nationalgrid

Climate Resilience Working Group Kick-Off February 13, 2023

Meeting Summary

National Grid kicked off the Company's Climate Resiliency Working Group (CRWG) on February 13, 2023. More than Thirty community leaders and customer and environmental advocates along with representatives from the New York State Department of Public Service, NYPA, New York State Department of General Services and NYSERDA attended to hear about National Grid's on-going climate vulnerability study. The study is designed to help the Company to prepare for the increase in severe weather expected from climate change and will lead to the development of a comprehensive Resilience Plan. Provided below is the background on the initiative, the meeting objectives, and a summary of the questions from participants and Company's responses along with a list of Working Group participants. Separately, we have attached the Company's presentation along with the following link to the recording of the meeting. https://bcove.video/3LlqSJ9

Background

National Grid, together with the other electric utilities in New York and in consultation with NYSERDA and the New York State Department of Public Service Staff, has launched a climate vulnerability study to help prepare for the increase in severe weather expected from climate change. The study will provide additional perspective for us to evaluate the Company's electric infrastructure, design specifications, and procedures to better understand our electric system's vulnerability to climate-driven risks. Based on the study results, we will be creating a "Resilience Plan" detailing how climate change will be reflected in the Company's electric planning process and propose storm hardening measures for the next 5, 10 and 20 years.

An important part of our planning is to collaborate with stakeholders including state, regional and local planning and emergency response officials, customer and environmental advocates and other interested parties to understand and incorporate their concerns and priorities, ultimately informing our investment decisions. With that in mind, National Grid is standing up a working group to review our work and provide input into the creation of our resilience plans. The Working Group will be part of an on-going process designed to continually evaluate and adjust our resilience investment planning into the future.

In 2023, National Grid plans to conduct at least three Working Group meetings. Following this kick-off meeting, the Company will conduct a second meeting on June 5, 2023, to share the results of our Vulnerability Study and then hold a third meeting in the fall to share our draft Resilience Plan for comment prior to filing with the Public Service Commission. Working Group participants will receive a copy of our final Plan prior to filing and a fourth meeting may be scheduled at that time.

Meeting Objectives

Key objectives of the 1st CRWG were to:

- Provide context for the Vulnerability Study and Resilience Plan and introduce working group members to overall approach and key components of the study.
- Highlight how equity and justice considerations will inform the Vulnerability Study and Resilience Plan.
- Introduce working group members to ongoing work, such as key climate hazards being considered, and preliminary asset and operational vulnerabilities identified.
- Provide clear guidance on the role of the Working Group and gather initial feedback on issues presented.
- Provide opportunity to Working Group members to ask questions and establish a channel of communication for the period between Working Group meetings.

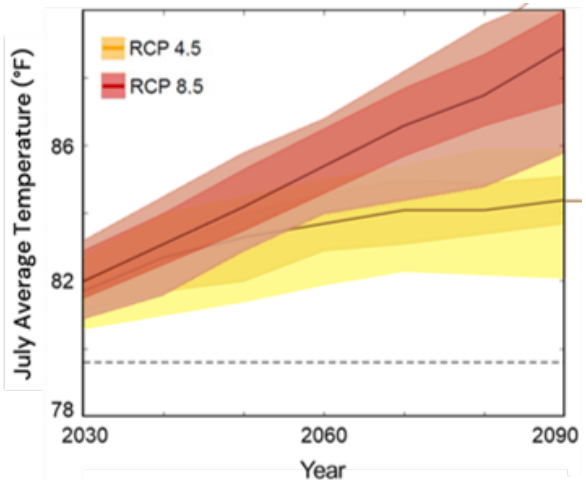
Next steps:

Our next CRWG meeting is slated for **June 5th, 2023**

Questions and Answers

Question	Response
Is the Columbia data set available to the public?	National Grid is taking the raw data from the Columbia data set and working with our SMEs to analyze. This will be presented and made available publicly in our study.
Additional Resources:	As new data becomes available, we will update this group. There are various sources where climate change data can be found. Some climate change data that is currently available include: NYSERDA ClimAID Report and the Intergovernmental Panel on Climate Change (https://www.ipcc.ch/). Other sources of information offered by participants at the first Working Group meeting include: The NY Climate Change Science Clearinghouse may be useful for identifying hazards: https://www.nyclimatescience.org/ A new report by Vote Solar shows that customer-sited solar PV and battery energy storage can provide significant resiliency benefits: https://votesolar.org/ders_as_a_roadmap_to_resiliency/
Can you provide link to MIT study?	Public information is available on this study: Toward resilient energy infrastructure: Understanding the effects of changes in the climate mean and extreme events in the Northeastern United States | MIT Global Change

Will the final plan present one or multiple scenarios or proposals for capital improvements? And will it include customer-sited DERs as well as utility-owned assets?	The Company expects the Resilience plan to reflect proposed investments to address the likely range of future conditions, taking into account risks, costs, and other relevant factors. The Company does not anticipate there will be multiple plans intended to address multiple scenarios. The plan will be looking at 5-, 10- and 20-year investment timeframes (short and long-term planning). DERs, whether customer-sited or located on the utility-side of the meter, have the potential to reduce emissions (climate change mitigation) and may have the potential to increase customer or local system resilience (climate change adaptation). Although the primary focus of the resilience planning effort to looking to address potential exposure on the transmission and distribution system to the effects of anticipated increase in severe weather conditions, the Company may also examine the potential for incorporating DERs to bolster resilience.
Customers who require refrigeration for their medicines and medical equipment - what is best way to help them?	Like other utilities in the State, National Grid's Emergency Response Plan includes procedures for alerting and assisting customers with life support equipment. The Company contacts such customers before and during a major storm to help them prepare for the event and checks on their status during such events. For outages over 48 hours, National Grid stands up dry ice and bottled water distribution sites available to all our customers for their needs. Customers that lose power for over 72 consecutive hours as the result of a widespread prolonged outage also can apply for compensation from National Grid for the loss of any spoiled food and medication in accordance with PSL 73 enacted last April.
Is the scope limited to electric only or are gas assets included? If gas is excluded, will there be a similar process to consider gas assets?	The legislation that requires the preparation of the Vulnerability Study and Resilience Plan is for electric only. Current study is only focused on Electric assets, particularly electric Transmission & Distribution. However, National Grid has for years considered and incorporated resiliency in its investment planning for all areas of the company (electric, gas, generation etc.).
In cases where electric assets are shared with non-electric providers (i.e., telephone, cable TV, street lighting, etc.) are the costs and risks associated with non-electric uses included within the scope of this work?	The current vulnerability assessment and resilience planning effort does not address the costs and risks associated with non-electric uses. It should be noted that joint use agreements typically require the phone company to pay for a portion of the cost for pole replacements. Any change in the standard size or class of distribution poles would likely impact the resilience of non-electric pole attachments and the associated cost borne by the phone company. Other third-party attachments pay annual rental agreements and would not be directly impacted pole replacement costs. If the need arises for pole replacement in this effort, then those costs would be shared.
It is anticipated that the electric T&D system must expand significantly before 2050. Is this process focused on those assets that exist now, or on the assets as that will exist in the future?	The focus of this effort is to identify climate change vulnerabilities and develop resilience plans to address those vulnerabilities. This will focus on existing assets, and future buildouts will reflect resilience planning considerations to some extent in design changes (e.g. making transmission structures more resilient to higher wind speeds). However, the plan is not focused on electric system buildout and other investments needed to meet increased electrical loading associated with electrification of heat, electrification of transportation, etc. Such investments will be impacted by the climate resilience plan (such as adding some incremental costs) but will not be the focus.
Will BCAs (Benefit Cost Analyses) be prepared for the various scenarios?	The Resilience Plan will focus on a selected climate change scenarios and for the most vulnerable assets, the Plan will identify and prioritize resilience measures focusing on 5-, 10- and 20-year investment timeframes. Aggregate costs and relative benefits for preferred mitigation measures will be analyzed and used to demonstrate that the cost to customers are justified through improvements in system reliability, resilience and safety. Cost-benefit analysis will be based on information from past investments and SME inputs.

Will the Climate Change Resilience Plan take into consideration other planned capital projects that may also address resilience needs to mitigate cost impacts on customers?	Yes. As always, National Grid will work to identify the most effective solution to address the multiple needs that may exist, with a goal to target and prioritize investments that will have value beyond just the climate resilience areas (reflecting multi-value investments). It is important to note that Climate Change Resilience Plan recommendations will focus specifically on addressing climate vulnerabilities and will include incremental costs above what is required for "business as usual" investments.
Additional Comments from Melanie:	I appreciate your answer to my question earlier, saying that the Company will work to combine decisions and investments to bring value beyond climate resilience. On behalf of Multiple Intervenors, I would just like to emphasize the importance of not only mitigating cost impacts, but also the need to be transparent about customer rate impacts throughout this process and in the resulting Study and Plan.
How will resilience be measured? Reliability standards have clear criteria, wondering how there is comparable metric?	At this time, there are no clear, nationally recognized resilience metrics to measure resilience; however, a substantial amount of work is going into establishing such metrics. For example, IEEE (Institute of Electrical and Electronic Engineers), ComEd (Commonwealth Edison) are spearheading efforts in that area, and National Grid is monitoring such activities as appropriate.
What do you consider the 'highest of the highest' temperatures?	There is no standard definition that applies. However, annual maximum daily temperature is often used to approximate annual heat extremes. We are planning to utilize the worst-case climate planning scenario (pathway) and using the 50th percentile of all the models *SSP5-8.5 50th percentile* (CMIP 6). The line in the middle of the red area in the figure below is representative of the SSP5-8.5 50th percentile in the following example: 

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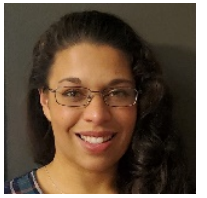

Participants:

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Donna Kissane	County Manager Franklin County
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