

Minutes

MVC Climate Action Task Force

Friday, January 7, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Kathy Newman (KN), Richard Toole (RT), Kate Warner (KW), Richard Andre (RA), Rob Hannemann (RH), Beckie Finn (BF), Noli Taylor (NT), Mike Jacobs (MJ), Stephen Kass (SK), Liz Durkee (LD), Dan Doyle (DD)

Others in Attendance:

Eversource team:

Ronit Goldstein (RG) - Community Relations

Lavelle Freeman (LF)- Director of Distribution System Planning, covers 3 states and also manager of DER planning team (Shakir is) came from GE where he worked in a consulting capacity

Shakir Iqbal (SI)- Manager of DER in MA / Distributed Generation; Dept evaluates DER applications, technical reviews; works closely with Juan's team and transmission planning team

Juan Martinez (JM) - Manager for Distributed System Planning for MA

Brett Jacobson (BrJ) - Manager, Distributed Generation (Customer Care); account executive and interfaces with customers

Warren Boutin (WB)— customer care side of the house; very excited about the work; VP of solar programs

Andrew Beldin (AB) – Eversource Energy; also dialed in to the policy side of Eversource interests

Members of public: Anna Edey, Rachel Orr

Interconnections (all questions related to solar interconnection, process etc.)- January 7th at 9:30am:

RH: opening remarks included goals for community; there were decisive town meeting votes towards aspirational 2040 renewable energy goals; three years of baselining and refinement of energy use and demand projections have taken place; planning must now begin in earnest; thank you for taking the time to join us since all of renewable goals involve our utility company in some form.

BR: The towns of Martha's Vineyard have adopted a number of energy-related goals in our response to the climate crisis. In particular, in meeting our 2040 100% Renewable and energy resiliency goals we anticipate a significant increase in the deployment of DERs on the Island.

RG read the questions aloud to the group at different points of the meeting. Also mentioned that Eversource has set a goal to be carbon-neutral by 2030.

1. At least two significant solar PV projects (in Oak Bluffs and Edgartown) are under development and will require grid interconnection. **When will the Eversource “cluster study” be published? Is a draft available? Can you share the general conclusions?**

BRJ: I’ve been with the company 7 years. With the success of Distributed Generation (DG) interconnections in some of the rural areas, we were using up a lot of capacity. As new applications came in, coming up against significant upgrades to substations, express feeders etc. 2-3 years ago started team approach (Eversource, DPU, solar stakeholders) to address this issue. Next man up was being hit with this huge cost. Needed a new mechanism built into the tariff to allow us to study the whole situation here in the State. Take a broad look: what is it going to take to interconnect not only this next project but the gigawatt of projects coming right behind it. Developed a group study mechanism which allowed us to study hundreds of MWs of projects at a time. Identify what that next large-scale upgrade would be—not only to accommodate these projects but with a line of sight as to what the State’s goals are, what your goals are...Hey, Eversource, what are you doing to get ready?

So our proposal and cost-sharing proposal to the DPU was to allow us to do these studies, build out the infrastructure for the next wave of 10-15 years of interconnection to reset the deck again for what it was like 10 years ago when people applied- when there was available capacity to interconnect to the grid. The low hanging fruit has all been used up. That’s how we got to these groups. It is a very unique time. No one else in the country is studying hundreds of MWs at once and coming up with this cost mechanism that allows us to have developers pay for their share and over the long term other developers will pay for a fixed price. Very creative. Good vision for success for long term development.

SI: Cape Group: what stations are interdependent on one another for safety and reliability. Comprised of six stations on the Cape. One feeds the island. Two types of studies we are performing: the Steady State and Dynamic Analysis. Steady State and Dynamic analysis includes: Reverse power flow concerns, system stability, high voltage issues, short circuit issues. Also in our model, considering any planned distribution upgrades being considered...This should be completed this month.

After that, a customer presentation. In talking about our findings, where the issues arose whether related to short circuits or power flow or any type of infrastructure upgrade that could be required. At this time, we have not seen anything related to the substation upgrades other than stating that reverse power relays could be required.

At this point, more on the distribution type of analysis, reconductoring under different scenarios and those recommendations will be coming out.

In the Dynamic analysis, we are looking at more of the transient type of problems. In this analysis we look at the islanding, transient over-voltage issues and that’s where we analyze the physical models of inverters and we look at what types of concerns we may see from the capabilities of the technology that is being used by our customers. Looking to complete this by the end of this month.

RG: When would this become public? A draft be able to be shared?

At the customer presentation. First week of February.

KW: How will this directly impact the Oak Bluffs and Edgartown solar array projects?

BR: After the customer presentation, how will the rule-making be established for who’s paying for the upgrades that are required? You mentioned the developers will pay but Eversource will participate: how does that get established?

BrJ: Based on the results of the Study, we figure out what we need to do on our system: what changes do we need to make?

We will do a CIP proposal to the Department (DPU) and they will evaluate our proposal and the benefits of it and go through according to that bucket of this new program where the developers will pay for their share of it but not for the total upgrade

Say, for example, we're building 100 and there are 50 applications: the ones that have applied will pay their fair share of the 50 and then future developers will pay for the additional capacity based on a calculation developed through that CIP process. It hasn't been done yet, we're blazing a new trail here, so there's probably still some uncertainty but that is the general path forward. Also worth mentioning-- some of these upgrades being significant if we'll follow this bucket. If there were a new substation to accommodate new projects, that is a significant undertaking: going to a town, finding land and ordering and building a huge piece of equipment so that can take 3-5 years so not an insignificant undertaking that we are about to walk into

LF Order that came out on Nov 24 was a very specific order allowing the group study process. We had put a proposal into the Department for a long-term planning process that would be proactively used to upgrade our stations across MA. That is still on the deliberation and could be approved in the first or second half of the year. But this group study process is like a "fire run" for that. It is a very specific order for a provisional planning process for us to implement the upgrades that have been determined from the group study.

Those upgrades are called CIPs (Capital Investment Projects). And these are the upgrades that Shakir and Juan and the team have determined would be **needed to integrate 350 MW of DER** (distributed energy resources) in the group study.

The Department set out a very specific process that involves a legitory? (or regulatory?) hearing so we need to file set (?) proposals for every upgrade that we are proposing with the Department and these proposals must meet specific criteria. We must identify how we will allocate costs between developers and ratepayers if it's justified. And the cost to ratepayers could be justified based on the fact that we are increasing reliability --if the DER upgrade improved reliability, improved operational flexibility.

The CIP proposals must have a cost of \$500/KW or less: the total cost for developers to interconnect must be less than \$500/KW. Otherwise the Department will not consider those proposals. Another key requirement: any grid upgrades we are proposing, must be done within a 4-year window. This gives cost and schedule certainty to developers: that the substation that we build, additional transformers, distribution upgrade, whatever Shakir and Juan and team is proposing for DER must be constructible and implemented within the 4-year window.

In addition, all CIP proposals must include benefits to low-income and moderate-income communities, illustrate environmental benefits. We must look at impact on Clean Energy policy/goals for the State.

When doing studies (Steady State and Dynamic State) that Shakir mentioned, we also took a very long view of the system. We looked at the DER that is in queue and historical projection of DER and so for each station, we're not just building the station for the DER in the study, we're building it for what comes next. And so when we're upgrading the station for the DER, we create additional headroom for future DER and to accommodate the State's electrification goals to accommodate EV, to accommodate all the net-zero decarbonization goals that the State is proposing.

Eversource supports these goals and know that our system is the infrastructure that supports all these goals including what happens on the island. We are taking a long-term view of how we can support all the goals of the State.

SI: Oak Bluffs project is in consideration as part of analysis that we are doing. The Edgartown project-need more information.

AS: re Edgartown landfill. Almost completed the bidding process. Expect to start contract negotiations in a few weeks with a particular bidder and then will know more what project will look like. 3-4 MW. One of the first things will be reaching out to Eversource for the interconnection issue because that's the most uncertain part of the whole process in terms of cost at this time. You can expect to see that within the next month – 6 weeks.

RA: 350 MW in this study? Therefore concluded it does not include offshore wind capacity? So 350 MW of solar. Is there a separate cluster study with regard to offshore wind capacity and upgrading the mid-Cape and Falmouth tap to Bourne lines?

LF—Yes, that is proceeding separately. We have a 20-year plan that looks at what we need to interconnect all of the DER that we are projecting in SE MA and the offshore wind and bringing it into Boston (?) Obviously it is a huge undertaking: there are physical and electrical constraints all over the place and transmission congestion issues. We're taking a look at what is required to do that, what new stations need to be built, what lines need to be upgraded, what land needs to be acquired. There is a 10 year plan that is in effect and we are also looking at 20 years. Wind independent but all part of a quantitative (?) plan.

LF- Question: We have obligation to ensure that the buildout of substation capacity is in alignment with the available land to build solar. We are wanting analyses in each of our substation areas to figure out how much available/developable land there is – how much MW can we actually get. We did some analysis of the Falmouth substation and we have some numbers but it would be good if you guys had some projection of how much capacity you could actually build for solar and how much land is available for solar and then we can marry that to have a realistic view of the future situation on the island.

BR: Yes, that is something we can get for you. I think from the standpoint of the island, land is so valuable here that we don't foresee using land for solar. More we see using parking lots and rooftops and landfills (although most already have solar arrays) would be used for solar. We can certainly put together our projections and get that back to you.

LF: Have you considered using land on the mainland to supply some of your clean energy needs?

BR: having distributed solar on the mainland?

RH: we had talked about it but had had no immediate plans.

JM: Your plan was to have the energy consumed be renewable. You could have solar connected to the line that supplies you. Something to think about. It is a possibility.

BR: We see that we are part of ISO-NE grid and as the grid gets greener, we're getting the benefit of that. There is a resiliency question that we have for an island: we are serviced by so many cables and the substation in Falmouth. If there's ever a time when that goes down, and there's a way for us to start supplying energy locally here on the island, so resiliency question and how much we want to be able to produce locally for some of our critical needs: town water, emergency services etc..So there's that component to how much energy we need to be able to produce.

JM: I know you have a resiliency component and a goal of emissions

RA: Emissions goal: that may be driven by offshore wind capacity. RA also confirmed we could provide the requested solar information.

BR: Is there a time frame in which all the CIP proposals go through the Department and we have a sense: how is this going to happen, who's paying for it? When will those pieces fall into place so we can know when the Oak Bluffs and Edgartown projects will actually be able to be installed?

LF: So right now, we are finalizing the studies for the last of the groups.

After the studies, we will get cost estimates together-engineering cost estimates. Bound by the Tariff to produce +/- 25% cost estimates together. I can imagine for the station some includes high-transmission work, line extensions, siting and permitting issues, environmental issues- quite complex. Expect all cost estimates will be completed by end of February to mid-March. That would be when the studies are complete.

Tariff says within 40 days after the studies are complete, need to file the CIP proposals. (end of April-end of May) Nine months for DPU to review each CIP proposal, get stakeholder comments and testimony: an entire examination. If file by end of May, probably won't be till Q1 of 2023 or end of this year before process is done.

The schedule will be issued publicly by the end of the week: when we are going to finish each proposal and when we're going to file it and that's on the record.

2. We have a long-term goal of generating as much as 25% of our 2040 electricity use on-Island, to allow us to meet our renewable energy goals as well as for resilience of supply in the face of climate-related outages. **From Eversource's perspective, what is the pathway for expanding our local grid to accommodate these DERs? Is there a long-range planning effort in this regard for Massachusetts utilities in general and Eversource in particular?**

BR: Are there island specific, have you been considering the grid on the island and what aspects of the grid on the island do you see being upgraded?

KW: There have already been some stumbling blocks where there are people who want to develop large solar arrays, that are not necessarily right on the main road. They are running up against cost requirements by Eversource. I notice we are not part of the cluster study other than being part of the substation in Falmouth. I wonder if you have done some analysis as to our infrastructure and that gets into grid modernization which we'll be discussing in meeting 3.

JM: Don't see issues in Cape area with our DER deployment plans. Group study for the Cape is a lot simpler than some of the other groups. Not a lot of substation and transmission issues to affect anything on the island.

Falmouth area: we do have capital plans. Working on a 5th cable project. And that means work in Falmouth Station and then from Falmouth Station down to the water, then we have to complete the work for the 5th cable. That is not part of DER, that is part of our capital plan, our capacity plan. As part of that 5th cable installation, we have to do reinforcement of the main arteries of the electric system on the island just as part of the 5th cable. So all that work is part of capacity but has a positive impact in terms of DER because of the more cable you put, the more infrastructure from Falmouth Station to the island.

One small caveat: DER installations are location based. We are going to do work to upgrade the main arteries and that's going to be proposed as part of the 5th cable but depending on where the DER is, there might be upgrades that are needed from the location of the DER to the main backbone of where the feeder is.

Now, the island is big and we want to do the upgrades close to where the 5th cable is going to be. That will have a positive impact on the island but will not solve everything.

RG: to be specific, the 5th cable will make land in Oak Bluffs? So I think Juan is saying so that if there were something in West Tisbury, for example, or Chilmark, that is where you are saying some of the distance between the backbone and that initial upgrade.

JM: There will be changes to the distribution. We can't say where exactly but there will be distribution changes as part of this work. You bring the submarine cable that supplies the island and then out of the submarine cables and that connects to the cable that is in the island—the main arteries—and they run along the main streets and go up to a certain point. (?) So main artery is very beneficial for DER deployment but then when you get out of the main streets and you go further than that, that area might need reinforcement—depending on where the DER is. Each installation will have to be studied independently but in terms of the main system, think we are doing some very good work.

BR: That's something that had come up before in terms of where DERs are located in relation to those main trunk lines. That's something we can begin to work on once we understand it better. But even so, we have projects coming along where maybe there is a mile or so separation from that main trunk line. We can start to map out where to best put solar arrays in relation to main trunk lines.

SI: You are exactly right. These are the kinds of things we are identifying and stuff like reconductoring happens and when that happens and this is the assessment: do I need to replace this pole to incorporate heavier cable or do I need a 3-phase extension to that point of interconnection? All things that will be talked about at our upcoming meeting at the conclusion of this process.

3. Are there any infrastructure issues in Falmouth, the Cape, or elsewhere that will impact our plans for DER deployment?

RG: Q 3 was about any potential issues and I know that Juan addressed that. Sort of a broad question and I think Juan's answer is that it is actually one of the easier regions to be looking at.

BR: Because it's easier, is there a way to fast-track certain groups? Even though I know it has to be seen in its totality. Thinking about how long it's going to be before we have the answers, so we can start deploying DER. Because it's easier, does that give it an opportunity to move forward in the queue?

JM: When I say easier, I mean that it will probably not require significant substation and transmission infrastructure build which is what takes the longest so on the whole, will probably be done faster than the ones that do require substation upgrades.

4. Home energy management systems are emerging as a key enabler of more effective use of batteries, behind the meter grid-connected solar PV, and the use of EVs as backup power sources. What is the Eversource plan for supporting this emerging technology?

RG: Specific to batteries being used, we weren't sure what that meant.

AB: Average residential customer pays the same for a kilowatt-hour consumed whenever. Power costs fluctuate significantly in different periods of the day and in different seasons. Advanced Metering Infrastructure (AMI) proposal is before the DPU. This will bring more sophisticated metering and rates that are reflective of actual energy market dynamics. When we start doing those kinds of rate designs, that creates the economic incentives for people to adopt smart home technologies and respond appropriately to the cost signals. That's one big investment we have before the Department that will enable the brokering(?) of these sorts of technologies.

And on specifics, we run the PV SMART program that encourages people to build residential PV systems that include energy storage. We do have an EV program that supports development of EV charging stations and then more specifically on battery systems we offer a program called Connected Solutions that encourages people to dispatch their home-based batteries at periods when it can provide the most benefit to the grid.

To the specifics of EV as back-up power sources, we see that as an interesting emerging technology. Obviously, Ford is going to get first to market with the F-150 Lightning. We do see it as a great technology that's going to be emerging and may be a baseline for EVs going forward. A lot of the processes and procedures for interconnecting those systems may be similar to the process for (PV?) interconnection for residential customers. We know that the Ford is part of SunRun, the largest residential solar installer in the nation that help integrate those new trucks.

RH: I appreciate that background. There's more in the world than the F-150. There's a million plus Teslas out there right now that could be used as battery back-up in houses and people in different states, in different parts of the country are already using that. Do you have a planning effort underway that will describe both what you plan to offer customers and when that will be available?

AB: We certainly have documents (?) dockets (?) before the Department right now for EV integration but I'm not as familiar with them as others might be. My sense is that currently on-the-market Teslas are not typically being used as backups for homes but I could very well be wrong on that. We do see it as an emerging technology. We are always scanning and seeing what is coming down the pike. In terms of backup power, that isn't something that is fundamentally integrated into Eversource's energy efficiency programs, and not something we can make investments in but is an area where we could certainly have more discussion.

RA: Is Connected Solutions a 5 year program that needs to be renewed periodically?

AB: It's integrated as part of our energy efficiency program so it gets renewed every 3 years. We don't make commitments beyond the horizon of a 3 year plan but also we have had EE programs that have been around a long while.

RG: We don't have jurisdiction over the EE programs on the island, the Cape Light Compact does but we do the EV Make Ready program and has been utilized on the island. EV Make Ready 2.0 is before the regulators now. Improved benefits to the last program.

5. For some non-residential, moderately sized solar PV projects, the cost of interconnecting to the grid seems to be preventing developers from bidding on the construction and management opportunities. **Given the regional and state-wide benefits of deploying more solar PV, do you anticipate changes in pricing policies for grid interconnection?**

BR: Relates to the DPU review of your upcoming CIPs.

WB??: It's too hard to interpret the cost. Yes, the CIP for the bigger upgrades but if it's a 20 KW or 500 KW project then there's differences. For the most part, the DPU roles have been that if the DG project causes the upgrades, then the DG project has born the cost, that's always been the DPU's rules.

BR: Has there been any discussion at the Federal or State level about subsidizing some of that cost of grid modernization? I don't know if the Infrastructure Package had anything in that.

WB: I don't know. That scale? The vast majority of projects here costs zero dollars probably 90%? There are always going to be some on the other extreme—these bigger projects that have bigger footprints and bigger impacts. It's kind of speculation, that kind of question. Based on size of project, is it on a rooftop, is it serving load, on someone's house, etc etc Kind of a tough one to answer.

BR: On the Vineyard, there's a lot of rural area. There's the trunk line and then a lot of lines that were run in the 30s, 40s and 50s that are still being utilized that are underserving the ability for the DER to be installed. And the upgrade of maybe 2 miles of line is expensive. That's where it becomes cost-prohibitive.

WB: Yes, that's been a problem for rural areas. The lines go from big to small. With solar, you are trying to feed into the small end. The current rules don't allow us to burden ratepayers with that cost so it has to be born by the developer.

LF: I will say that going forward, and I did mention our long term planning process- that proposal that has been filed with the State (and also National Grid filed one) that is pending approval. If that comes to fruition it will change the way we interconnect DER in the State. We will be doing group studies as the default mechanism rather than these sequential studies that lead to cost causation issues for single projects and the proactive upgrade of the stations. And part of the proposal includes a common system modification charge for small solar where it will be... a portion of it will be rate-based to relieve the burden on individual interconnections. If our entire proposal is out there in the public domain, we can promise to distribute to you guys and it will give you some insight into how we anticipate handling this issue.

RH: that would be really helpful because our problem on this island is the last mile DER costs

LF: will send a link for that document

RG: Two points of interest. Entire feed being replaced on State Road (?) from Middle Road up island. New poles are required because of spacing differently for resiliency. Shoring up, new infrastructure and switching capability. Can't imagine it wouldn't help with DER. Upgrade to Menemsha substation. Created a redundancy.

Significant amount of private infrastructure on MV and on Cape. Often underground. Only thing Eversource owns is the transformers. That's key because we can't touch that, that's all private.

DD: Giving so many poles are jointly owned by Eversource and another entity, does that create delays that we should anticipate?

RG: I think on the island Eversource owns and maintains all the poles but there are half Verizon, half us and we share the cost and maintenance. Can be private poles too. Municipal things can also be on poles.

DD: understand there are leasing arrangements as well. Maybe a matter of interpreting. Looks like Eversource owns 1000 poles outright and maybe 1500 that are customer owned and then over 7000 that are flagged as jointly owned. Does this further complicate upgrades? Or cause delays?

RG: typically no because we work together with other entities. As for causing a delay, there are sometimes typical delays in getting things transferred.

BJ: Read a study. Are poles soon to be more expensive than underground? With long term planning process, do you have in mind the era beyond poles?

JM: This is more of a distribution question and related to undergrounding. Maybe can bring distribution team to next call. Can tell you from experience that undergrounding significantly more expensive so far. Maybe you are talking about resiliency and more storms coming up. I haven't read this study but I can see where it's going. So far, undergrounding is a lot more expensive. If it starts to turn, it is actually more beneficial for the company. It is more reliable in some areas to have underground.

WB: We are always going to investigate that least cost alternative. Even when we build substations. Any time we see underground being more cost-effective, or least cost, we will go underground. Seeing now that a lot of cities and towns will actually take that step and if you are putting in a brand new residential development, they will tell us they want underground for resiliency purposes. Will do if town mandates. But are always going for least cost because we don't want the ratepayers to bear the extra costs.

LF: In CT, seeing the need to re-evaluate what it means to be least cost. Because the impact of major storms is so severe: causing us to think about how we do our infrastructure and to look at the advantages of undergrounding and things like aerial steel cables. Certainly, what happens in CT and the benefits will percolate across the company. I expect our resiliency plans in CT will impact our standards in MA. Proactive undergrounding and other measures for resiliency even though it costs a bit more than what's needed to deliver power on blue sky days. Benefit to community through resiliency becomes the key driver.

KN: Warren said, "If the town really demands it, we can do it." How does the cost increase get figured into that?

WB: For new construction, there is a cost-causation model that's in the tariff and if the building inspector or wiring inspector says it must be underground, the developer has to pay for that. Pay the differential between overhead and underground. Or, if it gets closer then, we'll offer developer least cost alternative.

RA: And the same would apply to municipalities? If they wanted underground then they would have to pay for it?

WB: Municipalities slightly different because we don't have an easement with municipalities so if there were a road widening, we have to work with them. With Edgartown undergrounding, think we recovered our costs over a 7 year period?

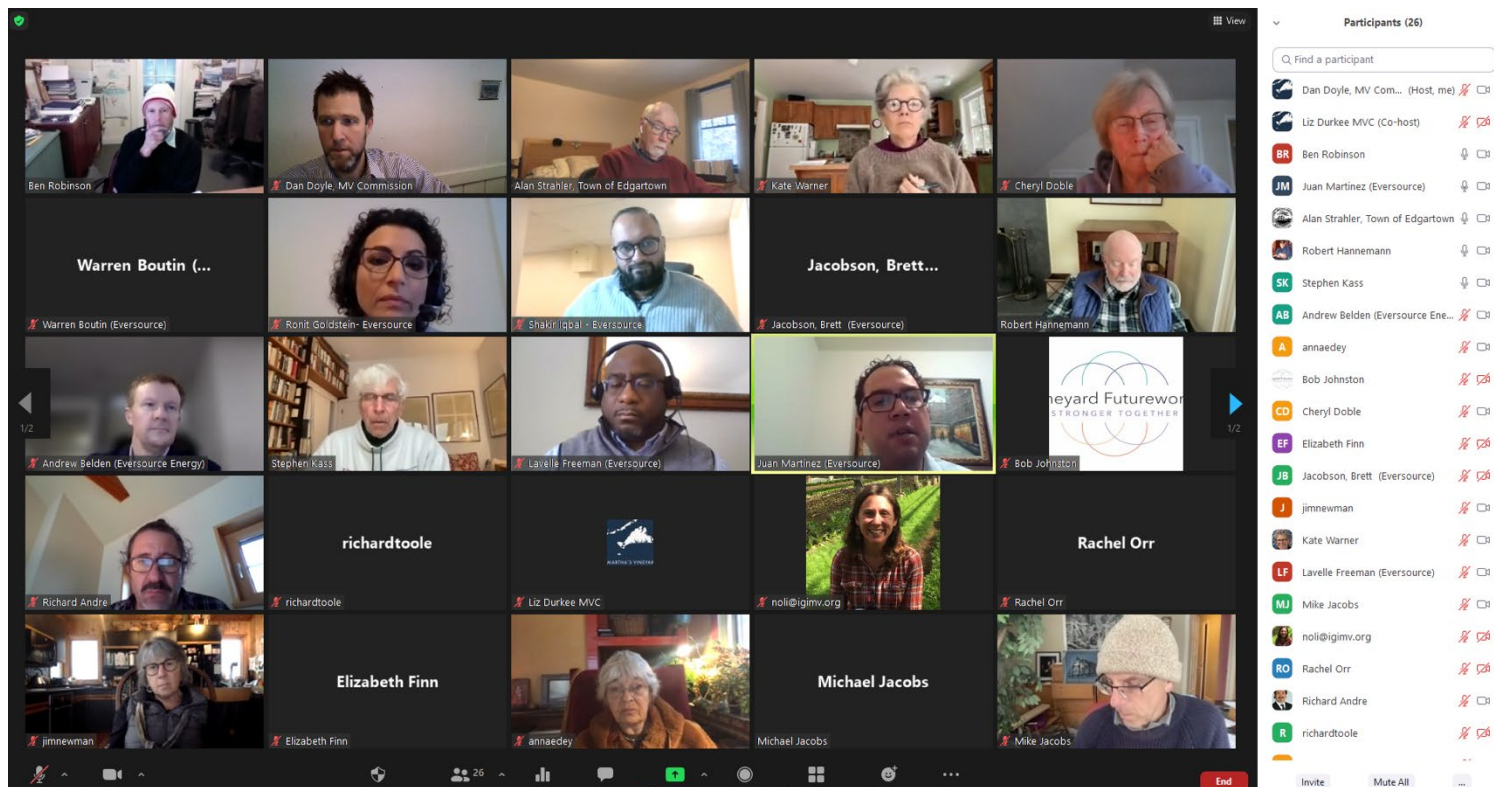
KN: Is there money coming through the Infrastructure programs with regard to resiliency to apply for funds to defray some of the undergrounding costs?

WB: We have a whole team looking into that. We're on the same page. If there's money out there for resiliency, redundancy in the Federal Infrastructure bill.

KN: and you'll tell us if you find it?

WB: yes.

Eversource members leave the virtual meeting space. Attendees below:



Introductions of new Task Force members

BR welcomes Mike Jacobs, a member of the Chilmark Energy C'tee and Chair of Vineyard Power Co-op. His previous job was interconnection for Distributed Energy projects

BR welcomes Stephen Kass, a former env lawyer of 40 years; he often worked with energy companies; though is not representing any of them now.

BR: If Task Force members have follow up questions from the meeting, they should send those questions to KW within the week, if not sooner.

RH: Yes, please send along questions by middle of next week.

LD: The CAP is moving along; kickoff involved over 100 participants. This month the Thematic working groups will meet to discuss long term goals.

Monthly events are happening; this month is Land Use and Natural Resources month. LD is applying for an EDEY Foundation grant that would include storytelling videos regarding the CAP work and everyday islanders experiences with climate change.

Next week the Steering C'tee is going to meet.

BR: There will be a Climate Café at Rosewater to discuss Land Use and Natural Resources; they offer complementary snacks.

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Friday, January 21, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Kathy Newman (KN), Kate Warner (KW), Richard Andre (RA), Rob Hannemann (RH), Joan Malkin (JnM), Beckie Finn (BF), Noli Taylor (NT), Bill Straw (BS), Mike Jacobs (MJ), Stephen Kass (SK), Dion Alley (DA), Liz Durkee (LD), Dan Doyle (DD), Bill Lake (BL)

Others in Attendance:

Eversource team:

John Ventura (JV) - Manager, Distribution Engineering

Juan Martinez (JM) - Manager of Distribution Planning

Keith Jones (KJ)- Principal Engineer, System Planning

Lavelle Freeman (LF) - Director, System Planning

Katie Cook (KC)- Project Manager for 5th (and 91 Replacement) Cable Project

Stephen Burkes (SB) – Lead for Vineyard in Distribution Engineering (based out of Yarmouth?)

Manager Capital Projects in the Transmission Group

Gerhard Walker (GW)

Ronit Goldstein (RG) - Community Relations

Members of public: Marilyn Miller, Rachel Orr, Joseph Mayall, Russell Hartenstine, Anna Edey

BESS and 5th cable (and 91 replacement) project:

With regard to the 5th cable, do you have an updated projection of power demand for Martha's Vineyard? What are your major assumptions in developing this projection?

JM: The most recent projection was completed February 2021; an updated projection will be completed next month. Forecast is included in the DPU filing. (JM will share a link for this.)

BR: When they are updated, are they made public?

JM: yes, they can make it available to MVC.

SK: What are the long term assumptions in developing the long term projection?

GW: Long term demand looks at state policies, decarbonization roadmap by 2050, and the electric demand assessment is updated accordingly; DOT origin-destination data is examined, heat pump and temps data, rooftop and ground mounted solar looked, along with 16.2 GW of rooftop solar.

DA: How does Eversource look at the seasonal load?

JM: planning side takes the 90/10 forecast and makes decisions based on that (aka peak demand).

KJ: MV is the only place where E/source performs a decoupled forecast, unique to the island.

DA: It's critical to take into account the upward trend of air conditioning, along with new construction which is more often than not using air source heat pumps and air conditioning

KJ: the AC peak is performing on the Cape as well. MV is behaving just like the Cape in this respect.

DA: We have more and more cooling days.

BR: Eversource is fairly dialed in to these particulars thanks to our past two years of meetings with them.

Is there an estimate of the 5th cable construction start and operational date? Regarding replacement of the #91 cable - is that project in your capital plan? What is the expected timing of that effort?

KC: Cable 91 replacement is in the Capital Plan; construction for the 91 replacement begins this Fall; there will be synergies between this and the 5th cable so they are being addressed jointly.

RG: The timing for this work is also based on the 5 diesel generators contract expiring at the end of 2024; a small buffer has been built into this timeline.

BR: what local permitting requirements are there?

KC: there is on land permitting, a MassDOT permit is needed; environmental permitting is in progress via a consulting firm; a meeting with town management will be scheduled to update on efforts and the timeline.

RG: a pre-application meeting was held with MVC staff; it is unclear whether the cables will trigger a DRI; it's highly likely that the OB project will.

SB: a system upgrade will be needed for capacity and reliability; it is part of the project plan; the work orders have been engineered and the detailed designs are underway.

BR: Is there an increased footprint in the infrastructure and will there be upsized poles as a result?; let's be sure we are up front about those changes to prepare public.

SB: We have the people from the solar team looking at packages, along with the opportunities to integrate into existing and proposed upgrades.

RG: Andy Beldin spoke about this as well, two weeks ago.

BR: when would you like to be in front of the MVC and ConComs?

KC: I don't know that off the top of my head.

RG: It is likely we'll be in front of the towns in the coming months, and then we will be referred to MVC.

How does the Falmouth substation fit into your long-range plans? Will it need upgrading to support the cable projects, and if so is that part of the cable plans (as well as other needs)?

JM: Both Falmouth substations are part of our long range plans. Falmouth Bulk will require some work to accommodate the 5th cable. Some work at the 3 substation will be taking place; some feeders will be moved around to improve service delivery and reliability to the island. Falmouth transmission supply is also part of the long term plan; the 150 kv system will be expanded in the Falmouth area. this will allow for even more distribution work; part of this distribution work is done to accommodate the 5th cable.

KJ: back in 2009, there was significant work done at Falmouth Sub; both transformers were replaced. Notable investment has taken place there that is more than adequate to serve MV.

Can you describe the rationale for cancelling the BESS here, as opposed to why you think it appropriate for Provincetown?

JM: In Provincetown, the town is only supplied by one line; it was more of a reliability issue there; here it was more of a load component; thanks in part to the CATF conversations, we see a growing trend for demand on the island; the battery would not be as beneficial given our projections are not flat.

AE: With demand trending upward, would it be more beneficial to invest that money into solar?

BR: A resiliency component is built in to our work and some of this will be achieved through on island generation; but the grid will be greening; vast majority of our supply will come from the cables.

BR:— should BSS be part of our suite of solutions going forward?

LF: Absolutely; price points will begin to drop; there's a need to upgrade our infrastructure; if we upgrade the backbone infrastructure, batteries and solar can both be part of the solution; stability is key for achieving electrification. Once we design for strength in the system/grid, we can then build out our portfolio of renewables.

We must ensure there is analytical rigor behind our investments and upgrades so they are strategically placed; we will work with communities to help identify key areas in forming these strategies.

BR: What steps should towns take to inform Eversource of their intentions for microgrids?

LF: Planning Group (of which JM is also a part of), is the place to begin; it's the forum to see how the town goals converge with Eversource goals/planning.

JM: we will also see the DER application through the standard process.

LF: However, before it goes to the Interconnections Group (which also reports to LF), the conceptual conversation can take place with the Planning Group.

The Interconnection Group does interconnection studies for developers.

LF: Planning Group cannot work on a project for a developer because that potentially advantages one developer over another; the Development Group can work to develop a good project and the right sources of funding, etc. The Planning Group can then consult to ensure best location and connection types.

KN: If something came up where Eversource saw a great opportunity, would you ever approach the towns to advise us to pursue a certain investment/project?

LF: Yes, it is a possibility; let's look at how BSS can be implemented as a base offerings and base loads in the capital plan; Eversource is trying to identify the appropriate incentive programs to make sure it is a fixture or part of the host of options; it will become a more steady practice, to approach communities.

AM/SB: Teams call with representatives on the island; roughly 75% of installed systems are private on island. We need to address this and discuss how to potentially take them over.

BR: Most subdivisions are private.

RG: Many times all infrastructure is owned privately with the exception of the transformer.

SB: How does Eversource fund the takeovers?

RO: Many times there is no Homeowners Assoc. (HOA); this makes it difficult when people need to pay for a repair; maybe a packet could be developed to help folks understand what is at stake and what sort of upgrades would be needed prior to a ownership transfer.

RG: Warren Boutin from Customer Care was on the last call and they handle this most often; there is a mechanism for how E/source takes over; similar to a road, there are certain standards that must be met before a town is willing to take over.

RO: there is often a mix of ownership that is found in the Registry of Deeds.

BS: Would Eversource have any interest in purchase of the town's solar array? It is 1.2 MW.

JM: This is not the right Department for the inquiry, but we can provide info for the right contact.

How are you addressing the increases in annual GHG emissions as well as limitations on DER integration that such a decision implies?

RG I think this goes back to the decision about the battery and we actual be reducing by the 5th cable allowing us to decommission the 5 diesels and that's a fair amount of greenhouse gas emissions that will be off the island.

BR- I think what this is getting at is: did the BESS help with DER installation on the island?

JM: When we propose the BESS, there's a certain radius within the connection near the battery where it will provide improvement for connection of DER. But basically with the installation of the 5th cable and the associated infrastructure distribution upgrades that will be done inside the island it almost has an even bigger effect. We haven't done the detailed study but just by our experience, the way the system upgrades: whenever you upgrade cable, whenever you make cables bigger, all the way from the source down to a certain point, that by itself allows you to connect more DER. Maybe there is some misconception that the cable does not improve DER integration but it does. We bring copper all the way from Falmouth down to the island then we make more connections down to the island so that entire infrastructure allows or provides DER integration so in my experience, the 5th cable should provide even more DER opportunities than the battery alone.

KW: I believe you said it would increase the infrastructure near where the cable lands in the down-island towns so that doesn't really address the need for increased infrastructure for the entire island in terms of the up-island towns.

JM: So the way it works is within the island there are what we call the main arteries. Those will be reinforced and we will probably be adding more. Those plans have not been developed but we have to because when you bring in a new source you have to spread it out in the main arteries. So those main arteries will be beefed up; they will be better. Now you can accommodate more DER within those main arteries. The battery would have the same effect. The battery would get connected into one of those main arteries but we were not necessarily doing upgrades within the main arteries and the battery's scope is smaller. If you think of the battery, it would benefit but not as much as the reinforcement we are doing with the 5th cable. You can think of the impact of the battery as being circular and you can think about the impact of the 5th cable as being linear like a hand expanding all around the island.

LF: With PV, there is a localized impact which PV would have on local interconnection and flicker on the feeder and those the battery would not address unless the battery was specifically at that location. So the battery would not have addressed problems at disparate locations. The second impact of aggregated PV is on the main arteries and trunks, as Juan was saying, and when we have all these exporting light load conditions, we have reverse flow and we have to upgrade(?) grid infrastructure. That 5th cable project has already ameliorated that situation. We will have upgraded the backbone and some of the grid infrastructure downstream and so takes care of those aggregated impacts. So we are left with most of the local impacts and in order to address those local impacts, we have to put batteries at many of those locations. Now, when we do the interconnection study, it might just so happen that if you have a battery that you're connecting with the storage, it will help that but for Eversource to put a massive battery at a particular location to address all PV impacts, it is just impossible. It's more for localized situation.

BR: Is that why Eversource wants distributed batteries as part of solar projects so you are putting the batteries where solar generation is happening?

LF: yes, this makes more sense

BR: And this also points to the island planning for aggregated solar. If you have 100 houses with solar and they are all spread out across the island, that's a lot harder for the grid to handle than if we aggregated the solar near a trunk line and then could associate batteries with that solar so I think this is something that the Vineyard has to think through. So right now roughly 9% of our energy generation is local and if we want to increase that to 25%, we should maybe think of aggregating that in locations instead of hoping different homeowners across the island do it in a non-organized method. Does that make sense from an Eversource standpoint?

JM: It does Ben. We will be working with the island and when we do the reinforcements, we will let you know where they are but when we do the reinforcements, that's kind of an open door for you to say, this area has been reinforced and you can probably plan around that area. So you can go hand in hand.

KW: What I think you're saying: I had imagined that the large battery on the VH-Edg Road would serve as a resilience strategy. I had imagined: say we have a massive power outage like Puerto Rico and there is no electricity flowing through the cables for some reason. I thought the battery would help with the resilience strategy. What I hear you saying is that you'd rather have these batteries spread around the island and that would be a better resilience strategy?

LF: No, maybe I miscommunicated. I was speaking of that in terms of DER integration. If speaking specifically about DER integration, batteries further out on the island in disparate locations would help that more. If you're talking about resiliency, it's possible distributed batteries could be more effective because you don't have one point of interconnection but suddenly even a large battery would help with resiliency on the island if all 5 cables were failed.

KW: One thing that the distributed batteries would do is say you have this massive weather event, a certain number of lines will be down. So then maybe it makes more sense that you've distributed the batteries around in the hopes that you then have these microgrids that are functioning. I'm just trying to imagine: what I hear you saying about the 5th cable is that it's all about capacity and that's why you said you didn't

need the BESS but I'm thinking as well about the resilience aspect and you talked about that last time in terms of what you are already seeing in Connecticut.

LF: Yes, this is true. We are seeing that having generation sources closer to the load is one way to improve resiliency. But we are also seeing in CT. that there is a need to upgrade the infrastructure and to harden it in many ways: using more robust connections, undergrounding, aerial cables, steel poles, battery storage in locations that make sense—critical infrastructure for example—but to your point, the infrastructure becomes the weak point. The bigger the microgrid, the more you are at risk electrically, and the more you have to invest in hardening underground infrastructure. And if you could do that wholesale for the entire island, then you've got something going. I don't think one is a substitute for the other. We really need to have both strategies: a robust, hardened infrastructure that can survive a catastrophic major storm (that we are now seeing much more often) That has to be a holistic approach for Eversource: climate adaption but we also have to understand that communities and facilities have needs that they can protect with local sources and we also support that. But we are not supporting one instead of the other. We have to do both. That infrastructure buildout is imperative and then on top of that your local resiliency infrastructure gives you additional comfort.

BR: A lot of the last questions are grouped around what Lavelle was just talking about and it leads to: How do we coordinate island planning with Eversource planning? So that we're making the right decisions – first at this conceptual level about where deploy certain infrastructure and how we harden certain infrastructure... From Eversource's side, how do you imagine that process rolling out? What would be appropriate next steps for the island to take in partnership with Eversource in developing the resilient grid of the future for the island?

RG: We do have one more meeting with grid modernization which I think ties in nicely, with AMI and other topics. The group talked about what's the best path forward. I think we talk about a structured approach to touch base and figure out if it's a process we develop together. I think you're asking: how do we take that holistic approach together?

BR: Yes, I think that holistic conceptual approach is what's missing. We're thinking one thing, Eversource is thinking of another. We have to knit those things together. The Vineyard is a little different: everything is scrutinized and everything is in someone's back yard and there's very little room for large scale infrastructure to be integrated on the island without someone questioning it. The more we can bring to bear the island's views on these things, then we'll be able to communicate to the island why certain things will be necessary...There's a lot of efficiency we can build into the holistic thinking.

RG: We'll probably do a debrief with all of the attendees of the 3 calls and just kind of consolidate all of the takeaways at least on the Eversource side so that these conversations- that are thoughtful on both sides- don't go for nothing.

JM: I need some clarification because I see a lot of questions about expanding DER and expanding storage on a local level and also an aspect: are we doing it on a big level – say a developer- or are we talking more about expansion of residential solar and batteries. They both have a different way of addressing them. I guess more of a clarification or maybe both is what you're thinking of. There's a component of the utility having information of what's out there. That component is very difficult with individual residential storage and solar. We have much more visibility on large installations. Now maybe when we're doing grid mod that

can be addressed but just to put it out there so everybody knows. If we start putting in more, smaller residential units, we don't necessarily have visibility of what each unit is doing. And also we don't have control of the storage as well. All this has to be addressed before we can think about microgrid from the individual unit level. At the bigger level, if it's a big solar farm and tied in with batteries then we might have a little more visibility and control because we have communication equipment that we can tie in so in that part the utility is very aware. We have a process now where we can work with you a lot better. The part of individual houses having batteries and solar and then trying to align that with a microgrid kind of design, that becomes challenging on the communications part. I just want to bring it out because we can think forward on how to solve it.

BR: I think at the moment, when we think about microgrids it's really more around the municipal needs: water supplies, emergency services, the police, the fire, that sort of understanding. If the grid goes down, we have some of those core services being able to retain their use for the community. The 3 down-island towns all have municipal water. It's a little different up-island because it's all wells. *(Ben talks more about aggregating so solar optimized—not shaded...)*

JM: We have looked at areas where you have critical infrastructure-water supply, shelters...critical facilities. Has been talk: can you supply critical facilities for a certain amount of time after a big event but, even those-even with batteries- have a limit. So the question is how long you want to keep them on? It can't be forever. You still need the grid to come and charge the battery again. Because you definitely don't want to charge it with diesel I assume because that goes against your goals, right? So there's a lot of components but we've done some. We haven't done projects but this is more of an exercise we've done within Planning. All those questions need answers. How long are we thinking? Is it 10 hours so it helps us prepare and going from there we can start thinking.

BR: The last question we have on this list is what role does Eversource have: utility-owned storage installations – what sort of infrastructure could Eversource imagine owning on the island that's not just about distribution of the energy: storage or even solar? I know the DPU doesn't allow Eversource to be a generator of energy. You're not allowed to own your own solar.

LF: No, no. We do own solar- a significant amount of solar plants. And we are building battery storage plants. So, yes we can. And we want to. We know that many jurisdictions are looking at non-wires alternatives to infrastructure and to incentivize communities to build non-wires alternatives. From Eversource perspective, it is in our best interest to build those non-wire alternatives to the degree of reliability that we want to provide the community because it must meet a certain standard for us to substitute them for distribution infrastructure. And so if we have that control and even the ownership of the non-wires alternative, I think it meets both aspects. It supplies what the jurisdiction wants and supplies what Eversource wants and is in the best interest for the community. To that aspect we are willing and able to work with communities to own solar facilities and battery storage facilities including on the island.

And just from a bigger perspective, I've been listening to the conversation and it occurs to me that there is a little bit of a gap here in our planning process. Juan looks at needs for the community. Gerhard does the forecast—near and long term. Juan takes the forecast and looks at what violations might occur on the system and then Juan and Keith would develop solutions. That solution development process: I think there

is a need for us to begin interacting with the communities in that solution development process. I think that is what you guys are expressing today.

In my previous life, I worked for a consulting company that developed microgrids. (GE) And worked with the utility and the community in developing microgrids. For the utility, it was more of a reactive exercise. The community says this is what we want to do and the utility reacts and tries to make it happen. Just like if you file an application for a solar installation, the utility reacts.

I think we need to switch to a more proactive mode. Where Juan is developing a solution, now let's begin to look and see if there's a microgrid, battery storage facility- a non-wires facility- that would relieve the violations that we are projecting from the forecast, that meets the community's needs and get those into our plans. Right now our distribution process includes the search for non-wires alternatives for every traditional project that we propose. And those alternatives are developed by Juan's teams. I think what we are contemplating now in this conceptual stage is maybe working with the community. If you have plans and you have some concept in mind, maybe working with you and developing that alternative in concert with you and then bringing it to a capital plan. That's something we haven't done before and as Director of the team, I think I can work with Juan and Keith and others to make that happen: bring you guys into that solution planning process.

BR: I think that captures this really well. From the beginning, we've recognized Eversource as our energy provider but more than that, as a partner in developing what does the grid look like for the future. And that collaborative process that we can work with you. I think that could be really motivating: not just for the island but for other communities. Do we develop a model here that can be exported to other parts of the Commonwealth? Because we have this controlled experiment as an island. And it's a small scale, comparatively speaking.

I think that's a good place to end this conversation as those are truly the next steps we must take.

Minutes
MVC Climate Action Task Force
Friday, February 4, 2022
Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Kathy Newman (KN), Richard Toole (RT), Kate Warner (KW), Richard Andre (RA), Rob Hannemann (RH), Beckie Finn (BF), Stephen Kass (SK), Dion Alley (DA), Liz Durkee (LD), Dan Doyle (DD), Alex Elvin (AE)

Others in Attendance: Nancy Weaver, Rachel Orr, CVEC zoom account, Russ Hartenstine, Marilyn Miller, Bill Lake (BL)

Eversource team:

Steve Casey (SC)- Senior Project Manager, Grid Modernization

Jennifer Schilling (JS)- Vice President, Grid Modernization

John Ventura (JV) - Manager, Distribution Engineering (instrumental in identifying island circuits to upgrade)

Ronit Goldstein (RG) - Community Relations

Subject: Grid Modernization

Background

Grid modernization (GM) is key to achieving the Island's climate change mitigation goals (a 100% renewable energy system by 2040) and climate adaptation goals (reliability and resilience in the face of ever-increasing climate risks and storm events). GM is a broad subject. For this meeting we have a narrower local focus - grid reliability (how often the grid fails), its resilience (how long does it take to recover), *community* resilience (how we can maintain critical functions and community safety when grid failures occur), and sustainability of our energy supply (elimination of fossil fuels)

Questions / Discussion Topics

- 1. Does Eversource have a long-range grid modernization plan, and can you share it? Does Eversource have an active R&D program for GM (for example, the use of advanced software and hardware for managing the local grid)?**

JS: I've been with Eversource for 13 years now but in 2017, we started to see the trends that were going on in Massachusetts and the industry at large relative to the fact that as we see an increased penetration of distribution of clean energy resources on the system, that the distribution system that we built for 100 years to meet the needs of load was being stressed in a way that we hadn't seen before. We're adding technology all the time—now we have solar and there's two-way power flow and it has highlighted to us the need to put some focused attention on developing a distribution system that not only could accommodate the clean energy that we all support but could actually encourage it and make it more possible to interconnect clean energy resources onto the distribution system. Since I've been doing this in 2017, the other component that's become really critical is beneficial electrification and the increased penetration of electric vehicles so now we have not only changing dynamics relative to solar, and then we have battery energy storage and the changing energy dynamics of where load is showing up and what time it shows up. When it comes down to it, for us in the distribution world, everything is about time and location-based value. We need to develop a grid that makes sure we're managing where resources are on the system and making sure we can use them to create as much value by lowering peak demand and flattening out the load curve.

So the answer to the question is yes we do and when I started with my very little grid-modernization team in 2017, we developed a road map and the road map really is around the deployment of technologies on the distribution system to encourage and facilitate the integration of distributed energy resources into the

power system. In MA specifically, since 2018 we've had our regulators, the DPU, has approved a plan that we've been implementing for grid mod. In July we filed the next 4-year plan (2022-2025) and we're still in the process of have it reviewed. Push to determine that we are maximizing value to customers and to communities and supporting solar integration and other DER.

What are the technologies we are trying to implement? Breaks down into 3 categories:

1st - Control room of the future: With the dynamic of the distribution system—the time at which we could only do our planning based peak load—one number a month—just be sure we had a system that was sufficient for that one time—the hottest day of the year—is no longer with us. With all the complexity of the system, our operators who sit in a control room 24/7 are really managing dynamically all these resources on the system and they need much more sophisticated tools – hardware and software- to help to integrate so they can see the power flows and where things are going and what direction and also more control of the system so that they can redirect power flows or ultimately they will be able to – with things like a distributed energy management system—have a tool that makes them able to dispatch resources. So turn on or off a battery, to help manage peak flows on the system, inverters for solar...there are a lot more tools for our operators and we think that's an important part that we as the grid operator can meet the needs of the system – to deploy these tools that give more visibility and control to our system operators.

2nd - Visibility and Control – think of the sensorization of the grid: we are increasingly able to put out sensors so that we can see how power is flowing on the system and tools to be able to remotely control things. We can do that to reduce line losses, improve system efficiency, to restore power and isolate sections and restore from alternate sources. We are also interested in investing in technology so that a customer-owned solar facility –we can work with them to put a device at the facility to remotely control it to help manage its impact to the grid. So it cuts down on the interconnection costs for the facility and it provides ongoing value to the grid.

3rd - Forecasting Tools: Lavelle Freeman and system planners need better insight into how load and generation are expected to be added to the system over the next 10 years. Having better, more sophisticated tools to do scenario-based planning—What if MA reaches its goals? What if they surpass their goals? And that's why working with the MVC and your being thoughtful about planning, we can incorporate that into these sophisticated probabilistic planning tools and get a better sense of how the future might unfold and we can be smarter about how we invest in our system.

So those are 3 of the categories that we have included in our roadmap and filed with the DPU. I did read the intro to the questions and there were a fair number of questions around resiliency. There are a lot of technologies we can deploy. Some are more traditional like bigger stronger poles and cross-arms and wires to improve the resilience of the system but there's more visibility and control devices that we can deploy that are more technology based to help improve the reliability and resiliency of the system. We handle that in our distribution engineering group (not thought of as grid mod by Eversource)

SC: Our filing is available. Ronit can send.

JS: We are fanatics about telling our story and with the filings, we try really hard to talk about the value proposition for customers and communities and we like feedback if things aren't clear.

SC: we are required every year to file an annual report- April 1- related to grid mod investments made each year. Those reports are available. Guidehouse is the consultant that does all the measurement and verification. Reports are very extensive.

JS: We don't want to do any of this if it isn't adding value so participate actively in measuring so we can determine pre and post-grid mod to make sure the investments we are making are delivering a return to customers.

BR: Re DPU filings- do you have something more specific that is for the Vineyard? To what level have you evaluated the Vineyard grid with regard to your DPU filings?

JS: Different investments fall in different categories. Ex: control room of the future is not region-specific in any way. New Bedford people will have access to same tools as others. I will say our schedule is to start in the south. So Vineyard in first round at end of 2023 to have these technologies deployed. Some are more location specific. Annual report explains why we put things where we do and we do report on a circuit level where we've done work.

JV: The grid mod program is one program. From a distribution reliability point of view, we've always had programs on the Vineyard. We've done hardening efforts with the substations and circuits on Martha's Vineyard, adding automation...and still going on. Not within grid mod system of funding but they are system improvements that will improve reliability and resilience.

RG: one concrete example is the Menemsha Road upgrade; shore up and create a redundancy for the up-island towns.

JV: All of the comparable substations used to just have one transformer; they now all have two units with 100% backup capability; if one fails, the dispatchers in New Bedford can swap out with ease, within minutes. System hardening is taking place on Middle Road (though separate from grid mod), which allows for a loop (redundancy).

2. The deployment of Advanced Metering infrastructure is well known to allow greater customer control of their energy use and cost as well as utility benefits such as lower peaking requirements. What are Eversource's plans for Advanced Metering Infrastructure (AMI) and time-dependent rates?

JS: Now is the perfect time to be contemplating deployment of this new technology. We've had our current, drive-by collection system that gets 1 number a month for close to 20 years now. Those systems do work so didn't want to replace them before we needed new meters. Now is the time contemplating replacing them. This dovetails well with the industry which has come a long ways in developing this advanced metering technology. Stimulus package in 2009—industry got money to deploy AMI- helped the industry learn a lot and has advanced the capability of the meters. For the same cost today, you can get a whole lot more functionality today than before 2010. Excited to now be able to maximize benefits and minimize costs for customers.

At the same time of Grid Mod filing with the DPU in July 2021, an Advanced Metering Implementation plan also filed. It has a scope, schedule and budget at a relatively high level about how technology is being deployed to help customers. 20 categories benefits of AMI were examined. Peak load reduction is just one of them. Now that you have very granular usage data- not just 1 number a month but have 15 minute interval data, you can do time varying rates. Lower cost charging of EVs at 2:00 AM is win-win. You get lower cost to charge your vehicle and it doesn't put as much stress on the grid.

There are other benefits: targeted energy efficiency and demand response programs...Once you have a sense of your usage, when you have more peak load. We can tailor programs to target your usage patterns.

Also reliability. Right now we rely on customers to call us if the power is out. Generally works. But, being able to ping on a meter and know if it has power or not will increase the efficiency of the restoration. If you restore a big area but there are a few homes still out, we can find the transformer that is not working much faster and get to those nested outages much quicker.

Note though that AMI is a big undertaking. It's a lot of systems and support infrastructure and not just the meter. The deployment schedule is over 5 years because in addition to the meter, we need to have a way to have the 2-way communication from the office to the meter and visa versa. The communications infrastructure must be built out and we need the systems to store all of the data. (1 number/month now vs 15 min interval data coming.) We have to be able to access the data and integrate it, get it to customer portals so they can see their usage data... billing for complex rates as well. Plan says we will get out into the field at end of 2024 to start installing meters.

SC: Cape Light Compact (CLC) does all of our energy efficiency and demand response programs; we must make all the data produced from AMI available to 3rd party aggregators and suppliers, solar and storage developers, customers themselves, municipal utilities -whoever really wants that information wants it- with the proper customer authorization and cyber security in place. Cyber security is one of our main concerns with everything that we do.

SC: This ties into your next question about EV charging and smart home devices—at Eversource that is handled by our energy efficiency team. For the Vineyard, that is handled by the CLC. We are not able to provide those types of behind-the-meter services directly. For the Vineyard we do this through the CLC or through a supplier that the customer authorizes. AMI, other services that we will be able to provide—all this ties together.

3. In our previous meetings, we discussed at length the issue of interconnection of DERs (for both community and individually owned equipment). We did not cover in any detail existing and emerging technologies such as bidirectional EV charging and smart home energy controllers. When can we expect to see these new technologies deployed for the Eversource grid?

RH: The question was not about getting those devices but when will Eversource allow those devices to be deployed? My understanding is that the two things mentioned are not looked upon as something we can do by Eversource and that's the Eversource part of this.

SC: Bi-directional EV charging - I don't know the answer to that. There might be a standard that needs to be created in order to do that? The smart home energy controllers? If it is all behind-the-meter I don't if we have any say in what customers put in their own home.

RH: It certainly ties into AMI world, but also ties into the freedom for users of making their solar system or operating their solar array as a net metering unit into the grid or, at their choice, moving that to be powering their home. And that's what most solar energy controllers are doing and there is an interface to the grid which is the point. We want to be consistent with what Eversource's rules are, but we also want those rules to change.

JS: For the interconnection question, we could pass that on to our Interconnection group. But we do have folks with solar + storage system today that island their home load. We do have that process—if customers want that, we do enable that today. If there's something else I'm missing in terms of a way to export and island your individual home load, I'd be happy to take it off line to hear what specific thing that feels like a barrier today?

RH: I think I understand. Thanks for the response.

BR: One thing about all this is education for the customers? Once the technology is available, how do you use it? In the lead up to the 2024 deployment, what's your plan for rolling that out?

SC: In the filing you'll see a customer education plan (discussion begins on PDF page 124 of "*DPU 21-80 Eversource AMI Proposal (7-1-21)*"): pre, during, post deployment plans to educate customers in general about AMI are included; there are all types of different delivery mechanisms that we've outlined; we are keenly aware of this in our thinking; it's a critical aspect of ultimate deployment.

BR: we will review the plan and can then forward questions along if we have any.

4. Microgrids are recognized as a key advancement for community electricity resilience (as well lowering the cost of that resilience). What are Eversource's plans for supporting microgrids?

SC: We've been working on microgrid (MG) feasibility studies for quite some time, with the MASS Clean Energy Center (CEC) projects. We've probably been looked at and been involved with about 20 studies. We're very interested in supporting MG activities and have done many analyses with customers interested in these. There haven't been any community MGs—where there are different customers with different

locations that have wanted to connect different buildings in one area to be able to disconnect from the grid and support it with local generation. Happy to work with anyone.

Usually these are very expensive propositions. Cost of generation to support the loads in the microgrid is often the reason why these projects do not advance. Most are “green” so contemplation of solar and storage to support the loads especially with customers that are not contiguous. (distribution costs and controllers...) We are very interested in these studies and looking for locations that can moving forward and do a MG.

In CT, there is funding for a microgrid program that was put in place 10 years ago after some big storms. Most are campus-related or very localized. We did a study for UNH in Durham that has stalled but is still on the table.

A lot of our work around microgrids is to make sure that the idea of putting these loads together and serving them during an emergency makes sense: the plan is meeting the objective of what people are looking for. Many times, the customers end up doing a single building- a resiliency solution rather than a microgrid- because it is more economical and meets their objective all the same.

JV: I started at COMElectric 35 years ago. When I started, the Vineyard was served by one overhead line and 2 submarine cables. I designed the two-mile underground ducted manhole system in Falmouth. Vineyard has come a long way, 4 cables now. Looking at the design of a 5th cable. Once installed, we’ll have a self-healing grid that will use all those cables and automatically switch around load based on what cables are available. It’s sort of a micro-grid/self-healing grid funded by the grid mod program. It does tie into all the distribution assets that we have on the Vineyard.

As part of project, a key supply for MV is Falmouth substation which has 3 transformers- again for the resiliency. We are proposing a second ducted manhole system to another point on the coast so that the cables will come from different locations and go all the way back to the Falmouth substation. That’s going to give very good reliability from Falmouth and then you’ll have multiple sources on MV at different locations. And then do more upgrades in Oak Bluffs where the new cable is going to come in. It is a 3 year program going on now and it will make the MV system more robust.

It is a sort of microgrid and I would argue it is better because we are responsible for it and it involves system enhancement.

BR: what was funding source for microgrids in CT?

SC: In CT, Legislature passed a bill with money for customers to install equipment. In MA, funding has been for studies, not for equipment. CT customers could get money to offset some of the capital costs their project. It’s had 3 rounds of funding. 10 to 15 microgrids have been built around the State with partial funding. Funding can only be used for certain aspects of the projects-- such as distribution systems upgrades, new equipment for controlling the microgrid. It couldn’t be used for solar or new generation or storage.

KW: In our last two meetings, we heard a lot from Lavelle and Juan about system design here. I wonder whether we will be moving towards a system of more microgrids as we move forward here with the future of electricity. And therefore I wonder whether you at Eversource would contemplate working with us on this design that we discussed with them at strategically placed microgrids on the Vineyard as opposed to just relying on the 5 cables and that network? It just seems like that is the direction that things are headed.

SC: So microgrids that have their own island generation associated with them?

KW: Yes because it would help us with our resilience if we had a really extreme weather event.

SC: Yes- we are always willing to talk to people about what their idea is and how they are contemplating this resilience system in whatever area it is. Our role has been to help customers and their consultants understand how the distribution system works and what type of new equipment might be needed, how the

loads are fed today and how it might be reconfigured, what the costs are, etc. Generally, the consultants have been doing the load profiling, the generation needs, the storage needs...

The MassCEC provides technical consultants to customers to calculate loads etc... We look more at what the system is today, how it could be reconfigured to accommodate a microgrid and what that means in terms of technical and economic consequences.

KW: I dream and hope that what will really happen in our quest for resilience- both as an island and you as a utility- that we might end up working together on some of these microgrid strategies and that you might end up funding some of them because it serves some of your overall network as well as the island's needs. You would take a much more active participation in it. We're in a phase change here to a world that's going to be a lot more electric and planning it together and being sure it serves the island and you-- it's an exciting time! We hope for more active participation from Eversource.

SC: New law in MA, that allows the EDCs to build and own and operate solar and associated storage need for municipalities to provide climate resiliency – just passed in the last year. We have a focused team.

RG: Andy Beldin was on the first call. We can follow up when we talk about distributed generation (DG) and that's referencing the climate action legislation.

SC: That's the path I see: where we could find locations on MV that support the town to provide resiliency and reliability to critical facilities as a response to your climate vulnerabilities. And now that we have the ability to invest in those types of projects, I could see that as a path forward for the type of projects you are referring to. Andy's running that effort.

RH: We are developing long range plans for our towns in particular and the region as a whole. We don't see community micro grids as being an immediate need on MV. What we see over the next 5 years coming initially are municipal microgrids that can critical services running in the case of disasters. And that ties directly to what you just said about towns. Community microgrids- for a residential area- is something that's going to happen as the topologies of the grid world change. We don't see that tomorrow but if happens by 2032, that's sort of the timeframe we are expecting. But it's good to hear about support for town level resilience-focused micro-gridding that will lower our costs because we'll get to share resources across multiple buildings and so on...

Someone else on the call had a quick question: In your experiences in the CT region, what are your conclusions from those experiences so far? What results have occurred that are good or bad?

SC: All the projects that have been implemented – those locations are able to disconnect from the grid in an emergency and provide their buildings with power within those critical, emergency time periods. The genesis of that funding was the October Superstorm/Snowstorm. The experience so far: the customers are happy; they have their micro grid, many are universities- some are localized buildings or sets of contiguous buildings.

Only one Community microgrid --The Parkville Development: a senior center with a fuel-cell at it- connected to grocery store and gas station that are non-contiguous. Down the street from one another. In Hartford, so underground. We connected and did all the isolation and protection devices to allow those 3 buildings to run if system goes down. That's what we mean by community microgrid--disparate customers that are not connected physically.

BR: Differences other than funding (CT) vs studies (MA)? And, as we contemplate microgrids, what will towns need for maintenance or technical services to keep their microgrids functioning? What level of engineering would towns have to take on?

SC: MA has done a lot studies through MassCEC, though hasn't funded direct infrastructure; CT is the reverse through a detailed application process.

As far as microgrids, once it's up and running, the generation and other customer-owned equipment would need to be operated and maintained by the customer. Eversource would maintain their equipment. Depends on set of circumstances.

JV: I would add that the self-healing grid concept- design objective of that is to restore unfaulted customers in less than a minute. Large circuits now might take longer now to restore while we try to determine where the fault is. Once we have this new system in place, a minute will be the target. Unless there is a widespread event with multiple outages. Standard is higher: going to be much better than you have experienced.

5. What are the key infrastructure upgrades that you foresee for communities (such as ours) that are forecasting significant increases in electricity use and are perhaps the most impacted by climate change? Can the up-Island "last mile" connections and the Chappaquiddick region be strengthened / hardened?

6. Would you be willing to work with us as a partner for piloting some of these advanced concepts?

RG: Think last 2 questions are about partnership with the MVC and what other pieces are we missing. I believe with regard to partnership, we are conducting these meetings and all of my colleagues here today talked about partnering with the island... With microgrids, willingness to partner—it's just about the process with each technology or type of upgrade.

BR: One other piece I want to throw into this is the Vineyard economy is really based on our rural character and the seaside feel that we have and the Vineyard has gone a long way to protect that. We are going to rub up against that when we talk about grid modernization, particularly when we talk about hardening infrastructure: overhead lines getting bigger, more robust lines, bigger transformers. These impact that rural character piece and I hope there's a space within the discussions to think about what technologies would best fit that character. It may be different than other regions that you deal with. It is something that we want to protect and something we have lived with over the years and strived to preserve. But we do recognize that more electrical use is going to require more infrastructure. So marrying those things together is one of the solutions we are going to have to address. And help the public understand as well.

RG: Yes, it is a definitely a delicate balance: to keep the character and fabric that makes the island the island and also have the benefits that people want and need on the island.

JV: I can sense where there's some concern out there. We did have to build that double circuit line between Vineyard Haven and Oak Bluffs but our planned projects aren't to that scale. The new poles will be larger than traditional but nothing like that. And we're distributing the construction across different areas so not so visually obvious. In future projects we are diversifying which also improves resiliency—the routes for how the supply gets from the coast to the inland.

BR: one aspect—why not just bury the lines so we don't have to look at them. Would be good to understand where strategically we can do that on the island. Bigger equipment in some places, underground in others so we can find a balance. Not just accept that bigger is the only way. How much capacity for undergrounding and there could be a cost-sharing. A way to start mapping out where the technology needs to be, where undergrounding can happen, solar...all the things we've been talking about. How do we start formalizing that pathway with Eversource as a partner? And start looking at the details. The sooner we know, the more we can be a community partner in this.

JV: We do have as part of the up-island upgrades, building an underground section along Panhandle Road and there are a couple other areas on the island where we are doing underground extensions. It's case by case and where we can do it, we will.

RG: This is the most popular question I get and it is good to remember we are not the only ones of the pole: we have utility partners—Verizon, Comcast, emergency communication...

RH: Is there any hardening/grid improvement going on for Chappaquiddick?

JV: We did upgrade the station to have two transformers and radio controlled switching and it has two cables going over to the island. With the upgrades to the new cable will improve reliability in the whole Edgartown area.

7. What are we missing in our thinking about our energy future?

RH: We are hopefully relatively informed but not expert in this whole area and this is probably for your technical team--- If you were a customer, what kinds of questions and pieces of knowledge that would help in our planning are we missing?

RG: From my observation, I think you have covered a significant amount of information. I think we take that back and meet as an entire group (all who have been part of the meetings) and think about where there might be holes? What you have not thought about?

JV: We do look ahead. One thing we can do is discuss with Oak Bluffs a potential cost-sharing for undergrounding a portion of the upgrades associated with the new cable. We have to be sensitive about not burdening all of our customers with special projects.

RG: One thing I thought about—I have a lot of conversations with your public safety officials and emergency managers. I know Dan goes to the monthly meetings and I think that's important—to hear their concerns. Hearing what their needs are in an emergency/catastrophe to serve all of you on the island. Important because with the weather events we have been having, this too is connected to climate.

RH: We are very appreciative of effort and time and detailed responses to our questions over the past 3 meetings.

JV: One thing I would say from the last storm: trees are still our number one adversary. One thing I could ask is when we do petition for removals or aggressive trimming that we get your support. That's the number one thing that does damage to our system.

DD: I imagine there will also be more specifics from Eversource about what we might be missing once we develop our analysis/build out for solar and share that with the Eversource team.

What were the two big variables impacting the decision to underground on Panhandle Rd, aside from the number of trees that would be impacted?

JV: we are building a major bypass to feed up-island. Right now there is single overhead line that crosses over that bridge or dam and we're building a parallel supply that will be more reliable than what's there now.

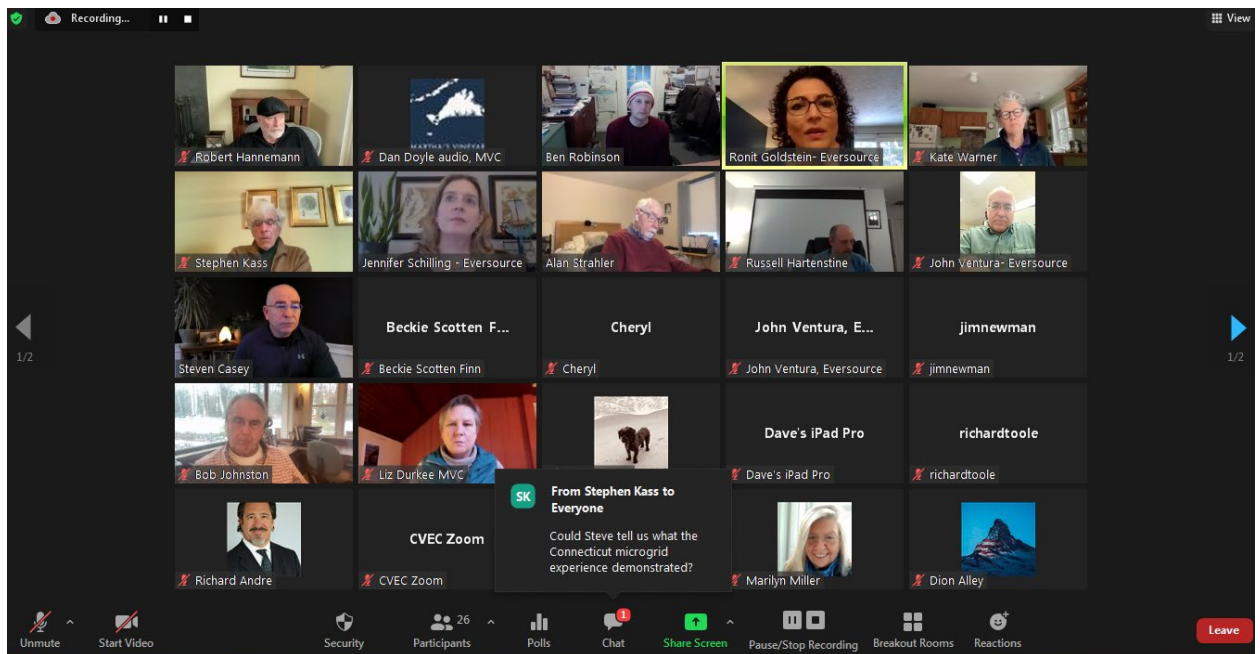
BR: Thanks all around. It's really nice to have these substantive discussions and think where we're headed. We look forward to formalizing next steps and what we want to do for the energy transformation. And thank you to your on-the-ground team during the last storm.

We will send the minutes as a package.

RG: Will reach out to Kate with next steps after we debrief. Look forward to it.

Eversource team leaves the call.

LD: on Feb 7th at 5 pm Matthijs Bouw will be speaking about Climate Change and Infrastructure resiliency. It will be recorded.



Minutes

MVC Climate Action Task Force

Friday, February 18, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Bob Johnston (BJ), Alan Strahler (AS), Richard Andre (RA), Richard Toole (RT), Stephen Kass (SK), Bill Straw (BS), Dion Alley (DA), Beckie Finn (BF), Kathy Newman (KN), Kate Warner (KW), Marc Rosenbaum (MR), Rob Hannemann (RH), Bill Straw (BS), Cheryl Doble (CD), Liz Durkee (LD), Dan Doyle (DD)

Others in attendance: Nancy Weaver, Melinda Loberg

Agenda items

- Eversource meeting recap
- CAP update
- Fundraising
- Vision Fellowship
- Updates on Carbon Study, Carrying Capacity
- Additional items

Meeting Highlights

BJ: from the time where we learned of Eversource's announcement to withdraw their BESS project on the island to the closeout of our meetings with them, I have a minimum 180 degree reversal in optimism; thanks to all who set up the meetings and curated their tone.

BR / KW: Vision Fellowships – one position will involve advocating with the Steamship and broader energy advocacy; the other position will be more of an Energy Transition Coordinator; it's a 2 year program funded by the Vision Fellowship; Energy Transition Coordinator will be the other position and will assist in implementing a transition program and shepherding the community as it transitions to a new energy future; the latter will help the transition as it makes inroads into our homes as well.

KW: the application has been submitted for 2 positions; we should hear back about interviews by early March. Salary: \$75K for each for two years w/ benefits and the idea is to make the positions self funding.

LD - March 23rd CAP re Economic Resilience: The Cost of Not Adapting to Climate Change

LD covered the following series of slides in updating on the [Climate Action Plan](#). The CAP website was also unveiled: www.thevineyardway.org

USAC Engineer Research Development Center (ERDC) has explained the carbon capacity study should be bucketed into two areas: water resources/coastal infrastructure and carrying capacity/supply chain issues. Each island (MV and ACK) will need to contribute ~\$125K.

For the Carbon study, Adam Moore continues to actively fundraise; to date, \$185K has been raised. Budget for the scope is \$600K; the scope will be revisited in March in the interest of getting a project started. It may need to be commensurate with the funds raised to that point.

SSA's release of its Alternative Fuels Study is being pushed back until April; in the meantime, SSA is working w/ Eversource on the shoreside component; new Falmouth Board of Governors rep seems to be a proponent of this work and that's encouraging.

LD is working on the DRI Flood policy, along with getting the towns to update their floodplain bylaws.

Fundraising: \$10-12 K is already in the fund Kathy Newman helped establish; we may need to go back to the towns with additional funding requests.

What was agreed upon

There is notable interest in the solar interconnection study that Eversource has pledged to complete in the near future.

We are primed to begin working with a couple (?) of Eversource's technical teams on planning specifics, on the heels of the three subject matter meetings.

Behind the meter homeowner battery storage and community level battery storage are not mutually exclusive. The can be advanced in tandem.

Points of disagreement

SK: I am not so optimistic re battery storage and just how amenable Eversource will be in departing from their conventional cable paradigm for the island.

KW: Lavelle and Juan seemed far more open minded regarding new solutions and Non Wired Alternatives (NWAs). The more stodgy Eversource stance was mostly limited to the final meeting where John Ventura attended and touted his 30-35 years of experience.

New topics shared at the meeting

RA: Vineyard Project Advisory C'tee is identifying solar and battery backup project sites on the island. On a separate note, municipalities can make decisions on undergrounding by voting at the town level; charges then get passed onto to ratepayers in town.

BR/LD: The CAP's thematic working groups are setting 3-5 year goals. They will also have shorter term objectives.

LD: The CAP includes a Wampanoag and Brazilian liaison (this may not be entirely new).

Leslie Kolterman opened up her donor list to CATF; she is a philanthropic officer at Woodwell.

There is a USAC ERDC staff member who back at school as a PHD student; he wants to work with different communities re managed retreat and policy tools – MV included.

SK: let's consider putting Homeowners Associations (HOAs) on a mailing list for updates.

RA: Obama / Kerry should be targets of our fundraising. They both have a vested interest in the Vineyard.

BJ: the best way to get to John Kerry is Norma at Cronig's.

Re F/raising, we might learn from the Island Institute in Maine; they might have some good leads to get to Kerry / Obama; their board is built up on seasonal residents w/ assets of \$70 million; we might reach out to them to better understand their "code".

KN: An addendum to the HOA is often these homeowners have group meetings in the summer; they are often looking for some focus to the group; and perhaps resiliency contributions could be built into the budget of those HOAs that are particularly vulnerable.

DD: Revolution Wind offshore wind farm will be the most high profile of the turbines for Aquinnah community. They are presently organizing to close ranks on projects eligible for potential mitigation. Drilling infiltration wells at the Cliffs to combat erosion from within is one project they are discussing. Chilmark and West Tisbury also have impacted historic properties.

MVC has organized DCR departments, Edgartown and Oak Bluffs representatives and KMOVY to meet next week to discuss water supply possibilities in the State Forest to help reduce wildfire risk.

Action Steps

KW will check with Ronit Goldstein at Eversource to see when a small group of their staff will be ready for a group of ours; she will inquire about the cluster study report status as well.

RH: Over next several weeks, the town energy c'tees can do some prep work re town level planning as it might relate to Eversource owned investments/infrastructure.

BJ: Could we ask Eversource's Lavelle Freeman or Joe Nolan to speak to their 2040 vision for MV – perhaps during Climate Week?

Minutes

MVC Climate Action Task Force

Friday, March 4, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Bob Johnston (BJ), Alan Strahler (AS), Richard Andre (RA), Richard Toole (RT), Stephen Kass (SK), Bill Straw (BS), Dion Alley (DA), Beckie Finn (BF), Kathy Newman (KN), Kate Warner (KW), Rob Hannemann (RH), Bill Straw (BS), Cheryl Doble (CD), Liz Durkee (LD), Dan Doyle (DD)

Others in attendance: Nancy Weaver, Melinda Loberg

Agenda items

- 1. CAP update / CATF involvement**
- 2. upcoming series of meetings with Sen. Markey's office**
- 3. managed retreat: Carnegie Mellon PHD work**
- 4. working group updates**
- 5. other**

Meeting Highlights

Sen. Markey's office is most responsive; and they are trying to assist us in understanding; 3 meetings at both regional and DC offices to strategize on adaptation, mitigation, and Steamship;

BR w/ John Cahill, Joe Salito, Bob Davis, Jim Malkin, coastal infrastructure, on electrifying; when to replace the OB pier deck and when we do, should we raise it; SSA open to outside assistance; congressionally directed spending, formerly earmarks,

Timing is early April at the earliest

CAP Climate Week

BJ: 70 page RFP developed for private freight lines to apply to take traffic; have the SSA done any market analysis to determine if there is interest for island freight; took 3.5 months to develop

There might be a

A tool to help communities evaluate; team that's working on it are some of the same time that would be involved with the supply chain; public and private benefit and how do you balance them; short turnaround re

More than an academic exercise

What was agreed upon

We should be careful regarding not reopening the SSA legislation
CATF involvement is vast and that should be amplified; let's make it hopeful and encouraging;
culmination of CAP work will be motivating.

CATF needs to be proactive about assisting in educating the Steamship; public and CATF;

We still don't have a good picture of how much solar can be installed on the island and what the grid can handle.

EWG has a straw proposal re what we would like to install on the island; over the next couple of months
As of earlier this week, Eversource still has not met internally to discuss this

Action brought by the Commonwealth on behalf of 3 or 4 communities

Points of disagreement

JM: we should test the waters out with Dylan F. – would it be a political plus? Or would it be using up resources

Before much work goes into the presentation;

New topics shared at the meeting

Draft impacted by heavy batteries but it's fairly negligible & the harbor in Hyannis is fairly shallow

SK had drafted an email regarding pursuing legal action against FF industry at the state level: San Mateo and San Francisco; federal nuisance claims had been dismissed re Clean Air Act;
Removal litigation has extended 4 or five years and held that the basis for the Fed's Circuit; state law pursuits is limited by the ability of financing the long term litigation; SK not aware of any law firms to take this on pro bono; most of the big firms are representing the fossil fuel industry; we

RA: 14 years ago, re Vineyard Wind

BR: Supreme Court is reviewing EPA's ability to regulate CO2 emission; SK: EPA's ability to limit CO2 as a pollutant is fairly well established; in his opinion, they will release something but it will likely be too little too late;

The more limited EPA's ability is to regulate, the more likely the other lawsuits will be successful

Other towns have pursued damages; and it might help defray costs for adaptation

RA: Rep Fernandes has a deep relationship with Maura Healey; he may assist in helping make that decision;

TI: perhaps best suited for MVC, - would be most most facile way b/c we are a voice best suited for one

Unclear what our relationship is with the MA Attorney General's Office

RA: House passed landmark legislation re; Senate is historically more favorable for this types of legislation
Legislative session b/w now and July 31st.

Efforts would need to be orchestrated

BR: this only applies to future energy projects

RH: there's a big parnterhsip

Since we're served by CLC, we cant do municipal aggregation

TI: towns can become a utility;

DF: community aggregators can purchase power directly from offshore wind developers; key is that we're no longer bound by Eversource or National Grid; IF a community wanted to purchase above the RPS for a community we can negotiate directly with the offshore wind developers

May 8th opening event – perhaps CATF

Action Steps

SK: there is likely a good amount of money re battery research and stations by the DOE and hydrogen storage and we might consider that for a Markey request; we should clarify the request

DD will set up a preliminary meeting with Dylan's office to discuss AG's penchant for taking on a lawsuit against the FF industry

Minutes

MVC Climate Action Task Force

Friday, March 18, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Joan Malkin (JM), Rob Hannemann (RH), Bill Straw (BS), Cheryl Doble (CD), Liz Durkee (LD), Dan Doyle (DD)

1. Mayflower Wind update

Kelsley Perry and Liz _____? are the public outreach coordinators; we must determine the public benefits that can be brought to the island; for Mayflower to fully utilize their lease area, they must run two cables – one to Falmouth and the other to Brighton Point.

There are 3 buckets of \$ available to South coast communities. There is a \$27 million bucket available to the South Coast Foundation; we are included in this; they will send us more info so we know how to request such funds that will support workforce, supply chain and equity inclusion; ACE MV will be a good candidate for the workforce funds.

Next bucket in the \$5-10 million range focuses on low income ratepayers.

The third bucket is an Innovation Fund administered through the MassClean Energy Center.

We will work with Mayflower to develop a strategy for getting Mayflower? to help advocate for our goals.

The funds are not available all at once but rather over a 10-15 year period.

We should figure out how many communities are competing; there will likely be limited chances to secure funds. MVC staff will determine whether more coordination between towns would be beneficial.

The South Coast Foundation is administered through Cape Light Compact? Erik Peckar is working with Megan who is our rep from the County; if we are squeaky enough, we should be able to get some funds.

Mayflower has had some difficulty working with Eversource

2. [RAISE grant](#) opportunity

Senator Markey's office shared the Notice of Funding Opportunity (NOFO). The program evaluates safety, environmental sustainability, quality of life, mobility and community connectivity, economic competitiveness and opportunity, state of good repair, partnership and collaboration, innovation as "merit criteria." Eligible Applicants for RAISE grants are: States and the District of Columbia; any

territory or possession of the United States; a unit of local government; a public agency or publicly chartered authority established by one or more States; a special purpose district or public authority with a transportation function... amongst others.

The "publicly chartered authority" language sounds like it might make the Steamship Authority an eligible entity.

There's consensus we need a grant writer; Dan Doyle will talk to Gisele Gauthier whom Aquinnah has retained. Her compensation is typically structured through a project management budget line in grant requests, however she is paid regardless of whether a funding request is awarded.

In short, we need to create the right infrastructure to build capacity, while prioritizing requests coming from the towns with any such position. The MVC and County jointly managing an individual who is dedicated to writing grants might be an arrangement worth considering; we would also need an organizational structure to sort through the priorities.

Task Force and MVC staff will follow up with Adam.

3. Climate Action Plan update

Once we break down objectives to goals, we will have shorter term goals; The CAP facilitation team will begin meeting with town staff and officials next week (each town will get a dedicated meeting) to review the goals and objectives generated by the 6 thematic working groups.

Meghan Gombos has been doing a stellar job facilitating this work on Zoom. The CAP website is up and running and will remain a key resource for this work.

CAP Progress:

- March: CAP Objectives/Town and School participation
- April: Actions, implementation steps, measures of success
- May: CAP presentation at Climate Action Week
- June: Finalize

Monthly Thematic Events

March: Economic Resilience
"The Cost of Not Adapting to Climate Change"
March 23, 3 - 4 pm

April: Energy Transformation Month
Decarbonization #1 - Beyond the Stretch Code
Decarbonization #2 - Greening the Grid

4. Climate Week planning update

There are numerous events planned, with an opening event planned for May 8th. Discussion also ensued regarding how to potentially include Eversource. Joe Nolan, CEO of Eversource, spoke at a Future of Energy event in CT. tailored for their business community. We might consider Climate Week a chance to keep Eversource engaged, though there is some concern it might be largely a greenwashing event.

Perhaps something resembling the CT event could be planned on MV once the summer tourist season winds down.

5. Other

Carbon sequestration study will be starting up in the Spring, early Summer; Sheriff's Meadow Foundation commissioned a great LIDAR project; it collected almost 20 shots per meter (almost 3x greater than previous LIDAR flyovers); findings will also fold into the CAP Plan.

Tristan will be attending a New England Social Coast Gathering on Fostering Social Resilience and Climate Adaptation on March 24th.

Minutes

MVC Climate Action Task Force

Friday, April 1, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Bob Johnston (BJ), Alan Strahler (AS), Kate Warner (KW), Noli Taylor (NT), Cheryl Doble (CD), Joan Malkin (JM), Beckie Scotten Finn (BSF), Richard Toole (RT), Bill Straw (BS), Stephen Kass (SK), Richard Andre (RA), Dion Alley (DA), Liz Durkee (LD), Dan Doyle (DD)

1. The Cost of Doing Nothing presentation recap

Oak Bluffs was found to have the most economic assets at stake with SLR and increased storm events. MVC staff and CATF need to vet the methodology of the group which took on the analysis.

The consultant took publicly available datasets and ran it through their modeling program.

Scope was different from the CCC; much less \$ invested in MV's analysis. Budget was notably less here. The leads just looked at building damage and job loss;

2. CAP update / meetings with towns and facilitation team

Edgartown was very interested in the polling less interested in the discussion; WT and OB have also been completed. These meetings include department heads and key town staff; they are polled in respect to climate change and resiliency issues. This includes asking them to prioritize. This stage will culminate in findings from all seven towns.

3. Vision Fellowship update

NT: The Vision Fellowship program has funded an Energy Planner at MVC. Liz and Kate have been integral in the formation of these positions. The other position will be focused on big picture regional issues; this second position will take on Education Outreach and will be sited at V Power; that hire will also be working with residents and businesses to achieve 100% renewable targets.

This is 80 hours of human labor / week focused on these key issues.

RA: Many thanks to Kate, Liz, and Noli.

NT: Vision Fellowship is seeing this as a sort of pilot;

4. Grant writer / researcher position update

Can we go out to seek a hire, and do we have money available? Where do we house them?

TI: If this relates to setting up an Adaptation Fund, or Community Fund of sorts, we need to set up a process to vet and prioritize projects.

JM: As job description is needed.

KW: Should we bring in Town Administrators to discuss at this early stage? It might be behoove us to do that.

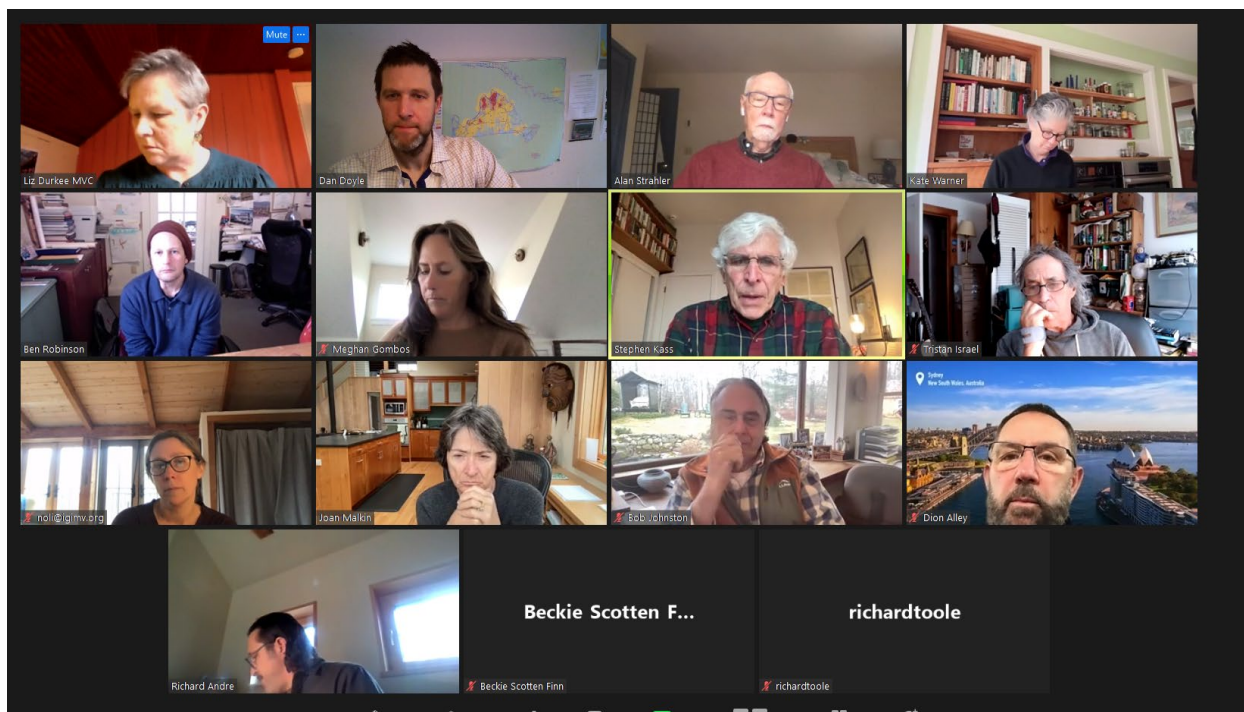
Given this is a potential funding mechanism for projects otherwise unfunded, it represents another service added.

BJ: We should consider adapting the proven practice/fundraising apparatus the island Inst. has found successful.

BR: An Island financing meeting for Isl. Institute?

MG: A sustainable funding mechanism could come in the form of a tourism tax; tons of dollars are generated for conservation in Palau through this framework; our assets are tourists; we should exact green fees; half could go towards infrastructure upgrades and half to conservation organizations.

BJ: A large event fee built into the Beach Road festival could also generate meaningful dollars toward these fundraising efforts.



Minutes

MVC Climate Action Task Force

Friday, May 6, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Kathy Newman (KN), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Joan Malkin (JM), Norman Willard (NW), Tristan Israel (TI), Bill Straw (BS), Cheryl Doble (CD), Liz Durkee (LD), Dan Doyle (DD)

CAP update

Draft, Goals, Objectives will be on display at the Grange Hall for Climate Week.

There will eventually be a goal for outreach & education. We need to think about how to distribute & socialize the findings from the Plan.

[Slideshow](#) recapping the progress, provided by Liz Durkee.

Climate Week

Goal: inspire everyone to take action; there are over [40 events next week](#). There will be a climate action pledge at every event that we will encourage people to take.

There are inserts in the newspapers, posters in many places and flyers have been distributed.

Julia Cassalino has been a stellar event planner.

<https://vineyardgazette.com/news/2022/05/05/plastic-alternatives>

There has also been a presence in classrooms where CAW planners have visited schools. See this [Gazette article](#) for an example of what students have been inspired to do.

Vision Fellowship postings for energy roles

Postings are now out; interview process will begin soon. Deadline is May 20th for MVC position; Vineyard Power deadline is sometime in June.

Recap of SSA- Sen. Markey's office-CATF meeting

Meeting was held with Steamship Authority's General Manager Bob Davis, and Vineyard Haven's Port Council Rep, John Cahill, along with staff from Sen. Markey's office

Bob Davis expressed Vision, wants to have someone hired by July 1st who is dedicated to coordinating grants

BIL – At least \$1 billion in IJA/BIL grants over the upcoming five years are available for rural ferries; however, the two ferry ports must be 50 miles apart; Alaska;

A new avenue for funding could be a congressionally earmarked package.

SSA GM may have been somewhat surprised at the findings of the Steamship report.

Onshore charging was part of the conversation as well. The Alternative Propulsion report will be discussed at the SSA Board of Governors meeting on May 26th.

Could WHOI collaboration / partnership for charging be explored?

More fleets discussion

The Transp. C'tee at MVRHS is talking about E-buses. The C'tee is meeting with the Highland group regarding charging prospects; this is challenging given the uncertainty around renovations for the school.

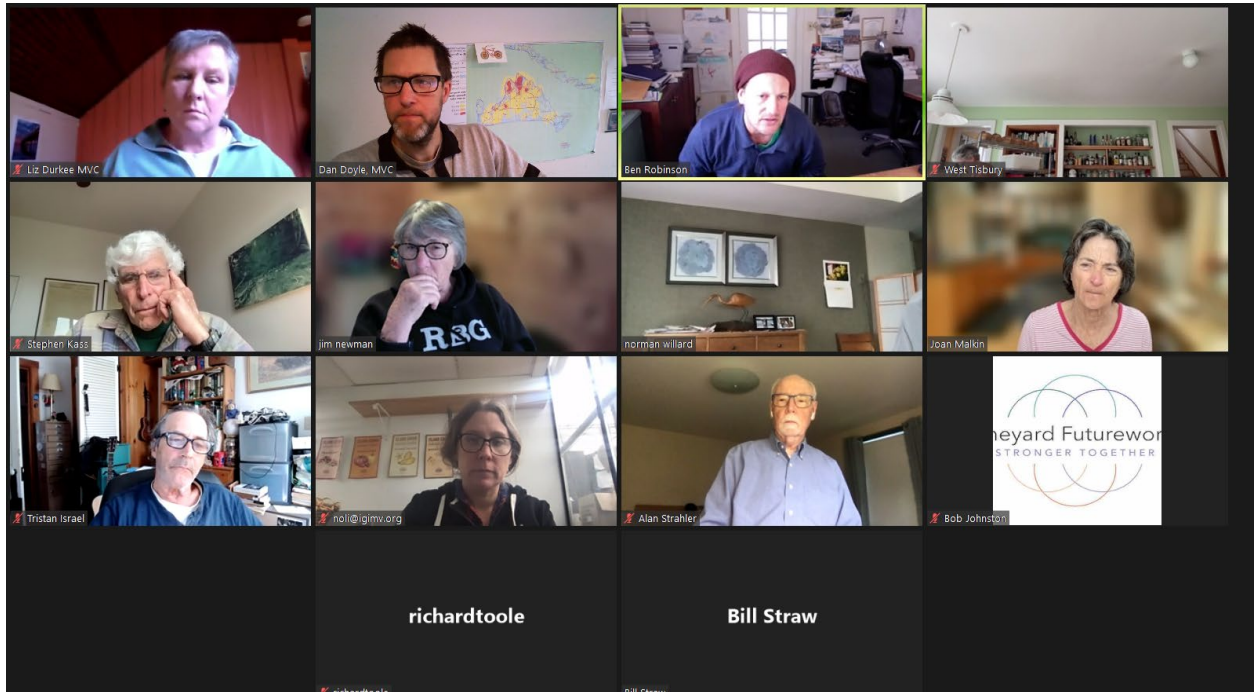
It helpful to send out an email blast to keep CATF members showing up at the Transportation C'tee meetings; presence is helpful; Noli and Kate have been teaming up thus far. The Energy Planner will likely end up going to these meetings once they're hired.

Additional working group updates

Education C'tee has morphed into Climate Week; an Introductory statement will be read at every event that week.

Are we getting enough press coverage? This could very well be a story in a metropolitan newspaper with bigger readership; Joan may reach out to Remi works at the NYTimes; Ben may do the same for Sabrina Shankman at the Boston Globe.

Yankee Magazine will be coming down; the writer will be on the island from Tues-Saturday; it began as a story on SLR and has evolved into more coverage for Climate Week.



MVC Climate Action Task Force

Friday, May 20, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Kathy Newman (KN), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Joan Malkin (JM), Norman Willard (NW), Tristan Israel (TI), Bill Straw (BS), Cheryl Doble (CD), Erik Peckar (EP), Dan Doyle (DD)

Meghan Gombos was the guest speaker for CAP final steps.

Climate Week Recap

40 events and over 1400 participants; the week showed that people can incorporate climate change into their own realm. There is a treasure trove of videos for events & it will be important to create a useable resource for folks interested in viewing.

CAP final steps

Final workshop on June 9

There has been an overall willingness to pickup up the baton toward implementation and a recognition that in some instances missions will need to be tweaked, along with operating practices;

The question remains: how much formal structure must exist to ensure implementation? In short, how do we move forward and set up a process to reunite around these issues at certain intervals, moving forward.

LD will continue to touch base with the more formalized groups and their respective leads.

Courtney Rocha has been very impressed and might use MV as a case study for building the grant into the community and ensuring the grant money recirculates in the local economy; she is impressed with the engagement and the level of thought – and was happy she made the effort to come to the Grange for the Climate Week finale event on the weekend.

At some point, we may need to sit down with the liaison and discuss next steps for another grant.

VSEC updates

VSEC met last Wednesday; without offshore we can't meet the State's renewable energy goals. There are numerous grant opportunities and yet again we need a grant writer.

Initiatives under development

A little over 400K has been raised for the Woodwell grant. Army Corps didn't like the State letter of support so MA must revise; there will be 2 tranches of work for this project; both are 50/50 matches; We are thinking about where we can go for private donations; we must raise b/w 100-200K; Federal Govt is looking more and more as if it will not be supplying dedicated climate funding thru legislation.

We will also need SSA grants for electrification; there is \$200 million written in for Alaska / Rural Ferry; we are inquiring re the prospects of a waiver

Education

A Climate Summit is being held next Fri. at Felix Neck.

Grant writing for federal funds

Energy Planner will take this on in relation to energy grants.

Is the other grant writing position purely focused on resiliency or should it be grants in totality?

Three core tasks of grant management are: Research, Writing, and Implementation / Project management

The resource could be shared, if the services could be offered by the County or Commission.

MVC might be the best place, though its director must buy in. A meeting amongst us all – including the County and Town Admins makes sense.

Public transportation

IPCC's early findings implored us to ride mass transit more; how do we help VTA increase ridership?

VTA may shift to an Uber system of sorts. Let's get a conversation with Angie; when VTA started they were doing more micro transit and they then shifted to more of a fixed route model; they are now shifting back to an on demand type of offering. DD will follow up with Angie.

There is a [subsidy program for low income folks to purchase E-bikes](#); there is no size limit on what you can and can't buy; maybe CATF should formulate an opinion. DD will invite BPAC (MV Bike Ped Advisory C'tee) to join a future meeting to discuss & we can learn about their level of engagement w/ elected officials.

MVC Climate Action Task Force

Friday, June 17, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Kathy Newman (KN), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Richard Andre (RA), Joan Malkin (JM), Rob Hannemann (RH), Noli Taylor (NT), Dion Alley (DA), Stephen Kass (SK), Liz Durkee (LD), Dan Doyle (DD)

Others in Attendance

Rich Dewitt (BPAC Chair), Bill Veno (MVC Senior Planner)

CAP update

Six thematic working groups met and had the chance to cross pollinate; the grant ends June 30th; July 21st is the last day for submittals; Megan Gombos and Liz Durkee are drafting the narrative at the moment.

The Plan now needs to be socialized; in the shorter term, we will be identifying the priority actions in December and considering organizing an event to get the summer crowd informed; such an event would be a chance to enlist potential funders.

Lori David was planning to put together an event to raise \$ for the Woodwell; if we could manage to share that event, we could use it to plug the Plan rather than crowd Woodwell's F/raising attempts; funding subc'tee will meet soon to further discuss.

Conversation with BPAC Chair Rich Dewitt and MVC Senior Planner Bill Veno on MV Bicycle-Pedestrian initiatives

BPAC is a sub c'tee of the Joint Transportation C'tee; it's comprised of volunteer members from each town and commits to advisory and advocacy; at some point it would like to see MV designated a bike-friendly community; designation can be achieved through MassBike; Nantucket has achieved silver status.

A PSA promoting Right of Way safety and Shared Road principles will be run in the MV Times and the Vineyard Visitor;

Our Shared Use Paths (SUPs) are only safe for cyclists when traveling beneath certain speeds; sharing the roads will involve a shift in acceptance from the community; there are also limitations of the infrastructure; and there are community character issues regarding road widening as well

Will opportunities emerge for incremental changes when roads are resurfaced? Tisbury has a \$5 million dollar paving bond; the Town's Open Space & Recreation C'tee is likely best suited to advocate for shared roads design when these projects are in the pipeline

MVC can map the problematic areas, and then the engineering expertise is needed; MVC offers an on call consultant/engineer;

There is no group working on the AQ – CH stretch between Beetlebung Corner and the Lighthouse. Rather, the North Rd – Menemsha – Lighthouse Rd – ferry corridor is the preferred and safer route, and the source of focus for planners and advocates at the moment. Kids can shift the forum and tone of these bike forums where proposed changes are being considered.

Perhaps we can create a goal for 2050 and work backwards from there.

The need for a comprehensive plan is critical; MVC needs to dedicate commensurate resources.

Litigation against Oil / Gas incumbents

Stephen Kass covered the contours of two recent emails he shared with CATF Chair, explaining recent developments in litigation against the oil and gas industry, and positioning of groups within the Commonwealth relative to the Attorney General.

Main thrust as follows:

the recent *Rhode Island v. Shell et al.* decision by the U.S. Court of Appeals for the First Circuit: That court affirmed the decision of the district court, which had denied the oil/gas defendants' motion to remove Rhode Island's nuisance claim to the federal courts and had remanded the case to the Rhode Island courts to consider the merits of the State's nuisance claims. This decision joins a growing list of federal appellate decisions reaching the same conclusion that state nuisance claims belong in state courts. The NY Times has reported that, as expected, the oil/gas defendants are hoping to elevate this issue to the Supreme Court in the coming term, where they hope to get a more sympathetic reading on the removal issue and, perhaps, on the merits as well.

In the meantime, however, there is a real opportunity for state AGs to pursue their nuisance claims in state courts, presumably with help from an array of NGOs who submit amicus briefs and perhaps offer expert testimony on the impacts of climate change in each of the states.

I think Massachusetts should be charging full speed ahead on this front and that our TF could make available detailed information as to the expected coastal and other impacts expected from climate change over the next 20-50 years, a short enough time span that courts could not easily close their eyes to those impacts. Although, as I have mentioned before, the idea of basing a claim on misleading consumer information may in theory limit the extent of damages the State could claim, the language of the *Rhode Island* court is pretty helpful on that issue. It repeatedly refers to the defendants' alleged actions in misleading the public about the impacts of their products and does so in a way that suggests the resulting damages could be far broader than the public's gas purchases (which might not have exceeded what they would have spent for alternative fuels). I don't know whether the Massachusetts or other AGs will argue that all resulting damages from climate change should be charged to the

defendants on theory that more honest disclosure would (or might) have led to stricter state controls and reduced climate impacts. This will be a difficult theory to prove for lots of reasons, but it does threaten substantial damages that could lead to settlements down the road.

In any case, I think this latest decision suggests enough judicial openness to the states' nuisance claims that we should now be exploring joining with the Massachusetts AG in her fight and outlining some of the ways in which our island can demonstrate and quantify the climate impacts that these defendants have helped set in motion.

As you know, I have been concerned about the Massachusetts AG's ability to prove both causality and damage claims in its pending litigation against Exxon and the rest of the oil/gas industry, not because either causality or damage is speculative but because the theory of the Commonwealth's litigation is consumer and investor fraud. However, in reviewing the latest version of the AG's complaint, I see that they have attempted to avoid this problem simply by seeking statutory damages for violations of the consumer fraud statute. Those damages, which do not appear to be conditioned on any actual proof of damage, are claimed to be \$5,000 per violation, as authorized by the statute, multiplied by the number of alleged violations by Exxon and its many co-defendants in the course of their false advertising to consumers and investors of the impacts of their products on the Earth's climate.

This figure could be very, very high. In 2020, for example, there were approximately 5,000,000 motor vehicles (autos, motorcycles, trucks and buses) registered in Massachusetts, down slightly from the approximately 5,300,000 vehicles registered in 2010. If every one of those vehicle owners was exposed to just one Exxon add that was deceptive, that would yield (at \$5,000 per violation) about \$25,000,000,000 in statutory penalties, just for Exxon. If one added the other defendants' adds and included investors, the figure would be far higher, just for a single add by each defendant.

This helps explain why the oil/gas defendants are fighting this and similar litigation so vigorously and will continue to use every judicial, legislative and executive branch strategy to delay the day of reckoning. What this also indicates, however, is that the Massachusetts AG may well be able negotiate a substantial settlement from the defendants in the coming years now that the Massachusetts case has been remanded to state court for further proceedings. While the oil/gas defendants are going to make a further effort to induce the Supreme Court to overturn the Massachusetts and other remands to state courts, I suspect they will ultimately fail and will therefore turn to Congress for legislative relief. In the meantime, though, the Massachusetts litigation will go forward and the pressures on the defendants to settle will grow.

At least that's my best guess at this time.

If MV was to pursue this, the AG will want to have specific programs, specific examples of erosion, adaptive strategies along with quantified estimates; we might be ahead of other coastal communities in identifying these areas. From there, we would move to intervene as a plaintiff.

Most logical fit would be the towns; and MVC should join as well perhaps as the unifying thread. Landowners with large sections of beachhead might also be considered; towns won't be keen on fronting money towards this undertaking, but would rather sign on if it's something the AG is underwriting. Furthermore, we will want to be indemnified against any counter claims such as damages for a frivolous lawsuit.

The legal documents are not very tricky; Stephen Kass will put together a short memo outlining the community's potential interest – noting on some level that the town's will desire a pre-set funding mechanism; this memo can be shared with Dylan Fernandes' office and from there, the AG. It will be preceded by a call with Dylan that includes Stephen. This will ultimately allow us to learn whether the AG sees us partners or simply as witnesses.

Eversource working group update

Ben and Rob had another meeting with Eversource; Lavelle Freeman couldn't make it; we had some outstanding issues with how much solar generation could be installed and remain consistent with Eversource guidelines.

Richard Andre has done technical work of how much solar we can install aspirationally b/w now and 2040. It amounts to about 15% of our total electricity use.

The rules Eversource is working on for installing solar are not relatively onerous; generally, if it's above 1 MW then they get concerned.

There is some litigation surrounding Dept Public Utility (DPU) and interconnection costs getting distributed across a multitude of ratepayers; Cape Light Compact (C LC) is an intravenor in this case; our reps will be informed

Even with cost-sharing amongst other ratepayers, the cost for the town of Oak Bluffs to complete their solar interconnection would be \$550K.

Discussions with Eversource also began to cover what roles do Eversource units have in microgrids?

If the towns are doing this to protect their infrastructure, the towns are going to need to pay for it; the microgrid dialogue needs to be socialized within Eversource to get its staff more versed and confident on the cost-benefits of microgrids; the Vineyard towns need such an analysis

There are also critical conversations re viewsheds and aesthetic impacts of a more robust grid that our communities should engage with Eversource around.

We might be able to shorten the long game regarding planning and investment into our grid and develop relationship with more senior executives within Eversource; the utility's rep who moderated the Oak Bluffs Open House on the cable project said she supports the general idea. That said, CATF has already accomplished some notable objectives working with the existing complement of Eversource representatives. Until we clear the technical hurdle working with Juan Martinez, Shakir Ball, and Lavelle Freeman (he's a director of the technical side of things), we can't fully roll out the public piece. Rather

than leapfrog the existing staff we've been working with, this might simply be framed as including more senior reps in the conversation.

Eversource's General Counsel has a house on West Chop.

Half of Eversource's business is natural gas; this could be a complicating factor in their commitment to renewable energy.

Eversource is still regulated under the Public Utilities Commission (PUC); the more we can include others within the Eversource orbit and the more we outreach there, the better the outcomes for all the customers; this benefits everyone; we need to sell our efforts and the embrace of new practices as advancing the greater good and beyond just the utility's service territory.

SteamShip Authority: Propulsion study

The report's cost estimates were predicated on a document generated by Elliot Bay Design Group;

Ben asked our Steamship Board of Governors rep, Jim Malkin if we could we have a meeting with Elliot Bay Design Group, along with a discussion with SSA around what role we might play in helping with the transition.

In the case of the towns and upgrades needed to commit to a more renewable energy economy, taxpayers will need to start paying \$ toward the transition; cost-benefit analyses will need to drive these strategic planning conversations and publicly financed investments; we will need to maximize returns and space out big investments; an example is electrifying the WT school will cost up island taxpayes several million dollars

Other Updates

Aquinnah and Chilmark were both awarded technical assistance grants where expertise within Dept of Energy will be made available to the towns as they work to achieve their energy related goals; this technical work will facilitate cost benefit analyses.

CATF Minutes, July 15, 2022

CATF Members present: Ben Robinson, Steve Kass, Bill Shaw, Dion Alley, Erik Peckar, Luke Lefebber, Kate Warner, Noli Taylor, Alan Strahler, Tristan Israel. Dan Doyle, Liz Durkee

Climate Action Plan update

The Climate Action Plan is completed and is in the hands of the website designer. It will be available at the end of the month. Liz gave a power point outlining some of the key actions in the CAP. There are over 150 actions, plus overarching actions. Questions/comments included:

- The need to supplement some of the action items with support for those implementing it
- The need to prioritize the actions
- There should be at least quarterly meeting of the thematic working groups
- Perhaps provide some information on the CAP at the Ag Fair
- Be aware of timelines, for example, actions that require town meeting votes

Energy Positions

We are close to filling the two energy positions: energy planner at the MVC and energy transition coordinator at Vineyard Power; the jobs are being funded by the Vision Fellowship.

SSA Propulsion Study

Key comments included:

- Overarching questions about the study
- Cost of electrification of ferries
- Need to bring Island expertise to the table to help develop a long-range plan
- It's a long-term project
- Need to change our relationship with the SSA
- CATF can help with technical support, political support, and funding
- Falmouth SSA rep is more interested in electrification than Nantucket rep

Carrying Capacity and Supply Chain Study

- Is ready to get underway
- Public participation is needed
- What funding is needed for this and other work per Climate Action Fund?

Woodwell Climate Research Center

Woodwell is presenting a film (Earth Emergency") and panel discussion at the Film Society August 11. A reception starts at 6:30. The film starts at 6:30 and will be followed by the panel discussion. A moderator may be needed for the panel discussion; let Ben know if you have any ideas

Building Electrification Acceleration Group

This group is advocating for legislation allowing towns to require new construction and major renovations to be 100% electric.

Prepared by Liz Durkee
July 15, 2022

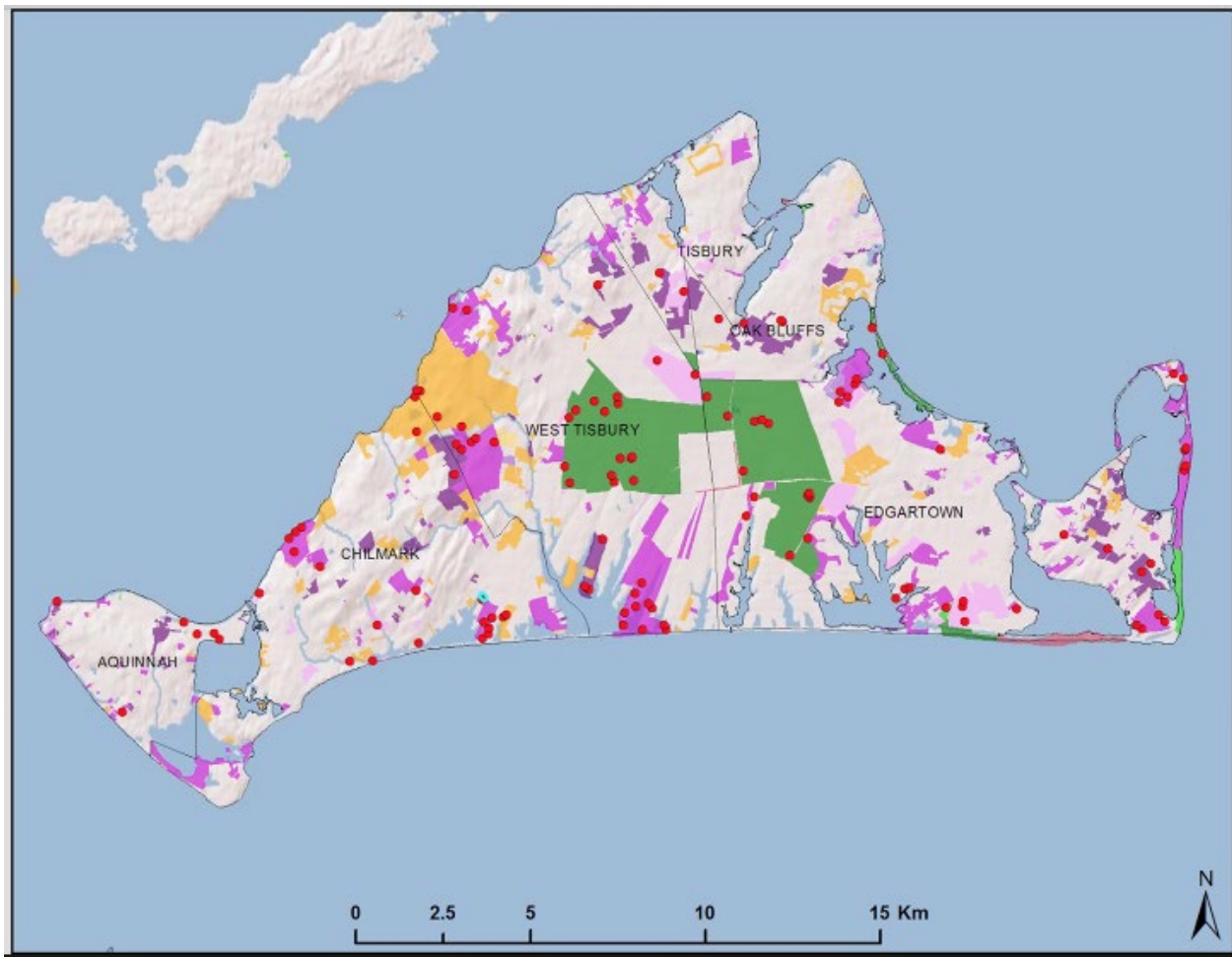
MVC Climate Action Task Force

Friday, August 5, 2022

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Kathy Newman (KN), Bob Johnston (BJ), Alan Strahler (AS), Cheryl Doble (CD), Tristan Israel (TI), Bill Straw (BS), Erik Peckar (EP), Norman Willard (NW), Kate Warner (KW), Richard Andre (RA), Rob Hannemann (RH), Richard Toole (RT), Beckie Finn (BF), Jonathan Harris, Stephen Kass, Dan Doyle (DD)

Woodwell (WW) Study update



Map shows 140 spots where David Foster and his partner assessed conditions in the field a couple decades ago; this will augment the Woodwell work; partnering with Biodiversity Works re how to mow, what plant species to plant, WW will track what's happening in private yards/properties; and will be able to assess what's changed from 20 years ago.

Aug 11th – WW is sponsoring a film at the Film Center in VH at 7:30; BR will moderate a discussion; opening reception begins at 6 pm. Film is 53 minutes.

Earth Emergency film is focused on Global Tipping Points.

Upcoming State and federal climate legislation

Aquinnah is central to this legislation; they could be eligible to become a community that prohibits fossil fuels in new construction; they filed to become one of these communities; eligibility is triggered once 10% of a town's housing inventory is Affordable in a town; AQ would be eligible to be one of ten pilot communities in MA to mandate all new construction or substantial improvements are all electric, minus cooking appliances.

There is more legislation coming up regarding how to site solar, along with the implications for farmers.

Biomass has also been removed from the list of eligible renewable fuels used for meeting state renewable targets.

MassSaves

Vineyard Power has been working on Community Empowerment legislation; passed in Senate in 2016; since then it's been introduced in every subsequent House session; it just passed; it will allow any community choice aggregator to enter into long term contracts w/ offshore wind developers and will really open up the market; Cape Light Compact (CLC) is now in a position to contract at competitive prices with any offshore wind developer.

For us, we are in the mid 20% for renewable mix with them; this might propel them to 35-45%.

Next steps w/ CLC and Mass Clean Energy Center (CEC) have been added for managing an offshore energy Trust Fund; collectively Vineyard Power will approach offshore wind developers to form a pilot.

When the state puts out RFPs for these projects, developers start getting better at what they're doing; Vineyard Wind's 61 turbines produce 800 MW; the excess capacity can then be sold to communities on the front lines of climate change; initially the installation was slated for 103 turbines.

Moving from the state to the federal Inflation Reduction Act (IRA) bill, much of it is about incentives driven around EVs and purchasing EVs; there is very little in it for public transportation; it's unclear whether it will lower GHG emissions; mixed reviews, but if it does pass it opens the doors to future federal legislation, especially if Dems can maintain control.

If anyone's installed solar this year, they qualify for a 30% investment tax credit.

Upcoming Town Warrant Articles

Brookline has a list of articles they are trying to pass;

They are going to try for 5 articles; first is a property tax surcharge modeled on the CPA model; the town would have a zero emissions advisory board to manage the revenue.

They also aim to disincentivize purchases of new and expensive luxury vehicles through an excise tax; money can be used to expand town EV purchases; the floor is vehicles over 30K; another relates to building code guidelines re density of EV chargers in a commercial project or multi family projects; finally, they also want to promote more solar.

Community Choice Aggregation

Building Electrification Betterment; this is a way to access low interest financing in transition to 100% electric; a septic betterment already exists in Brookline

VSEC has sponsored all of MV's energy related warrant articles thus far; they are taking the lead and caution against CATF taking the mantle on any of these types in the future.

On article they are considering would address the fast proliferation of swimming pools being installed;

Could MVC help with inventory how many swimming pools exist today?

Could we create a roadmap w/ Nantucket and SSA indicating a trajectory along which only certain vehicles get a car rez?

Carbon excise tax – carbon footprint of certain assets can be calculated; revenues could go back into an enterprise fund that assists members of the communities who can't afford EVs.

Baker-Solito HR Amendment requires states start to purchase EVs for their equipment.

Strategies for behavioral change on the Vineyard, summer visitors and residents

Jonathan Harris (JH) is a seasonal resident of OB; he completed a housing study for MVC many years ago; it included zoning and developable land; interested in engaging seasonal residents.

There is an economic interest in the form of property values and viability of infrastructure on the island for seasonal homeowners. We need to first intersect two spheres: local politics and seasonal residents.

Seasonal residents could become climate supporters through making monetary donations to a fund managed by a group, with periodic reports; CATF does already have an Adaptation Fund that Kathy Newman has helped coordinate.

An Adaptation Fund will need tremendous amounts of money; seasonal residents also have a moral interest in this, as well.

There is precedent in this magnitude of f/raising when the Aquinnah Lighthouse was moved.

MVC Climate Action Task Force

Friday, September 2, 2022

notes

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Kathy Newman (KN), Bob Johnston (BJ), Alan Strahler (AS), Tristan Israel (TI), Bill Straw (BS), Joan Malkin (JM), Norman Willard (NW), Kate Warner (KW), Richard Andre (RA), Richard Toole (RT), Dion Alley (DA), Beckie Finn (BF), Jonathan Harris, Stephen Kass (SK), Liz Durkee (LD), Dan Doyle (DD)

[CAP overview presentation](#) provided to Select Boards and the public (spotlight the slide before the final slide re JM?); presented by Meghan Gombos

JM suggested the content below be spotlighted in the meeting notes:

Some ways CATF can help with implementation:

- LEAD: Supply chain
- Island-wide salt marsh migration DCPC
- SSA collaboration on port resilience
- Advocate for permanent, full-time regional emergency manager
- Advocate for IW emergency preparedness, response and recovery plan
- Establish Economic subcommittee

Framework, funding and capacity were themes of discussion following the presentation. Mitigation fees waged upon tourists, sustainable finance plans, and/or ferry surcharge on arriving vehicles should all be on the table. This likely merits a feasibility study by an expert.

Energy positions onboarding

Dion Alley will be employed by Vineyard Power and will focus on the transitions needed for the business and residential sectors.

Kate Warner will focus more on policy, at the regional level – reaching out to stakeholders, town energy C'tees, institutions, SSA, and Eversource, amongst others.

These positions will advance resilience planning, and strengthen collaboration between CATF and Vineyard Power.

Grant writing is yet another focus area CATF and all six towns need added capacity for. It's unclear at the moment just how much time will be spent pursuing grants for these newly created positions.

Both positions will begin part time and within 6 months they may evolve to full time work.

DA may be doing some grant writing for seed money, to help towns and entities to make transition and give them the tools and resources as well.

There may be an upcoming press release regarding these positions. However, Nancy Kohlberg died this week and her family is funders of the Vineyard Fellowship (The Fellowship is underwriting the salaries for these new positions)

DA: Within 6 months, existing resources will be compiled and key information will be aggregated, with a public facing resource comparable to Concord, MA, that assists residents.

KW intends to establish what the position will look like at MVC and establish connections with key stakeholders, set up meetings w/ Eversource on Grid Modernization and other critical subjects, and with towns to coordinate plans w/ Emergency Managers.

MVC Climate Action Task Force

Friday, September 16, 2022

notes

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Alan Strahler (AS), Tristan Israel (TI), Norman Willard (NW), Kate Warner (KW), Noli Taylor (NT), Richard Toole (RT), Beckie Finn (BF), Jonathan Harris (JH), Stephen Kass (SK), Liz Durkee (LD), Dan Doyle (DD)

Rob Hannemann (RH) joined part way through. Kathy Newman (KN) joined near the end.

Agenda

1. Update on USACE carrying capacity study

Planning Assistance for States will fund one component of the scope and it's connected to the Clean Water Act; focus is on water resources; this element is a 50-50 match... can be in kind services; drinking water, stormwater, wastewater, and coastal flooding are encompassed.

Other part of the grant managed by USACE ERDAC is just a 15% grant by feds and then the islands would contribute an 85% match.

Full grant project is a year and a half timeline

Same ERDAC group is working with the Tribe.

Analyses must be informed by behavioral expectations/shifts in behavior (or inability to change) that are realistic.

Stakeholders on island will be more engaged in the Fall if funds can be raised to embark on the work, and they find themselves making contributions towards the scope.

2. Climate Action Task Force discussion of [Climate Action Plan](#) implementation

191 actions included; Steering C'tee will meet monthly; name of the group may pivot to Climate Resilience C'tee and it will be comprised of a rep from each town, County, Tribe and perhaps NAACP

Meghan Gombos will be retained for one day/week to assist with implementation; most actions will involve some type of funding. Prioritization of funding that will be needed is part of the work ahead; other revenue streams must be explored and pursued in earnest. The SC will also serve as an advisory c'tee to award funds; many contributions may very well be earmarked. MV Community Foundation may serve to assist as a fiscal agent for the funds.

Ideas for revenue streams:

Embarkation fees began in the 90's are involved legislative action; that fee must be tied back to a nexus to the harbor, but there is some precedent for flexibility in the types of projects that are relational.

A surcharge on tourists would require local and possibly state action.

NW will reach out to EPA to identify other communities that have been successful in raising funds on these issues.

SK will develop a memo on joining legislation against the Fossil Fuel industry.

Role of this Task Force moving forward

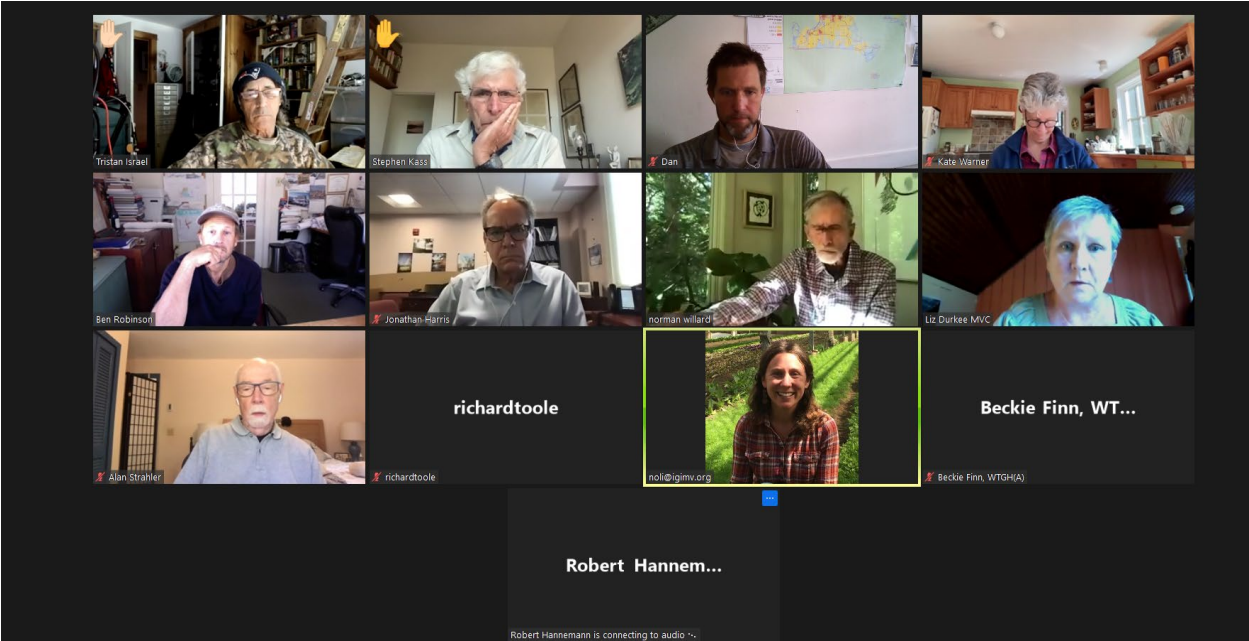
Behavioral change might be the next focus area

Metropolitan Area Planning Council (MAPC) includes scores of communities around Boston; they have sizeable funds and they've been very successful in securing this funding; maybe MVC could contact MAPC.

Update from Kate Warner, MVC Energy Planner

Two electric school buses are on the road; block heaters will keep the buses warm in the winter; MYPS (MV Public Schools) has a grant request out to EPA for 6 buses; all connected to the Up Island school district given the Tribal component makes such a request more competitive; campus plan Master will be needed to bring in a full fleet to the HS campus; Kimberly Kirk is the Chair of the Transportation sub c'tee; KW is asking the Town Energy C'tees to track data and to prioritize their buildings in term of energy resilience; will share notes to the TF re what the Energy C'tees are thinking about.

BR: Keep in mind candidates for the Energy Planner role at MVC because Kate will transition out likely in 6-9 months.



MVC Climate Action Task Force

Friday, October 7, 2022

notes

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Alan Strahler (AS), Tristan Israel (TI), Norman Willard (NW), Kate Warner (KW), Noli Taylor (NT), Richard Toole (RT), Beckie Finn (BF), Jonathan Harris (JH), Stephen Kass (SK), Liz Durkee (LD), Kathy Newman (KN), Rob Hannemann (RH)

Dan Doyle (DD) joined part way through.

Others in attendance: Carole Vandal (CV)

- Climate Action Plan funding

Climate Action fund housed at MV Community Foundation; starting to receive large donations into the fund that we can direct toward projects; many donations will be connected to individual projects; we should solicit for general funds AND targeted projects.

Steering C'tee could be a good review c'tee for the funds and will be the group to prioritize; we should also discuss strategies for small dollar funds to activate citizenry. These will include reps from each town.

Internet is the best way to reach people; can we pool email posting lists from each towns? That is unlikely but are there any? Blue DOT living magazine sent out something near the end of the year to f/raise. That might be an avenue.

There needs to be visible nexus for potential donors to see the suite of projects that might be available them and where their funds can/will be directed towards.

KN noted we need more people to join in the brainstorming for f/raising.

Are there people at MassDEP who could assist us in learning where different towns are getting their \$? S.C. is also looking at green fees / user fees / visitor fees.

Climate Action Fund through the MVCF requires an advisory board, which will be the S.C.

Alex Elvin who is moving away from DRIs might be a resource to assist with communications. Perhaps we invite him to be part of this C'tee. Adam Turner will likely be supportive if he is reached out to but the C'tee should get familiar with his responsibilities and be clear on his projects.

John Abrams will meet with the F/raising working group to share some ideas how they've been successful in F/raising for the Housing Bank.

Meghan Gombos is another person we would like to enlist for more work in early 2023 once her other projects wind down.

Funding group and Education group need to communicate. The latte is going to organizations to present to them on the CAP. Next year there might a Climate Action Day planned.

BSF sent the CAP to the Tribal Rep at EPA and their rep deeply praised the Plan.

- SSA & Eversource updates (Kate Warner)

A group – Megan Ansler from Falmouth, BR, KW, RH, Richard Andre and perhaps some others – came up with comments re the propulsion study that were sent to Bob Davis; the comments were then sent to Board of Governors and Port Council reps and they got no traction. The SSA Long Range Planning Task Force was then the next recipient; it is led by Steve Sayres, former counsel for SSA; KW provided a presentation to the TF and as a result Bob Davis sent the comments to Elliot Bay Design Group.

Bob Davis is attending a Ferries 2022 conference; Sayres is looking at setting emission reductions goals;

On 10/4, SSA received 5 responses for their strategic plan RFP. However, its primary interest on passenger satisfaction makes it too narrowly focused.

Sayres and Jim Malkin have helped move the needle of SSA consciousness on electrification.

The two new vessels present retrofit opportunities to improve their propulsion.

Casco Bay Lines began their electrification process back in 2014, but it didn't pick up momentum until they began their global research; their fares are their only revenue stream. SSA for need for business model innovation was briefly discussed but there was no consensus amongst team members on this topic.

Casco Bay gets nearly none of their funding from Maine.

BR: SSA doesn't fit into most federal funding programs. There is also congressionally directed spending; fare box model precludes their ability to get other funding sources and they are less accountable through being fare box driven.

TI: One thing Casco Bay is committing to is a serious strategic plan.

KW is working on forming an Eversource working group – County, Tribe; it's a group to urge Eversource toward strategic planning for the island; Rob H and Alan S and Peter Wharton from County if he agrees, Ben R from CATF and someone from Vineyard Power will comprise some of the team.

Many electricians are resisting the move to all-electric given their concerns the grid cannot accommodate the shift.

RH: we need to have 2x as much power coming into the island at peak power times; with the new cable and additional cable we will have adequate power for the next decade.

National Grid is proposing a 46% rate increase to Worcester residents; Eversource will update their DPU (Dept of Public Utilities) filing in November.

The cost of natural gas is going up so that is why rates are going up; JM noted our message to the public should be that energy costs will go up all around; it is not unique to natural gas (electricity).

A 1 or two page fact sheet on the or an Op-Ed so folks can get the word out will be helpful.

NW: Energy Efficiency commitment is an additional message we need to underscore. SK notes that blasts are okay but they're ephemeral; need an ongoing subc'tee to address this on a continuing basis.

JM: ICAN can assist in disseminating these key messages.

- Warrant article discussion - what towns are starting to think about

Tisbury is working on floodplain development, along with pools becoming all electric.

JM volunteered to be rep for Chilmark for All Island PB meetings; LD has been working with Shannon Hulst from Barnstable County on floodplain bylaws and wants to circle back with her.

VSEC is working on an ordinance on tree trimmers and leaf blowers and pool heating becoming all electric











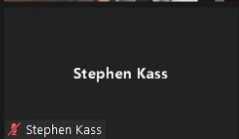
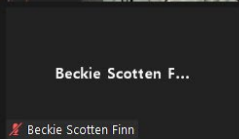
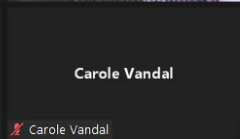
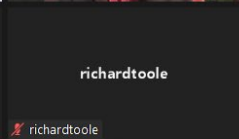
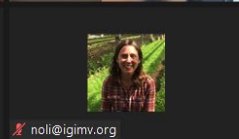
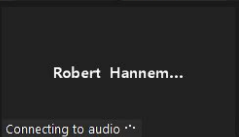

- Storm and emergency preparedness

Kevin Brennan is our part time Regional Emergency Management Coordinator. He can only work 2-4 hours/week given his other full time job at KMYV. He was well positioned for the Venezuelan asylum seeker response and worked 16-20 hours over a couple days to help coordinate the response / ordeal, but that work is more reactionary than the advanced coordination work that CATF feels is also needed. He has been attending trainings, reviewing existing response plans, and organizing his predecessor's work in his limited time.

The Dukes County Regional Emergency Managers meeting takes place monthly. DD has attended over the past couple of years and the Emergency Managers, who prioritize Kevin's work, have given a lot of thought to the choice to hire Kevin. MVC is Kevin's administrative employer and MVC has the chance to meeting with the Chair of the DCEMA every six months to review the Coordinator's responsibilities. DD will learn more from them about how they envision this position succeeding given the limited amount of time Kevin can typically commit.

BJ posited whether there might be a climate discontinuity event after which our climate is never the same. Do we need to raise funds to make this position full time. Others expressed interest in first understanding the DCEMA's approach to the position and the work involved.

- working group updates (covered above)

 Ben Robinson	 Dan Doyle, MVC	 Liz Durkee MVC	 Kate Warner	 Kathy Newman
 norman willard	 Tristan Israel	 Town of Edgartown	 Bob Johnston	 Joan Malkin
 Stephen Kass	 Beckie Scotten Finn	 Carole Vandal	 richardtoole	 noli@igimv.org
 Robert Hannem...		 Connecting to audio ** 16174355926		

MVC Climate Action Task Force

Friday, December 16, 2022

notes

Zoom

CATF members present: Ben Robinson (BR), Tristan Israel (TI), Kathy Newman (KN), Bob Johnston (BJ), Alan Strahler (AS), Tristan Israel (TI), Kate Warner (KW), Richard Toole (RT), Beckie Finn (BF), Jonathan Harris, Stephen Kass (SK), Liz Durkee (LD), Dan Doyle (DD)

Others in Attendance: Meghan Gombos (MG), Nikola Blake (NB)

WoodWell Climate Research Center staff

Dave McGlinchey - Chief of External Affairs

Christopher Schwalm– Sr. Scientist, Program Director of Climate Risk group

Natalie Baillargeon – External Affairs Analyst

Emily Sullivan – External Affairs Manager

Dominick Dusseau - Research Associate

Alex Naegele - Post Doc Scientist in the Risk Group

Agenda

Woodwell Climate Research Center presentation on Risk Assessment Work

[Presentation of predictive risk assessment modeling](#) by Alex Naegele

Is aquifer modeling possible? USGS is beginning a groundwater model for MV. We should examine the urban heat island effect in key places of hardscape on the island.

A climatic envelope approach is possible as well, which accounts for a shifting climate and identifies which species will thrive or suffer. Let's find out the efficacy of certain adaptation actions through the model.

A Literature Review of what models and resources we already have is a first step.

CATF should send a message to our Town Administrators updating them and find out from them what we need as far as modeling goes.

Woodwell takes the approach that they need to pick up the communities where they are; it's foundational to get as much feedback as possible to find out what's the best bang for the buck.

CATF compiled a database of existing data applicable to the island; this was generated by an intern ~2 years ago and should be updated.

Update on communications strategies

BJ connected BR with Barbara _____ from Brown University. She recommended surveys and focus groups for CATF's messaging. BR will compile his notes and share them with CATF.

JH is considering writing OpEds to the papers on behalf of the Task Force. Before we communicate we need figure out our message, our crafted story.

Funding for a climate communication specialist is needed so we know where to direct our message. The activity for this group has not been communicated to the general public and we can do better.

A consultant could be a good way to pilot someone, even if they're not based here on the island. Timing and ability to pivot quickly is key, which might prove problematic with this model.

Co-branding is critical; this is common practice in the Netherlands approach (ie. The Vineyard Way should be joined with Beach Road Festival); there needs to be consistency in our branding approach; we need a person

WMVY Board – radio station wants to have a more local presence, its' another vehicle we should leverage.

Congressional visit recap

Ben, Dan, and Liz met with State and Regional Directors, along with an Outreach Director from the offices of Senators Markey and Warren and Congressman Keating. VTA loaned a mini bus for the tour. All six towns were covered. Town staff and volunteers from key committees mobilized quickly to orient the visitors, greet them and articulate specific needs for federal funding at key resiliency sites/projects.

We must leverage this visit and keep the momentum/contact with these offices.

Next meeting and 2023 schedule

The Task Force will meet on a monthly cadence in 2023 and it will be the 1st Friday of each month.

