CLEAN ENERGY JOBS COALITION-NY

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July 1, 2022

Draft Scoping Plan Comments
NYSERDA
17 Columbia Circle,
Albany, NY 12203-6399
Via Email to: scopingplan@nyserda.ny.gov

Subject: Implement an 'All Above Strategy' to Facilitate a 'Smooth Transition' to a Renewable Energy System

Dear Climate Action Council:

On behalf of the Clean Energy Jobs Coalition-NY (CEJC) and its members, we sincerely thank you for your invitation to provide thoughts on how to assist New York in achieving its clean energy and climate goals.

Our more than 270,000 members represent leading management and labor groups, as well as energy experts and environmentalists, all united by the goal to promote abundant, reliable, and affordable energy and union jobs to ensure a bright future for New York State. Thousands of our members participated in the various Climate Action Council hearings and we are grateful that you heard us and took visible steps toward protecting skilled-labor jobs in New York.

The simple truth is New York needs more energy, not less. The 2022 winter cold snap reminds us of the pricey lessons ignored by the 2014 Polar Vortex, where utility bills skyrocketed because of tight energy supplies. Reports by the AARP found that over 1 million New Yorkers could not afford to pay their utility bills due to winter price spikes in 2022.

As we enter the dog days of summer, heat waves are likely to challenge our electric grid to the max. The New York Independent System Operator, New York's non-profit grid operator, in its 2022 Power Trends Report, warns of potential blackouts caused by supply shortages as early as 2024 because "reliability margins are shrinking."[1] They go on to attribute the cause of our tenuous situation to "Delays in the construction of new supply and transmission, higher than expected demand, and extreme weather."[2]

NYISO's recent reliability observation should not be a shocker. Nearly ten years ago, the July 2013 heat wave caused electric demand in New York to reach record levels. These weather events and tight supplies also caused electric prices to soar as much as 394% above normal prices. Fast forward, we find ourselves in virtually the same place – if not worse with less power plants producing electricity, along with record high inflation, and increased energy prices due to low supplies. This situation is no longer acceptable, nor is it affordable for ratepayers and undermines good paying jobs.

Yesterday, the United States Supreme Court ruled that the United States Environmental Protection Agency has limited authority to regulate greenhouse gas emissions from power plants. While it is not clear what the impact of this historic decision will have on New York's greenhouse gas regulatory framework, we believe the state's pursuit of a zero-carbon future still needs a "reality check." Accordingly, we recommend a more sensible and achievable transition from fossil fuels to renewables.

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1 "2022 Power Trends Report: The Path to a Reliable, Greener Grid for New York," New York Independent System Operator, pg. 5, June 7, 2022, LINK: https://www.nyiso.com/power-trends

2 *Ibid., pg 5.*

The path to a cleaner energy system begins with an 'All Above Strategy' and ends with strong reliability. Our group was instrumental in broadening our Coalition to welcome untraditional allies in the environmental movement to advance the "Utility Thermal Energy Network and Jobs Act" in New York State. Thankfully the New York State Legislature passed the measure on a near unanimous basis, and we hope that Governor Kathy Hochul will sign the bill into effect soon. Her support will transform New York's electric and gas utilities by enabling them to use what we have and build emissions-free thermal energy networks.

These utility-scale networks connect multiple buildings together with each other and allow transfer of energy with thermal sources like geothermal boreholes, surface water, and wastewater. Thermal energy networks will help New York scale building electrification and decarbonization, reduce costs for customers, and minimize impact on the electric grid. By enabling utilities to construct these projects, the legislature will provide a pathway for the gas utility and building trades workforce to apply their highly skilled craft to the work of decarbonizing New York's buildings, which are the largest source of greenhouse gasses in the state.

Thermal Energy Networks are good for the environment and allow customers to access clean energy, while providing a transition pathway for gas utilities and their workforce. Utilities in most regions of New York have been proposing thermal energy network demonstration projects, but have been in many cases unable to move forward due to legal barriers that the Utility Thermal Network and Jobs Act will remove. By utilizing multiple sources of renewable thermal energy from our environment and reusing and sharing thermal energy among buildings, thermal energy networks are highly efficient and help bring down peak energy needs of the electric grid. Utilities will be able to reduce the cost of electrifying buildings by spreading the costs of these networks across many customers and many years. Thermal Energy Networks can be installed under the street, and the building trades workforce is trained and ready. Thermal Energy Networks help reduce the upfront costs of building decarbonization for building owners and provide access to the most efficient forms of renewable thermal energy for people who cannot easily install geothermal energy on their own property. **We invite the Climate Action Council to include utility scale thermal energy as part of its plan as well as consider expediting the process of siting and permitting to accelerate implementation timelines.**

As NYSIO indicated in its recent report, the state's failure to adequately replace shuttered power plants like emission-free Indian Point, or rejecting plant upgrades that would lower emissions, has led to tighter supplies and higher prices for all New Yorkers -- and threatens the state's energy reliability in the near future.

We believe Climate Action Plan should adopt the following priorities to advance in-state solutions that deliver clean, affordable, and reliable energy systems to power the Empire State. This includes, but is not limited to:

- Encouraging a more aggressive pursuit of new nuclear technology, hydrogen gas and geothermal solutions in addition to ongoing efforts to build solar and wind farms, which are clean but intermittent sources of energy.
- Maintaining – rather than retiring – existing natural gas infrastructure by incorporating the use of hydrogen and clean, renewable gas technology.
- Supporting upgrades at existing power plants that will reduce emissions in impacted neighborhoods as replacement renewable energy sources are being built; and
- Requiring a comprehensive cost analysis for the construction of renewables and other non-carbon energy sources, along with the cost of local utility grid upgrades to adapt the new technologies.

New York's ambitious energy goals and accompanying legislation require, not only the creation of alternative and renewable energy resources, but also the need for far more electric generation than currently exists. The potential blackout warnings by New York's grid operator and current situation with skyrocketing electric bills carries the potential to crater New York's economic and environmental objectives. Without a transition plan, the Coalition believes New York

is doomed to repeat the same failed experiment in Germany, which shut nuclear plants and the price of electricity spiked 400%, prompting a switch back to coal.[3]

After prematurely closing power plants, California issued warnings of summer blackouts because it does not have enough electricity. More, the U.S. Department of Commerce is close to implementing steep and retro-active tariffs on solar panels manufactured in China. These are two huge blows to the NYS Climate Action plan which relies on policies that have ultimately failed ratepayers and hardworking middle class union workers. Further, NYISO concurs as it concluded that, "**Simply deactivating existing generation without having new resources on the system capable of providing comparable attributes risks the ability to maintain a reliable electric system. To facilitate a successful transition, to weather-dependent resources, we must build and interconnect technologies that fill in reliability gaps and mimic the reliability attributes of our existing fleet of generation."[4] In other words, a reliable energy grid requires some level of electric generation that operates 24/7 regardless of weather conditions.**

Attached to this letter is additional jobs information to help inform the planning process. In sum, our "All Above Strategy" facilitates a "Smooth Transition," counter-acting reliability issues by seeking to build an energy bridge to reach a 100% renewable energy future. Among other things, it takes into account the growth in electric vehicles for transportation and the prospect of winter electric demand surpassing summer peaks starting in 2050. An "All of the Above Energy Strategy" is essential to creating thousands of good paying jobs and reversing the effects of climate change.

On behalf of the Clean Energy Jobs Coalition-NY and in recognition of our goal to promote union and good paying jobs powered by abundant, affordable and reliable electricity for New York, we thank you for this opportunity to provide a voice on building a clean energy bridge to reach a clean energy future.

Sincerely,

John Murphy
on behalf of the Clean Energy Jobs Coalition-NY

[3] For more details on the positive potential of Nuclear power for New York, please see our "Bright Future" industrial policy document which was a joint submission with Nuclear New York and Campaign for a Green Nuclear Deal at https://www.nuclearny.org/bright-future/ or https://www.nuclearny.org/wp-content/uploads/2022/07/Bright_Future_NY-July_2022.pdf

[4] "2022 Power Trends Report: The Path to a Reliable, Greener Grid for New York," New York Independent System Operator, pg. 9, June 7, 2022, LINK: https://www.nyiso.com/power-trends

PLANNING NEW YORK'S CLEAN ENERGY FUTURE

100% Power Generation from Renewable & Clean Sources by 2040

Clean Energy Jobs Coalition—NY

The Current Plan

Narrow, Unrealistic Focus

While perhaps well intended, the energy plan being advanced in Albany is not feasible. It *relies almost exclusively on wind, solar and water* (hydroelectric) generation capacity.

But these sources—which currently provide *only 30% of our electricity*—are incapable of meeting NY's huge and growing demand for power by 2040.

Hydropower generates 25% of our electricity but is largely maxed out. Wind and solar together provide *only 5%*, even *after* the investment of *billions of dollars in state subsidies* in these sources. Result: *major energy shortfall*.

Major Limits of Wind/Solar Power

Most of the remaining 70% of our power now comes from hundreds of fossil fuel generating units—*all of which will need to be replaced in a relatively short time*.

Sun and wind can be expanded to meet *some* of this need, but even under the most optimistic forecasts, they will be insufficient. In fact, *even if wind and solar output is increased 2000% by 2040—it will still not be enough!*

Also, the *intermittent nature* of these sources—wind doesn't blow, and sun doesn't shine every day—*severely restricts their reliability* to deliver power when needed.

Narrow Focus = Dire Straits

If power demand is allowed to surpass electrical supply, the *results are stark*. For example, due to the flaws in the current energy plan, NY could face *dangerous blackouts as early as 2023—as well as soaring electricity costs*.

These impacts will *hit the elderly, poor, and working families the hardest*. These are NOT the types of results New Yorkers should be getting from billions of dollars in public subsidies. *We deserve better solutions*.

Finally, wind and solar plants may be renewable sources of energy, but they *create relatively few, relatively low-wage jobs*. We think New Yorkers deserve more—a lot more.

A Better Way

"*All the Above*" Strategy"

The better approach is to use *all alternative AND other clean energy sources available* to meet our electricity needs—a much more sensible solution.

Known as an "*All the Above" approach*, this plan offers a commonsense strategy *designed to make sure that power supply meets electrical demand*.

This is achieved by promoting *ALL viable energy sources—not just a few*. So, while the maximum development of wind, solar and water is a priority, *alternative clean sources also must be developed*.

Viability of "Clean" Sources

Alternative clean options include *viable sources* that produce *carbon-free energy*, *e.g.*, bioenergy, nuclear and combustible hydrogen power.

Like the leading renewable options, alternative sources *provide clean energy*, but also result in *substantially greater reliability* because they are not intermittent sources of energy.

This is the *exact strategy the federal government and other states are using,* AND they're investing billions in these clean alternatives to meet power demand.

Diversification = Power & Jobs

Given the major flaws in NY's current energy plan, the state's grid operator, NYSIO, reports that New York *will require more generating capacity from alternative clean sources in 2040 than the current generating capacity of all fossil-based sources*.

So, even if we develop all the sun and wind power possible—we'll still need *to plan, design, permit and build 100s of new alternative generating units* in 18 years. This means we must get started, yesterday.

Bonus: large industrial operations used in alternative clean power create *up to 1000% more jobs* than wind and solar AND these are *high quality jobs*.

"Reliable" v. "Renewable" Energy: Jobs Impact

*Clean Energy Jobs Coalition—NY**

Prepared by the United Association of Plumbers & Pipe Fitters

Project Name	Energy Source (Capacity)	Construction Jobs Created	Operation+ Maintenance Jobs ("M+O") Created	Workers/MW Ratio *(Construction only)*	Workers/MW Ratio *(O+M only)*	**Increase % in Construction Jobs v. Wind / Solar	Increase % in O+M Jobs v. Wind / Solar
Flint Mine Solar (NY)	Solar (100 MW)	284 to 362	1 to 2	2.84 to 3.62	0.01 to 0.02	-	-
Bluestone Wind (NY)	Wind (122 MW)	150	7	1.23	0.06	-	-
Modeled 100 MW Small Modular Reactor (SMR)	Nuclear (100 MW)	1,238	374	12.38	3.74	+242% to 336% (solar) +907% (wind)	+18,600% to 37,300% (solar) +6,133% (wind)
TerraPower Natrium reactor (Advanced)	Nuclear (345 MW)	2,000	250	5.80	0.72	+60% to 104% (solar) +372% (wind)	+3,500% to 7,100% (solar) 1,100% (wind)
Plant Vogtle 3 & 4 (Advanced)	Nuclear (2,234 MW)	9,000	800	4.03	0.36	+11.33% to 41.9% (solar) +228% (wind)	+1,700% to 3,500% (solar) +524% (wind)
Altavista Power Station (VA)	Bioenergy (51 MW)	*(Data Unavailable)*	31	*(Data Unavailable)*	0.61	*(Data Unavailable)*	+2,950% to 6,000% (solar) +954% (wind)
Bay Front Power Plant (WI)	Bioenergy (56 MW)	*(Data Unavailable)*	35	*(Data Unavailable)*	0.63	*(Data Unavailable)*	+3,050% to 6,200% (solar) +987% (wind)
ReEnergy Black River (NY)	Bioenergy (60 MW)	178	33	2.97	0.55	Up to +4.6% (solar) +142% (wind)	+2,650% to 5,400% (solar) +862% (wind)

*Clean Energy Jobs Coalition—NY**

Who We Are: The ***Clean Energy Jobs Coalition—NY*** **(CLJC—NY)** brings together union leaders, business owners, sustainability advocates and other concerned New Yorkers for the purpose of offering more sensible planning and policy solutions to our state's mounting energy challenges.

What the Problem? Currently, our state leaders are narrowly focused *solely on wind, solar and water* (hydroelectric) power to de-carbonize our electricity sources, but *these options—as virtually all experts agree—are insufficient to meet our growing clean power needs*. Plus, wind and solar have *severe and inherent reliability limitations*, and there are obstacles to the storage and transportation of the energy they produce.

While we agree that we can *develop ALL the solar and wind possible*—we also KNOW (*and have hard data to prove it*) that the *inadequacy of these sources will lead to serious shortfalls* in power supply, which can result in *soaring electricity bills and widespread outages*. On top of all this, some groups are trying to shut down existing gas power plants and block new ones, a strategy that offers nothing short of disaster because they want to *cut off reliable power supply sources way before new clean sources are in place*.

What We Propose: The sensible solution is to develop an *All the Above energy strategy that embraces renewable sources AND clean, zero-carbon alternative sources, such as hydrogen, nuclear and bioenergy*. This is exactly what the Federal Government is doing under President Biden, who is channeling literally *hundreds of billions of dollars of investment into ALL these sources*, because there is no question that while wind, solar and water sound nice—they cannot realistically meet our vast power needs. And, let's face it, at the end of the day, we always need to keep the lights on.

There is also a *huge bonus in promoting clean, alternative sources: they generate up to 1000% or more jobs than solar and wind*, as this chart documents. Significantly, *THESE are good jobs that can help rebuild New York's middle class* (unlike the relatively low-wage jobs wind and solar create by comparison). So, let's get some better, more sensible solutions on the table and make sure we address our critical energy and economic needs, as well as the real environmental challenges we face.

NOTE: Data sources for this chart are available upon request.