

MINUTES OF THE CLEAN ENERGY COMMISSION MEETING
January 24, 2019
City Hall, 3rd Floor Conference Room, 9 Dale Avenue
(Approved at meeting of 2/28/19)

Members Present: Candace Wheeler, Linda Brayton, Paul McGeary (by phone), John Moskal, Linda Stout-Saunders

Members Absent: Mike Nolan and Debra Darby due to travel.

Staff: Jeremy Price was unable to attend

Guests: Harry Hintlian, Chairman of the Board, Reforest the Tropics Inc.; Dick Prouty and Susan Hoague of TownGreen 2025

Public: Tom Mikus, Rockport Green Community Task Force

The meeting was called to order by **Ms. Wheeler** at 7:30 pm.

Roll Call Vote: **Mr. McGeary** joined the meeting by telephone. All members present verbally consented. Further actions throughout this meeting that required a vote were conducted by a formal Roll Call vote.

Approval of Minutes: Minutes of November 29, 2018 outstanding. All other Minutes previously approved.

Member Reports: **Ms. Brayton** and **Ms. Stout-Saunders** concerning MAPC webinars on municipal participation to revise the International Energy Conservation Code (IECC) for 2021 delayed their reports until input from **Mr. Price** was available. The IECC is the model energy code that the Massachusetts Board of building Regulations and Standards is required to adopt every three years as an update to the state's base building energy code. **Ms. Darby** will present a report concerning the Environmental Business Council at our next meeting.

Community Solar: **Mr. McGeary** reported that St. Johns has signed a contract to install solar panels on the roof of its parish house and its rectory. Installation is expected to begin sometime in March. He also mentioned that he recently signed a contract to have solar panels installed on the roof of his home in California.

100% Renewable Energy Act: Members discussed a letter circulated by Environment America to the Massachusetts Legislature requesting the support of this legislation from individuals, or on behalf of their organization or business, for 100% renewable energy. **Mr. Moskal** thinks that is great for activist groups that are pushing an agenda but thinks that this is outside of our mandate which is really to advise the city government on things and policy that are achievable within their realm to make their decision on. He is not out of line with the goal and that we desperately need to make some changes to get there

quicker than we are doing at this point, but is not sure if that is really the role of the CEC given our charter; and he also thinks that it needs to be refined. NEPOOL is not going to go away by 2035 and they will continue to be the governing organization of the electric grid in the region. Massachusetts is part of the 6-state electric grid, and can't just declare itself to be 100% renewable. Right now, today, we are at 6.5% non-emitting renewable. It was probably a little higher when the sun was shining. That's the challenge we are up against.

Mr. Prouty: Is not suggesting it is not a big challenge but does not understand why we wouldn't take a position to push the envelope and if you believe it's a feel good thing it's not going to stop anything from happening but it will actually encourage investment at the statehouse level and the private utility level.

Ms. Brayton: Does it does do any harm to sign it. Personally she would. This came up last year from these folks and we ended up doing it separately.

Mr. Moskal: No, personally he would but not as an energy commission.

Ms. Wheeler made a motion that for the time being individual commissioners can sign as an individual if they wish to do so but we will hold off on any action as a CEC in light of good points made by Mr. Moskal; seconded by Ms. Brayton; voted all in favor thus, unanimous that we will act on this as individuals.

Reforest the Tropics: RTT is a scientific research organization whose primary purpose is to see how much carbon dioxide (CO₂) could be captured and stored in tropical forests. Mr. Hintlian joined RTT in 1996; research goes back to 1996 when RTT was organized as the United Nations Carbon Sequestration Project. In 2013 Mr. Hintlian's company, The Superior Nut Company, became the first company in America to become carbon balanced solely through its own newly planted tropical forest. Most carbon storage projects involve preserving tropical [or any] forests that are already storing massive amounts of carbon.

RTT works to mitigate climate change through sustainable forestry and long-term carbon sequestration. CO₂ emissions are offset by converting deforested tropical land to biologically and economically sustainable new farm forests by planting new trees (from seedlings) that capture CO₂ and sequester carbon for 25-50 years. As trees grow, they remove carbon dioxide from the air, store carbon in the tree and soil, and release oxygen into the atmosphere.

Funds needed to plant a forest are raised through donations. When a local farmer plants a forest for a donor it is dedicated to that donor, not comingled with the forest of another donor. Thus every donor has its own forest that it can measure how much CO₂ has been captured and how much carbon is in their own forest, such as teaching a high school student the value of its forest. It's a business model that can capture and store carbon over long periods of time and it has a financial incentive to do that. The farmers can actually make more money planting and maintaining these forests than they can raising cattle on the same land. They have an income that in some cases is twice as much as they could otherwise make. These forests are never going to be cut down. The farmer makes money by thinning

20% of the forest every five years. (They have more farmers asking to do this than they have donors.) “Thus, it’s a sustainable a long term solution for CO2 absorption and carbon storage”.

Mr. Hintlian first got involved with the City of Gloucester and Cape Ann through a chance meeting with Senator Tarr at an environmental fair about 1.5 years ago. Mr. Hintlian proposed to balance the carbon footprint of the entire Gloucester school system and that RTT can do so for \$20 per year/student over a 25 year period to offset the entire carbon footprint of the Gloucester school system. Senator Tarr, Mr. Hintlian and Mr. Prouty subsequently met to discuss further details and how such a program could be included in the then still pending environmental bond bill. Subsequently, Senator Tarr was successful in getting legislation for carbon sequestration and related educational activities included in the bill. This means that RTT could introduce their program to balance the school systems of Cape Ann (and beyond) and introduce education using a school’s own tropical forest to create a climate change curriculum.

The environmental bond bill signed by Governor Baker in August 2018 includes grants for municipalities to support projects that promote carbon sequestration and climate change resiliency through sustainable forestry, including associated education initiatives. **Mr. Hintlian** anticipates some issues such as keeping the money in Massachusetts. He pointed out that this type of model is not workable in our temperate climate zone; and pushback from other environmental groups.

Mr. Mikus has worked on carbon sequestration for 20 years. Although he is in favor of reforestation, he questioned the permanence of this technology. He stated that it is only good until the next forest fire and asked what happens when a tree dies; what about 1000 years from now? In a geological solution (carbon sequestration in the ground) it is a permanent solution, i.e. 1000 years.

Mr. Hintlian explained that (1) there are no forest fires in the tropics. (2) 15-20% of a forest is thinned/harvested every five years and replenished. Harvested trees are intended to be used for items such as lumber and paper. RTT does not account for the ongoing sustainability of the byproducts. (3) The model is designed to capture carbon over the next 100 years or so. It’s a long term solution that works on a financial basis. Mr. Hintlian pointed out that underground storage is still very expensive.

Mr. McGeary: Pointed out that over the next 100-200 years technology will have changed. There will be other solutions. In the meantime we need to forestall climate change now even with temporary solutions.

Mr. Hintlian referenced the Intergovernmental Panel on Climate Change (IPCC) report that states we have 10-12 years to reverse climate change. And that we need to utilize what’s available now.

Mr. Prouty: The next step is the application process and determining the scope of eligibility of who can apply which will still take approximately six months. He and Mr. Hintlian will be meeting next week with the Chamber and Senator Tarr to discuss the next step of meeting with Senator Beaton to get the regulations written that will make it possible to apply for the funds. Under the Bond Bill, \$50M of the \$2.5B is available for general projects and we’re a paragraph in the language for that. Some of the \$50M will be used for what is called earmarked. As example, \$1.5M has been allocated for a seawall in Cambridge. A lot is for infrastructure for resilience, but it does have language for mitigation.

Ms. Stout: On a global scale, how much needs to be planted, how much land is available before it can make a difference?

Mr. Hintlian: 210 million hectares available to replant. If all were planted today, we could reverse climate change in 25 years but that would also include reducing our emissions by 80% by the year 2040. The problem is that no one else is doing this under an economical model. He referred to the UN REDD+ model for using forestry as an educational guide to carbon sequestration.

Moskal: Asked what RTT needs from CEC.

Mr. Hintlian: The state is contributing 75% of the cost. Thus we need to raise 25% of the funds privately. Need a match. For Gloucester as example, we need to raise \$375K, one time not per year.

Mr. Prouty pointed out that this is a 5-year phased in project. We would need to raise \$75K/year over five years. This is the first presentation. We are seeking input.

Mr. Moskal pointed out that CO₂ is not the only pollutant. For every solar panel and wind turbine placed locally you are displacing NOX, particulates, SO₂, you're offsetting the need for cooling water intake at local power plants which has an impact on local estuaries so there are a lot of ancillary benefits tied to renewables. Reforestation may be more cost effective but the other benefits from renewables should not be discounted.

The consensus was that we need to do it all.

Mr. Moskal mentioned as next steps that a timeline for grant application to the state needs to go in with a five year path, more public outreach, city council needs to be advised and they and the mayor will be asked to support the program.

Mr. Prouty thanked Ms. Brayton since it was her idea to bring this to the CEC's attention.

Ms. Stout asked if there is a carbon offset and/or tax deduction for a donor. As example, a corporation sponsoring a school.

Mr. Hintlian: RTT as a 501C3 should entitle the donor to take a tax deduction for its donation.

Mr. Moskal: Questioned what is being offset in the context of the wind turbines and the RECS (renewable energy credits).

Mr. Hintlian: We intend to include the entire carbon footprint of a school not just electric. Ultimately, this is to offset the entire carbon footprint of Cape Ann, not just the schools. It's not clear if the bond bill is limited to municipalities. He mentioned that by this summer the Tower School in Marblehead will be the first 100% carbon balanced school in the country.

Mr. McGeary noted that it should be emphasized that the \$375K, spread over 5 years, is a onetime expenditure for the schools to participate.

Mr. Prouty: we will have more direction once the regulations are in place.

The CEC thanked Mr. Hintlian for his presentation

BIG ROOF SOLAR CHALLENGE ON CAPE ANN

Ms. Hoague: TownGreen 2025 wanted to do another solar round so they looked at a Melrose program that encourages people, businesses, and non-profits with large roofs to go solar. From TownGreen's experience of running the Gloucester Solar Challenge they found that installations for big non-profits and businesses were much more complicated than putting solar on residential roofs.

TownGreen has become knowledgeable of and has worked with Resonant Energy. Resonant is not a solar vendor. They have the expertise to work with individual businesses and non-profits. They specialize in organizing community outreach solar campaigns, draft the scope of work that is feasible, determine the economics, and sourcing financing. They are the only company TownGreen has found that provides these complete services.

TownGreen is proposing to work with Resonant, writing and sending out RFPs similar to the Gloucester Solar Challenge to local business solar companies and large scale solar companies, then getting bids with the goal of obtaining a group discount, bulk purchasing pricing for the participating businesses.

TownGreen is hoping to partner with or get the support and an approval from the CEC to add credibility to the program. The review process will be done by a group of people to select the vendors, write the criteria for the RFP and review the bids all with the assistance from Resonant. Resonant will write the RFP once the group outlines the parameters.

TownGreen has been doing some ground work canvassing for a level of interest. They have been talking to the school system, banks and local businesses and have gotten a favorable response. TownGreen is waiting to see if they can get some part of the city to support them at some level. Not asking for a partner, but an endorsement of some form would be helpful.

Cape Ann Savings Bank met with Ms. Hoague and Mr. Prouty. They are interested and see the benefits. They did mention that the first ideal location would be their bank branch in Rockport.

Mr. Prouty: Stated that today they wanted to make this presentation, get questions and hopefully get a vote of support from the CEC at the next meeting. TownGreen has met with Mr. Price and Ms. Wheeler. Mr. Prouty mentioned that the solar investment tax credit declines after December 2019 so there is an urgency to get this program underway. Madeline Barr from Resonant can come to the CEC next meeting to provide any additional information.

Ms. Brayton: Mentioned that we have had experience twice before where it wasn't clear up front in writing what the agreement was between the CEC and TownGreen and whoever else. Need clear direction from Mr. Price and people from the city to nail it down.

Mr. McGeary asked if they are asking for an endorsement or actual participation. What would be the role of the city and the CEC? Mr. McGeary has been working with Resonant for two years. They provide a service. They assess the bids and make the selection.

Ms. Hoague: The city may have no role or the city could provide parameters for selecting a good vendor or even select the vendor. TownGreen has discussed with Mr. Price. If TownGreen were to partner with the city then it would require a formal RFP. The city's role is still to be determined. Resonant would assess the bids and guide the TownGreen group.

Mr. Prouty: Stated that Melrose had a 250Kw goal that they have met. The City of Melrose signed a letter of support. TownGreen is asking for something similar from the city for this program. An acknowledgement that the CEC and the city support the efforts to reduce the city's carbon footprint. Something similar to this would also be requested for the Reforestation project. Moral support.

Ms. Brayton: We just need to clarify. I would like to hear from Mr. Price because he can best speak from the city's perspective. We need him to be present for any further discussion and/or questions and before any votes are taken.

Ms. Stout: Reminder that time is of the essence to earn the best tax credit (project needs to installed by the end of December 2019) and SMART (Solar Massachusetts Renewable Target) rates.

Mr. Mikus: Mentioned that February 6 there is a webinar sponsored by the League of Women Voters – The Climate Reports of 2018 featuring Professor Michael Oppenheimer.

Ms. Wheeler: Advised that we will postpone other Agenda items until the next meeting: Library renovation, CEC annual report and new business.

Meeting adjourned at 9:15pm.

Next Meeting Date: February 28, 2019

Respectfully submitted,

Linda Stout-Saunders