

**APPROVED MINUTES OF
2018 THETFORD ENERGY COMMITTEE STRATEGIC PLANNING SESSION**

DATE: August 2, 2018, 5:00 - 9:00 PM

ATTENDEES (TEC):

Mary Bryant, Manny Grewal, Chris Hebb, Michael Kiess (Chair), Erica Ko, Joel Legunn, Alice Stewart, Pete Thoenen, Bob Walker

GUESTS:

Stuart Blood (Thetford resident), Tim Brigland (State Representative), Jim Masland (State Representative), Phebe McCosker (Thetford resident/E.E.P. subcommittee), Stuart Rogers (Selectboard Chair), Li Shen (Selectboard Liaison)

AGENDA

- **Introduction**
- **Motivations, Impacts, Mission**
- **Where We've Come From**
- **Resources**
- **Pathways from E.E.P.**
- **Dinner**
- **Choosing a Pathway**

INTRODUCTION/MOTIVATIONS & IMPACTS

Participants paired off and then combined into groups of four to answer the following questions:

1. Why are you motivated to volunteer your time with the TEC?
2. In what ways do you want to see the TEC make a difference?

Motivations:

- Regression environmental policy, saving planet starts locally
- Love of the environment
- Concern for town and residents
- Concern for people of the planet
- Prior knowledge of relevant energy related issues
- Childrens' future
- To limit climate change
- Save Town & homeowners energy
- Build community awareness / community involvement
- Making a difference, need to be active/try
- Resilience, more working together

Impacts:

- Create comprehensive Town Plan that addresses housing, transportation & economic opportunity
- Work to create largest & fastest impact on climate change = community building & connecting w/ lawmakers
- Build/help community through working together for sustainability
- TEC to be state and national leader
- Reduce Town energy and environmental burden – especially low income residents
- Equity – making Thetford more affordable/livable
- Meet state climate change goals – early
- Serve as a model for others
- Independent / Local economy
- Affordability / Conservation
- Comfort
- Education / Setting example
- Change cultural norm, while staying within Town culture
- Healthy lifestyle (sustainable)
- Outreach to populations not already involved (e.g. - lower income)
- Address economic arguments of climate skeptics
- Continue demonstrative projects

WHERE WE'VE COME FROM

Bob Walker (Founder & Chair until mid-2018) prepared a list of TEC accomplishments (included in italics below).

History of Thetford Energy Committee – 2001-1018

Precursor to TEC – in early 1990's, EarthRight Institute helped several Thetford residents (including Chris Hebb, I think) form a committee to use it's "Guide to Town Energy Planning in Vermont" to write an Energy Chapter to it's town plan, as required by the state in late 1980's.

2001 – Sustainable Energy Resource Group helped form Vermont's first town energy committees in Thetford and Norwich. Chris Hebb, Ellen Blumberg (and others) were on first TEC.

2002 – Advised on energy improvements to Treasure Island, Latham Library, Thetford Elementary School and Town Hall.

2003 – Began selling CFLs at discounted rates to residents at town meeting – see total sales below. Rewrote on town energy plan. More work on town hall and Treasure Island. Recruited 47 families to SERG Energy Club – discount fuel buying and conservation/efficiency advice.

2004 – Began streetlight project (see final results below. Efficiency V program), completed town energy plan, conducted assessment of town garage use, CFL sales continue, 58 families in SERG Energy Club.

2005 – Formed Thetford Home Energy Assistance Team (HEAT) to educate and assist homeowners to weatherize, promoted carpooling and tire inflation, streetlight project continued, CFL sales continue, 68 families in SERG Energy Club (after this, SERG was forced by IRS to close its Energy Club which it saw as a function of a Coop, not a 501c3).

2006 – Promoted biodiesel for town trucks, installed weatherization measures at town garage, promoted carpooling and tire inflation, continued CFL sales and streetlight project.

2007 – Community Education Series: info letter mailed to whole town; established energy section at Latham Library with resource kit including watt meter to borrow; weatherization workshop (this workshop was a model copied in following years by Efficiency Vermont and spread throughout Vermont as the Button Up workshops); 4 evening films; Step It Up, breakfast, hike and forum at Congregational Church with Bill McKibbin. Continued CFL sales and streetlight project.

2008 – Local Food Initiative with numerous well-attended workshops on root cellars, raising chickens, gardening, raising fruit, composting and soil fertility. Presented Idling Reduction resolution at Town Meeting that was rejected. Began volunteer weatherization upgrades to RMCA and TCCC (results below). Continued community education workshops, forums and films and CFL sales.

2009 – Distributed info through Zoning Administrator and worked with Planning Commission to develop regulations promoting efficient new building. Recruited over 50 volunteers to go door to door to install energy saving devices in 52 homes (Efficiency Vermont's Community Energy Mobilization Program) and install weatherization measures at TCCC. Continued community education, and streetlight project.

2010 – Completed TCCC weatherization work (foundation repair and drainage, air sealing, window rehab, added insulation in foundation, walls and attic and new heating system). Reduced air leakage by 80%; anticipated energy savings 83%. 55 volunteers contributed 490 hours work. Promoted and passed at town meeting, Property Assessed Clean Energy (PACE) loans. Continued community education and streetlight project. This was the final year of CFL sales at town meetings. Overall, we sold 1,169 CFLs at discounted price, which should save over 60,000 kWh in electric usage, \$73,000 in electric spending and 568 tons of CO2 release over their lifetime of usage.

2011– Received federal stimulus grant to purchase LED streetlights for town. Received grant for Thetford Home Weatherization Incentives Program that helped 16 families weatherize their homes. Recruited 50 Thetford HEAT volunteers who went to 650 Thetford homes to educate on and promote weatherization programs. This program received the 2013 VECAN Project of the year award and was the model for Efficiency Vermont's Home Energy Challenge that was run statewide in years after Thetford's program. As part of this program we held the Thetford Energy Expo and developed case studies of numerous Thetford homes that had been weatherized. Promoted passage at town meeting of Property Assessed Clean Energy (PACE) loans. Continued community education.

2012 – Completed Streetlight project, which removed half the town's unneeded streetlights and replaced all others with LED, cutting town's electric usage for streetlights by 20,000 kWh/year or 89% from 2004. Promoted smart meters and the new Vermont Residential Building Energy Standard. Developed bicycle park and ride facilities. Continued community education.

2013 – Participated in the Efficiency Vermont Home Energy Challenge and received an award for getting the highest percentage of residents in Vermont committing to energy improvements. Installed bike racks around town. Assisted the Thetford Elementary School in researching a PV project and held a workshop for residents on PV. Provided free bike tuneups. Continued community education.

2014 – Collaborated with the Strafford Energy Committee on Vital Communities **Solarize project**, which resulted in **42 Thetford homes installing 221.25kW of solar PV – tripling the town’s residential solar. Helped Thetford Elementary School install a 140 kW array. Conducted our first Volunteer Assisted Weatherization project, saving a low income Thetford resident over 21% of her fuel use and \$488 per year on her fuel bills. Assisted in town hall weatherization with an award from Efficiency Vermont that should save over \$450/year in fuel use. Began researching community solar arrays.**

2015 – Promoted community and residential solar. Raised money for a second VAW project and to distribute free LEDs to low-income residents. Agreed to help pilot the Vermont Community Energy Dashboard.

2016 – Completed our second VAW job, saving a low income resident 27% fuel use and \$500/year energy savings. Distributed 430 free LEDs to low-income residents. Worked with Vermont Law School Energy Clinic to consider developing a community solar array on the closed Post Mills landfill.

2017 – Worked with Wolfe Energy and Strafford Energy Committee to promote the **Thetford Strafford Community Solar**. Helped get Green Mountain Community Economic Development Corporation to work with the town to develop the Post Mills landfill PV project. **Began work with Two Rivers Ottauquechee Regional Commission on an Enhanced Town Energy Plan.** Helped 12 families get free home energy walk-throughs through Vital Communities Weatherize project. Began planning 2018 Sustainability Programs.

2018 – Conducted very successful Sustainability Programs. Finalized launch of **Thetford Strafford Community Solar, providing solar at discounted rate to the town and participating residents.**

Lessons from our Past:

- Larger group can provide structure
- Awareness focused events
- Action focused events
- Funding deadlines can motivate action
- Town committee cannot raise money
- Partner with other towns
- Partner for event content & promotion

RESOURCES

Groups brainstormed resources available to the TEC in the following categories: Individuals, Organizations, and Other. See TEC Contacts & Resources Google Doc.

PATHWAYS FROM E.E.P.

The Enhanced Energy Subcommittee members (Alice & Phebe) presented a brief summary of the process to draft an energy section for the Town Plan which if approved, will provide the Town of Thetford “substantial deference” from the P.U.C. in future related work in the Town. This work has helped to define some targets to

work towards in achieving Vermont's energy goals. The summary below was presented at the strategic planning session:

What is Enhanced Energy Planning?:

Vermont has a goal of 90% renewable by 2050. Enhanced Energy Planning is a mechanism the state created for each town to plan how we will reduce the energy we use and generate 90% of it within our town borders.

What have we learned from our EEP work so far?:

The EEP work feels overwhelming. Many things have to change dramatically to get to our 90% renewable goal. Those changes seem to require resources, actions, and leadership that are bigger than our town, but we seem to be on our own – existing programs do not seem adequate to meet the needs. As a committee, we will need to support each other in moving forward. We will need to be very creative in helping our town and larger partners take positive action.

On the positive side, the work of creating an EEP has helped us clarify our opportunities for action.

Our best opportunities fall into three categories, Each category has some project opportunities

These are our summary of the high level "pathways" that the TEC may choose to work on.

Housing

Weatherization that includes everybody

Efficient new homes

Dense development

Transportation

Electric vehicles

Rideshare

Public / Group owned transportation

Energy Generation & Distribution

Residential Solar

Community Solar

High-Efficiency wood

See a draft of Goals, Policies and Recommendations attached at the end of this document prepared by TRORC (distributed following this meeting).

CHOOSING A PATHWAY

Based on the categories derived from the E.E.P. pathways, participants had 5 votes to use amongst the following categories to select some focus/target areas. Given the loss of a leader who can devote as much time to the TEC as Bob, as his paid work

overlapped with his work with the TEC, selecting clear goals may be useful in directing the energy of a group of volunteers with limited time. A tally of the votes in each category follows.

Energy Generation & Distribution: 18 total

- Residential Solar – 8
- Community Solar – 10
- High Efficiency Wood – 0

Transportation: 10 total

- Electric Cars – 4
- Rideshare – 4
- Public/Group-owned Transportation – 2

Housing: 17 total

- Weatherization (Inclusive of All Incomes) – 12
- Efficient New Homes – 0
- Dense Development (mixed use, walkable) – 5

Discussion followed on whether or not to set one or two goals, or to try a more widespread approach. Participants agreed to continue the discussion at the next meeting. Guests were invited to provide feedback. The TEC was encouraged to reach out to the representatives and bring suggestions/changes for them to pursue. Many thanks were given to the many accomplishments achieved under the leadership of Bob Walker. Guests also mentioned the importance of reaching out to the community and providing education and garnering support for these issues.

PARKING LOT

Ideas that came up during the meeting but were noted to be discussed at a later time.

- Legislation for Town Committee fundraising - Push the envelope, under umbrella – health, safety, welfare could include climate/energy burden
- Assisted weatherization on demand
- Structure of TEC – smaller subgroups pursuing different goals?

Enhanced Energy Planning Document:

GOALS, POLICIES AND RECOMMENDATIONS

Goal

Foster a sustainable energy future that minimizes environmental impact, supports our local economy, emphasizes energy conservation and efficiency, and increases use of local and regional renewable energy sources.

Policies

- 1. Encourage a pattern of settlement and land use that uses energy efficiently.*
- 2. Promote the construction of energy efficient homes and buildings to lessen or eliminate the need for costly sources of additional energy.*
- 3. Coordinate land-use and transportation planning that promotes energy efficient transportation, both private and public.*
- 4. Encourage the development of renewable energy generation that is sustainable and protects our natural and rural landscape.*
- 5. Support partnerships, strategies, and state and federal legislation that will ensure the affordable, reliable, and sustainable production and delivery of electrical power to the region.*
- 6. Model responsible energy use through municipal actions, decisions, purchases, and projects.*
- 7. Situate major public investments, such as schools, public recreational areas, and municipal facilities, as well as major commercial or residential developments within or in close proximity to the village(s).*
- 8. Support the development of broadband services, energy efficient home occupation, and small-scale home business.*
- 9. Encourage and promote sustainable fuel-wood production and improved forest management.*
- 10. Encourage the placement of EV charging stations near locations of business, entertainment, and recreation.*
- 11. Advocate for Thetford's transit-dependent population with regional transportation providers.*
- 12. Use efficient vehicles and look for the most efficient fuel sources when it is time to replace vehicles.*
- 13. Consideration for alternative transportation and ride sharing should be encouraged and supported for all major town events and gatherings.*
- 14. Dense residential developments should be located within or adjacent to existing village centers or within designated growth areas.*
- 15. Commercial development that requires trucking and freight handling should only occur on roads that can effectively handle the size of vehicle needed.*

16. *Since road maintenance and school bus service make up the greatest portion of the municipality's energy costs, Thetford should limit road expansion and provide school busing through a policy that maximizes energy efficiency, while maintaining safety considerations.*
17. *Thetford should engage in comprehensive, integrated energy assurance planning that is designed to mitigate and enable timely response to energy supply disruption, whether it be shortages created by cost or by hazard events.*
18. *Thetford's Municipal Hazard Mitigation Plan should include an element that specifically addresses fuel shortages and a clear set of non-mandatory and mandatory fuel conservation measures.*
19. *To ensure that there is a comprehensive approach to energy assurance planning, Thetford should assess impacts to the local supply and distribution system in the event of a fuel shortage.*
20. *Communities should be prepared to implement a fuel allocation program that ensures available fuel being distributed to priority areas, such as emergency response and health care providers.*
21. *Any new Town building construction should include consideration of solar potential and building efficiency standards to minimize energy costs.*

Recommendations

1. *The Town should participate in the Public Service Board's review of new and expanded generation and transmission facilities to ensure that local energy, resource conservation, and development objectives are identified and considered in future utility development.*
2. *As soon as possible after the energy generation siting guidelines become available, the Planning Commission should make whatever additions and adjustments are needed to make the language specific to Thetford's situation, amend the Energy Chapter to include the language, and receive certification from the town's regional planning commission.*
3. *The Town should develop local emergency contingency plans that ensure access to critical energy supplies and measures to reduce nonessential energy consumption in the event of an abrupt energy shortage in cooperation with state, regional, and local agencies, emergency service providers, regional suppliers and municipalities.*
4. *The Town should support the Thetford PACE program and other similar statewide programs designed to make energy efficiency improvements more affordable and more likely to be implemented.*
5. *The Town should provide educational outreach to communities to better educate homeowners on resources available to them for energy efficiency improvements.*
6. *The Town should promote and implement strategies to encourage ride sharing, public transit, bicycling, and walking.*
7. *The Town should promote the development and use of a system of trails,*

greenways, sidewalks, bicycle paths, and commuter lots as viable transportation options and pursue federal and state funding for their construction, particularly during road improvement or expansion decisions.

8. The Town should review and adopt zoning regulations that support development of mixed use growth centers containing daily services to residents as a way to reduce transportation needs.

9. The Town should conduct complete energy audits of all Town buildings to identify areas of energy waste and areas of potential savings.

10. The Town should construct all new municipal buildings according to standards of energy efficiency better than state energy codes.

11. The Town should incorporate life-cycle analysis into the Town's Capital Budget planning. Use life-cycle analysis to evaluate decisions concerning the purchases of any Town equipment, vehicles, or other items requiring energy consumption.

12. The Town should review and adopt zoning bylaws and subdivision regulations to promote good building and site design to take advantage of the sun's energy through passive methods; e.g., appropriate placement and orientation of buildings, landscaping, and energy-saving building design.

13. The Energy Committee should engage with Thetford businesses that have fleets of vehicles and provide them with information about EVs and biodiesel.

14. The Energy Committee should survey residents to find out which locations in town are the most common biking destinations, as a way to determine where to place bike racks.

15. The Energy Committee should convene the Thetford Elder Network and others to explore the idea of employing a town driver.

16. The Town should lobby the State for full shoulders to serve as sidewalks in State Right of Way in the downtown section of Thetford.

17. Continue to buy fuel in bulk delivery at the town garage and look for opportunities to switch to more efficient biodiesel.

18. Take steps toward making the town garage building more efficient, by methods such as using solar panels.

19. The school board should require EV buses when the next contract is up for renewal.

20. The Energy Committee should identify locations for EV charging stations within walking distance to businesses.

21. The Energy Committee, in consultation with town officials, should explore viability of enforcing the Vermont Residential Building Energy Standards.

22. The Energy Committee should advocate for creative solutions for statewide infrastructure (policy, process, administrative mechanisms) to support the Town to expand weatherization programs.

23. The Energy Committee should form a volunteer committee to help people access existing weatherization resources, and others as they become available.

24. The Energy Committee should explore whether regional adult education could offer weatherization trainings and education on targeting transition points (when systems need replacement, when occupants are aging, when to switch to heat pumps).

25. If the Town gets to the threshold of municipal water and sewer in any village, the Town should encourage developers to consider shared hot water/ heat generation.

26. The Energy Committee should work with retailers of heating systems and services to add alternative heating sources to their mix.

27. The Energy Committee should review previous audits of town buildings and identify further work to be done.

28. The Energy Committee should work with Thetford Elementary School and Thetford Academy to support weatherization of these town-supported buildings.