

Draft Scoping Plan Comments
NYSERDA
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Thank you for the opportunity to provide comments on the draft Scoping Plan (Plan).

While there is no reasonable disagreement on the need for deep reductions in greenhouse gases (GHG) in as soon a time frame as possible, the Plan approaches resolution as if its a New York problem that only New York can solve. Of course the reality is that it is a global problem, and if New York were to complete everything identified in the time frames of the Plan, virtually no change in global GHG concentration would be observed. As New York seeks to do its share it is therefore incumbent on New York to proceed in a way that can result in successes that can be duplicated in other states and countries. Similarly, and more importantly, a failure in New York, which could take the form of widespread rejection of a regulatory program or over reach that leads to program failure in the courts, could exacerbate the already difficult political fight often associated with GHG reduction, leading other states to reject even the easier and most cost effective actions. Further, New York actions that significantly increase the costs for certain business activities could cause those activities to move to other states where even 'conventional' pollutants are less regulated, leading to a net increase in pollutant emission.

New York should proceed with incremental steps to accomplish those reductions most efficiently and cost effectively first. The increments should include a significant and comprehensive outreach program to educate the public on climate issues, including various mitigation and adaptation strategies, and the economic costs and benefits of addressing the issues. Climate strategies will impact every person in the state. It is imperative that this is fully understood. It may become necessary to revisit and revise strategies over time. Note that New York first adopted the zero emission vehicle mandate in 1993, but is only now reaching the 1999 sales level of 5 percent. Such adjustments are necessary to reflect the technological and societal changes that occur. Urgency of the issue notwithstanding, a modicum of actual progress is superior to a regulatory program that requires actions that cannot or will not be undertaken.

The Plan appears to contain certain defects that may impact success.

The Plan focuses on a renewable energy strategy that relies heavily on wind and solar energy coupled with storage at the expense of central generation for the grid, with no mention of new nuclear plants. With extensive electrification of all aspects of life, the reliability of the power sector must be of the highest priority. It is not clear that reliance on off shore wind as the primary generation source is consistent with this need. Consider the scenario of a large coastal storm that results in shut down of off shore wind. This could last for days, forcing reliance on massive storage, which is a generally unproven at this scale and for this time period. Further, since off shore wind will have a relatively small number of nodes where the power comes ashore, it might be expected that in some storms damage could occur at one or more of the nodes, delaying start up of the wind sources. This will place additional burden on the storage system, both in terms of load and duration. Exclusion of large production facilities, such as nuclear, seems to make the grid unnecessarily vulnerable.

The Plan is also overly dismissive of biomass as an energy source. While it is true that biomass does not provide the same level of GHG reduction as non-combustion energy sources, it does present a viable option in certain circumstances. This is particularly true in some of the rural area of the state. Wood is an important and affordable fuel in much of rural New York. The Plans approach to electrify heating across the board ignores this important fact, and will place an economic burden on those who heat with wood. Many who heat with wood are not well positioned to install a different heating system, either economically or technically. Further, electric system reliability across rural New York can yield cold weather outages that suggest full reliance on electricity driven systems alone may not be prudent. Rather than act to eliminate wood heat, perhaps the more appropriate GHG strategy, at least in the near term is to help those who heat with wood to do so more efficiently. This could mean installation of more efficient and better sized systems, or even something as simple as proper storage of wood.

Biomass also provides an economic opportunity in rural New York. Agricultural land in New York can be redirected to biomass feedstocks, particularly for bio fuels. Liquid fuels will continue to have a place for the foreseeable future. Establishing an economic opportunity for rural New Yorkers to participate in the upside of GHG mitigation will go far in helping to generate support for control strategies. Similarly, The Plan must recognize that elimination of liquid fuels in an aggressive time frame will require abandonment of large quantities of agricultural equipment ahead of its practical useful life, resulting in considerable push back from the entire agricultural and rural communities.

The transportation discussion in The Plan is inadequate. The conclusion that the goal can be met is based on a determination that a significant reduction in VMT is needed and will be achieved. The degree of reduction is not provided. Historically reductions in VMT correspond with reductions in economic activity. Presumably this is not what is envisioned by the authors, but no detail is provided. Suggestions as to increased public transportation or improved land use strategies do not reflect reality. Public transit is heavily used- in fact oversubscribed, in metropolitan New York. At the same time cost of increasing transit is not sustainable. And this does not consider the considerable capital expense associated with a shift to electric buses. Expansion of transit outside metro New York is even more unlikely to significantly reduce VMT. Transit agencies in the various transit supported communities in New York are already short on funds. Significant expansion is unlikely, and the expansive use of such expansion is more unlikely in the time frame identified. Efforts to support transit should be supported, but reliance on significant transit increases over the near term is misplaced.

This is important in consideration of the impact of transportation electrification on the grid. The Plan does not identify the anticipated load that transportation may place on the grid. This is a critically important planning aspect. Using recent fuel sales, and current vehicle efficiencies, back of the envelop calculations suggest that 4 to 5 gigawatts of power production *on a continuous basis* will be required to power the fleet. The real number will be higher, since it is unreasonable to assume that charging can be managed to occur with no load peaks, and because electric vehicle battery efficiency falls considerably in cold weather. So the real number is probably closer to 10 GW of production that will be dedicated to transportation. This is a significant figure that must be refined, and planned for in the development of a long term strategy.

The Plan is a solid starting point. But as the Plan is transformed into specific action it should:

Broaden strategies to include generation other than wind and solar, including those which may be considered 'interim' (eg biomass)

Incorporate extensive outreach and education on the impacts and opportunities associated with climate change, from both the broad scale, and local perspective

Provide full transparency relative to the process of arriving at the Plans recommendations. The public must understand how decisions are made.

Include feedback and reevaluation provisions in adopted strategies. If a strategy is successful and can be expanded, that should be done. Similarly if a strategy is struggling to meet expectations, it needs to be reevaluated, improved, and revised. This must be a continuous process.

Significantly increase the assessment of strategies impact on rural New York. The economic and technical aspects of rural New York is profoundly different from urban and suburban areas of the State. Special care needs to be taken to assure that impacts to rural New Yorkers are understood.

Lead by example. No strategy should be imposed on the public that has not been implemented by the State for at least 2 years. This allows the state to better understand the benefits, and to debug the program before broad implementation.

Continue to research new strategies and solutions. Technological development continues at a remarkable pace. We must all be poised to explore all new options, and accept the risk that some may not perform as advertised.

Again, thank you for this opportunity to comment. Please feel free to contact me for further discussion.

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