

Scoping Plan Comment 31 December 2021

Personal Comments of Roger Caiazza

Introduction

In order to meet the ambitious schedule of the Climate Leadership and Community Protection Act (“Climate Act”) there was insufficient time to address all feasibility issues. Given that safe and adequate electric service; implications to existing obligations and agreements; and the potential for an increase in arrears or service disconnections are all unaddressed feasibility concerns, the public comment period should be extended indefinitely. In addition, I recommend a series of technical workshops to address specific aspects of the Plan to address feasibility concerns. It is impossible for meaningful public comment until the Council has addressed these feasibility issues and revised the Draft Scoping Plan.

I am a retired electric generation utility meteorologist with nearly 40-years of experience analyzing the effects of environmental regulations on electric and gas operations. The opinions expressed in these comments do not reflect the position of any of my previous employers or any other company I have been associated with, these comments are mine alone.

Background

There is a Public Service Commission mandate that I do not think has been considered in the Draft Scoping Plan. [Public Service \(PBS\) CHAPTER 48, ARTICLE 4, § 66-p. Establishment of a renewable energy program](#) (4) states:

The commission may temporarily suspend or modify the obligations under such program provided that the commission, after conducting a hearing as provided in section twenty of this chapter, makes a finding that the program impedes the provision of safe and adequate electric service; the program is likely to impair existing obligations and agreements; and/or that there is a significant increase in arrears or service disconnections that the commission determines is related to the program.

The Draft Scoping Plan needs to be revised to specifically address this obligation.

Discussion

The Plan does not include a feasibility analysis addressing adequate electric service. The Plan does not address the issues raised at the August 2, 2021 New York State Energy Research and Development Authority (NYSERDA). The session described New York’s reliability issues to the advisory panels and Climate Action Council. All the speakers but one made the point that today’s renewable energy technology will not be adequate to maintain current reliability standards and that a “yet to be developed technology” will be needed. It is my understanding that the New York Independent System Operator and the New York State Reliability Council have reliability planning responsibilities. How can the Climate Action Council propose a Scoping Plan without reconciliation with those entities? It is inappropriate for the Draft Scoping Plan to ignore these concerns but claim that the renewable energy program will provide adequate electric service.

The Plan does not address safe electric service. Clearly if the electric service is adequate then the major reliability safety concern is addressed. However, I choose to interpret safety to also include cumulative environmental impacts of the Scoping Plan’s wind and solar proposed resource development. The following table compares the early November Integration Analysis installed capacity with the [SGEIS](#) Exhibit 2-5 expected renewable capacity. The integrated analysis does not differentiate between distributed solar and utility-scale solar. In order to compare the expected values, I pro-rated the total solar by the distributed and utility-scale solar values from the SGEIS. The table shows that the environmental impact statements done to date considered renewable resource capacities far less than what the integration analysis expects will be needed: one and half times more onshore wind, nearly twice as much offshore wind, and over three times as much distributed and utility-scale solar. In addition, no previous analysis considered the environmental impacts of massive energy storage facilities or the “zero-carbon firm resource” that the Integration Analysis presumes will be provided by hydrogen resources. Moreover, these are just the generating resources. There will also be significant environmental impacts associated with the transmission system additions and upgrades necessary to get the renewable resources into the grid.

Comparison of Cumulative Environmental Impact Statement Renewable Resources

	Onshore Wind	Offshore Wind	Distributed Solar	Utility-scale Solar	Total Solar	Battery Storage	Zero-Carbon Firm Resource
Prior EIS	5,905	4,200	3,000	6,865	9,865		
2020 FSGEIS	7,805	9,000	6,000	13,200	19,200		
Integration Analysis							
Reference Case	3,787	9,000			20,723	8,501	
Scenario 1	10,997	17,394			62,691	19,010	23,294
Scenario 2	11,751	17,216			61,275	19,098	14,603
Scenario 3	12,116	20,410			60,854	19,205	20,675
Scenario 4	13,239	19,049			66,215	23,445	20,083
Integration Analysis Solar Estimates							
Reference Case	3,787	9,000	6,417	14,306	20,723	8,501	
Scenario 1	10,997	17,394	19,412	43,279	62,691	19,010	23,294
Scenario 2	11,751	17,216	18,974	42,301	61,275	19,098	14,603
Scenario 3	12,116	20,410	18,843	42,011	60,854	19,205	20,675
Scenario 4	13,239	19,049	20,504	45,711	66,215	23,445	20,083

There is no question that the Scoping Plan renewable resources should be addressed in another environmental impact statement. Assuming 3.3 MW turbines (average turbine size in the Article Ten queue in 2020), integrated analysis Scenario 2 calls for over 1,100 more turbines. The solar projects in the Article Ten queue in 2020 averaged 9.3 acres of equipment area per MW and that means that the SGEIS solar equipment area covered was 110 square miles and the Scenario 2 solar equipment area covered would be 353 square miles. Until those analyses are complete, it is not possible to determine whether the Scoping Plan will provide safe electric service.

The plan only provides societal direct costs and makes no estimates of bill impacts. This topic was a major point of controversy at November 30 and December 6 Climate Action Council meetings with several Council members arguing that costs to consumers need to be included. Doreen Harris, the NYSERDA Co-Chair of the Council, responded to these concerns at 16:22 of the meeting [recording](#). She said that the analysis has not yet resolved the question of who would ultimately pay for some of these initiatives and or policies. Summing up she said that the fact is that this isn't all going to fall on ratepayers or NYS taxpayers. Ultimately there will be "private market involvement at scale that's part of our goal of course and the reality we're seeing". She continued saying that "federal involvement is increasingly critical for us to gain from as a state". She concluded that "we not only have to analyze the costs themselves, but also the question who is paying to respond to the request".

I agree with the Council members who argued that ratepayer impacts are a necessary consideration for approval of the Scoping Plan. While it may not be possible to get numbers at the quality level of a PSC rate-case proceeding, the Scoping Plan and Integration Analysis can do a much better job providing cost details that can be used to estimate consumer impacts. Unfortunately, the detailed data necessary for those cost estimates is not available. The Integration Analysis spreadsheets available as a resource at the Climate Act webpage provide detailed data for many of the graphics included in the Scoping Plan. However, the cost data in the Scenario Cost Assessment Net Present Value of net direct costs relative to Reference slides are not available. The breakdown of costs by sector could provide a basis for developing a consumer cost estimate.

There is another aspect of costs directly related to PBS Chapter 48, Article 4, § 66-p. Establishment of a renewable energy program (4), namely: "a significant increase in arrears or service disconnections that the commission determines is related to the program." I believe that the Climate Justice Working Group should define what is meant by a "significant increase" in arrears or service disconnections. Once they have defined that criterion, the Scoping Plan has to determine where the state currently stands. Then the Plan has to make an estimate of the impact of the Scoping Plan implementation programs costs on that metric. The PSC can only discharge its responsibilities for this mandate with that information.

Recommendation for Technical Briefings

Another reason to delay the end of the public comment period is that the amount of material provided is immense and the backup documentation unclear. The Integration Analysis spreadsheets contain over 100 tabs but no explanation how that information is used to calculate the numbers is presented in the Scoping Plan. This is particularly important for the cost estimates for each sector. I recommend a technical briefing for the Integration Analysis spreadsheets where the calculation methodology is described and questions can be asked about the information presented.

For example, in the 2021-11-18-Integration Analysis-Inputs-Assumptions-Workbook spreadsheet there is a tab titled Retirement. It is necessary to understand how E3 used this information in order to understand how they calculated costs electric sector costs. There is a note that says: "This tab contains expected lifetime assumptions by resource category." Another note says "Resources with 'indefinite' lifetimes are assumed to remain online throughout the study period." The plain reading of these references suggests that in a cost calculation any resource category with indefinite lifetimes only includes one-time costs over the study period. However, the lifetime of the study period is at least 25

years. At least some fraction of wind and solar resources would need to be replaced over that period and energy resources would probably have to be replaced twice. This is a question that can only be resolved with a technical briefing.

2021-11-18-Integration Analysis-Inputs-Assumptions-Workbook	
Retirement Inputs	
This tab contains expected lifetime assumptions by resource category.	
Lifetime Assumptions by Resource Category	
Lifetime Assumptions	
Resource Category	Lifetime (years)*
Hydro	Indefinite
Wind	Indefinite
Solar	Indefinite
Nuclear	60 / 80 **
Biomass	60
Storage	Indefinite
Fuel Oil Peaker***	60
Gas CCGT	60
Gas Peaker***	60
Notes:	

* Resources with "indefinite" lifetimes are assumed to remain online throughout the study period.
Reliability needs and the scoping plan

Another obvious technical briefing subject should cover the reliability concerns already described. I am sure that other issues will also arise where a technical briefing that can answer specific questions is appropriate.

Conclusion

There is simply too much information and too many missing pieces for the public comment period to only last 120 days. In addition to a comment period extension the Climate Action Council should provide technical briefings. There are at least a couple of obvious topics for briefings but I am sure more will be proposed. The briefings should incorporate a mechanism where stakeholder comments are considered and addressed.

Finally, I recommend that the Scoping Plan documentation should include an archive of all questions and comments. It is particularly important to provide the answers to questions as supplemental information for a stakeholder resource.

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