

# Pembroke Community Power

## *Electric Aggregation Plan Overview*

*November 1, 2022*

**Presented by:** Pembroke Energy Committee

**Presented to:** Pembroke Community



Pembroke Community Power will allow the Town to provide energy supply and related services on behalf of Pembroke's residents and businesses.

Community Power programs create an economy of scale that can result in more affordable electricity and expanded options for renewables and innovative energy technologies.

# Agenda

1. What is Community Power?
2. Community Power Coalition of New Hampshire
3. Electric Aggregation Plan
4. Timeline for Pembroke Community Power
5. Questions & Discussion

# NH Electricity Service Options

	Existing Options			*NEW*
	Utility Default Service	Competitive Supplier / Broker	Self generation (rooftop solar, etc)	Community Power
<b>Enrollment</b>	Opt-Out	Self Initiated	Self Initiated	Opt-Out (PEC recommendation)
<b>Procurement</b>	Semi-annual RFP	Fixed term packaged deals	Personal finance	Active portfolio management
<b>Termination</b>	Self-initiated	Self-initiated with termination fees, or contract expiration		Self-initiated with no fees or penalties
<b>Billing</b>	Monthly from utility	Monthly from utility	Monthly from utility with net metering credits	Monthly from utility
<b>Governance</b>	CEO, board of directors, and shareholders	CEO, board of directors, and shareholders	Individual	Member community governed
<b>Other Benefits</b>			Independence, autonomy	Local control, lower cost, renewables, resilience & innovation, participation in local energy projects

# What is Community Power?

- ~ Community Power programs pool, or aggregate, the demand of customers in a community and purchase electric power on behalf of that community with the goal of **lowering costs** and expanding **access to renewable energy** and other innovations.
- ~ Community Power programs are enabled by New Hampshire's updated Community Power law [RSA 53-E, Relative to Aggregation of Electric Customers by Municipalities & Counties](#).
- ~ The Legislature's intent in enacting RSA 53-E was to “***encourage voluntary, cost effective and innovative solutions to local needs with careful consideration of local conditions and opportunities***”.

# What is Community Power?

New Hampshire cities, towns, and counties can procure **electric power supply** on behalf of their residents and businesses and provide related services.



## Pooled Purchasing Power for **Energy Supply**

- ~ Access to competitive markets
- ~ Lower costs & price stability
- ~ Option to source power locally & access more renewables

## Eversource continues to **Deliver** Power

- ~ Owns & maintains the power grid
- ~ Delivers generation to load
- ~ Ensures reliable electric service

## Community Benefits from **Value Added Services**

- ~ Affordable rates
- ~ Access to green power options
- ~ Time-of-Use rate options
- ~ Solar, storage, electric vehicle support

# Benefits of Community Power



## Local Control

Democratizing energy procurement to the community level



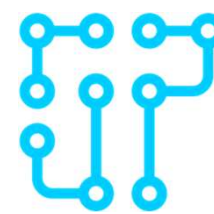
## Lower Costs

MA, NY, CA and other markets have demonstrated lower rates than regulated utilities



## Renewables

Build & Buy Clean Energy  
Support more local renewables



## Resilience & Innovation

New Technologies  
Market Competition  
Price Signals  
Customer Empowerment

***"Pembroke Community Power will only launch if it is able to initially offer rates that are lower than or competitive with those offered by Eversource."***

*(Page 2 of proposed Electric Aggregation Plan)*

# Eversource Electric Bill: Supply & Delivery

*Page 1*

Payment will be sent to bank  
for processing on 09/24/21

**\$145.64**

Amount Due On 08/29/21	\$26.47
Last Payment Received On 08/25/21	-\$26.47
Balance Forward	\$0.00
Total Current Charges	\$145.64

## Current Charges for Electricity

Supply

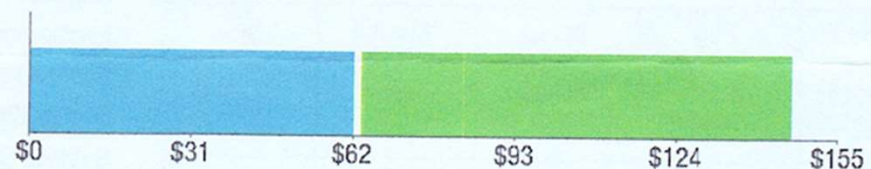
**\$62.31**

Cost of electricity from  
Eversource

Delivery

**\$83.33**

Cost to deliver electricity  
from Eversource



**Your electric supplier is**

Eversource  
PO Box 330  
Manchester, NH 03105-0330

# Eversource Electric Bill: Supply & Delivery

*Page 2*

## Total Charges for Electricity

### Supplier

Eversource

Service Reference: [REDACTED]

Energy Chrg - Rate R	706.00kWh X \$0.08826	\$62.31
Subtotal Supplier Services		\$62.31

### Delivery

(RATE R RESIDENTIAL SVC)

Service Reference: [REDACTED]

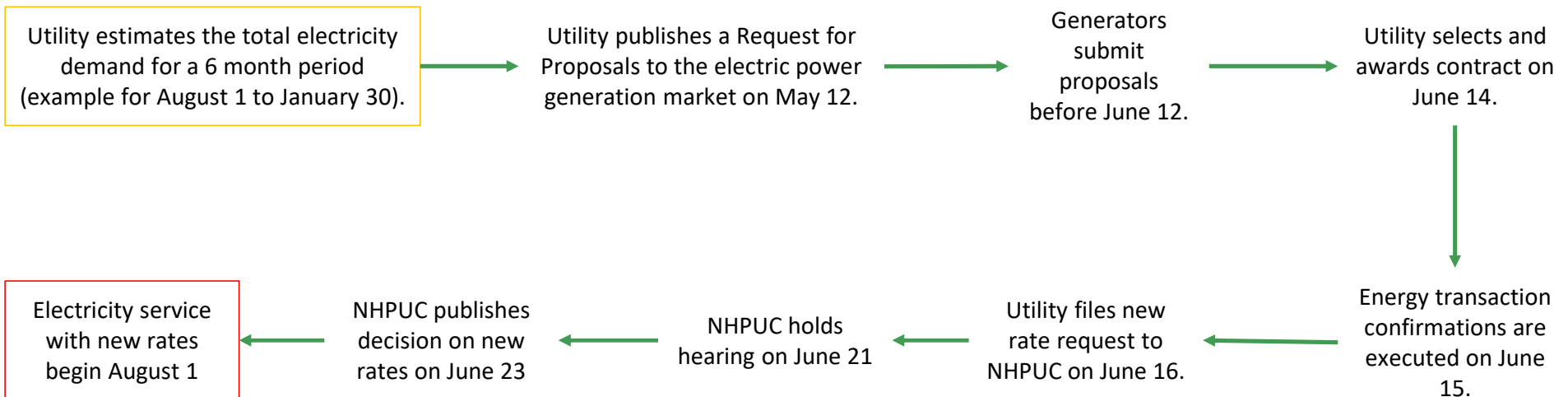
Customer Chrg		\$13.81
kWh Distribution Chrg	706.00kWh X \$0.05177	\$36.55
Regulatory Reconciliation Adj	706.00kWh X \$-0.00016	-\$0.11
Transmission Chrg	706.00kWh X \$0.03046	\$21.50
Strnded Cst Recovery Chrg	706.00kWh X \$0.00896	\$6.33
System Benefits Chrg	706.00kWh X \$0.00743	\$5.25
Subtotal Delivery Services		\$83.33

**Total Cost of Electricity** **\$145.64**

**Total Current Charges** **\$145.64**



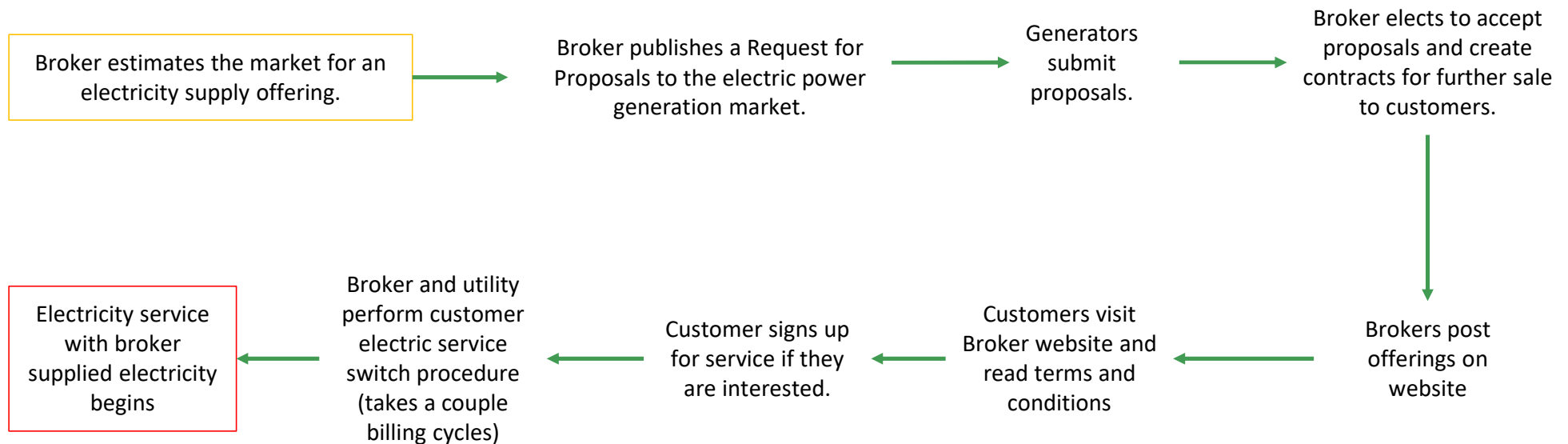
# How do Utility Electric Supply Rates Happen?



**Rigid / inflexible supply rate determination**

*This slide shows exact schedule for the August 1, 2022 Eversource rate.*

# How do Broker Supply Rates Happen?



**Slightly less rigid than Utility, but up to every individual to figure out**

*Illustrative example of a common fixed term contract workflow for residential customers.*

# Key Points

- ~ **Eversource will continue to deliver electricity** to customers, and to own and operate the local distribution system (poles, wires, transformers, sub-stations, etc.). They will also continue to provide customer service and billing.
- ~ The Board of Selectmen, with advisory support from the Pembroke Energy Committee, will be **authorized to contract for the necessary professional services and power supplies to launch Pembroke Community Power.**
- ~ **Participation in Community Power would be voluntary.** After electricity rates are established, all customers will receive information about enrollment. There will be more information about enrollment mechanisms later in the slideset.



**COMMUNITY  
POWER COALITION**  
OF NEW HAMPSHIRE  
*For communities, by communities.*

## 2. Community Power Coalition of New Hampshire (CPCNH, or, “the Coalition”)

# About the Coalition

The Coalition is a locally governed power agency, operating on a not-for-profit basis, providing shared expert services for Member cities and towns including:

- ~ Pooled competitive electricity procurement and economies of scale
- ~ Risk management of a portfolio of power supply contracts
- ~ Retail customer services
- ~ Opportunities for new projects and services
- ~ Joint public advocacy to improve state energy policy
- ~ Shared expert staff servicing all Members

FOR COMMUNITIES, BY COMMUNITIES.



**COMMUNITY  
POWER COALITION**  
OF NEW HAMPSHIRE

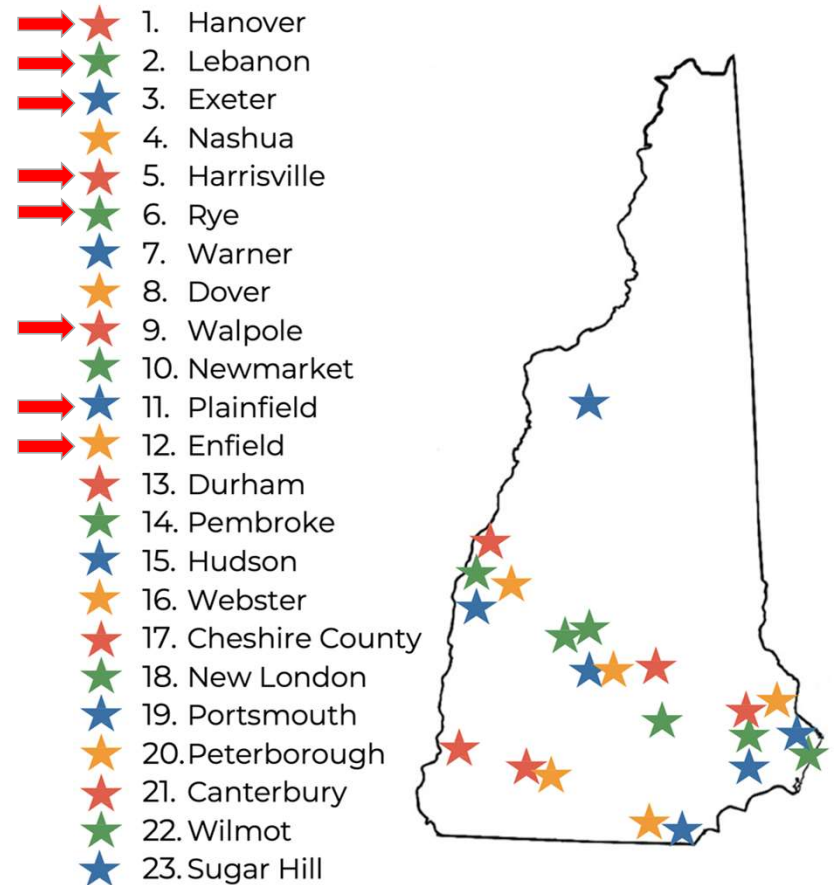
*CPCNH is designed to insulate member municipalities and their taxpayers from financial and legal liabilities of CPCNH and its services, while being accountable to locally elected bodies.*

**CPCNH will become the electricity supplier for Pembroke, if the Town approves the Community Power warrant article during the March 2023 Town Meeting.**

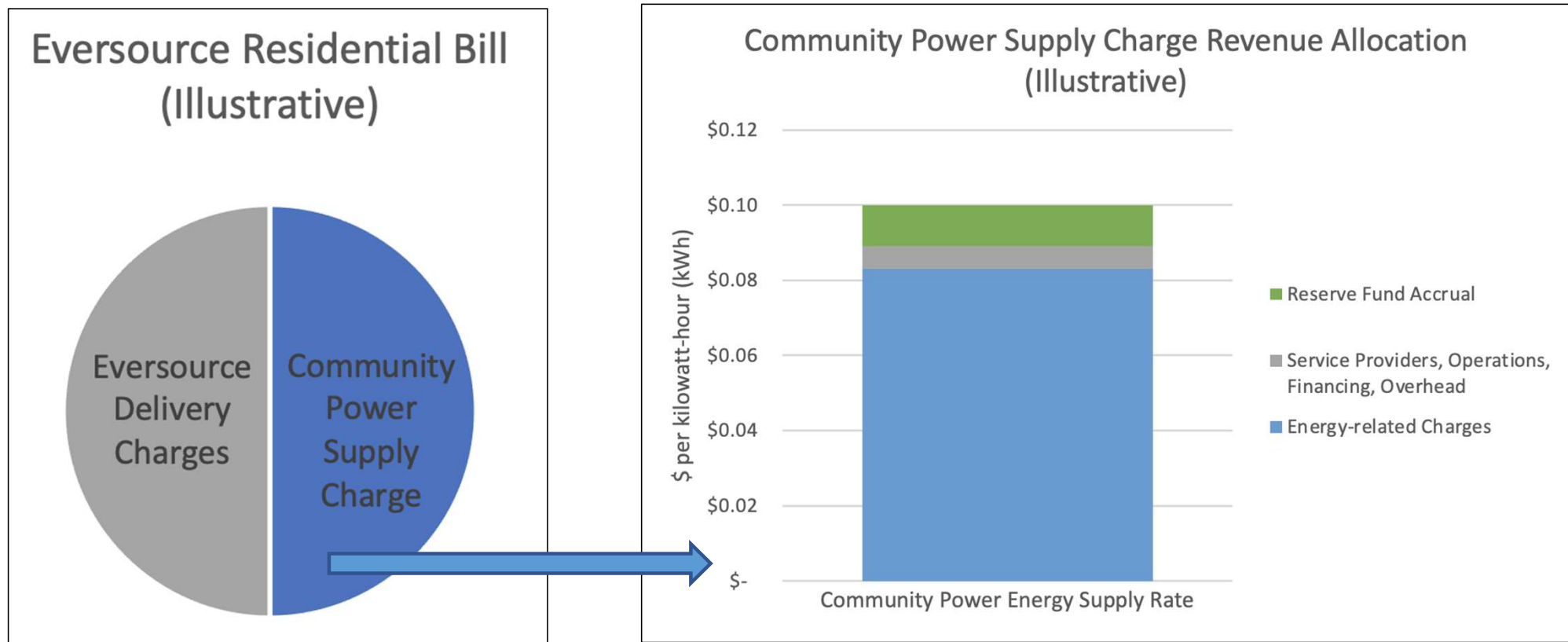
# Coalition Members

- ~ Community-governed not-for-profit Joint Power Agency formed on 10/1/21
- ~ **23 Members representing:**
  - **20% of NH population**
  - ~119,000 customers
  - ~960,000 MWh / year
  - ~\$150 million / year revenues (controlled by communities)
- ~ Target windows for program launch:
  - Spring 2023 for 12 Members
  - Spring 2024 for 8 Members
- ~ Revenues controlled by Member cities and towns
- ~ Empowering communities to develop local renewable energy + storage projects and control energy costs

→ Red Arrow = town vote approved EAP



# Illustration of Energy Supply Charge Revenue Allocation



(Average energy supply rates between 2019-2021 were ~ \$0.08 per kilowatt-hour (kWh). Supply rates have recently jumped to over \$0.20 per kWh. Energy supply rates fluctuate over time depending on market forces, availability of fuel and generators, weather, climate, and other factors. The \$0.10 per kWh supply rate in the graphic is for illustrative purposes.)

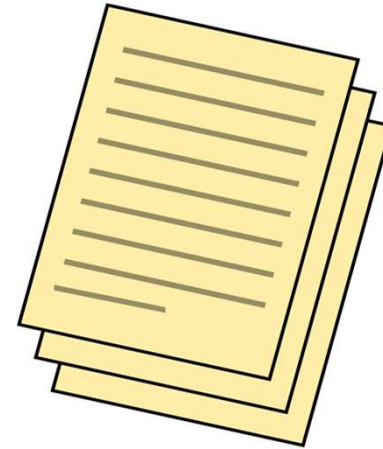
# Pembroke Community Power



**COMMUNITY  
POWER COALITION  
OF NEW HAMPSHIRE**  
*For communities, by communities.*

- ~ Each Member has appointed a Director and an Alternate to the Board of the Coalition to oversee its formation, governance and operations
  - o Matt Miller - Member Board Director
  - o Jackie Wengenroth - Member Board Alternate
- ~ The Board of Selectmen of Pembroke, with the assistance of the Pembroke Energy Committee, will contract for operational services. The Energy Aggregation Plan *assumes, but **does not require***, that Pembroke will participate in the Coalition services alongside other Member communities.
- ~ By joining the Coalition, the Town of Pembroke has accessed the expertise, resources, and legislative advocacy of the other Coalition communities.





### **3. The Electric Aggregation Plan**

# What is the Electric Aggregation Plan?

- ~ The Board of Selectmen designated the Pembroke Energy Committee serve as the Electric Aggregation Committee pursuant to RSA 53-E.
- ~ The Board of Selectmen tasked the Committee with preparing an Electric Aggregation Plan. This is a detailed plan that explains how our Community Power program will operate. It is available for your review on our webpage or at:

[https://www.pembroke-nh.com/sites/g/files/vyhlf4861/f/uploads/eap\\_16\\_pembroke\\_community\\_power\\_22july2022\\_track\\_changes\\_from\\_oct\\_2021.docx\\_-\\_google\\_docs.pdf](https://www.pembroke-nh.com/sites/g/files/vyhlf4861/f/uploads/eap_16_pembroke_community_power_22july2022_track_changes_from_oct_2021.docx_-_google_docs.pdf)

- ~ The Pembroke Energy Committee (also pursuant to RSA 53-E) will hold 2 Public Hearings, on October 4, 2022 and November 1, 2022, to educate the community about the plan and get community input.

# Electric Aggregation Plan Accessible on Town Website

<https://www.pembroke-nh.com/energy-committee>

## COMMUNITY POWER

- Community Power Coalition of NH website
- Community Power Brochure
- Community Power Presentation
- Electric Aggregation Plan Draft ←
- The CPCNH Joint Powers Agreement

**Town of Pembroke New Hampshire**

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### Energy Committee

In the Spring of 2021 after a few years of inactivity, the Energy Committee got back together with new and former members to continue advising the town on energy related matters. Reinvigorated with electrons, the Committee is initially focusing on Community Power and immediately began to educate themselves and the Board of Selectmen on new possibilities for the town to procure its own power based on a list of priorities determined by town residents. In October 2021, the Board of Selectmen voted to approve the town to enter into a Joint Power Agreement with Community Power Coalition of NH, a nonprofit that was established to help towns across the state set up and run their Community Power programs. The Energy Committee is helping to move Community Power in Pembroke forward by performing the necessary outreach to develop a Community Power Plan (CPP), which will detail the energy priorities of Pembroke. Once final, the CPP will go before the town at a Town Meeting for approval (likely 2023).

Expect to see lots happening around town to educate and engage the community on this topic. This is an exciting opportunity for the town and anyone who is interested in participating is encouraged to reach out to the Energy Committee at [pembrokeenergycommittee@gmail.com](mailto:pembrokeenergycommittee@gmail.com) or keep an eye out for one of our monthly meetings.

#### COMMUNITY POWER

- Community Power Coalition of NH website
- Community Power Brochure
- Community Power Presentation
- Electric Aggregation Plan Draft
- The CPCNH Joint Powers Agreement

#### News

MUNICIPAL PARKING CLOSED for STRIPING 10/4/22 (Union St. & Central St.)

PEMBROKE COMMUNITY POWER PUBLIC HEARINGS - October 4th and November 1st 6:30 pm at Pembroke Academy Auditorium

BUILDING PERMITS are now online.

Main Street Road Construction

OHRV use of Town Class IV Roads

[View all](#)

#### Energy Committee Calendar

October

S	M	T	W	T	F	S
		3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

All upcoming events

#### Agendas

# Purpose of the Electric Aggregation Plan

- ~ Defines program goals and objectives
- ~ Defines governance (e.g., process for approving rates)
- ~ Summarizes the implementation process
- ~ Commits Pembroke to comply with applicable statutes and regulations in terms of:

(a) *Providing universal access, reliability, and equitable treatment of all classes of customers;*

(b) *Meeting, at a minimum, the basic environmental and service standards established by the Public Utilities Commission and other applicable agencies and laws and rules.*

## The Plan does:

Address issues required to be considered by RSA 53-E including:

1. How net metering will be provided; and
2. How customers enrolled in the Electric Assistance Program will receive their discount.

## The Plan does not:

- Otherwise commit the Town to any defined course of action; or
- Impose any financial commitment or liability on the Town of Pembroke or its taxpayers.

# Electric Aggregation Plan Overview

## Chapters:

1. Introduction to Community Power
2. Overview of Pembroke Community Power
3. Community Power Coalition of New Hampshire
4. Pembroke's Objectives & Requirements
5. Statutory Requirements for Pembroke's Plan

## Appendices:

1. Legislative Background
2. Community Power Coalition of NH
3. Renewable Portfolio Standard
4. Utility Procurement & Rate Setting
5. Utility Net Energy Metering Tariffs
6. Net Energy Metering, Group Net Metering & Low-Moderate Income Solar Project
7. Pembroke's Public Planning Process
8. Town Policy Excerpts
9. Abbreviations
10. How Load Serving Entity Services will be Implemented
11. Customer Data Protection Plan

# Enrollment Mechanisms

## Opt-Out

1. Prior to launch, eligible customers will be mailed notifications and provided the opportunity to “opt-out” .
  - a. Customers already served by Competitive Electric Power Suppliers will be notified and may request to “opt-in” to the program; and
  - b. Customers currently on default service provided by Eversource will be notified, provided the opportunity to decline participation, and thereafter transferred to Pembroke Community Power if they do not “opt-out”.
2. Customers may Opt-out by notifying the program at any time.
3. Typically **>90% of customers** will remain enrolled and benefit from the program electricity offerings.

## Opt-In

1. Customers must notify the program of their intention to enroll in its electricity service before a next full billing cycle.
2. Typical Opt-in response is **5% to 10% of a population**.
3. The vast majority of electricity consumers will not act and miss the benefit of the program electricity offerings.
4. Opt-in results in loss of economies of scale and diminishes purchasing power.
5. Potential reduction of benefits of enrollment.

**Based on the trade-offs, Pembroke Energy Committee recommends the Opt-Out enrollment mechanism.**

# Pembroke Community Power will

1. **Serve as the default electricity supplier** on an “opt-out” basis (PEC recommendation)
2. **Serve customers using competitive supplier** on an “opt-in” basis
3. **Offer innovative service and rate options to customers on an "opt-up" basis** such as more renewable energy and time-varying rates
4. **Operate on a competitive basis** – Customers will be able to switch back to Eversource energy service or other supplier *with no penalty*.
5. **Be self-funded** by rates paid by participating customers – **The Town will not use taxes to cover program expenses.**

**The Board of Selectmen, with advisory support from the Pembroke Energy Committee, will contract for the necessary services** and power supplies to implement and operate the program, set customer rates prior to program launch, and continue to provide oversight thereafter.

# Customer Notification and Enrollment Process

- ~ At least **30 days before program launch** all **Pembroke electric customers** will be mailed **notifications** that will include the initial fixed rate for Pembroke Community Power service compared with Eversource
- ~ Customers currently on default energy service provided by Eversource will be **able to decline participation or “opt-out”** of Pembroke Community Power by a return postcard, online, or by calling a customer service number.
- ~ If a **customer is already getting their power from a competitive supplier**, nothing will change unless they choose to switch and **“opt-in”** to Pembroke Community Power.
- ~ New utility customers will get similar opt-out notices.
- ~ All Pembroke Community Power default service customers will always be able to know the fixed rate at least 30 days in advance and be able to switch supplier at next meter read upon request with **no penalty or exit fee**.

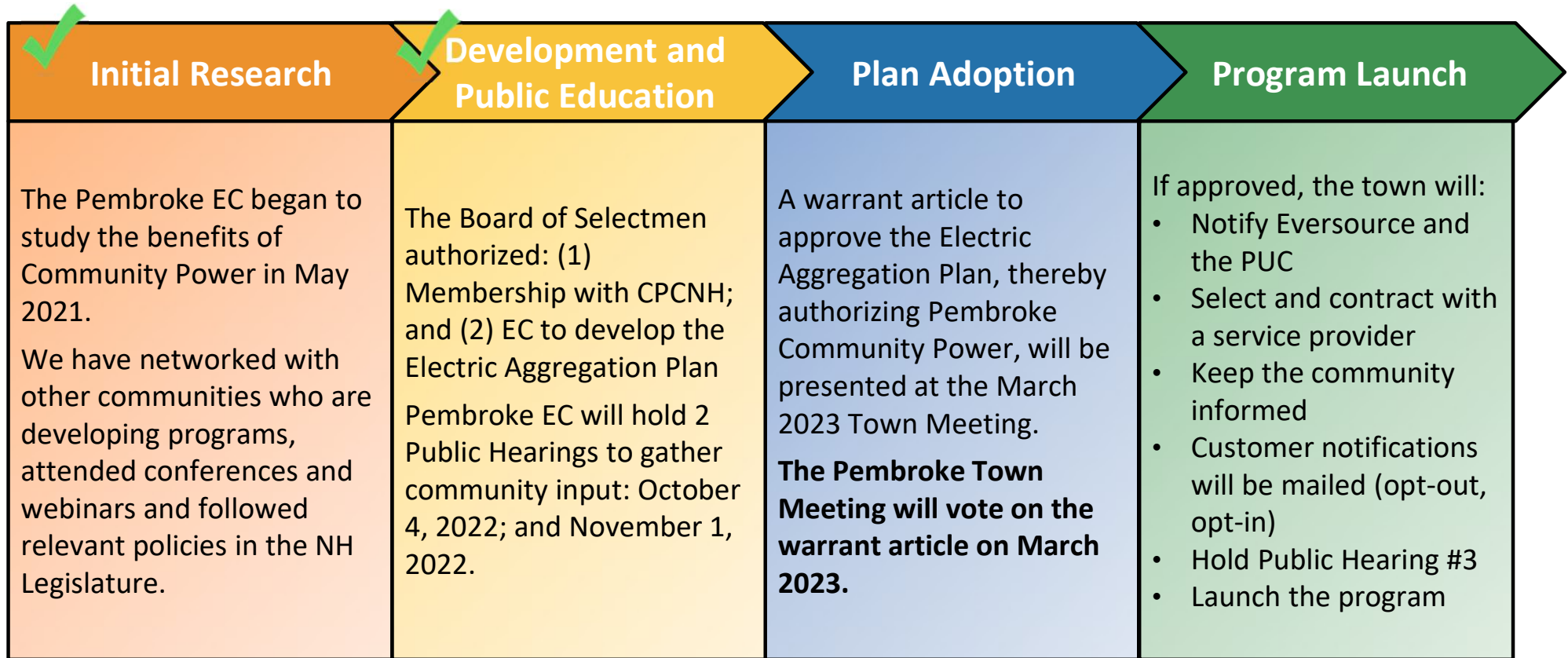


# Key Points

1. Desire to extend benefits of Community Power to many via Opt-out enrollment mechanism
  - a. Default energy supply procured by Eversource serves most residents through an Opt-out enrollment for customers today
  - b. *16% of Pembroke's Residential electricity customers have opted out to Competitive Energy Suppliers*
2. Pembroke Community Power customers may unenroll at any time without penalty
3. EAP must be approved by vote at Town Meeting
4. NH utilities (Eversource) have a restricted electricity procurement process
  - a. Utilities must go to auction twice per year on a specific date—electricity price reflects the market conditions at that moment in time
  - b. Eversource rates change February and August of each year (reflecting their auctions)
5. PEC became interested in more flexible/responsive electricity procurement mechanisms:
  - a. continual engagement in the market (not a regulated utility)
  - b. improved energy and financial risk management
  - c. less rate volatility, likely better rates
  - d. local control
  - e. enable local energy initiatives
  - f. opportunity to “opt-up” to more tailored offerings (renewables, etc)

## **4. Timeline for Pembroke Community Power**

# Pembroke Community Power Timeline





## 5. Questions/Comments



# THANK YOU FOR YOUR INTEREST!



## LEARN MORE AT:

<https://www.pembroke-nh.com/energy-committee>

### Questions? Comments

[PembrokeEnergyCommittee@gmail.com](mailto:PembrokeEnergyCommittee@gmail.com)

- ✓ The Pembroke Energy Aggregation Plan
  - ✓ Presentation on the Energy Aggregation Plan
  - ✓ Frequently Asked Questions
- 
- ✓ **NEXT PUBLIC MEETING** after Town Meeting vote in March



# Example Power Generators Serving NE

1. [Nextera](#)—owns and operates Seabrook nuclear power plant (1,200 MW)
2. [Calpine](#)—owns and operates Granite Ridge Energy Center in Londonderry (700 MW)
3. [Cogentrix](#)—manages Newington natural gas power plant (630 MW)
4. [Constellation](#)—owns and operates 6 oil and gas power plants in Massachusetts
5. [Dominion Energy](#)—owns and operates Millstone nuclear power plant in CT
6. [Granite Shore Power](#)—owns and operates 5 power plants in New Hampshire (total of 1,060 MW)
7. [Ironclad Energy](#)—owns and operates 4 power plants in Massachusetts and Maine
8. [LS Power Development](#)—owns and operates a 12 MW wind farm in NH
9. [Luminant](#)—owns and operates 6 power plants in Massachusetts, Maine and Connecticut
10. [Avangrid Renewables](#)—owns and operates the Groton NH wind farm (48 MW, currently supplying Boston)
11. [Brookfield Renewables](#)—owns 99 MW Granite Reliable wind farm in NH
12. [TransCanada Corporation](#)—owns and operates the 140 MW Moore Hydropower Station in NH
13. about 16% of the region's electricity is imported (hydropower from eastern Canada for example)

**There are over 350 electricity generation facilities across New England**

# Role of Board of Selectmen in CPA Operation

1. Authorizes the formation of Energy Committee and/or Energy Aggregation Committee and approves committee appointments
2. Review and adopts key electricity supply policies
  - a. cost sharing
  - b. financial reserve
  - c. rate setting
  - d. energy risk management
3. Authorizes adoption of Joint Powers Agreement (associated with CPCNH)
4. Assigns board member and alternates to CPCNH member board
5. Receive and assess CPA performance data
6. Formulate feedback to CPA electricity service providers
7. Authority to terminate JPA with CPCNH (need to confirm whether town vote is required)



# Administrative and Technical Support for Community Power

1. How much administrative and technical effort does Pembroke need to expend in order to maintain its participation in a Community Power program?
  - a. No resources are required, but there are greater benefits if there is some level of active engagement and participation between Pembroke and CPCNH (or any alternative energy supplier).
2. What happens if the current energy committee volunteers stop their efforts or lose interest?
  - a. Before CPA is launched—no CPA would launch, nothing would change from the status quo
  - b. After CPA is launched—CPA would continue and Pembroke would continue to receive benefits, however, without any liaison activity, Pembroke would have minimal influence on CPCNH trajectory and may miss interesting energy development opportunities.

# Differences between Community Power and an energy broker (like Direct Energy)?

	Community Power	Broker
enrollment	<ol style="list-style-type: none"><li>Town must develop a plan and approve it by Town Meeting vote</li><li>The community is enrolled <i>en masse</i> (PEC recommendation)</li><li>Individuals may opt out at any time, independently</li></ol>	<p>Every individual resident, business, municipality acts completely independently</p> <p>No benefit to those who do not act</p>
electricity provision	<ul style="list-style-type: none"><li>Actively managed electricity contract portfolio</li><li>term is not fixed, customers may unenroll at any time without penalty.</li><li>Any electricity rate change will be communicated at least 30 days before it takes effect.</li></ul>	<ul style="list-style-type: none"><li>Fixed term contract (typically 6 to 24 months).</li><li>Typically early termination of the contract will result in a termination fee.</li></ul>

# Differences between Community Power and a Utility?

	Community Power	Utility
enrollment	<ol style="list-style-type: none"> <li>Town must develop a plan and approve it by Town Meeting vote</li> <li>The community is enrolled <i>en masse</i> (PEC recommendation)</li> <li>Individuals may opt out at any time, independently</li> </ol>	Opt Out enrollment into the utility's default electricity service
electricity provision	<ul style="list-style-type: none"> <li>Actively managed electricity contract portfolio</li> <li>term is not fixed, customers may unenroll at any time without penalty.</li> <li>Any electricity rate change will be communicated at least 30 days before it takes effect.</li> </ul>	<ul style="list-style-type: none"> <li>Electric rate fixed for 6 months based on semi-annual request for proposal (RFP)</li> <li>Electricity rate will reflect the energy market during the short RFP window</li> </ul>