50 x 30 Team: Building Electrification Meeting Thursday, Jan 20, 2022, at 7 pm

AGENDA: Planning for 2022

**Review of Status up to Now**

* Gov Murphy Executive Order 274 setting a goal for NJ carbon emissions reduction of 50% by 2030 (Nov 10, 2021)
* Our (50x30) Dec 2021 webinar on Building Heat Electrification, with retired Energy Advisor to NJ BPU Chair, Philadelphia Gas Works “Transition vs Die” study, heat pump homeowners, recording <https://www.youtube.com/watch?v=BBmaMbgjij0>
* NJDEP denial of Empower NJ legal petition for a plan to get NJ to 50 x 30
* NJ Senate passage (but ultimate 2021 defeat) of S4133 “Gas Lobby Gift” – Prohibits State from mandating electric heating or water heating systems
* Build Back Better? – we need funding this would provide

**Now**

* Steve Miller named champion for Sierra Club Building Electrification issue
* Empower NJ names Building Electrification as one of several high-priority issues (Jan 2022)
* NY State has an active BE program that has been operating for many years. We can copy.
* NJ has marching orders from NJ Energy Master Plan, NJ 80 x 50 Report
* Sierra Club has a Building Electrification Plan that we can use as a guide.

**Going Forward – Planning**

* Socialize the Building Electrification plan among all environmental organizations so that we all are sending the same message to all parties.
* Education of consumers on benefits and possible configurations of heat pumps; electric appliances
* Education of HVAC techs and customer-facing employees on benefits of heat pumps over fossil fuel; various configurations that might be applicable and installation knowledge
* Select/propose energy efficient building codes for new residential & commercial buildings, remodeled residential & commercial buildings, and appliances. Keep abreast of NEEP work on BE roadmap.
* Educate and cultivate relationships with NJ officials and organizations:
  + NJ legislators
  + Members of key NJ Departments (DEP - Dept of Env. Protection, Dept of Community Affairs – Div of Codes and Standards)
  + BPU- Board of Public Utilities
  + Sustainable Jersey
* Lobby key legislators in NJ Senate and NJ Assembly and propose bills
* Lobby the governor, for instance to expand scope of the current "Climate Office and the Green Economy" to include a roadmap for "Building Electrification"
* Lobby to have NJ expand its current participation in the "US Climate Alliance" to include more complete goals, to include appliance efficiency standards, and statewide building performance standards

**MODELS AND GUIDES**

* **New Jersey 2019 Energy Master Plan** [https://nj.gov/emp/docs/pdf/2020\_NJBPU\_EMP.pdf](https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf%20) Strategy 4 **Reduce Energy Consumption and Emissions from the Building Sector**. The building sector should be largely decarbonized and electrified by 2050 with an early focus on new construction and the electrification of oil- and propane-fueled buildings.

4.1 Start the transition for new construction to be net zero carbon

4.1.1 Electrify state facilities

4.1.2 Partner with private industry to establish electrified building demonstration projects

4.1.3 Expand and accelerate the current statewide net zero carbon homes incentive programs for both new construction and existing homes

4.1.4 Study and develop mechanisms and regulations to support net zero carbon new construction

4.1.5 Develop electric vehicle-ready and demand response-ready building codes for new multi-unit dwellings and commercial construction

4.2 Start the transition to electrify existing oil- and propane-fueled buildings

4.2.1 Incentivize transition to electrified heat pumps, hot water heaters, and other appliances

4.2.2 Develop a transition plan to a fully electrified building sector

* **2020 NEW JERSEY 80X50 REPORT**, Chapter 2: Residential and Commercial Sector Snapshot. NJ’s residential and commercial sector emissions are associated with space and water heating, cooking. Objectives:
  + Electrify space and water heating
  + Maximize energy efficiency in existing buildings

1. Develop a Buildings Electrification Roadmap, which provides strategies and concrete timelines for achieving widespread electrification. Prioritize near-term conversion of buildings relying on propane and heating oil, starting no later than 2021.

1. In coordination with the New Jersey Department of Community Affairs (DCA), consider legislation governing all new construction and upgrades to facilitate the transition to a decarbonized building.
2. Mandate energy audits in State buildings and encourage/incentivize energy audits in county and municipal buildings.
3. Adopt new construction net zero carbon goals for commercial and residential buildings.  
   AGENCY STAKEHOLDERS  
   ´ New Jersey Board of Public Utilities  
   ´ New Jersey Department of Community Affairs  
   ´ New Jersey Economic Development Authority  
   ´ New Jersey Department of Environmental Protection  
   ´ New Jersey Department of Treasury

* **Sierra Club's Building Electrification Plan** that we can use as a guide. <https://www.sierraclub.org/sites/www.sierraclub.org/files/Building%20Electrification%20Action%20Plan%20for%20Climate%20Leaders.pdf>

1. Establish the goal of a zero-emission buildings sector no later than 2045 with interim enforceable targets

2. Strengthen standards for buildings and appliances to require zero emissions

3. Improve affordability of electrification through incentives, rate reform, and financing, with a priority focus on low-income residents

4. Educate and inspire consumers and the workforce

5. Remove roadblocks and common barriers to electrification, particularly for low-income and environmental justice communities.

**New York Renewable Heat Legislative Package (see slide below)**

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