



**CITY OF PORTSMOUTH NH
Portsmouth Energy Advisory Committee**

AGENDA & ZOOM REGISTRATION

Portsmouth Community Power Public Information Meeting

Wednesday, December 20, 2023 at 6:30

pm

**City Hall Conference Room A
and via Zoom**

Members of the public may attend in person or via Zoom. To attend via Zoom, you must register in advance. Please click on the link below or copy and paste this into your web browser:

<https://us06web.zoom.us/j/86418655834>

After registering, you will receive a confirmation email containing information about joining the meeting.

Agenda:

1. Roll call
2. Chairman's remarks
3. Approve meeting minutes from November 16, 2023
4. Thoughts from members on mission and goals for upcoming term
5. Identify areas for further discussion/next steps
6. Adjourn

CITY OF PORTSMOUTH NH

Portsmouth Community Power Meeting

Thursday, November 16, 2023

NOTES

Attending: Councilor John Tabor (chair), Councilor Kate Cook, Kevin Charette, Tim Rooney, Peter Somssich, Ben D'Antonio. Staff: Stephanie Seacord (recording secretary). Excused: Peter Britz. Guest: Brian Callnan, CEO CPCNH and members of the Sustainability Committee: Effie Malley, Bert Cohen, Aubrey Cohen, Councilor Beth Moreau and staff City Manager Karen Conard, Deputy Health Office Kristin Shaw, Kate Homet (Planning & Sustainability Dept.)

Video recording: [11.16.2023 Portsmouth Energy Advisory Committee \(youtube.com\)](https://www.youtube.com/watch?v=11.16.2023-Portsmouth-Energy-Advisory-Committee)

1. Roll call and Chair remarks: 6:34 pm

Acknowledged, with sadness, the resignation of Allison Tanner, but perpetuate her memory with her design for the Portsmouth Community Power logo.

2. Minutes from September 27, 2023 – Peter S. moved and Ben D seconded the acceptance of the minutes as amended (in red):

“PEAC remains the steward of PCP and would continue to be responsible for

- Communicating rate changes
- Convincing more residents to opt-up to greener options
- Working with CPCNH on how Portsmouth's and CPCNH reserves are used

Also for understanding and vetting interest in solar energy plans and programs now that state allows 5Mgw projects, to:

- Impact the City's environmental footprint
- Help residents reduce their bills”

3. Presentation by Brian Callnan, CEO of CPCNH

Kevin then introduced PEAC guest speaker, Brian Callnan the CEO of CPCNH (full presentation deck: [PowerPoint Presentation \(cityofportsmouth.com\)](https://www.cityofportsmouth.com)) who reported he is always happy to meet CPCNH members, answer questions and help Portsmouth meet its energy goals, with Portsmouth having the advantage of having PEAC member Kevin Charette as CPCNH Vice Chair. Having completed Wave 1 and the first rounds of rate-setting, CPCNH is now preparing for the next rate setting for Feb 1, 2024, building the team and establishing a homebase in Lebanon NH while retaining the location in Concord near the State House.

The Senior Team includes:

- Henry Herndon, Member Services – with 45 members (including 1 county), 3 towns about to launch and 2 more on the horizon – 25% of the NH population – we're seeing rapid growth, a high level of interest and a high need to communicate.
- Deanna Dennis, Regulatory and Legislative Affairs
- Clifton Below
- Bobbie Jo Michael, Dir of Administration

In 2024, expect to add to the senior team:

- Director of Projects and Programs – every member already has a project in mind and many have done the legwork to incorporate more renewable energy already. “Need a person as excited as I am about the

opportunities.”

- Senior Energy Analyst – “spreadsheet jockey”
- Communications Specialist – to work with Resilient Building Group and NH Saves

Financial Reports (through August: Portsmouth went live June 1)

Reporting: Cost, Revenue, Reserves, Benefi

| CPCNH Member Monthly Report* (DRAFT) | | | | | | | | | | | | | | | |
|--------------------------------------|-----------------------|---------------------|------------------------|-------------------------|--------------------------|-----------------------|------------------|--------------------|------------------|-------------|-------------|-------------|-------------|-----------------|----------------|
| Inception to Date, August 2023 | | | | | | | | | | | | | | | |
| Community Power Aggregation | Total Revenue (\$000) | Total Costs (\$000) | Joint Reserves (\$000) | Discr. Reserves (\$000) | Customer Savings (\$000) | Comm. Benefit (\$000) | Total Accounts # | Current Accounts # | Comm. Energy MWh | Opt In % | Opt Up % | Opt Down % | Opt Out % | Granite Basic % | Granite Plus % |
| Canterbury | \$192 | \$151 | \$41 | \$0 | \$61 | \$102 | 939 | 851 | 1,236 | 3.1% | 1.3% | 0.0% | 2.2% | 96.3% | 0.1% |
| Enfield | \$514 | \$430 | \$84 | \$0 | \$161 | \$245 | 2,482 | 2,302 | 3,522 | 0.8% | 2.0% | 0.0% | 0.4% | 97.5% | 0.2% |
| Exeter | \$2,224 | \$1,724 | \$500 | \$0 | \$1,040 | \$1,541 | 7,469 | 6,845 | 14,316 | 0.8% | 1.3% | 0.0% | 0.6% | 98.0% | 0.2% |
| Hanover | \$882 | \$754 | \$128 | \$0 | \$252 | \$380 | 3,139 | 2,681 | 6,051 | 1.1% | 4.9% | 2.1% | 0.6% | 2.5% | 91.7% |
| Harrisville | \$112 | \$90 | \$22 | \$0 | \$23 | \$45 | 723 | 668 | 718 | 2.9% | 4.1% | 0.0% | 2.0% | 93.0% | 0.4% |
| Lebanon | \$2,361 | \$2,120 | \$241 | \$0 | \$836 | \$1,077 | 8,827 | 7,300 | 17,625 | 4.1% | 3.5% | 0.0% | 0.3% | 95.9% | 0.2% |
| Nashua | \$11,364 | \$8,806 | \$2,557 | \$0 | \$2,546 | \$5,103 | 37,145 | 32,885 | 73,373 | 0.6% | 0.5% | 0.0% | 0.4% | 99.1% | 0.1% |
| Peterborough | \$776 | \$611 | \$165 | \$0 | \$149 | \$314 | 3,228 | 3,020 | 4,866 | 1.3% | 1.5% | 2.5% | 1.2% | 3.0% | 93.9% |
| Plainfield | \$229 | \$185 | \$43 | \$0 | \$58 | \$101 | 485 | 751 | 1,491 | 1.9% | 1.6% | 1.4% | 0.8% | 2.0% | 95.3% |
| Portsmouth | \$2,907 | \$2,289 | \$618 | \$0 | \$545 | \$1,163 | 12,727 | 11,281 | 18,855 | 1.0% | 0.8% | 0.0% | 0.6% | 98.3% | 0.1% |
| Rye | \$857 | \$665 | \$192 | \$0 | \$181 | \$373 | 2,900 | 2,627 | 5,519 | 2.2% | 0.7% | 0.0% | 0.5% | 98.7% | 0.0% |
| Walpole | \$519 | \$421 | \$98 | \$0 | \$154 | \$252 | 1,809 | 1,695 | 3,492 | 1.9% | 0.9% | 0.0% | 0.5% | 98.4% | 0.1% |
| CPCNH | \$22,937 | \$18,246 | \$4,689 | \$0 | \$6,006 | \$10,696 | 81,873 | 72,906 | 151,065 | 1.3% | 1.2% | 0.2% | 0.5% | 90.3% | 7.9% |

Question: The joint reserves are applied to debt service?

A: Joint reserves build CPCNH balance sheet, hoping to get own line of credit after building to 180 days of operating funds. Then extra would supplement discretionary reserves each member might collect on top of rate payments.

CPCNH projected 60 day reserves collected within 3 years – achieved in first year. Anticipate 120 days in 5 years.

Question: With new towns/members being added, doesn't that push the '180 days of operating funds' indefinitely?

A. Yes although the whole entity is also an expanding contributor.

Question: Portsmouth should be doing better on opt-ups to more renewables.

A. Some towns set 50% as the base rate but PEAC did not want to risk have Portsmouth Community Power rates come in higher than Eversource. We want them to get comfortable with the program and maximize their savings at first, while promoting the options through outreach efforts, such as:

- Incentives eg NH Saves messaging
- Greenhouse gas reduction certificates e.g. Climate Action Plan “Granite Plus = # tons of carbon emissions avoided”
- “I opted up” campaign (lawn signs – without adding more plastic to the environment)

Regulatory & Legislative Update:

Regulatory and Legislative Update

- ✓ Net Energy Metering 3.0
- ✓ Bill Ready Billing Waiver
- ✓ EDI Working Group
- ✓ Data Platform
- ✓ Liberty Distribution Rate Case
- ✓ Harrisville/CPCNH Complaint
- ✓ Purchase of Receivables
- ✓ Leg. Service Request- RSA 362
- ✓ Load Settlement Petition
- ✓ And More....



EDI Working Group to solve Net Metering issue – technology currently can't measure reverse flow (a “negative number”): an energy export just looks like 0 to meter. Seeking the sales and purchases data from Eversource so CPCNH can avoid enrolling them until a solution is found. There were 59 people from Portsmouth – makes for a poor customer service experience although all issues were ultimately resolved. PUC, DOE and the utilities are meeting to figure out the load settlement. Once the net metering is sorted out there is room for additional innovation such as ‘time of use’ rates and encouraging reduced use during high demand times.

Note: Of the 120,000 enrolled customers, 3000 were 3rd party supplier customers and 178 were net metered. We're hoping in 2024 to have this issue behind us. As Portsmouth has a seat at the CPCNH table, resolving our issue helps the whole state not just Portsmouth. The Liberty and Harrisville RSA53E complaints filed by CPCNH are to get the issue resolved.

Rate Setting for Feb 1, 2024

CPCNH tries to set rates right after the utilities announce them so that ours can be lower, making it easier for consumers to see the savings over the same period. CPCNH will know the next rates effective Feb 1, 2024 in December 2023.

Question: How can CPCNH buy more renewables to pass on options to consumers, eg. provide a market for solar

- Right now only energy capacity is considered, not other costs such as transmission or storage which are valuable
- What about solarizing the community? Vendors offer to set everything up and pay the city. CPCNH is interested in larger facilities that benefit more of the state.

Question: We're focused on electricity which is 30% of energy use, but what about efforts to reduce heating and transportation energy use.

- As a member you can ask CPCNH to explore that and use of reserves for weatherization, EV charging, low-income assistance, through the Director of Programs & Projects. Portsmouth helps CPCNH with strategy through your board representation.

Question: How about moving churches off the demand charge burden.

- Definitely part of the innovation that will become possible as the program evolves.

Councilor Tabor: Portsmouth Community power is a success for our citizens. Exciting to be part of a successful

startup. CPCNH is doing a terrific job.

A. Give yourselves a round of applause. What you're doing is what make CPCNH successful.

4. Future of PEAC

The city needs the expertise of PEAC members. We want to be on the leading edge of energy transformation and free up infrastructure for more innovation – PEAC charged with finding those opportunities.

Our role is to find the balance in reducing our carbon footprint while keeping the price low – a great public service to the community.

The committee sunsets December 31, 2023. In January we could explore our scope and goals. Should we continue?

Kevin – Yes. It makes sense to continue. There is no lack of future opportunities.

Kate – Yes, continue. PEAC is valuable. We should ensure there's a member of the Sustainability Committee on PEAC. (2 openings with departures of Allison and Becca)

Peter – Yes, it makes sense because the issue is not going away and our role has the opportunity to grow more interesting and complicated.

John – Might we consider permanent standing – through an ordinance we would define our mission and scope.

Tom moved and Peter seconded the motion that PEAC recommends that the Mayor reappoint the members of the Portsmouth Energy Advisory Blue Ribbon Committee, including a member of the Sustainability Committee. Approved unanimously.

5. Old Business: Notes from the Clean Energy National Conference, attended by Councilor Tabor, Effie Malley and Kate Homet. Also Brian Callan.

Session on Community Power (NY, CA and Cape Cod compact) – many communities still using the broker model but the coalition portfolio is offering more sophisticated aggregation than the broker model

Aggregation in NY defaults to solar supply, saving 10% of total energy use. Brian: that aggregation is 10 years old so more mature and able to take on the more complicated process to get that.

The conference suggested avenues for us to get benefits for our residents. The CPCNH director of projects wants to consult with communities on projects like this – a free consulting opportunity for these initiatives.

Solar: Joint power coalition with the clout and expertise has the ability to be a market maker. Councilors are looking at how to allow large scale solar in line with zoning districting. Other projects include a Clipper Foundation grant for the Middle School to install 5 panels, saving the City money in the School budget.

Meeting adjourned at 8:15 pm.

Thank you for your interest in Portsmouth's Climate Future!

The table below presents every climate change mitigation strategy the City of Portsmouth is considering for inclusion in its forthcoming Climate Action Plan (CAP). The City is keenly interested in receiving public input on a refined list of these strategies, those with the greatest impact potential (i.e., greenhouse gas emissions reduction) and/or highest costs – see grey highlighting. The public should review and provide their feedback on these high impact/high-cost strategies through the [EasyRetro](#) tool. To provide feedback on the remaining strategies, please email Kate Homet, Associate Environmental Planner, at kehomet@cityofportsmouth.com.

Reminder – the strategies highlighted in gray are included in the EasyRetro tool, and feedback on those strategies should be provided through this link: <https://bit.ly/Portsmouth-climate-future>

| Built Environment | | Preliminary Estimates (1 = low, 5 = high) | |
|-------------------|---|--|------|
| | | Impact | Cost |
| Municipal | | | |
| BE.1 | Ensure all new municipal construction (new or major renovations) are net zero ready. To support performance verification and reporting, adopt a requirement that these projects meet USGBC's Leadership in Energy and Environmental Design (LEED) Zero Energy. | 5 | 4 |
| BE.2 | Conduct American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) energy audits of all municipal facilities and implement energy efficiency measures as feasible (e.g., LED lighting, HVAC equipment upgrades, water efficient fixtures). For facilities in which energy upgrades were enacted within the last five years, implement a retro-commissioning program to ensure proper functioning. Retrofit projects can be supported by rebates and loans available through the state and utilities (e.g., NH Electric Co-op Commercial and Municipal Retrofit Energy Efficiency Programs). | 4 | 2 |
| BE.3 | Periodically assess installed LED streetlights and traffic signals for efficiency improvements. | 3 | 3 |
| BE.4 | Eliminate building systems that utilize fossil fuel sources (i.e., oil, natural gas, propane) for space heating and hot water and replace these systems with electric alternatives in all municipal and School Department buildings. | 5 | 5 |
| BE.5 | Prioritize the redevelopment and reuse of existing municipal buildings over new development. Refer to the CARE Tool (caretool.org). | 3 | 1 |
| Community | | | |
| BE.6 | Establish a green incentive fund that would support lower income residents and renters making improvements in energy efficiency and use of renewables. | 4 | 2 |
| BE.7 | Consider using City's bond rating to explore offering financing options similar to PACE for retrofits or renewable energy distributed generation systems at a lower rate than individuals could obtain. The Community Power Coalition of New Hampshire can also be a resource for this purpose. | 3 | 3 |
| BE.8 | Develop, launch, and maintain consolidated community education program that engages residents and other property owners/developers to provide resources on a range of energy efficiency and transition technologies, relating to buildings (e.g., Weatherization Assistance Program) and building systems (e.g., NHSaves), electric vehicles (e.g., Granite State Clean Fleets, Plug-In Electric Drive Vehicle Tax Credit), and renewable energy deployments (e.g., Low-Moderate Income Solar Renewable Energy Grant). Organize such resources and information by their target audience. Afford this program a prominent place on the City's website, enlist staff and/or | Enabling | 1 |

| | | | |
|--------------------------------|---|----------|---|
| | community members to serve as "Coaches" to perform direct engagements, and engage partners in planning and conducting community-scale education events. | | |
| BE.9 | Incentivize energy efficiency retrofits of existing buildings, especially the older housing stock. Remove any barriers in the land use ordinances to enable the addition of exterior insulation and improve the efficiency in renovations to existing buildings while being sensitive to both historic preservation and fire & life safety. | 5 | 1 |
| BE.10 | Incentivize projects to incorporate exceptional energy design standards. For example, create an Energy Efficiency Chapter in the Zoning Ordinance that either creates a Sustainable Energy Efficient Development (SEED) Overlay Zoning District allowing for scaled (based on building size) floor area ratio bonuses and building height relaxations, or adds the same incentives to current Zoning Overlay Districts. Permit fees could also be reduced as an additional incentive. | 3 | 1 |
| BE.11 | Strengthen Article 7.1 of the Site Plan Regulations to require Low Impact Development (LID) design practices and techniques in building design. Encourage the planting of trees and greenery around new or renovated buildings and sites that are being developed or subdivided. Prioritize the inclusion of open space. | 1 | 1 |
| BE.12 | Apply sustainable design and construction frameworks and rating systems, such as LEED for Neighborhood Development standards and the EcoDistricts protocol in neighborhood planning. | Enabling | 1 |
| BE.13 | Implement and enforce building energy performance standards. Require buildings of a certain size to report their energy usage and GHG emissions to the City for purposes of enforcement and benchmarking. ENERGY STAR Portfolio Manager can be used to track, benchmark, and report data. | 5 | 2 |
| BE.14 | Adopt an advanced energy code, with an incentivized net-zero pathway. Include solar- and EV- capable, ready, and install requirements. Once adopted, ensure that resources are put in place to support code compliance. | 5 | 2 |
| BE.15 | Directly promote heat pump technologies to current natural gas and fuel oil customers. | 3 | 1 |
| BE.16 | Coordinate with appropriate stakeholders, including developers of prominent commercial properties within the City, to establish a 2030 District (https://2030districts.org/become-a-member/). | 4 | 2 |
| BE.17 | Adopt tax incentives (e.g., preferential rates) for multi-family and commercial buildings that are both highly efficient and fossil-fuel free. | 4 | 3 |
| BE.18 | Investigate a tax structure that gradually increase taxation on carbon-intensive activities. | 4 | 1 |
| BE.19 | Expand the City's Urban Forestry Ordinance to place restrictions on the removal of mature trees on privately-owned properties. | 1 | 1 |
| Municipal and Community | | | |
| BE.20 | Implement a Building Management System (BMS) to monitor, measure, and control energy use in municipal buildings. Investigate a demand response and/or routine load sharing program whereby peak demand energy use is reduced and operational changes are instituted to lessen overall energy demand year-round. On the community side, ensure the proposed advanced energy code includes a BMS requirement, where appropriate. | 3 | 3 |
| BE.21 | Identify staff to continue to monitor Federal and State incentives, rebates, and tax breaks that support climate mitigation and resiliency. | Enabling | 2 |
| BE.22 | Implement measures to reduce embodied carbon emissions in new construction. For example, incentivize the use of sustainable building products like cross laminated timber and wood fiber insulation. | 5 | 3 |

| Energy | | Preliminary Estimates (1 = low, 5 = high) | |
|------------------|---|--|------|
| | | Impact | Cost |
| Municipal | | | |
| EN.1 | Plan, design, and build solar arrays with battery storage of sufficient generating capacity to power municipal buildings. Solar panels could be distributed across building roofs and parking lots, or aggregated into one site. The Public Undeveloped Land Assessment lists several sites that may be suitable. Loans and grants are available to support municipal renewable energy development (e.g., NH CDFA Clean Energy Fund)t, as are ownership and financing options (e.g., power purchase agreements [PPAs]). | 5 | 5 |
| EN.2 | Building off of the University of New Hampshire’s Living Bridge Project, explore opportunities to install tidal turbines at the Sarah Mildred Long Bridge, Memorial Bridge, and the bridge at Interstate 95. | 4 | 4 |
| Community | | | |
| EN.3 | Encourage the Pease Development Authority, with input from tenant units, to install onsite renewable energy systems at the Portsmouth International Airport at Pease (PSM). | 2 | 1 |
| EN.4 | Rezone the Schiller Station area to ensure that the existing power infrastructure stays intact for a future uses such as energy storage. Explore the opportunity for this site to support the conveyance and perhaps storage of power generated by off-shore wind projects. | 2 | 1 |
| EN.5 | Adopt/Enact state statutes specific to renewable energy. For example, consider expanding the Solar Energy Systems Exemption under N.H. R.S.A. 72:62 by eliminating the self-imposed five-year time limit and \$25,000 maximum deduction. Consider enacting the Wind-Powered Energy Systems Exemption under N.H. R.S.A. 72:66. Consider adopting a Renewable Energy System Zoning Ordinance under N.H. R.S.A. 674:17 to encourage and protect energy access. | 3 | 2 |
| EN.6 | Amend zoning and other City policies to eliminate existing barriers to solar development. As examples, consider allowing solar arrays as a principal use and adopting a policy that allows more visible PV Solar Arrays in the Historic District. Revisit recent limitations that were placed on rooftop solar arrays with the adoption of the 2015 International Fire Code. | 4 | 1 |
| EN.7 | Promote renewable energy development through regulatory incentives. For example, adopt dimensional incentives/density bonuses for new or redeveloped sites that incorporate solar power energy systems into building design (including their parking lots). . Consider expediting the building permit and inspection process as well as lowering permitting fees for renewable energy distributed generation systems. | 4 | 1 |
| EN.8 | Encourage the development of community solar projects - consistent with RSA 362-A:9, XIV (as amended), where residents who are unable to install solar PV on their own accord (e.g., due to living in a multi-family residential development, financial limitations) are able to access the benefits of owning a solar PV system (e.g., credits on their electricity bill). | 3 | 1 |
| EN.9 | Clarify zoning ordinance to specify that roof mounted solar panels are permitted by right, unless located in the City's historic district (additional provisions apply). Determine which solar applications to regulate and in which zoning district. | 3 | 1 |
| EN.10 | Partner with utilities to evaluate the existing capacity and redundancy of the electric grid, considering the expected future demand due to electrification of vehicles and building systems. As part of this study, identify smart electric grid technologies that could be implemented. Additional considerations should include microgrid technology and distributed energy resources. | Enabling | 1 |

| | | | |
|--------------------------------|---|----------|---|
| EN.11 | Provide resources about the installation of solar panels on historic properties. Information should be in line with the National Park Service and the Security of the Interior Design Standards for Rehabilitation. | 2 | 1 |
| EN.12 | Continue to participate and educate residents about Community Power, established under RSA 53-E, so that individual household energy goals can be met regardless of their available infrastructure. Establish targets for participants signing up for the "Clean 100" (i.e., 100 percent renewable content). | 4 | 1 |
| EN.13 | Explore local solar access laws that would limit building restrictions for solar PV installations (e.g., imposed by homeowners associations) and protect such installations from unwanted shading. | 3 | 1 |
| Municipal and Community | | | |
| EN.14 | Invest in community-scale energy and storage projects. Consider having commercial scale renewable energy distributed generation facility applications ready as New Hampshire Renewable Energy Funds become available. | 5 | 5 |
| EN.15 | Actively promote offshore wind interconnection through Piscataqua River into existing electric infrastructure in Newington/Portsmouth to improve renewable energy mix in ISO-NE grid. | 5 | 1 |
| EN.16 | Advocate for an increase in the State's Renewable Portfolio Standard (RPS) requirements beyond 2025. Do so in partnership with other municipalities and in coordination with the Community Power Coalition of New Hampshire and in coordination with local and regional environmentally-conscience agencies. | 5 | 1 |
| EN.17 | Advocate for a Clean Heat Standard in New Hampshire, similar to Massachusetts and Vermont. A Clean Heat Standard generally requires heating energy suppliers to replace fossil heating fuels with clean heat over time. Do so in partnership with other municipalities and in coordination with local and regional environmentally-conscience agencies. | 5 | 1 |
| EN.18 | Working with partners (e.g., the State, Eversource, and Offshore Wind Developers), leverage the City's coastal facilities to support offshore wind construction and energy production, including manufacturing/marshalling, transmission interconnection, and energy storage. Seek Host Agreements that would provide the City with various fiscal and economic benefits. | Enabling | 1 |
| EN.19 | Invest in workforce development to support clean energy jobs, including through partnerships with the School Department and local colleges. | Enabling | 2 |

| Solid Waste | | Preliminary Estimates (1 = low, 5 = high) | |
|------------------|--|--|------|
| | | Impact | Cost |
| Municipal | | | |
| SW.1 | Conduct a local government waste audit and track diversion rates over time. | 3 | 1 |
| Community | | | |
| SW.2 | Reconsider the feasibility of a regional anaerobic digester at the Pease WWTF. This strategy is also important for food waste diversion since composting facilities may be difficult to permit in the state. | 4 | 5 |
| SW.3 | Expand curbside food waste collection services, perhaps in coordination with existing private-led services, to all residential households that receive Municipal Solid Waste and recycling services. Require all new multi-family development projects to site potential locations for the adequate storage and handling of composting material should a municipal composting program become available in the future. Add information on at-home composting to the City's website. | 3 | 3 |
| SW.4 | Create a voluntary certification program for Portsmouth restaurants working to reduce food waste (levels might include "skip the stuff", composting, and offering smaller portion sizes.) | 3 | 1 |

| | | | |
|--------------------------------|--|---|---|
| SW.5 | Assess the effectiveness of the current recycling program. Evaluate the feasibility of developing an expanded recycling center, as well as reverting back to multi-stream collection. | 2 | 4 |
| SW.6 | Create a "borrow/lease" culture in Portsmouth in relation to tools, appliances, transportation, etc. (similar to tool libraries and what RadMoto is doing). Establish a repair/reuse center. | 1 | 2 |
| Municipal and Community | | | |
| SW.7 | Increase landfill diversion rates for municipal, commercial, and residential users by promoting waste reduction, reuse, recycling, and composting. Priority should be given to food waste management and overall waste reduction strategies at the source. Public education will be a key aspect of effective waste diversion. | 3 | 2 |
| SW.8 | Prepare and implement a Zero Waste Plan, which would see the Portsmouth community reduce, reuse, recycle, and compost at least 90 percent of its solid waste. | 5 | 4 |
| SW.9 | Implement strategies associated with ICLEI's Circular City Actions Framework (https://circulars.iclei.org/action-framework/) to transition the local government and broader community from a linear to a circular economy that closes material loops. | 3 | 2 |

| Transportation | | Preliminary Estimates (1 = low, 5 = high) | |
|------------------|--|--|------|
| | | Impact | Cost |
| Municipal | | | |
| TR.1 | Develop and implement a fleet electrification plan. Ensure that this plan adequately assesses future charging needs by department and vehicle use types. Install additional Level 1, Level 2, and DC Fast Charger stations, as appropriate. Concurrently, assess opportunities to right-size the municipal fleet to ensure the fleet inventory does not exceed operating requirements. The cost of this strategy may be offset through funds available through the Granite State Clean Fleets program. | 4 | 4 |
| TR.2 | Work with the School Department to electrify the school bus fleet. | 5 | 5 |
| Community | | | |
| TR.2 | Find a new vendor to restart a bicycle share program in the City and explore the possibility of expanding into Kittery and other regional attractions based on origin-destination data. | 2 | 2 |
| TR.3 | Expand public transportation within as well as into and out of Portsmouth to attract more "choice" riders on a regular basis and more efficiently serve "captive" riders. This includes making bus connections to regional transportation hubs, such as the rail stations in Dover and Exeter, as well as exploring new forms of public transit (e.g., passenger rail). To maximize the sustainability benefits of public transportation, plan to electrify the fleet and prioritize city investment in options benefiting lower income communities. | 4 | 4 |
| TR.4 | Form a focus group comprising both potential and current EV owners to better understand what it will take to increase local and regional EV adoption. Ensure representation from disadvantaged demographic groups. | Enabling | 1 |
| TR.5 | Use a standard permit process for all accessory use EV charging station installations as opposed to a CUP or SP. In general, ensure that the EV charger installation permitting process is streamlined for electricians and communicated to homeowners and businesses. | 3 | 1 |

| | | | |
|-------|--|----------|---|
| TR.6 | Promote EV charging installations among private developers. Provide density bonuses for the installation of EV charging in new development or redevelopment (e.g., decrease in total required parking spots, reduced floor area, etc.) and/or provide adjusted parking requirements in exchange for EV spaces. This could go in 10.5A46.20 of the Zoning Ordinance -incentive overlay district. For existing businesses, allow them to sponsor public EV charging stations, or otherwise incentivize EV charging installations. | 3 | 1 |
| TR.7 | Continue to install the wiring of circuits for Level 1, Level 2, and DC Fast Chargers when maintenance is performed on public parking lots. | Enabling | 2 |
| TR.8 | Include specific site and equipment design standards for EV charging stations including but not limited to where EV spaces are to be in the parking lot or structure, signage, site lighting, clearance, maintenance responsibilities, time limit regulations, etc. Increase the profile and wayfinding signage for existing and new EV charging stations so that they are highly visible and easy to find. Consider preferred parking and other incentives for the use of alternative energy vehicles. | 2 | 1 |
| TR.9 | Complete and implement an electric vehicle charging plan to identify feasible and strategic locations for the installation of publicly available Level 1, Level 2, and DC Fast Chargers. | 4 | 4 |
| TR.10 | Include EV parking spaces in the calculation of minimum and maximum number of parking spaces required in new development or redevelopment. In general, reduce parking requirements currently specified by the Building Code. Use this space for public amenities, shops, and a mix of economic activities to increase the walkability and desirability of neighborhoods/nodes. | 3 | 1 |
| TR.11 | Update the City's Bicycle and Pedestrian Plan (2014) with a focus on creating a viable alternative transportation network that reduces the community's dependency on motor vehicles as well as provides recreational opportunities. Projects should be prioritized based on their ability to reduce overall vehicle miles traveled. | 4 | 5 |
| TR.12 | Where and as appropriate, require developers to implement transportation demand management measures to reduce congestion, improve traffic flow, and reduce greenhouse gas emissions associated with motor vehicle travel. | 3 | 1 |
| TR.13 | Require all new or reconstructed parking structures or lots to install EV charging stations if they meet certain threshold criteria, either by the number of parking spaces or size of the development. This could go in Section 10.1110 - off-street parking. Require all new or reconstructed parking spaces to also provide electrical capacity for additional future EV charging stations. Consider requiring a specific number of accessible stations that meet general requirements for accessible parking in the ADA Accessibility Standards. | 3 | 1 |
| TR.14 | Advocate for a State-level residential sector rebate for the purchase or lease of a new or used electric vehicle (BEV-only). Do so in partnership with other municipalities and in coordination with local and regional environmentally-conscience agencies. | 5 | 1 |
| TR.15 | Work with local and regional transportation partners in conducting a microtransit feasibility study to identify projects that would augment and/or replace fixed-route public transit service. | 3 | 4 |
| TR.16 | Identify partners to establish an electric car share program. | 2 | 1 |
| TR.17 | Raise residential and commercial densities in areas that are within reasonable walking and biking distances to public transit stops. Identify opportunities to further mixed-use developments within these areas. | 4 | 1 |
| TR.18 | Implement already City Council approved rewording of gas station definition to permit EV charging stations in business parking lots, and allow reduced number of parking spaces requirement to accommodate. | 1 | 1 |

| | | | |
|--------------------------------|---|---|---|
| TR.19 | Work with transportation network companies (e.g., rental cars, carshares, ride apps, and taxis) to encourage EV procurement and use. | 3 | 2 |
| TR.20 | Study neighborhood completeness (i.e., amenities and services within walkable and bikeable areas) and work to address gaps through regulatory (e.g., zoning-based incentives) and non-regulatory (e.g., business recruitment, tax incentives) means. | 3 | 1 |
| TR.21 | Adjust the City's Zoning ordinance to incentivize non-vehicular trips and promote increased public transit ridership and active transportation modes. For example, the removal parking minimums, where present, and the codification of parking maximums. | 3 | 1 |
| TR.22 | Establish zero emissions zones throughout the City, where appropriate. In such zones, only zero emissions vehicles and pedestrians/bicyclists would be permitted. Other vehicles would be prohibited or allowed upon payment of a fee. | 3 | 1 |
| Municipal and Community | | | |
| TR.23 | Install solar PV arrays, other renewable energy sources, and/or battery storage at locations with municipally-owned EV charging stations to improve the energy profile of transportation electrification. | 3 | 3 |

| Land Management | | Preliminary Estimates (1 = low, 5 = high) | |
|------------------|---|--|------|
| | | Impact | Cost |
| Community | | | |
| LM.1 | Expand the City's tree cover to combat urban heat, enhance public health, and reduce the energy need for cooling. For example, plant a shade way at locations such as State Street in downtown and Parrot Ave from the Library to Junkins. | 2 | 4 |
| LM.2 | Implement blue carbon strategies (i.e., carbon sequestration through coastal resource conservation). | 3 | 4 |
| LM.3 | Identify publicly-owned land areas - or privately-owned lands for acquisition - that are suitable for new or enhanced greenhouse gas emissions sequestration and storage, for example reforestation/afforestation, forest management, and wetland restoration. Work with private landowners to develop and manage similar projects, where appropriate. This could include improved forest management plans. | 3 | 4 |

| Applicable Across Sectors | | Preliminary Estimates (1 = low, 5 = high) | |
|---------------------------|---|--|------|
| | | Impact | Cost |
| Municipal | | | |
| AA.1 | Adopt an environmentally preferable purchasing policy and include energy efficiency and waste provisions in standard specifications and government contracts. | 3 | 2 |
| AA.2 | With state approval, as necessary, incorporate carbon emissions and the cost of carbon as evaluation criteria in the City's capital planning process and in Department operating budget requests where relevant. | 4 | 1 |
| Community | | | |
| AA.3 | Continue to hold community conversations on climate and sustainability topics to keep momentum going upon CAP completion and to further the culture of climate awareness in Portsmouth. Hold these conversations across the City, but in particular, in neighborhoods that experience/are exposed to the most impact. | Enabling | 1 |
| AA.4 | Raise awareness about local climate impacts through art - shows, installations, local cultural events, etc. | Enabling | 1 |

| Municipal and Community | | | |
|--------------------------------|--|----------|---|
| AA.5 | Appoint a Climate Action Coordinator or similar position to manage the implementation of the CAP. | Enabling | 2 |
| AA.6 | Institute a tourism tax to reduce the greenhouse gas emissions associated with tourist activities. Projects to be funded through this tax could support the tourism industry by positioning Portsmouth as a "green destination." | 3 | 1 |



Herb Lloyd <herb_lloyd@hotmail.com>

Aug 5,
2023,
3:43 PM

City of Portsmouth Municipal Solar Expansion Program - Roadmap

Objectives:

1. Increase the amount of solar on City owned properties
2. Lead by example/action, Portsmouth known as solar friendly
3. Take advantage of federal funds from IRA and other grants
4. Reduce electricity costs
5. Identify projects in which near 100% energy is consumed in adjacent buildings
6. Identify projects with co-benefits like roof mount array on a roof that needs replacement or parking canopy on a parking lot that needs repaving

Existing Municipal Solar Arrays: (High School, Madbury Water Plant)

- Arrays at both sites combined are 578 kilowatts DC and produce more than 700,000 kilowatt hours of renewable electricity annually.
- High school array is located on the roof of the school and generates about 11% of the school's energy needs.
- Madbury array is ground mounted and generates about 25% of the plant's energy needs.

Approach (Program Start):

- Need to establish Municipal Solar Expansion Program through CIP process
 - Part 1 - Consultant (Site Selection, Design, RFP Prepare)
 - Part 2 - RFP, Project Implementation
- Gain support from key city staffers (Peter Britz, Brian Goetz, Peter Rice, etc.)
- Gain support from Portsmouth Energy Advisory Committee
- Gain support from City Councillors

Roadmap:

- CIP Request Submission - September 30th 2023 (Capital Improvement Program FY24-29)
 - Gain support of others with assist building program details to be packaged into CIP request
- EPA Local Government Solar Guide
 - Local Government Solar Goal Setting
 - <https://www.epa.gov/sites/default/files/2018-08/documents/gpp-goal-setting-guidance.pdf>
 - <https://www.epa.gov/green-power-markets/site-project-development-process>
 - Step 1: Establish a solar project development and/or renewable energy usage goal
 - Step 2: Develop a project development plan (optional)
 - Step 3: Assess your solar site opportunities; catalog site information and collect your utility data
 - Step 4: Develop and issue a solar Request for Proposals (RFP)
 - Step 5: Review and evaluate your project proposals
 - Step 6: Select a project proposal and sign a contract
 - Step 7: Build and commission your project
- CENH also has a solid Local Government Solar Project Roadmap

...

Hanover – Energy Subcommittee of Sustainable Hanover

Overview

Statement of Purpose

To lead and support efforts to achieve 100% reliance on renewable sources of energy within the geographic unit of Hanover, NH. Specifically, our mandate was established at Hanover's Town Meeting on May 9, 2017 when voters passed Warrant Article Number 23:

To see if the Town will vote to join the "Ready for 100 Action" campaign, thereby committing to a goal of 100% reliance on renewable sources of electricity by 2030 and renewable sources of fuel for heating and transportation by 2050. Joining the "Ready for 100 Action" campaign implies that the Town of Hanover will lead the community in initiatives designed to help local institutions, businesses and residents transition to 100% renewable sources of electricity and fuel oil. The Town has begun by investing in energy efficiency and renewable electricity generation for Town facilities and will follow by transitioning to vehicles and heating systems fueled by renewable sources.

Exeter – Energy Committee (separate from Community Power Aggregation Committee and Sustainability Advisory Committee)

Review methods to reduce town energy consumption (electric, natural gas, fuel consumption, any fossil fuel consumption);

Review the town's recycling program currently being administered by the Department of Public Works;

Evaluation of annual energy-related legislation being proposed in the state legislature and report to the Select Board on implications for Exeter;

Review the latest IECC energy codes to see if and how they may be adopted by the town of Exeter;

Review the potential for implementing "smart cities" technology including LED lighting that would lead to energy and budgetary savings for the town;

Review opportunities for implementation of solar and other alternative energies in the town;

Review education methods for town residents regarding energy programs and potential efficiencies;

Research and education on various tax incentives available to residents that involve alternative energies for the home and/or business;

Periodic updates to the Town and Select Board regarding energy related programs, initiatives, available grants, etc.;

Review any available state programs and grants to provide for the promotion of alternative energy (primarily through the Office of Energy Planning and NHDES);

Develop recommendations for uses of funds available in the town's energy capital reserve fund, established by Article 34 of the 2010 town warrant;

Review any other programs or activities in town government that may include an energy savings component, “green technology” component, or green infrastructure component.

Durham Energy Committee

Our Vision

In 2025 and beyond, the Town of Durham, along with commercial property owners and homeowners, will continue to realize cost savings while reducing carbon emissions, thereby increasing the community’s resiliency and sustainability relative to energy use. All new construction will be built to high energy efficiency standards that follow current best construction and management practices.

A large proportion of existing buildings, including an aging housing stock, will have been retrofitted to minimize heat loss. In this vision of the future, land use planners will develop recommendations for high density or compactness of new and existing neighborhoods; carefully sited and designed development near the core of the community; and the mixing of uses specifically as a means to reduce energy use for our daily needs.

Rye Energy Committee

Mission Statement

Assess current Town energy use

Evaluate and recommend energy conservation alternatives applicable to the Town

Evaluate and recommend energy conservation alternatives applicable to Rye residents

Help the Town disseminate this information to residents.

Lebanon Energy Advisory Committee

o identify opportunities and make recommendations to the City Council with regard to reducing energy use, increasing energy efficiency, exploring alternative energy usage and reducing pollution, to the environmental and fiscal benefit of the City. Charge modified on February 18, 2009 to include: To promote energy conservation measures for city residents and businesses, thereby cutting greenhouse gas emissions and reducing energy costs for taxpayers.

Also, there is an Energy element to the city’s 2012 Master Plan with goals.

Concord Energy and Environment Advisory Committee

Energy & Environment Advisory Committee recommends best practices in the areas of municipal buildings, facilities and operations; fuels, vehicles, and transportation; food; responsible purchasing; housing; energy sources; air quality; and climate change. They identify policies that the city has already adopted; identify and recommend voluntary actions, projects and programs to the citizens of Concord;

develop a climate action plan; and recommend actions, projects and programs to the City Council for funding

Dover Energy Commission (no other Environment/Climate committee)

The Energy Commission shall advise other boards and committees pertaining to energy plans and sustainable practices such as energy conservation, energy efficiency, energy generation, and zoning practices. In addition, the committee shall assist in reviewing sustainability frameworks such as “The Natural Step” and others and advise on how the frameworks may be incorporated whenever possible into planning, policymaking, and municipal practices, and assist in creating recommendations for the City to strive to be a model EcoMunicipality.

Nashua Environment and Energy Committee (there is a separate Energy Aggregation Committee)

The Environment and Energy Committee's purpose is to further sustainability and livability in Nashua by promoting environmental stewardship and renewable energy, encouraging energy conservation and energy efficiency, reducing environmental impacts and encouraging green initiatives both within the municipality and beyond to reach businesses and residents. The Committee is encouraged to recommend municipal energy and energy efficiency projects that would result in cost savings for the City. The Committee will advise the Mayor and Board of Aldermen on environmental and energy issues.