TOWN OF PEMBROKE

Town Hall ~ 311 Pembroke Street, Pembroke, New Hampshire 03275 Tel: 603-485-4747

Pembroke Energy Committee

August 30th, 2021

7:00 PM

1. Call to order & attendance
2. Review and acceptance of July 19th, 2021 minutes
3. Update on CPCNH
    a. status of JPA review
    b. status of invitation to September 22nd Board of Selectmen meeting
    c. CPCNH semi-weekly organizers call recap
4. Capital Improvements Planning meeting recap
    a. Networking with other town committees
5. August 24th Building / Facilities meeting with Public Works recap
6. LES Conference on October 8th, 2021 - finalize attendees
7. Any other business

a. Lifecycle analysis calculations of biomass as an alternative to petroleum in an ICE

b. Meeting with Ryan Polson from Standard Power of America

c. Future committee initiatives

8. Adjournment

Minutes of the meeting

Meeting started at 19:00 eastern time—in person.

In attendance: Pentti Aalto, Jackie Wengenroth, Richard Wengenroth, JJ Smith, Matt Miller, Karen Yeaton

Visitors: none

The live stream camera was turned on.

Richard opened the meeting at 19:06

July 19 Meeting notes reviewed: Motion made to accept the July 19 meeting minutes--and they were accepted.

<u>Update on CPCNH</u>

1) Pembroke town lawyer has begun to read the JPA.
2) David Jodoin has reached out to Shawn ___, the Lebanon city administrator.
3) We expressed hope to get on the September 22 agenda; Karen confirmed that it is up for discussion. Henry Herndon is willing to join the September 22 Select Board meeting if we get on the agenda.
4) During the August 19 CPCNH semi-weekly call:
    a) Reviewed advice and housekeeping on the JPA (minor edits, typos, adding definitions, specifically adding electric vehicle projects as an example of a local power project that could be formulated).
    b) Newmarket and Plainsfield have joined the JPA. Now total membership is 11.
5) There will be an October 1 Board meeting
    a) 09:00 to 11:00 -- ceremony to sign the incorporation documents and general meeting. This part of the board meeting will be open to JPA members only.
    b) 12:30 to 14:00 -- social event for public and towns interested in joining

<u>Capital Improvements Planning (CIP) Recap (August 5, 2021)</u>

1) CIP looks at town expenditures over a 3 to 5 year timeframe. They prioritize those expenditures to level-load the financial impact and avoid spending and tax bottlenecks. They evaluate opportunities during July and August, and then develop the plan for the town to vote upon.
2) Jerry recommends that the Pembroke Energy Committee reach out to other committees to find ways to contribute to energy opportunities.
3) Energy Committee does have a reserve account. The energy committee needs to present projects to the Select Board. The Select Board can agree to disburse funds from the energy committee reserve account if they are convinced of the merits of the project.
4) Pembroke Energy Committee should explore matching fund grants when they are formulating project ideas.

<u>August 24th Building / Facilities meeting with Public Works recap</u>

1) Matt and Pentti attended the meeting, which began at 13:00 at the town library, then migrated to the Public Works shop on 8 Exchange St.
2) There were at least two different parties visiting Pembroke Building and Facilities committee.
    a) NH Saves Contractor (related to Eversource, Liberty, Unitil, and NHEC). Promoting anything that can save electricity, programs that improve conservation. Main contact is Tori (Tgerlt@resilientbuildingsgroup.com)
        i) LED conversion rebates
        ii) Insulation rebates
        iii) Weatherproofing building envelops for buildings supplied by Liberty natural gas
        iv) VFD upgrades for single speed motors.
    b) A weatherproofing contractor--I missed the name
3) Library currently has R-38 in the ceiling, fiberglass wool covered in a poly-vapor barrier. Following problems likely cause poor insulation efficiency.
    a) The R-38 insulation requires 12” trusses, but library only had 8” trusses, so the insulation was just crammed into place and likely does not perform properly.
    b) The roof valleys are not vented.
    c) The poly-vapor barrier is deteriorating and no longer competent.
    d) Complicating repairs is the presence of several cathedral ceiling portions, which must be demolished in order to access and remediate the insulation. One suggestion is to remove the cathedral ceilings and replace with a drop ceiling.
4) Public works building notes
    a) Current ceiling mount propane burner is broken. Tori provided examples of new systems, some of which come with significant rebates. The biggest rebates were for high performance gas burners. Relatively small rebates are offered for infrared heaters.
    b) Recommended to upgrade the natural gas water boiler.

c) Question about value of rooftop solar. The Public Works building gets a lot of sun.
d) VJ sent us the monthly electricity bills for the past 18 months. The monthly electricity bill for Public Works varies between $408 and $600, with an expected value around $500/month.
e) JJ has some electricity consumption data from 2019. The three highest municipal consumers are:
   i) Safety center (~11,700 KWhr / month)
   ii) Public works (~2,760 KWhr / month)
   iii) Town hall (~2,720 KWhr / month)

LES Conference on October 8th, 2021 - finalize attendees

1) Matt Miller, Richard Wengenroth will use the complimentary tickets.
2) Other people may attend as they wish.

Other Business

1) Biomass, biofuel (diesel fuel substitute from renewable biomass sources) lifecycle analysis as a fuel for Internal Combustion Engines. Just a few background notes for this meeting.
   a) First--there have been significant increases in biodiesel fossil energy balance over the past 20 years (ratio of energy out to fossil energy in = 3.2 in 1998, 4.5 in 2002, 5.5 in 2011). This study was biodiesel from soybeans, gains were enabled by agriculture efficiencies, crop yield gains, soybean processing efficiencies, biodiesel transesterification efficiencies. The same publications are showing overall biodiesel energy balance (ratio of energy out to total primary energy in) is around 0.84, which is surprisingly low to me. Needs more investigation. http://www.biodieselmagazine.com/articles/7948/biodiesel-energy-balance-surpasses-5-5-to-1
   b) There are many sources of biomass, and many processes to produce a biodiesel that meets some specification.
      i) Soybean
      ii) Vegetable oil (canola, rapeseed, palm, etc)
      iii) Animal fat
      iv) Algae
      v) Grasses
      vi) Municipal solid waste
      vii) sugar
   c) Lifecycle analysis is not standardized, and complicated. The boundary conditions are important to define and difficult to delineate from various publications. Here is a condensed outline of what was considered in one LCA for soybean conversion to biodiesel B100. https://www.nrel.gov/docs/legosti/fy98/24772.pdf
      i) Produce soybeans •

ii) Transport soybeans to a soy crushing facility •
iii) Recover soybean oil at the crusher •
iv) Transport soybean oil to a biodiesel manufacturing facility •
v) Convert soybean oil to biodiesel •
vi) Transport biodiesel fuel to the point of use •
vii) Use the fuel in a diesel bus engine.

d) So far, I am seeing the carbon advantage of biofuel is that emitted biocarbon is accounted to be consumed by photosynthesis to grow new crops. This requires some additional evaluation--is there unaccounted for biocarbon release during primary field preparation, during the disposal of the non-oil bearing part of the plant, etc?
e) Other trade-offs (figures based on 1998 DoA and DoE report, will find figures from more recent studies).
    i) Biodiesel uses around 6 times more fossil fuel to produce than petro-diesel.
    ii) Biodiesel uses around 3000 times more water than petro-diesel.
f) Discussion about renewable liquid fuels as energy source versus solar and wind renewables for electric power generation. Concept of using excess power from solar and wind to drive biofuel manufacturing. The biofuel is an efficient way to store energy, which could then be burned to generate electricity when solar and wind generation is below electricity demand.

2) Science Cafe in Concord (http://sciencecafenh.org/index.php/about-science-cafe-nh/)
3) My Climate Journey Podcast (https://www.myclimatejourney.co/)

Summary of July 19, 2021 Action Items:

1. Richard will ask for $250 for CENH annual membership at the July 21, 2021 Select Board meeting.
2. Richard will ask for an invitation to a near future Select Board meeting so we may present our recommendation to join CPCNH as a Phase 1 member (no cost, no obligation).
3. Matt and Pentti to attend the July 20 webinar from Standard Power (an electricity brokerage service). Notes from July 20, 2021 webinar Community Power with Standard Power and Good Energy.

https://register.gotowebinar.com/recording/recordingView?webinarKey=7545249428202456591&registrantEmail=mattslb94%40gmail.com

1. Robert Hayden (sales director CTO at Standard Power of America), Emily Manns (Community Power Consultant at Standard Power of America), Daria Mark (Marketing and Communications Coordinator, New England at Good Energy, LP). hosted by CENH (Joshua Singer, josua@cleanenergynh.org)

    1. B.hayden@standardpower.com

    2. daria@goodenergy.com

2. flexible program. Community can effectively hire Standard power and Good Energy can do all the work to develop plan, community outreach, marketing, etc..

3. Standard Power

        1. NH electricity broker serving over 65 municipalities and school districts including municipal buying groups
        2. Administrator of the largest group net metering program in NH
        3. Solar/Hydro/REC integration for multiple communities. Help communities integrate their own renewables.

    4. Good Energy
        1. 10 years community power experience
        2. New England regional team
        3. 40 active programs and groups in MA
        4. Buying group launched in 2021 in RI including Providence
        5. Savings achieved across all New England programs >$80 million (what % of total is that?)
    5. Standard Power and Good Energy have partnered together to offer community power options in New Hampshire. Good Energy has the community power experience, Standard Power has the NH electricity broker experience.
    6. What is Community Power?
        1. A municipal program that offers benefits and protections to residents and small businesses through group electricity purchases and supply choices.
        2. Supply + Delivery à Customer
        3. Supply is the sources of electricity—You the community can choose. More transparency, more vetting, more local control. Requires a Community Power Plan.
        4. Deliver is the wires and poles—delivery will always be the utility
        5. Customer will always receive a single bill
        6. Community power basics
            1. Multiple options for electricity supply (renewable, renewable conventional mix, or lowest cost)
            2. All electricity customers can participate
            3. Voluntary participation—no penalties or cancellation fees for individuals
            4. Automatic enrollment for those on standard utility service (Eversource)
            5. Low income and net metering customer options
            6. Buying group or individual—you can do Community power with Standard/Good as an individual, groups, town, groups of towns, or any groups of others.
        7. Community Power Benefits
            1. Competitive electricity rates, strategic buying

        2. Local control—you get to decide options as long as they meet state standards
        3. Price stability—multi-year contracts
        4. Consumer choice and protections, education and awareness
        5. Innovative local programs—where does our community want to go with respect to renewables, local power and how to get there with tools available.
        6. Renewable energy
        7. Energy planning
        8. Education and awareness
    8. Getting started
        1. From our team
            1. Appoint a Community Power Committee
            2. Standard Power and Good Energy provides a Memorandum of understanding, that outlines their support-- draft materials and full assistance from experienced team. The amount of support depends on the level of support the community wants. Working under the MOU is no risk, no cost to the community. This MOU is analogous to the JPA of CPCNH. Standard Power is taking risk by offering their support. The payoff is if the community hires Standard/Good to execute their Community Power Plan.
        2. Plan and Approve
            1. Customize draft Community Power Plan with public input
            2. Secure local approval of plan (Town meeting or City Council)
        3. Regulatory
            1. Notify Public utilities commission and utility
        4. Outreach and launch
            1. Procure electricity supply
            2. Implement public education and opt-out campaign
            3. Launch! Eligible accounts that have not opted out are automatically enrolled
        5. Manage and Monitor
            1. Provide ongoing customer support outreach, opt up campaigns, data management and analysis, planning and more
    9. Keene Community Power Plan is the first plan developed with Standard/Good. This plan still needs approval by the Public Utilities Commission/Energy Department. Probably 3 to 4 months away from approval.
7. What is Standard/Good approach—this is where Standard/Good are differentiating themselves from CPCNH

    1. Standard/Good are offering a competitive retail model. A 2-page MOU outlines a supplier guaranteed contract. The supplier retains all the risk of creating, securing and providing supply. Municipalities and customers are insulated from risk.
    2. CPCNH energy aggregation plans. A 40 page Joint Powers Agreement goes into the details of how the program is administered, powers, bylaws, risk management, enrollment, etc. Standard/Good allege that this type of complex arrangement exposes CPCNH to risk of bankruptcy and thus arising additional customer charges.
    3. Matt Miller's commentary on this point—I believe it is a legitimate discussion to understand the trade off's of the two different business models and modes of operation of CPCNH and Standard/Good. I felt Standard/Good was undermining CPCNH through some bankruptcy risk scare tactics without explaining the actual tradeoff details between their MOU and the CPCNH JPA.
    4. Standard/Good commitment
        1. We are your consultant, strategist, designer, buyer's agent, legal representation and customer support, OR we can do this stuff with you
        2. So town staff can focus on community goals, informed decision making and approvals, evaluation and feedback.
8. The Buying Group
    1. Standard power and Good Energy have been doing buying groups for many years (up to 9 years). There is no formal agreement with the communities. Only ask that communities come together when the Buying Group does the bidding, so that there is some involvement to decide and agree upon the right electricity supplier.
    2. Individual plans, group buying
        1. Full service
            1. Template documents
            2. Outreach to learn what the community residents prefer
            3. Strategy
        2. No cost
        3. No risk—if something goes wrong, it is on the electricity supplier. Financial risk will not come to the consumer.
        4. No obligation
        5. Only top national suppliers are contracted to provide electricity
        6. All this stuff occurs under the 2-page MOU. Matt Miller read this MOU and notes the following.
            1. it is indeed very short and to the point. It has a clean termination clause and is no cost no obligation. But,... A lot of detail is hidden with the phrases "A detail of these services (responsibility of the consultant) will be provided in a formal Services Agreement at a later date." and "A

detail of these responsibilities (responsibilities of the Municipality) will be provided in a formal Services Agreement at a later date." I would want to see what a complete Services Agreement looks like before signing an MOU.
2. Also, I read and compared the Keene Community Power Plan (available on their website, which was developed by Standard / Good) with the Lebanon Energy Aggregation Plan (available on their website and mirrors CPCNH). I provide additional notes on this topic in the Appendix of these meeting minutes.

9. NH Legislative agenda—both bills likely to be signed by the Governor during August.
    1. SB 91—renewable energy omnibus bill passed House and Senate
    2. HB 315
        1. Community Power Bill – “relative to the aggregation of electric customers”
        2. Strong bipartisan support for Bill as amended by working group consensus
        3. Anticipate strong support of the Governor’s office
        4. SB 109 – Municipal net metering – rolled into HB 315. Municipal permission to use local projects from 1 to 5 MW.
10. Q&A
    1. Grace Garvey of Plymouth—what would constitute a small business? Uses less than ~200KWhr per year, has a key meter, would be eligible if they don’t already have a 3rd party electricity supply contract.
    2. Brad Roscoe—currently have a rated meter under Eversource heat smart program. How will that special meter be affected by the community power plan? Community Power is compatible and will work together with Heat Smart program, will not lose the special discount electricity discount.
    3. Fred portnoy—what is distinction between Buying Group and Community Power? Community Power is the name of the program a city or town will run. A Buying Group is how an individual, or a Community Power program actually performs transactions to purchase electricity. The buying group is an aggregation of numerous towns and communities. Matt Miller commentary—I believe CPCNH enables municipalities to aggregate into a buying group as well.
    4. Bruce Norland—what is an MOU? A non-binding agreement for Standard Power/Good Energy to work together with the town to develop the plan and get Energy Department’s Approval of the Community Power Plan. After that time, the town needs to decide who to hire to execute their power plan. Standard/Good hope the town will hire them.

But a town could find another company, or join CPCNH, or something else.

5. Grace Garvey—give an example of a community that has been doing Buying Group and what is benefit. 25 communities in MA have been doing this for about 6 years. Standard/Good does not have the savings figures.
6. Grace Garvey—why should we go through Standard Power as a middle man? Standard/Good have never seen a community try to do it on their own. Standard/Good has a lot of experience in building plans, getting approvals, soliciting electricity supply proposals, risk assessments, etc. Too much specialized knowledge and experience.
7. Charlie Agnew—would it be simpler and more flexible to buy REC (renewable energy credits) to replace the Community Power option? Yes, it is an option, some municipalities already do this. But, it is very difficult for the community to allocate costs from the individual RECs and follow up with other accounting.
8. Peter Nelson—how do you identify qualifying low and moderate income accounts that want to participate in Community Power? This information comes from the Utility. They cannot access the information until a Community Power Plan is approved.
9. Does a town need to vote on a Community Power Plan? Yes, once it is complete, yes a town must vote to approve a plan.
10. Anthony Sophenza—is there any guarantee that the Group electricity rate will be lower than the Utilities rate? No, but you know the utility price is when you are receiving bids. If the bids are better, then typically accept the bid, if Utility is better, then typically remain with utility. But, keep in mind the Utility will be 6-month fixed price, where the Buying Group can be different term contract, that is sourced from a competitive market. Actually Standard/Good repeatedly discuss multi-year electricity source contracts. They do a lot of background work to assess whether the bids are competitive now and in the future. Also, individuals can go back to the Utility at any time with no penalty.
11. Grace Garvey—how are Standard/Good funded? They are both for profit companies. They take a fee from every KWh an individual, business, Group purchases?
12. What would happen to my 1:1 net metering contract with Eversource if I leave? Depends on rule-making that has not yet occurred. Waiting for rule making session to define these things more clearly.
13. Lisa Sweet—does the Community Power Committee decide on the electricity options offered? Or does Standard/Good decide that? The options offered should be based on feedback from the community outreach activities to learn what the communities priorities are. The Community Power Plan is reviewed once per year in the context of regulation changes, communities priorities changes.

14. Joseph Kubit- what happens to a town's solar array under a power purchase agreement (PPA)? Right now a town's purchase agreement is to serve the municipal power load. It sounds like there may be a carve out for municipal meters that are not served by the town solar array (remember you can only opt-in if you are served by the regular default utility provider).
15. Can an unincorporated community participate in a buying group? Assume yes, but nobody has seen explicit rules on this topic.
16. Can a buying group be based on price only, excluding politics and energy source bias? Yes, if that is solely what the community wants.
17. Anthoy ruau (?)--The Nashua regional planning commission aggregates a bunch of communities and school districts within its authority. How is this different from Community Power? It is kind of similar, enjoys the benefit of leveraging buying power of a larger group. If there is one difference, Nashua is focused on municipal buildings and not residential power.
18. Pentti Aalto—would you offer a real time price for electrical power be available to customers who want it? When Utilities all offer time of use monitoring, then these types of pricing options will become possible. Grid modifications and acceleration of dockets at the Energy Department to enable modern time of use monitoring/metering.
19. Joel Heberman—would Standard/Good partnership offer plans to a community in which individuals would be able to select from a lowest price plan or a renewable energy plan? Yes.

4.

NEW ACTION ITEMS

1. Matt to ask Bob Hayden, President of Standard Power to present its community power offering to our next committee meeting. Currently, we are evaluating September 7 and September 16 as options.
2. Richard will follow up with David Jodoin to access all of Pembroke municipal energy bills. These bills will help the energy committee understand where the largest energy consumption is and help us prioritize conservation activities..
3. Matt and Richard to attend LES conference October 8, 2021.

Meeting adjourned 20:25.

Next Meeting TBD, 19:00, Pembroke NH Town Hall.

Appendix--notes regarding Keene Community Power Plan and Lebanon Energy Aggregation Plan.

Keene Community Power Plan

1. **Keene Community Power** (CP) is a City-operated group purchasing program that pools the electric use of residents, businesses, non-profits, and property owners to provide competitively priced electricity options. The program offers Keene electricity customers with a City-vetted alternative to Eversource's default service and other third party electricity suppliers.
2. Eversource continues to deliver electricity and manage all billing. The only change will be the source and cost of electricity supply, chosen by the City of Keene through a competitive bidding process. The program is part of a larger effort to transition to 100% renewable energy by 2050.
3. Note: very nice community website, good community survey. Structured approach to develop plan, public hearings, public comments, marketing outreach, community education resources. All these factors will take a lot of effort for a town like Pembroke. Getting support (like it appears Standard and Good provided) is important and valuable.
    1. Keene Community Power Committee was started in mid 2020 and met since July 2020 to develop a Community Power plan with input from Keene citizens.
    2. City of Keene ran a survey for one month in Dec 2020 and early 2021 to gather input on program benefits and features.
    3. Draft plan was released in early February 2021. City invited public review for almost 2 months including two public hearings on March 30.
    4. The Keene Community Power Committee voted unanimously to approve the plan on April 8, 2021. The plan was then submitted to Finance, Operational, and Personnel Committees, which recommended approval to the City Council.
    5. May 6, 2021, Keene City Council unanimously voted to adopt the plan.
    6. City of Keene submitted the plan to Public Utilities Commission for their review and approval (I believe it was approved)
    7. Keene will assess market conditions to identify the optimal time to select an electricity supplier for the program.
    8. There will be additional outreach and community education about the Community Power Program once the electricity supplier has been selected.
4. City of Keene passed a resolution in 2018 to achieve 100% renewable electric energy by 2030 and 100% replacement of thermal and transportation energy to come from renewable sources by 2050. This resolution is an important motivation for the Community Power Plan.
5. The community power plan references public input and survey to illustrate broad support for renewable energy options and demographic breakdown of energy price tolerance. The community goals translated into specific goals for the Keene Community Power Plan
    1. Establish a standard electric supply product that delivers economic value at competitive rates, with more renewable energy content and supports the growth of local (within the ISO-New England electricity grid) renewable energy.

    2. Increase contribution of renewables toward 100% renewables for the entire program by 2030 using option products, tools and incentives that are defined in their power plan, i.e., rooftop solar, net metering, develop larger scale local renewable energy plants, local energy efficiency initiatives, time-of-use rate structures.
    3. Engage the community to propose new ideas and resources
    4. Work with regulators, utilities and suppliers to craft solutions and remove barriers to access all cost-effective solutions
    5. Expand the program's impact by sharing information and materials with other communities with similar goals.
6. The plan explains the process to develop and approve the plan.
    1. This plan was developed through the following process, consistent with New Hampshire Revised Statutes Annotated (RSA) 53-E: 1. Creation of Community Power Committee 2. Creation of a Draft Plan with public hearings, 3. Approval of Plan by Community Power Committee, 4. Adoption of Plan by City Council, and 5. Submission of Final Plan to Public Utilities Commission.
7. The plan outlines customer participation
    1. Applicable classes of customers (residential, commercial, industrial)
    2. Universal access to all customers under equitable terms. All customers receiving default supply will be eligible for automatic enrollment. All customers have the right to opt out at any time with no charge.
    3. Classes of customers will be treated equitably, not all classes of customers will be treated equally. Prices will vary depending on customer class, options selected, and whether a customers automatically enrolls or joins at a later time (due to missing the electricity procurement cycle and needing to procure on the spot market).
    4. Passage addressing how the program will ensure supply reliability has both physical and financial components. The Electric Supply Agreement (with supplier) defines all the requirements to meet the physical and financial components to satisfy the NH statues for electricity supply reliability.
8. Organizational structure
    1. The Community Power Committee voted to request the Mayor constitute an ad-hoc CPC to develop and approve a Community Power Plan for submission to City Council, hold public hearings, solicit input, revise plan, and submit for approval to City Council.
    2. Additional paragraphs define the role of:

        i. City Council (review and approve proposed amendments to the plan),

        ii. City Manager (provide direct management and oversight of the plan on behalf of City, meet regularly with the Community Power Consultant and provide oversight, authorize the issuance of bids for power supply, shall negotiate and execute an electric service agreement consistent with products and goals of the Plan),

iii. Community Power Consultant (manage certain program activities under direction of city manager, including managing the supply procurement, developing and implementing the public education plan, interacting with the electric distribution utility and monitoring the supply contract. Through a competitive procurement process Keene has selected partnership of Good Energy and Standard Power to provide these services),

iv. Competitive Supplier: will provide power to for the Program and other services outlined by the Electric Services Agreement

v. Buying group: the city may elect to join with other municipal aggregators in combining its load for purpose of soliciting bids from Competitive Suppliers. The city shall be represented by the City Manager on the executive committee of the buying group.

vi. Retail electric customers: all electric customers taking distribution service of electricity within the geographic boundaries of the City of Keene.

9. Electric Supply Product Options
    1. Default product (automatic enrollment)—Keene Local Green, maintain cost parity with Eversource default service, include 5 to 10% extra renewable energy in initial ESA.
    2. Optional products

i. Keene Basic—lowest cost option, same level of renewable energy as Eversource default service.

ii. Keene 50% local green—up to 50% local renewable energy above the Renewable Portfolio Standard.

iii. Keene 100% local green-- up to 100% local renewable energy above the Renewable Portfolio Standard.

10. Operation
    1. The implementation of the Community Power Program requires extensive interaction between the City, the Competitive Supplier, and the electric distribution utility. Following adoption of the Plan by the City Council, the key operational steps will be:

i. a. Issue a Request for Proposals (RFP) for power supply and select a Competitive Supplier—supplier requirements are established in the RFP. Suppliers will be required to agree to terms and conditions of the ESA. It looks like Keene is mostly considering power proposals for 12, 24, 36, and 48 month terms. City Manager in consultation with Community Power Consultant will review the proposals and select winners and then execute an Electric Service Agreement with the selected supplier(s). If none of the bids are satisfactory, the city will reject the bids and repeat the solicitation process.

ii. b. Implement a public information program, including an opt-out notice -- The purpose of the Education and Outreach Plan is to raise awareness and provide retail electric customers with information concerning their opportunities, options and rights for participation in the Program.

iii. c. Enroll customers and provide service, including quarterly notifications and annual reporting-customers will be enrolled no sooner than 37 days from postmark on the opt-out notice. The Program will provide all-requirements power supply service once customers are enrolled. Program will provide ongoing customer service, maintain Program website, process customer enrollments, ongoing opt outs, and customer selection of optional products. Should the City not accept any bids for electricity supply, then participating customers will return to the Default Service (Eversource?). There will be an annual report issued by the City Manager on the status of the Community Power Program. The Community Power Consultant will make available to the city manager a secure, password-protected data portal that provides the ability to run reports on key program metrics and performance.

iv. d. Plan for program evolution-- the Community Power Consultant and City will regularly assess new opportunities such as technologies, services, regulatory policy changes, and more for their applicability to the program. Community Power Consultant will develop appropriate strategies to integrate these opportunities into the Program. Community Power Consultant will support the City to present new opportunities to the City Council for their consideration and approval, if amendments to the Plan are needed.

11. Funding: all costs of the program will be funded through the ESA. There will be a per KWhr implementation fee that will be paid by the Competitive Supplier to the Community Power Consultant as specified in the ESA. Implementation fee includes
    1. Services of the Community Power Consultant, including developing the Community Power Plan
    2. Managing the supply procurement
    3. Developing and implementing the public education plan
    4. Providing customer support
    5. Interacting with the electric distribution utility
    6. Monitoring the supply contract and,
    7. Providing ongoing reports.
12. Rate setting and other Costs to Participants

    1. the power supply charges of the Program will be set through a competitive bidding process and will include the implementation fee and applicable taxes pursuant to the ESA.
    2. At least 30 days prior to the implementation of a price change (due to new contracts or regulations or taxes, etc) consumers will be notified by media release.
13. Net metering compensation
    1. The Program will determine terms and conditions for net metering in accordance with RSA 362-1:9,II. It will seek to offer terms and conditions equal to or bettern than that provided on Default Service (Eversource).
14. Electric Assistance Program and other discounts
    1. The participants in the Program who are enrolled in the EAP will receive their discounts by the same method they presently receive their discount. Participation in the Program is independent of enrollment in the EAP and does not impact the EAP discount. Other discount programs administered by Community Action Programs that address the needs of low-income residents would continue for participants in the Program.
15. Aggregating Municipalities and Buying Group
    1. Keene will evaluate opportunities for such a buying group before issuing a bid for competitive supply. The City reserves its right, in accordance with RSA 53-E:6, I, to join with other municipalities or counties for its Community Power Plan and implementing its Community Power program. Any changes to the Community Power Plan must be reviewed and approved by the City Council.
16. Promoting Energy Efficiency
    1. Promoting cleaner electricity use through education and outreach on efficiency programs
    2. NH weatherization assistance program.
    3. NH Saves
    4. Home Energy Assessment promotion
    5. Other approaches as they become available
17. Method of entering and terminating agreements with other entities
    1. If the City determines that it requires the services of a Community Power Consultant after expiration of the existing agreement with GE/SP, it will evaluate opportunities to solicit a Community Power Consultant individually or as part of a group of municipalities aggregating the electric load of their respective customers. The City will solicit proposals for, and evaluate, potential Community Power Consultants using a competitive procurement process or alternative procedure which the City determines to be in the best interest of its customers and consistent with all applicable local, state and federal laws and regulations.
18. Rights and responsibilities of the Program Participants
    1. Right to opt out at any time without charge
    2. Availability of customer protection provisions to all participants. The right to ask questions and register complaints with the city, community power consultant, competitive supplier, electric distribution utility, and NHPUC.

    3. Participants are responsible for paying their bills, providing access to metering and equipment to carry out utility operations.
    4. Participants are responsible for requesting any exemption from the collection of any applicable taxes. ß This sounds important.
19. Extensions or Termination of Program
    1. At least 90 days prior to the end of the term of the initial ESA, the City will solicit bids for a new supply agreement and plans to continue the program with the same or new competitive supplier.
    2. If the program is terminated and dissolved, customers would return to the Default Service provide (Eversource).
    3. The city will make specific communications at 90 days prior to the planned termination or end of the ESA, and 4 days after the successful negotiation of a new ESA.
20. Exhibit I—timeline of activities from the inception of the Community Power Committee through Submission of final plan to Public Utilities Commission, including executive summary of each step.
21. Exhibit II—description of education and outreach plan. Included print, TV channels, social media, dedicated website, public presentations and personal communications, and a toll-free phone number to inform eligible customers about the program. Customer notification letter, also known as "opt out notice" sent via standard mail to the billing address of each eligible customer on Default Service. Opt-out period education and outreach description. Timeline and preliminary marketing plan for launch (60 day campaign). And a lot more activities and details. This outreach activity is substantial, quite intensive and will require professional help.

<u>Lebanon Community Power Plan: document is titled "Lebanon City Council Electric Aggregation Plan"</u>

1. First several pages provide the philosophy and genesis of Community Power Coalition NH.
2. The high level goals, options, and operations are very similar to what Keene CPP outlines.
3. Describes City participation in Joint Powers Agency Governance. Mirrors the JPA.
4. The CPCNH will administer the competitive solicitations of vendors and credit-worthy suppliers to execute the community power plan.
5. Vendors are expected to fund and self-manage the upfront costs of launching community power programs under at-risk and performance based contracts.
6. Lebanon's representatives to the CPCNH board of directors will participate in the solicitations of services, agency start up activities, and development of cost sharing agreement with other founding members.
7. CPCNH JPA outlines requirements for cost tracking and sharing.
    1. Costs will be tracked in 3 categories: direct project costs, member services and G&A costs.

2. Member cost sharing for G&A will be allocated based on each member's electricity usage each year. Each member will choose and separately pay for the costs of specific services and projects
3. The debts, liabilities and obligations of the coalition and other participating community power programs will be non-recourse to Lebanon.

8. Outline for coalition start up, rule making, and risk management policy approval process is illustrated.
9. Process for approving the coalition agency and Lebanon community power is illustrated.
10. Lebanon community power launch process is illustrated (less clear to me than the Keene plan)
    1. Liberty Utilities provides detailed usage data
    2. City approve rates and Coalition procures power
    3. Public outreach campaign
    4. Liberty utilities provides customer mailing data
    5. Customer notifications and public meeting
    6. Program launch initiatied
11. Another several pages outlining the CPCNH.
12. Starting on page 18 : Lebanon Community Power Goals, Objectives and Requirements
    1. Outlines long term energy policy (leader in energy efficiency, renewable energy reliance, innovation across municipal, commercial, institutional and residential energy sectors).
    2. Lebanon Community Power objectives

        i. Save customers money

        ii. Provide more renewably source electricity for people who want to opt-in to that option.

        iii. Plan for rate stability with an energy risk management policy including rate reserve fund.

        iv. Enter into contracts that are fair and represent the interests of its customers before the legislature and PUC.

        v. Assist customers to develop programs to lower carbon emissions and overall cost of customer energy use,

        vi. Promote renewable energy

        vii. Develop local energy production and storage, some microgrids to enhance local energy resilience.

        viii. Collaborate with other Community Power programs to jointly develop cost effective renewable generation and storage projects and energy infrastructure.

ix. Advocate for policies regulation and infrastructure investments to modernize the electrical grid.

3. Near-term operational requirements—offer competitive default supply rates compared to Liberty Utilities, while accruing a reserve fund sufficient to ensure long-term financial stability.

    i. Example of 4 tier initial service offerings are identical to Keene's. It looks like Keene copied Lebanon's plan.

    ii. Notes on both Renewable Energy Credit goals and Plans for energy risk management and financial reserve policy compliance.

4. Electric Aggregation Plan Statutory Requirements—describes how this plan will comply with RSA 53-E:6

    i. Organizational Structure of the Program—City Council will oversee the program and has overall governance authority. Decisions and changes to Lebanon Community Power will be made at duly noticed public meetings. Once the JPA is incorporated, the Mayor will appoint primary and alternate representative to the CPCNH board of directors.

    ii. Methods of entering into and terminating agreements—City Council will negotiate, enter into, modify, enforce, and terminate agreements as necessary for the implementation and operation of Lebanon Community Power.

    iii. Operation and Funding—Lebanon will contract with qualified vendors and credit-worthy suppliers to provide the services, credit support and electricity required to launch and operate the program. The plan assumes but does not require Lebanon to participate fully in the CPCNH. Details about vendors qualifications, compliance with regulations, etc.

    iv. Rate setting, costs, enrollment process and options

        1. Those who opt-out will not be responsible for any costs associated with the program from the moment of opting-out.
        2. Lebanon Community Power will only launch if it is able to offer residential default rates that are initially lower or competitive with those offered by Liberty Utilities. Includes some description of how the risk management and financial reserve will work.
        3. Customers currently on Liberty default service will be sent opt-out notifications (they will be automatically enrolled). Customers already served by a competitive electric power supplier will receive an opt-in notice. Additional notes about communication and public information.

v. Rights and responsibilities of Program Participants

1. All customer protection provisions of the law and regulations of NH will be available to all participants.
2. Customers can ask questions and register complaints with the city, Liberty and PUC.
3. Participants are responsible for paying their bills.

vi. Net Metering and group net metering policies

1. Customer-generators may sell excess generated power back to the grid. The terms, conditions and rates for compensating net energy metering customer generators will be set at duly noticed public meetings and fully disclosed to all prospective net energy metering customers. Lots of details about enabling service and strategies under consideration.

vii. Discounts for electric assistance program participants—no change to the provision or funding of EAP. Liberty will manage that billing activity.

viii. Termination of the program—there is no planned termination date, but it may be terminated by majority approval of the City Council. Details provided about how Lebanon Community Power would wind down operations, obligations, notify customers, and people would transfer back to default service provider or Competitive Electric Power Supplier of their choosing. Financial reserve would be dispersed according to any applicable law and regulation.

5. Starting on page 29, attachments and background information.

i. Attachment 1—legislative background and local control authorities

1. Status of the competitive market
2. Introduction of the Community Power Act

ii. Attachment 2—The Community Power Coalition of New Hampshire

1. History of CPCNH
2. Lebanon's role in the design process of the Coalition joint powers agency
3. Outreach and implementation process—hiring Henry Herndon and Samuel Golding as consultants for branding, policy communication efforts, and rule/regulation/and legislative affairs development.

iii. Attachment 3—NH renewable portfolio standard statue RSA 362-F.

iv. Attachment 4—Utility default procurement cycles and rate setting.

v. Attachment 5—Overview of Utility net energy metering tariffs—this is informative. The new NEM 2.0 standard has some trade-offs compared to previous NEM 1.0 standard. Depending on a customers situation, one or the other is more advantageous, although NEM 2.0 is effective for any net metering generators starting Sept 1, 2017.

vi. Attachment 6—Lebanon Community Power net metering, group net metering and low-moderate income solar project opportunities. Lots of details about how to transition NEM 1.0 and NEM 2.0 customers. Their energy generation credits are tracked differently—basically, this is a messy exercise. Additionally, Lebanon Community Power wants to come up with a new NEM scheme to replace 1.0 and 2.0.

vii. Attachment 7—Lebanon's public planning process. Summarizes the 5-year duration of all activities performed culminating in the drafting of Lebanon Community Power and their Electric Aggregation Plan.

Summary of how I (Matt Miller) would distinguish the difference between CPCNH and Standard/Good approach to Community Power.

1) The electric power procurement model is different. Standard Power /Good Energy (SP/GE) uses a broker model. CPCNH uses a portfolio model.
   a) SP/GE—puts the load out to bid, via a buyer group. Soliciting bids for a variety of terms. Then select a contract and lock into it. This is similar to how utilities do it, with exception of not having a fixed date window to solicit their 6 month contracts. Joint Power Agency (JPA) that CPCNH uses works differently. Three types of JPA users: 1) municipal electric utilities, 2) COOPs, 3) community power aggregations. Coops often own their own generation. JPAs use a portfolio management approach for electric power supply. Portfolio management does not put the full load out to bid at the same time. Aim for different terms, may develop and own power and resources, aim for some sourced power.
   b) Broker model can compete with utility default service because they can choose when to go to market. The additional advantages of JPA is to have a lot more flexibility to develop and utilize as much local power as possible. CPCNH wants to enable small generators (up to 5 MW) to be able to sell to the local market. Standard/Good does some weird maneuver whereby they give a credit to the net-metering, and then Eversource recaptures that credit by recovering a stranded energy fee—something that ends up being a zero sum game, something is not sustainable about it (We need to ask SP/GE to clearly explain how their net metering works). Portfolio management approach opens the door for a lot more local power procurement. Municipalities can develop electric

generation using Tax exempt revenue bonds (enabled by getting enough financial reserves to earn AAA investment grade rating). CPCNH expects to gain enough financial reserves to earn good credit rating and access tax exempt revenue bonds, which will be used to develop new renewable electric power.

2) Governance
   a) SP/GE is a service company and town of Pembroke will be a client. It will be a service company -- client relationship. The services SP/GE can offer Pembroke will have limitations in the corporate offerings that fall within SP/GE scope. SP/GE is responsive to its board of directors and shareholders.
   b) CPCNH is a non-profit organization providing services to towns (like Pembroke). It will have a service company -- client relationship with Pembroke. CPCNH is responsive to its board of directors, which is comprised of the towns it serves.