul allocated \$500 million to the *New York School Bus Incentive Program* in 2022, to transition more than 45,000 NYS gas and diesel school buses to electric. That amounts to a state grant of roughly \$11,100 for each electric school bus, which costs \$400,000 or more. Governor Kathy Hochul’s school bus replacement program is underfunded by roughly \$13.8 billion.

Fact: Adding both federal and state grant availabilities amounts to roughly \$21,800 for each electric school bus, which costs \$400,000 or more. Who pays the \$228,200 additional cost to purchase the electric buses? School district taxpayers do.

$\$400,000 - \$21,800 = \$378,000$ electric bus net cost - $\$150,000$ diesel bus cost = $\$228,200$ cost “premium

> The New York State School Boards Association approved of the delay, saying it gives local school districts, electric bus manufacturers, and utility companies more time to solve the problems the transition faces. “Barriers range from workable to insurmountable... circumstances have developed that stymie the transition’s potential for success.”

> State Senator Chris Ryan (D-Onondaga County) said “We’re not ready for a number of reasons, right? So the buses, you know ... [electric buses] largely aren’t available, so I don’t even think we could actually meet the deadline with a mandate.”

> New York Assemblymember Gary Pretlow (D-Westchester County) defended the mandate as a way to meet New Yorks emissions goals, claiming that the long-term public health benefits justify the higher costs.

> State Assembly Speaker Carl Heastie (D-Bronx) said lawmakers are still weighing whether to give school districts more money to assist in the transition.

That about sums Governor Hochul’s electric school bus mandate. The logistics and finances show her plan can’t succeed on its own merits. School Superintendents say electric buses won’t work on a majority of their districts bus routes. Republican state legislators say their districts can’t afford the transition. Democrat state legislators say residents should expect higher costs, but they may “give” school districts more money to fund the transition.

That is the typical Democrat response to failed policies. First deny and misdirect criticisms. Next make excuses and promote unproven benefits and finally, when all else fails, throw more money at the problem and delay action to fix it.

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Electric school bus data for (1) standard 70+ passenger electric school bus

Type C conventional/diesel powered \$ 90,000 - \$150,000 (district competitive bid contracts) ⁴
Type C electric, lithium-ion powered \$350,000 - \$400,000

Manufacturers/Model:	Battery:	Maximum Range:	Level 2 Recharge Time
Blue Bird – Vision Electric	194 kW lithium-ion	130 miles	8.0 hours
IC Bus – Electric CE	210 kW lithium-ion	135 miles	8.3 hours
Thomas Built – Saf-T-Liner	246 kW lithium-ion	150 miles	9.2 hours

Assumptions:

1. Blue Bird Vision Electric Type C electric school bus at 8.0 hours charging time per day
194 kW Li-Ion battery x 8.0 hours to recharge = 1,552 kWh (kilowatt hours) total charging time
2. District fleet = 90 Type C electric school buses
1,552 kWh (kilowatt hours) total charging time x 90 = 139,680 kWh fleet charging time daily
3. 146 days in a school year x 139,680 kWh = 20,393,280 kWh charging per school year

The existing West Genesee Central School District Transportation Center electric consumption may use

National Grid Electric Large General Service (SC-3) Service Rates:

“Non-Demand (under 2,000 kWh used per month for four consecutive months)

Base Monthly Service Delivery Charge	\$870.00
Delivery Charge, first 40kW	\$624.80
Delivery Charge, per kW over 40kW	\$ 15.64

Addenda #99 – May 2026, Part 2

Re: Ch. 9, Progressive States Climate Policies

Ch. 8, 2050 Net-Zero Emissions; Impossible!

When the Climate Leadership and Community Protection Act was signed into law on July 18, 2019, then New York Governor Andrew Cuomo and climate activists called the CLCPA “a truly inspirational law” that set “ambitious mandates for the state to decrease greenhouse gases and expand renewable energy capacity.” Supporters promoted the supposed environmental and health benefits New Yorkers would gain from the CLCPA, but they never revealed the costs that implementing this ambitious plan would impose on average New Yorkers. It took a letter written by NYSERDA President and CEO Doreen Harris six and a half years *after* the bill was enacted, to finally revealed the extent of the deceptions and lies New Yorkers have been fed by Democrat leaders since the CLCPA was passed into law. This was not good news for Governor Hochul and Democrat climate alarmists in the state legislature who have continued to rubber stamp additional green energy mandates by Governor Hochul since she took office in 2021. ¹

In July 2024, a report from the New York State Energy Research and Development Authority showed that the state is *not* on track to achieve the climate goals of the CLCPA. *Draft Clean Energy Standard Biennial Review* detailed the progress made toward the renewable energy and zero emission goals set by the CLCPA and determined what remains to be done to achieve those goals. The most important “goal” set by the CLCPA was for 70% of all electricity produced in New York to be generated by renewable sources by 2030. Without achieving *this* goal, none of the other goals, 100% zero-emissions electricity by 2040, and an 85% reduction in GHG (greenhouse gas) emissions by 2050, could be met. ^{2, 3} Generating 70% of electricity from renewable sources depended on completing 9,000 megawatts (MW) of offshore wind generation capacity by 2035 and 6,000 MW of solar generation capacity by 2025.

By 2023, it became apparent that the costs of building offshore wind farms far outweighed the return on investment for the developers, and multiple companies terminated their agreements with New York State after taking hundreds of millions of dollars in write-downs for project losses, citing “inflation, interest rates, and supply chain disruptions.” The contract for the 132 MW South Fork Wind, the only offshore project currently in operation, was awarded six years prior to the big push for offshore wind development in 2013. Three additional projects, Empire Wind 1 & 2 (2,070 MW) and Sunrise Wind (924 MW) were awarded, cancelled, rebid and awarded again. A fourth project, Beacon Wind (1,230 MW), was awarded, then cancelled by the developer altogether.

The New York Public Service Commission rejected requests by multiple developers for billions of dollars in increases to renewable energy credits tied to project agreements, that would have made projects financially viable but would result in much higher electric bills for ratepayers than promoters of renewable energy projects initially led the public to believe.

After canceling the projects, developers rebid them and received higher Renewable Energy Certificates, significantly increasing future costs of electricity to ratepayers.^{4, 5}

NYSERDA's *Biennial Review* report and the New York Independent Systems Operator (NY ISO) *2024 Power Trends* report showed that with just seven years remaining to reach the 70% generation target, renewable energy sources provided “just under” 30% of electricity consumed in New York. The Power Trends report also noted that recent announcements for a number of “large load”: development projects (microchip manufacturing and data centers) increased future electricity demand far beyond what planners had originally assumed. This pushed the 70% target even further away from being achieved. Coupled with the fact that New York was moving full speed to close fossil fuel generation plants faster than new renewable sources were being brought online, the NYISO report stated that electric system “reliability margins” across the state were “rapidly declining.”

“We have all been aghast at just how horribly implementation has been going. In just five short years, we’ve gone from being visionary leaders to not being able to implement our own laws. It’s just insane,” Eddie Bautista, executive director of the New York City Environmental Justice Alliance was quoted as saying after NYSERDA released its report.

Fast forward to the spring of 2026 as New York legislators, attempting to pass the 2026-2027 fiscal year state budget, are being lobbied by Governor Kathy Hochul to make changes to climate law mandates. Remember, Hochul is running for reelection in November, and recent polls are showing that her “job approval rating” has fallen to its lowest level since April 2025. As the negotiations continued and the budget became the latest in state history, lawmakers advanced a bill to push back climate target dates by a decade, citing their desire to “protect New Yorkers (voters) from higher energy prices.” (The bill passed both houses of state legislature on bi-partisan votes.)⁶

New York now has until 2040 to achieve a 60% intermediate reduction in greenhouse gases, although the 85% reduction by 2050 remains in effect. The bill also rewords the language about emissions from “achieving” them to “working towards” them. Certain activities previously counted as emissions pollution are excluded under the revisions, making it *easier* for New York State to achieve its pollution goals.⁶ New York Democrats finally admitted to the public, that achieving “net-zero emissions” would be an extremely expensive and a near impossible task to achieve, something I have been saying for the past three years. It’s also exactly what the U.N.’s Intergovernmental Panel on Climate Change (IPCC) determined in their 2018 *Special Report: Global Warming of 1.5 °C*.⁷

“In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO₂ emissions decline by about 45% from 2010 levels by 2030 (40–60% interquartile range), reaching net zero around 2050 (2045–2055 interquartile range).”

Emission Pathways and System Transitions Consistent with 1.5°C Global Warming, Section C.1

“Pathways limiting global warming to 1.5°C with no or limited overshoot would require rapid and far-reaching transitions in energy, land, urban and infrastructure (including

transport and buildings), and industrial systems (high confidence). These systems transitions are unprecedented in terms of scale ...”

Emission Pathways and System Transitions Consistent with 1.5°C Global Warming, Section C.2

These climate scientists, using “climate *models*,” set the path to rely on increased use of renewable energy sources, projecting that renewables would supply 70-85% of electricity in 2050, while coal generation would be steeply reduced to “close to 0%.”

Emission Pathways and System Transitions Consistent with 1.5°C Global Warming, Section C.2.2

I want to take a minute to talk about “climate *models*,” what they are and what they are supposed to do. This definition of climate models comes from the Massachusetts Institute of Technology Climate Portal web page:

Climate models are computer programs that simulate weather patterns over time. By running these simulations, climate models the website can estimate the Earth’s average weather patterns—the climate—under different conditions. Scientists use climate models to predict how the climate might change in the future, especially as human actions, like adding greenhouse gases to the atmosphere, change the basic conditions of our planet.

From the online science and technology website *ScienceDaily*: “A computer simulation or a computer model is a computer program that attempts to simulate an abstract model of a particular system.” Professionals use computer simulations to predict all kinds of events. The words simulate, estimate, predict and *might change*, indicate that computer modeling is not always an exact science that yields real work results.

Pollution Could Cause Ice Age, Agency Reports

St. Petersburg Times, March 4, 1970

Continued pollution of the atmosphere with smoke, dust and other small particles “may ultimately create eternal winter on Earth,” a government agency said yesterday.

Dr. Earl W. Barrett of the Environmental Science Services Administration predicted this in 1970.

Scientist predicts a new ice age by 21st century

The Boston Globe, April 16, 1970

Air pollution may obliterate the sun and cause a new ice age in the first third of the next century...

James P. Lodge Jr., a scientist at the National Center for Atmospheric Research Center in Boulder, Colorado, predicted this in 1970.

Space satellites show new Ice Age coming fast

The Guardian, January 29, 1974

Worldwide and rapid trends towards a mini Ice Age are emerging from the first long term analyses of satellite weather pictures... This appears to be in keeping with other long-term climatic changes, all of which suggest that after reaching a climax of warmth between 1935 and 1955, world average temperatures are now falling...

Doctors George and Helena Kukla, “climate scientists” at Columbia University, predicted this in 1974. When their “mini Ice Age” failed to appear, the Kukla’s were praised for warning about the power of *climate change*.

Threat to Islands

The Canberra Times, September 26, 1988

A gradual rise in average sea level is threatening to completely cover this Indian Ocean nation of 1196 small islands with- in the next 30 years, according to authorities.

Mr. Hussien Shihab, Environmental Affairs Director of the islands of Maldives, made the claim/prediction in 1988, that the Indian Ocean would rise 20 to 30 centimeters over the next 20 to 40 years (how's that for scientific modelling?) and threaten to completely cover the nations 1196 islands. (The Guinness Book of Records lists the Maldives as the world's flattest and lowest lying country, with about 80% of its land just three feet above sea level.)

Alexandria Ocasio-Cortez Warns, 'World Is Going to End in 12 Years,' Reiterating Claims of Recent U.N. Climate Change Report

Newsweek, January 22, 2019

The world is going to end in 12 years if we don't address climate change and your biggest issue is how are we gonna pay for it? This is the war—this is our World War II.

The comments made by House Representative Alexandria Ocasio-Cortez, who introduced the Green New Deal to Congress in 2019, were in reference the 2018 United Nations annual climate change report, which claimed that the effects of climate change would be “irreversible and unavoidable,” if the greenhouse gas emissions goals of Agenda 2030 were not met.

“We’re still putting 162 million tons [of greenhouse gas] into it every single day and the accumulated amount is now trapping as much extra heat as would be released by 600,000 Hiroshima-class atomic bombs exploding every single day on the earth... That’s what’s boiling the oceans, creating these atmospheric rivers, and the rain bombs, and sucking the moisture out of the land, and creating the droughts, and melting the ice and raising the sea level, and causing these waves of climate refugees!”

Former Vice-President, “climate expert” and World Economic Forum Agenda Contributor Al Gore, World Economic Forum annual meeting, January 18, 2023, Davos Switzerland

I could go on and on with claims/predictions made by scientific experts and climate activists/alarmists like Ocasio-Cortez and Al Gore. If you’re interested in the coming Ice Age predictions, check out this article by the John Locke Foundation from March, 2013. <https://www.johnlocke.org/climate-experts-believe-the-next-ice-age-is-on-its-way-within-a-lifetime/>

Scientific models are simulations, estimates and predictions about what *might change*. Computer modelling *is not* an exact science, yet we’ve been told to “follow the science” regarding climate change. Remember how we were also supposed to “follow the science” when it came to the origin of the coronavirus, the effectiveness and immunity claims about COVID-19 vaccines and the protection wearing face masks provided individuals during the heights of the pandemic?

Ironically, IPCC scientists concluded that nuclear and fossil fuel generation sources “are modelled to increase in most 1.5°C pathways with no or limited overshoot,” in direct contradiction to climate alarmists who have called for bans on natural gas connections in new construction, and refusal to fund gas infrastructure expansion or upgrades to continue to provide a reliable supply of energy to consumers. These U.N. climate scientists also hinted

that this transition would come at great expense, as any rational thinking individual could logically assume “rapid and far-reaching transitions” that would be “unprecedented in terms of scale,” would also be associated with costs that are unprecedented. Their estimate was remediation would result in an additional annual average energy-related investments for the period 2016 to 2050, in the range of \$150 billion to \$1.7 trillion in 2010 U.S. Dollars.

For years now, we have been told that clean, green energy will be less expensive for consumers. In 2024, an International Renewable Energy Agency (IRENA) report proclaimed “81% of renewable capacity additions in 2023 produce cheaper electricity than fossil fuel alternatives.” In 2025, IRENA released an updated report that claimed “91% of New Renewable Projects Now Cheaper Than Fossil Fuels Alternatives.”⁸ While headlines like these are exclusively promoted to justify the push for building more wind and solar generation, climate advocates are virtually silent about upgrades to the electric grid which are driving utility bills higher each year. It’s very possible that electricity generation from solar photovoltaics may be 41% cheaper than electricity generated by the most efficient fossil fuel sources, and electricity generation from onshore wind projects may be 53% cheaper. But utility companies in New York State alone budgeted \$6.8 billion in transmission and distribution system upgrades for additional electricity the state’s electrical grid would have to carry. They also estimated upgrades at local street levels would cost as much as \$10.5 billion more to bring that renewable electricity to consumers.⁹

In a direct contrast to those claims, NYSERDA President and CEO Doreen M. Harris warned the Hochul administration in February 2026 of higher energy costs that were coming due to the impact of the CLCPA. That would bring New York State up to par with California and Washington State. The cost of gasoline would be at least \$2.23/gallon higher than the base price by 2031 and upstate oil and natural gas households would see costs “in excess of \$4,000 a year and New York City natural gas households could anticipate annual gross costs of \$2,300.”¹⁰ Climate apologists blamed the supply chain crisis that followed government mandatory business closures during the pandemic, significantly higher inflation and “the influence of geopolitical events on energy costs.” Democrat governors initiated the first factor with their heavy handed control over business closures. It was a Democrat president who initiated the second factor with his “Build Back Better” legislation, injecting \$3.5 trillion in COVID stimulus, Green Energy and Great Reset society spending into the U.S. economy, resulting in a cumulative inflation increase of 21.4% in his four years in office.

Governor Hochul’s claims her agenda for 2026 “includes initiatives that will continue to make life more affordable, keep people safe, and expand opportunity for all New Yorkers.” It’s no wonder that in the year she is running for reelection, her focus has suddenly shifted from pushing to achieve emissions and renewable energy goals of New Yorks climate law, to being concerned about the cost of living in New York State. Go figure!

Note: National Grid shut off power to 7,245 Upstate residential customers for nonpayment in the first quarter of 2026, a 29% increase from last year. The second rate increase of the current 3-year rate hike, approved by the state Public Service Commission last August,

kicked in April 1st. Electricity delivery charges will rise 7.3 percent, and gas delivery charges will increase 11.7 percent. *Making life more affordable for all New Yorkers!*

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