Power Generation Advisory Panel
Meeting 10

April 7, 2021

9:30 am – 1 pm

NEW YORK STATE OF OPPORTUNITY. | Climate Action Council

PowerGenPanel@dps.ny.gov

Agenda and Objectives

Agenda

> Welcome and Logistics (5 min)

> Draft Recommendations for Discussion (130 min)

> Next Steps (5 min)

> Break (5 min)

> Public Input Session (60 min)

Objectives

> Discuss a subset of draft recommendations

> Determine next steps to bring these recommendations back to the Panel for final confirmation at a subsequent meeting

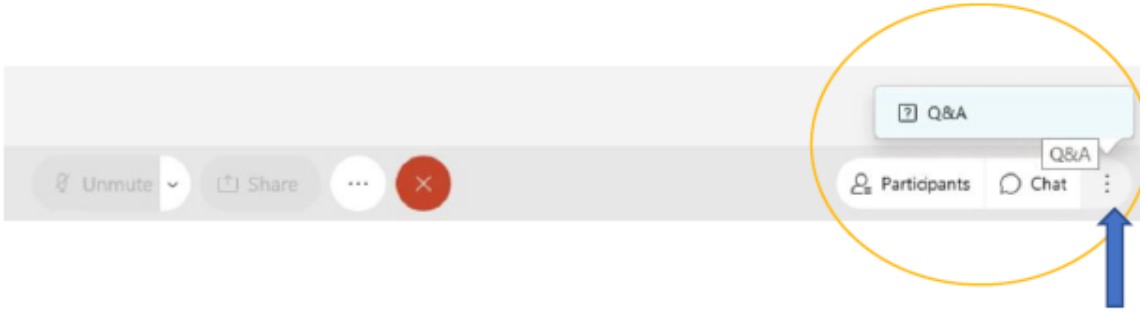
> Solicit public input to contribute to the Panel's recommendations to the Climate Action Council

This webinar is being recorded to accurately capture public comments

Procedure for Public Input

The Advisory Panel welcome public comments

- To provide a verbal comment during the public input session at the end of this meeting, please enter your name in the “Q&A” feature of the WebEx located in the bottom right corner.
- The speaker list is first come, first served. If you have already presented at a previous session, please wait to enter your name until all other presenters have gone.
- You also may enter written comments into the “chat” feature of the webinar at any point, which is visible to all participants. Please note that the moderator might read your comments aloud.
- Comments and questions submitted through WebEx will be aggregated and provided to Panel members to be included in deliberations.
- To submit feedback outside of the Panel meeting, please email PowerGenPanel@dps.ny.gov or call 1-833-498-2082.



Draft Recommendations for Discussion

Enabling Strategy Summary (Being Discussed Today)

Initiative #	Description	Action type	Ease of implementation	Cost
11	Retirement of Fossil Fuel-Fired Facilities			
12	Clean Energy Siting & Community Acceptance			
13	Energy Delivery & Hosting Capacity			

Power Generation Advisory Panel Considerations

Electrifying buildings and transportation is crucial to meeting CLCPA goals.

Principles

> Reliability

> Equity

> Affordability

> Zero-emission

> Timely

Approach to Electrification Must…

> Minimize the system costs of electrification and balance the behind-the-meter costs with grid-side costs, with both bulk and local solutions

> Optimize the deployment and operation of resources – locationally and for flexibility – through storage, managed load, and clean dispatchable generation

> Look to utilities, DER providers, and bulk providers for this – as makes most sense and with steady and improvement and rules

> Provide for improved holistic planning of the electric system and across energy systems to accommodate significant changes in characteristics of generation and significant changes in load due to electrification

> Pay heightened attention to resilience and reliability as the energy system becomes more electric

> Support solutions in technologies, regulation, markets, and systems management and oversight

Enabling initiative – Initiative #11: Retirement of Fossil Fuel-Fired Facilities

Draft Material

Description:	Develop a plan and implement regulations to phase out fossil fuel-fired baseload and peaking generation resources as quickly as practicable while retaining system reliability prioritizing efforts to lower emissions of co-pollutants in disadvantaged and environmental justice communities.
Action type:	Regulatory
Cost and funding considerations:	Renewable and storage resources can compete to displace fossil-fuel fired plant capacity payments. Potential revenue from regulatory compliance should be considered in all cost assessments.
Ease of implementation:	Hard – Retiring all fossil on the system will be difficult, requiring thorough and innovative planning, as well as technology advancements.
Example case studies:	DEC "Peaker Rule," 6 NYCRR Subpart 227-3

Risks / Barriers to success	Possible mitigants
• Effective deployment of renewables, flexible generation or storage, and distributed resources, as well as energy efficiency and demand response solutions that can reliably replace existing fossil resources will be critical. • Transmission and distribution upgrades are needed to complement the zero emissions resource build out, in order to ensure energy delivery.	• The recommendations from the Power Generation Advisory Panel focus on enabling strategies to assist in the transition away from fossil fuels. These include strategies to more rapidly deploy renewable technologies, including flexible resources, addressing barriers to renewables deployment, transmission and distribution upgrades, developing and deploying technology innovations, encouraging effective market structures, and ensuring a just and equitable transition.

Enabling initiative – Initiative #11: Retirement of Fossil Fuel-Fired Facilities

Draft Material

> **There are 3 main components to the Fossil Fuel Generation Recommendation:**

1. A planning process to determine emissions reduction targets to reach zero emissions by 2040.

2. Promulgation of emissions regulations by DEC in order to reach the 2040 goal.
   - *Similar to the "Peaker Rule" (DEC 6 NYCRR Subpart 227-3), any closures designated by the emissions regulations of fossil fuel generation facilities would prompt a reliability needs analysis and identification of alternatives.*

3. An iterative planning process that builds on #1 in which the progress, the reduction targets, the regulations, and the other mechanisms being utilized are evaluated and revised as necessary in order to reach the 2040 goal.

The above components shall be enacted as soon as possible by the relevant State Agencies.

Enabling initiative – Initiative #11: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other Key Stakeholders
Determine the potential for emission reductions from fossil fuel generation by 2030 and set a corresponding timeline for emissions reduction targets. The timeline from present to 2030 for possible emission reductions shall be determined in conjunction with the renewable energy procurement and interconnection schedule and shall represent a continual decline in emissions from present to zero by 2040.	New York State Energy Planning Board	As soon as possible, but no later than 2023	NYSERDA, PSC, DEC
When setting emission reduction targets or limits, consideration should be given to the location and emissions profile from fossil generating units across the state, as well as relevant planning studies from involved organizations (e.g., the Power Grid Study, NYISO and transmission owner reliability analyses, etc.) in order to inform decisions to address these emissions in the most efficient and effective manner possible.	New York State Energy Planning Board	As soon as possible, but no later than 2023	NYSERDA, PSC, DEC
Disadvantaged communities shall be considered when determining the emissions reduction targets.	New York State Energy Planning Board	As soon as possible, but no later than 2023	NYSERDA, PSC, DEC

Enabling initiative – Initiative #11: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other Key Stakeholders
Following the above analysis, DEC shall examine all potential regulatory options, including new regulations and/or permit requirements or amendment of current regulations and/or permitting requirements, to determine the most efficient and effective format to achieve the determined emissions reduction targets and the CLCPA mandates and goals. Once completed DEC shall follow SAPA in promulgating the identified regulation(s).	DEC	As soon as possible, but no later than 2024	NYSERDA, PSC, NYSEPB
The process shall include effective mechanisms for input and comments from stakeholders prior to formal proposal under SAPA, similar to the process used in promulgating the DEC "Peaker Rule," 6 NYCRR Subpart 227-3.	DEC	As soon as possible, but no later than 2024	NYSERDA, PSC, NYSEPB
Coordination of closures and the necessary reliability assessments should take place between State Agencies (e.g., DEC, PSC, NYSERDA) and other key stakeholders (e.g., the NYISO, utilities and fossil fuel facility owners and operators), similar to the process used in promulgating the DEC "Peaker Rule," 6 NYCRR Subpart 227-3. • Evaluation of emissions, benefits, reliability needs, cost, and available replacements and solutions (and their subsequent impacts) must be executed. • Specific focus should also be given to reducing emissions and co-pollutants in disadvantaged and environmental justice communities.	DEC	As soon as possible, but no later than 2024	NYSERDA, PSC, NYSEPB, NYISO, Utilities

Enabling initiative – Initiative #11: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other Key Stakeholders
The New York State Energy Planning Board shall commence an iterative planning process in order to support and ensure the continued achievement of the emissions reduction targets and compliance with promulgated regulations including identification of alternatives and barriers to those alternatives, and analysis or additional mechanisms needed.	New York State Energy Planning Board	Begins when DEC regulations are in place, performed every two ye ars and timed to serve as a critical input into future Clean Energy Standard, Sta te Energy Plan and/or Climate Action Council updates.	NYSERDA, DEC, PSC, NYISO, Utilities
Examine options to reduce or eliminate greenhouse gas emissions from fossil fuel-fired generation facilities, including behind-the-meter fossil resources, as expeditiously as practicable but not later than 2040, identifying the nature, feasibility, cost and avoided costs, risks and risk mitigants, and impacts on emissions and health as well as reliability of alternatives. These options may include, but are not limited to, renewable resources, efficiency and demand response, storage, load flexibility, distributed energy resources, and transmission and distribution upgrades, among others.			
Outline the impacts on communities and workers of such options and the ability to repurpose these facilities to take advantage of their location and infrastructure to ensure reliability while meeting of the CLCPA goals.			
Examine and prioritize options to reduce greenhouse gas emissions and co-pollutants in disadvantaged communities.			
Thoroughly analyze market mechanisms to assist in the removal of fossil fuel-fired generating facilities from the system, including but not limited to the opportunity for carbon pricing and valuing of environmental attributes.			

Enabling Initiative – Initiative #11 Retirement of Fossil Fuel-Fired Facilities

Draft Material

- Fossil-fuel fired facilities should not be permitted to operate after 2040.

- Reducing greenhouse gas emissions and co-pollutants in disadvantaged communities is a priority, and we must ensure an equitable and affordable transition.

- The State must move quickly and take strong action both to invest in renewable electricity, storage, energy efficiency, and transmission and distribution to phase out fossil fuel generation, all while maintaining reliability.
  - Electrification of buildings of transportation are critical to achievement of the CLCPA and will increase load on the electric grid.
  - Continued provision of safe and adequate electrical service is required as alternative solutions are implemented.
  - Not all solutions are yet known, and the transition requires innovative and holistic planning.

- Public and stakeholder input must be considered in any such planning.

Enabling Initiative – Initiative #11 Retirement of Fossil Fuel-Fired Facilities

Draft Material

> State agency decision-making and approvals must consider consistency with GHG emissions limits:

•*CLCPA § 7.2. In considering and issuing permits, licenses, and other administrative approvals and decisions, including but not limited to the execution of grants, loans, and contracts, all state agencies, offices, authorities, and divisions shall consider whether such decisions are inconsistent with or will interfere with the attainment of the statewide greenhouse gas emissions limits established in article 75 of the environmental conservation law. Where such decisions are deemed to be inconsistent with or will interfere with the attainment of the statewide greenhouse gas emissions limits, each agency, office, authority, or division shall provide a detailed statement of justification as to why such limits/criteria may not be met and identify alternatives or greenhouse gas mitigation measures to be required where such project is located.*

Retirement of Fossil Fuel-Fired Facilities

Draft Material

- Only after alternative solutions (or combination thereof) such as storage (of any duration), zero-emissions resources, transmission upgrades or construction, energy efficiency, or demand response, are fully analyzed and determined to not be able to reasonably solve the identified grid need, shall fossil fuel-fired generation facilities be considered in order to meet DEC emissions reduction regulations.
- **Fossil fuel-fired generation facilities shall only be considered if:**
  - The NYISO and local transmission operators confirm that the fossil fuel-fired facility is required to maintain or enhance bulk or non-bulk power system reliability and that need cannot be reasonably met with any zero-emissions alternatives or combination of zero-emissions alternatives (above).
  - A fossil fuel-fired generation facility results in:
    - A greater integration of zero-emissions resources
    - A reduction of fossil fuel-fired generation capacity while decreasing greenhouse gas emissions and co-pollutants
    - A significant reduction of greenhouse gases and co-pollutants (reduction requirements to be defined by DEC regulations and analysis)
  - A fossil fuel-fired generation facility addresses a specific environmental justice concern (as required by the CLCPA)
  - Public and stakeholder input must be incorporated into the decision-making process (as required by Article 10)
- **For all scenarios, a thorough analysis of equity considerations, as mandated by the CLCPA, is completed by DEC and/or other relevant State Agency.**

For Discussion: Moratorium on New or Repowered Fossil Fuel-Fired Facilities

Draft Material

- A moratorium on new or repowered fossil fuel-fired generation facilities has been put forward for consideration with **alternate viewpoints** by the panel.
- Overview of concept:
  - A moratorium on the permitting, licensing, siting and construction of any new or repowered fossil fuel electric generating facility until*:
    - The final Climate Action Council regulations are adopted by the state
    - New York DEC promulgates the emission reduction regulations and The New York State Energy Planning Board and the Public Service Commission have finalized the electric sector gas planning process (as described in the discussed Fossil Fuel Retirement Recommendation)
  - * Unless there is a demonstrated and confirmed reliability need that can only be addressed by the fossil generator and not through a combination of alternative solutions and the below criteria are met:
    - If repowering, the fossil fuel generation facility would result in at least a 90% reduction in air pollution and criteria and hazardous air pollutants
    - All projects would be subject to Article 10; and
    - Operations would terminate by 2040.
  - Post moratorium, new or repowered facilities would only be allowed if they complied with the regulations and processes established during the moratorium (as previously described), a system reliability need is confirmed (above), and that operations are terminated by 2040.

Enabling initiative – Initiative #11: Benefits and impacts

Draft Material

Anticipated Benefits and Impacts	
Disadvantaged communities	Closure of high-emitting fossil units should be prioritized in environmental justice communities through measures such as energy efficiency, battery storage, renewables deployment, and necessary transmission and distribution upgrades. As fossil generation facilities close, the impact of the lost tax revenue must also be examined within these communities and a transition must be identified.
Health and other co-benefits	Phasing out fossil fuel-fired generating facilities, especially the largest emitters, will decrease emissions and improve air quality, particularly in the communities where fossil fuel generation is located. In 2016, in-state fossil fuel combustion accounted for 27.72 MMtCO2e (14% of all state emissions).
Just transition: businesses and industries, workers	The closure of fossil units will impact workers. Training and support in the transition to new jobs will be important (see Workforce Development recommendation for additional information).
Other	

Enabling initiative – Initiative #12: Clean Energy Siting & Community Acceptance

Draft Material

Description:	Support the development and use of information and resources for local communities to make beneficial decisions about renewable energy projects in their community.
Action type:	Executive/Regulatory
Cost and funding considerations:	NYSERDA's Clean Energy Communities program could be leveraged for some activities, but the State should also seek federal funding from the administration's stimulus and infrastructure bills. Community credit subsidies.
Ease of implementation:	Medium - Difficult
Example case studies:	Scenic Hudson's Roadmap to a Clean Energy Future, Long Island Solar Roadmap, Tompkins County, NYS Geographic Information System, NY Solar Map, WindExchange.Energy.gov, NYC Community Energy Planning Tool, Temiscouata and Apuiat Wind Farms, NYCHA and Brooklyn Army Terminal RFP's

Risks / Barriers to success	Possible mitigants
• Efficient processes for installing renewable energy projects and for upgrading the local transmission and distribution networks will be necessary to effectively deploy renewables. • Local community opposition for projects if benefits are not realized locally.	• Strong community communication, engagement, and public outreach will be important for these projects to be possible.

Enabling initiative – Initiative #12: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other key stakeholders
Clean Energy Development			
Research and incentive viability agrivoltaics, co-location, and multi-use to address agricultural impact concerns.	NYSERDA		NYSERDA, DPS, DEC, DOS, Utilities, NYISO, Renewable Energy Developers, Transmission and Distribution System Operators, municipalities and local communities
Develop a Clean Energy Development Mapping tool to help municipal representatives and local communities make informed land use decisions, and communicate local wants to developers.	NYSERDA		
Offer NYS support and funding for Regional Planning Associations to assist municipalities in planning for renewable energy development.	NYSERDA		
Refine NYSERDA process/evaluation and incentivize for "buildable projects".	NYSERDA		
Equity & Local Community Benefits			
Ensure community benefits and avoided costs are tracked in dollars.			
Allow all NYPA customers to benefit from electric utility value stack NYS-wide.	PSC/DPS		
Determine who needs benefits and then create municipal/cooperative structures in disadvantaged communities. Examine laws regarding cooperatively owned enterprises.			
Make host community benefits more robust and targeted (ex. NYSERDA's Host Community Billing Program)	NYSERDA		

Enabling initiative – Initiative #12: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other key stakeholders
Equity & Local Community Benefits (cont'd)			
Empower local governments to take a leadership role in educating the community in clean energy and for the reuse/development of fossil sites.	NYSERDA/DOS		NYSERDA, DPS, DEC, DOS, Utilities, NYISO, Renewable Energy Developers, Transmission and Distribution System Operators, municipalities and local communities
Expand and streamline incentives for energy efficiency, including funding for customers based on utility payment history instead of credit scores.	NYSERDA/DPS/Utilities		
Invest in local weatherization assistance and energy efficiency programs. Enable host towns to speed up rural broadband expansion.			
Incentivize local "climate resilience hubs", a central location that has solar + storage and becomes a location the community gather during power outages.			
Improve NYC DCAS for more renewable energy projects. - loan loss reserve program - LMI community subscriber benefits program			
Commercial Rooftop & Parking Lot Solar			
Conduct further analysis that looks for ways to build economic/incentive structures to increase development of commercial rooftop and parking lot solar installations paired with storage.	NYSERDA		

Enabling initiative – Initiative #12: Benefits and impacts

Draft Material

Anticipated Benefits and Impacts	
Disadvantaged communities	These will provide municipalities, local communities, and disadvantaged communities valuable information and resources to make beneficial decisions about renewable energy projects in their communities. Municipalities, local communities, and disadvantaged communities will also have more control over local land use and development. Local renewable energy projects could provide utility cost savings, local infrastructure development, and job opportunities.
Health and other co-benefits	Aggressive deployment of renewable technologies and upgrades and construction of transmission and distribution systems will make it possible to close fossil fuel generation facilities, improving air quality and decreasing emissions.
Just transition: businesses and industries, workers	Local renewable energy projects could provide utility cost savings for businesses, local infrastructure development opportunities, and job opportunities for local workers.
Other	

Enabling initiative – Initiative #13: Energy Delivery & Hosting Capacity

Draft Material

Description:	Pursue planning and implementation processes to facilitate necessary energy delivery options for the renewable energy buildout.
Action type:	Executive, Regulatory
Cost and funding considerations:	The State should seek federal funding from the administration's stimulus and infrastructure bills.
Ease of implementation:	Difficult – Building or upgrading energy delivery system infrastructure will be difficult. It will require thorough planning and technology advancements.
Example case studies:	

Risks / Barriers to success	Possible mitigants
• Complex upgrades to the energy delivery system will be required. • Some upgrades may be costly. • Host community opposition if engagement and public outreach are not done properly.	• Strong community communication, engagement, and public outreach will be important for these projects and upgrades to be possible.

Enabling initiative – Initiative #13: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other key stakeholders
Expand Electricity Transmission and Distribution Systems to Support Energy Delivery			NYSERDA, DPS, DEC, Utilities, NYISO, Transmission and Distribution System Operators, municipalities and local communities where projects are sited and where energy is delivered.
Continue with strategic long-term transmission and distribution investments by NYPA and utilities for expedited projects needed in the short term (within ~5 years), by utilities for local transmission and distribution investments within a utility's footprint, and declare public policy needs in the current NYISO PPTN process through FERC Order 1000.	PSC/NYPA		
Focus on increasing hosting capacity with a holistic/top-down approach and to accelerate adoption, while being mindful of the tradeoffs between siting resources in high-cost areas and investments in T&D infrastructure to reach the most equitable cost option.	PSC/DPS		
Create a database to identify where there may be headroom for Renewable Energy Zones.	DPS/NYSERDA		
Offshore Wind (OSW)			
Conduct further planning and pursue system upgrades on Long Island and in NYC to facilitate 9,000 MW of OSW.	DPS/NYSERDA		
Promote multiport infrastructure investment to support and facilitate the growth of the offshore wind industry in NY. Future offshore wind solicitations should continue to include a multi-port strategy and requirement for offshore wind generators to partner with any of the 11 prequalified NY ports to stage, construct, manufacture key components, or coordinate operations and maintenance activities.	NYSERDA		

Enabling initiative – Initiative #13: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other key stakeholders
Advanced Grid Technologies & Future Studies for Planning Processes			NYSERDA, DPS, DEC, Utilities, NYISO, Transmission and Distribution System Operators, municipalities and local communities where projects are sited and where energy is delivered.
Building on the Power Grid Study, continue R&D and rapid deployment of advanced grid technology to: a) alleviate transmission system bottlenecks to allow for better deliverability of renewable energy throughout the State; b) unbottle constrained resources to allow more hydro and/or wind imports and the ability to reduce system congestion; c) optimize the utilization of existing transmission capacity and right of ways; d) increase circuit load factor through dynamic ratings; e) recommend process to 1) establish renewable energy zones, 2) determine quantity of renewable energy targeted within each zone, and 3) develop a plan for each REZ to build sufficient transmission to ensure energy delivery within and out of the zone; f) allow utilities to accelerate investments in their local systems that will facilitate renewables development and enhancing the electrification of transportation, but also grow safety and resiliency.	DPS/NYSERDA		

Enabling initiative – Initiative #13: Components of the strategy

Draft Material

Components required for delivery	Implementation lead	Time to implement	Other key stakeholders
Advanced Grid Technologies & Future Studies for Planning Processes (continued)			NYSERDA, DPS, DEC, Utilities, NYISO, Transmission and Distribution System Operators, municipalities and local communities where projects are sited and where energy is delivered.
Examine and, if needed, modify planning processes (timeframe of processes, forward looking, technology deployment alignment, address defaulting to regulated solutions) to encourage the incorporation of advanced technologies	DPS/NYSERDA		
Conduct a study that looks more closely at short- and long-duration storage, clean dispatchable energy, and T&D investments to get a more precise view of the long-term needs of the grid; further informing public policy decisions and market design	DPS/NYSERDA		
Develop and publish LT&D system information in time to support renewable developer decision making timelines.	PSC/Utilities		
Interconnection			
Explore additional areas of openness and engagement with the NYISO and other stakeholders to improve the interconnection/Class Year process, consistent with reliability.	PSC/DPS		
NYS can be more involved with stakeholders in planning optimal locations for clean energy projects, either through community energy studies, stakeholders' processes, or other matchmaking, while serving as a resource for technical information and a bridge to communicate with the NYISO.	DPS/NYSERDA		
Further engagement, outreach, education, and support for local municipalities, communities and residents to improve acceptance of energy delivery projects.	DPS/NYSERDA		

Enabling initiative – Initiative #13: Benefits and impacts

Draft Material

Anticipated Benefits and Impacts	
Disadvantaged communities	Rapid improvements and upgrades to the energy delivery system will allow more renewable energy into the system reducing the need for fossil fuel generational facilities.
Health and other co-benefits	Aggressive upgrades and construction of transmission and distribution systems will make it possible to close fossil fuel generation facilities, improving air quality and decreasing emissions.
Just transition: businesses and industries, workers	Renewable energy developers will be able to site and construct projects more easily and quickly, bringing more projects to NYS and increasing renewable energy development activity.
Other	

Next Steps

Next Steps

> Wrap up Power Generation recommendations
  - Incorporate input from Panel discussions
  - April 16th: Near final recommendations to be shared with other Panel Chairs for review
  - Late April/early May: Panel meeting to discuss final recommendations package to go to CAC
  - May 3rd: Recommendations shared with CAC for review
  - Panel members requested to remain available for further potential collaboration and recommendation refinement
  - Panel will shift to meeting on an as-needed basis

> Climate Action Council meetings (https://climate.ny.gov/)
  - April 12th @ 9 am to review recommendations from:
    - Agriculture & Forestry
    - Waste
    - Energy-Intensive & Trade-Exposed Industries
    - Just Transition Working Group
  - May 10th @ 9 am to review recommendations from:
    - Energy Efficiency & Housing
    - Land Use & Local Government
    - Power Generation
    - Transportation

Public Input Session

Public Input: *Public Commenter Procedures*

1. Indicate your interest in speaking by entering your **name** (first & last) in the "**Q&A**" feature of the WebEx.

   If you had the opportunity to present at a previous Public Input Session, please wait to enter your name until others have had the opportunity to present.

2. When called upon, **turn on your microphone**.
3. Announce your **name** and **organization** (if you are representing one).
4. You will be provided with **up to 2 minutes** to comment on the work of the Panel.
5. You may also enter **written comments** into the "**Chat**" feature of the WebEx; staff may read aloud your comments.
6. Your comments will be **documented** as part of the Power Generation panel's deliberations.

Alternative Options:

> **Written comments** are strongly encouraged and may be submitted to the Panel at any time via e-mail to PowerGenPanel@dps.ny.gov.

> Commenters also may **call toll-free** the PowerGen Public Input Line at 1-833-498-2082. This number is set up to take comments from in-state callers, 24 hours a day.