



**March 4, 2021 COMMENTS TO CGA'S ENERGY & TECHNOLOGY COMMITTEE FROM  
SOLARCONNECTICUT (SOLARCONN) EXECUTIVE DIRECTOR MIKE TRAHAN**

S.B. No. 951 (RAISED) AN ACT CONCERNING RESIDENTIAL SOLAR PHOTOVOLTAIC SYSTEMS  
SOLICITATION (support w/substantial changes)

S.B. No. 952 (RAISED) AN ACT CONCERNING CERTAIN SOLAR ENERGY PROJECTS (support w/changes)

H.B. No. 6523 (RAISED) AN ACT CONCERNING VIRTUAL NET METERING CREDITS FOR  
MANUFACTURERS IN DISTRESSED MUNICIPALITIES (support w/changes)

*SolarConnecticut is the state's solar energy business group that works on behalf of companies that actively finance, design, install and develop commercial and residential solar power systems in Connecticut. Our members are largely in-state businesses responsible for majority of the nearly 50,000 home solar systems installed to date, and commercial contractors developing small and medium size rooftop and ground mount solar projects. The 2019 Solar Foundation Jobs Census counted 2,234 solar industry jobs in Connecticut.*

**S.B. No. 951 (RAISED) AN ACT CONCERNING RESIDENTIAL SOLAR PHOTOVOLTAIC SYSTEMS**

**SOLICITATIONS.** This bill requires an overhaul. SolarConn installers that conduct door to door solicitations do so within rules set up in local ordinances. They are willing to meet with the bill proposer to resolve the issues and return improved language back to the Committee. A few, not all, of our concerns are:

Line 5: Left unchanged, the definition of "Residential solar photovoltaic systems provider" could incorporate manufacturers and others making them responsible for training. We suspect the bill is aimed at the company that makes the sale/solicitation.

Line 23: Recommend amending the requirement so that information must be disclosed "before the close of the sale" or "prior to the customer signing an agreement."

Line 26: restricts municipally authorized door-to-door sales to between 10am – 6pm. Towns set the times when solicitations can be made.

**S.B. No. 952 (RAISED) AN ACT CONCERNING CERTAIN SOLAR ENERGY PROJECTS.**

Section 1: We support efforts to promote a balanced access to the storage goals in this section. We point out that more than a year ago PURA opened a related DOCKET NO. 17-12-03RE03 to investigate the topic of electric storage in Connecticut. Many stakeholders are actively engaged in this docket including SolarConn members that supply storage products and installers who have sold and installed storage products at the residential level.

Section 4: Municipalities should have equal access to virtual net metering (VNM) billing credits. This section allows less than a quarter of Connecticut cities and towns to save money on their electric bill through VNM. Instead of another incremental cap relief step, we urge the Committee to consider testimony from municipal officials who support open access to VNM credits (permanently removing the cap). SolarConn's position is a conditional lifting of the cap (three years) with a PURA docket opened in Year 2 to review economic development/ratepayer impact.

The cities and towns listed below want to purchase renewable power, virtually, through the money-saving virtual net metering (VNM) billing credit program. Some have issued RFPs to buy or learn more about VNM billing credits. Two dozen municipalities already have VNM contracts in place and are on track to save \$1M-\$2M on their electric bill (see attached media clips). Line 7 in SB 952 though caps the number of credits made available to cities and towns for a 7<sup>th</sup> year at a level so low that requests from the municipalities below for fair access to credits will almost certainly be denied.

Branford	Montville	Stamford
Bristol	New London	Torrington
Coventry	Newtown	West Hartford (RFP)
Danbury	Norfolk	West Haven
East Windsor	North Haven	Westport
Fairfield	Portland	Wilton
Greenwich (RFP)	Rockfall	Winchester
Hartford	Salisbury	Windham
Ledyard	Southbury (RFP)	Windsor
Middletown	Southington	MDC (RFP)

Lawmakers from both parties have filed six (6) bills in the Energy Committee this year that open access to virtual net metering beyond municipalities, the state of Connecticut and farms. One bill gives homeowners and private businesses access to credits. Another allows manufacturers in distressed municipalities to have access to credits. All would be improvements to SB 952. Why keep any ratepayer from saving with VNM? Open access to credits promotes fairness. It gives the market a chance to prove itself. No municipality gets left behind. Businesses and property owners with excess space can build projects that benefit these other constrained properties. The lifting of these caps and expansion of the ratepayers that can benefit from the program will also promote solar systems being built on properties other than prime farm/forest land.

Virtual net metering credits are generated when electric power from designated ground mount solar systems is uploaded to the grid. Solar project developers receive transferrable billing credits for that power. Credits are then offered to municipalities. Demand for credits is high. Cities and towns use the credits to buy down the cost of grid power. **See 5 news clips included at end of my testimony.**

A conditional lifting of the cap would create hundreds of construction and electrical contractor job. Towns that host projects benefit from additional property tax revenues (requires passage of bill pending with ET).

VNM is already saving towns money. This is indisputable. And the preliminary findings from the recent DEEP/PURA Value of Distributed Energy Resources (VDER) study show that VNM places no burden on ratepayers. Quite the opposite. Credits that VNM project developers receive from the utility companies for the VNM power that's upload to the grid **is priced at several cents less per kilowatt than what the VDER has determined it's worth**. The ratepayers benefit from the difference. The more billing credits the Committee authorizes in SB 952, the more ratepayers will benefit.

The Office of Legislative Research has produced a well-written summary of VNM (2015-R-0296). The VNM market has changed since this report was written in six years ago but the VNM basics covered in the report remain true today.

Section 5: During the 2020 Special Session on the "Take Back the Grid" bill last fall, many lawmakers said poor storm response by those charged with maintaining the electric grid in Connecticut caused ratepayer hardships. The pro-ratepayer initiatives in the 2020 Special Session bill were passed with the expectation the bill would force the utilities to catch up to the value ratepayers already expect them to deliver. We find it difficult to understand that six months later, the Committee is now considering section of the bill that would actually add to the utility's infrastructure responsibilities.

To present Connecticut's large monopoly businesses with additional rate-based construction revenue opportunities seems out of touch with ratepayers who almost certainly prefer that the utilities pay more attention to their core task.

In addition, the commercial solar market in Connecticut was built by private companies using largely private capital they brought into the market. For 10 years private businesses have taken all the risks. The market is being serviced. Utility ownership of solar facilities in Connecticut is unnecessary.

Section 8: The bill language starting on line 176 is vague in its reference to "solar energy program consolidation." DEEP wishes to *consolidate* solar programs. This language should alarm anyone who values renewable solar energy generation in Connecticut.

The solar industry already is being hampered by (a) higher commercial solar permit costs, (b) commercial solar specific higher engineering standard requirements, (c) proposed solar-only limits on door-to-door sales, (d) caps on virtual net metering and community solar (SCEF), (e) solar-only restrictions on developing projects on privately owned farm and forest land, (f) a likely move to further deny private farmland owners to put solar on their properties (see Section 10), and (g) zero-growth residential and commercial solar goals in the DEEP IRP.

Section 10: Define "expedited permitting process." While the EDCs and the Connecticut Green Bank have taken great strides to reduce their administrative processes, DEEP is increasing the time and cost commercial developers pay for a permit. This process should have been explained further before this hearing so that proper public comments could be made.

**H.B. No. 6523 (RAISED) AN ACT CONCERNING VIRTUAL NET METERING CREDITS FOR MANUFACTURERS IN DISTRESSED MUNICIPALITIES.**

Section 1: We applaud the resourceful thinking that went into this bill. It's been 7 years since VNM launched in Connecticut. The time has come to broaden access to VNM credits such as including manufacturers in distressed municipalities to those eligible (line 16).

However, simply adding new program participants without lifting the cap puts manufacturers in direct competition with municipalities for credits. If the Committee agrees to add more VNM participants (and it should), the cap must be eliminated altogether or removed conditionally.

See VNM news clips on pages below.

Thank you.

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NEW HAVEN REGISTER

## North Branford solar array plan offers town break on energy costs, would fund remedial work

Meghan Friedmann Feb. 6, 2021 Updated: Feb. 6, 2021 8:25 a.m.

NORTH BRANFORD — A plan for a solar farm on Forest Road carries with it elements also expected to benefit the local environment: Energy cost savings for the town and money toward remedial work on other sites.

The plan, which has the support of Economic Development Coordinator Roger Salway, would allow the town to save money on its electricity bills through a virtual net metering program that would give it a discount for having the array in town, he said.

North Branford would save roughly \$120,000 annually for 25 years, according to Salway, though that number is an estimate.

He said he hopes the project will be operational by late summer, noting that sunflowers will surround the array, which also will supply free electricity to an adjacent farm.

Salway said he's "proud" of the project.

Cela Bernie is managing partner of Citrine Power, a Connecticut-based business that invests in renewable energy projects throughout the Northeast and will be responsible for installing the array.

According to Bernie, power from the array would be fed for free to the utility company, which then gives a discount to the municipality at a "high virtual net metering rate."

In turn, the municipality has a private contract with Citrine at a rate "much lower" than what it gets credited, she said.

A virtual net metering program benefits the town although the solar array would go on privately-owned property, Salway said

Salway said the issue of possible remediation work to benefit other sites arose when the state Department of Energy and Environmental Protection was approached to green-light the solar array.

The site slated for the array is owned by Mark DiLungo, through his company What TF LLC. According to Robert Isner, who directs the DEEP's Waste Engineering and Enforcement Division, the land was previously the site of allegedly unauthorized solid waste management under a different owner.

The eastern portion of a parcel at 127 Forest Road marks the proposed solar array site, according to Salway.

"It's a piece of scrubby land that was not being used. It had been abandoned many years ago," he said. "This particular owner was thinking about building a housing development on it."

Instead, Citrine and the town approached DiLungo about installing a solar farm.

"It was presented by the town, and (DiLungo) thought he could be helpful to the town (which is) going to apparently acquire the energy from the solar farm," said Ann Catino, an attorney who represents DiLungo.

"He thought this was a very good use of the property," Catino said.

DiLungo reached an agreement with DEEP that helps the solar plan move forward. Through it, 90 percent of revenue he receives from leasing his land to Citrine Power would go toward environmental work on some of his other properties, including three on Totoket Road, the agreement says.

Catino said the arrangement is a "positive move forward."

"(It) will provide some necessary funds so that the other properties can be addressed," she said. "It's a win-win-win-win all around."

Catino said her client "didn't cause any of these issues or contribute to them," but has done a lot of work on the properties since acquiring them.

Salway said testing concluded the location of the proposed solar installation is not contaminated and Isner also said the section of land slated for the solar array installation "does not appear to have extensive environmental conditions on it."

According to Isner, any potential solid waste materials on the properties "need to be removed and properly disposed of," and the sites need to be evaluated for contaminants.

Catino said her client has done extensive cleanup on the properties and "they look completely different than they did previously."

But she agreed the properties needed to be assessed. [END]

# West Hartford wins climate protection award *West Hartford*

*News*; Dec 29, 2020

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WEST HARTFORD — Not long before President-elect Joe Biden proclaimed climate team appointees and Connecticut announced its plans to cut back on pollution from transportation alongside other states, West Hartford got recognized for some of its own efforts to fight climate change.

On Friday, the town was revealed as the first place winner in the small city category of the Mayors Climate Protection Awards, recognitions that the U.S. Conference of Mayors backed alongside Walmart. Awards are given to “mayors for their outstanding and innovative practices that increase energy efficiency, expand renewable energy and/or reduce carbon emissions,” according to a description on USCM’s website.

“It’s a big deal,” Mayor Shari Cantor said last week. **West Hartford’s entry — which highlighted its virtual net metering program —** competed against other municipalities who put their hat into the ring nationwide. In the small city category, honorable mentions included places such as Albany, N.Y.; Framingham, Mass.; and Manhattan Beach, Calif.

Pittsburgh won the top spot in the large city category, with Hartford coming in as one of a handful of honorable mentions.

The win also gives \$15,000 to a nonprofit of West Hartford’s choice that’s chipping away at sustainability-related work, according to USCM. As of last Thursday, the town hadn’t decided yet which entity that would go to, but it’s “talking about it now,” Cantor said.

**Virtual net metering is a system that allows the town to take solar energy from offsite — in this instance, from Thompson — and channel it for West Hartford’s use, explained Catherine Diviney, town energy specialist. “But we virtually net meter those solar credits for the solar energy that’s being produced by the system against eight of our town of West Hartford municipal buildings and schools,” Diviney said. “So we get credits on our bill for that solar generation, even though it’s not directly on site with those facilities.”**

**The program generated “2.8 million kWh of electricity” and “saved \$72,000 in energy costs” for the town for fiscal year 2020, according to a document with descriptions of the towns and cities’ programs. The town also has other energy-related initiatives aside from the net metering program, one of which would be West Hartford’s 14 solar projects within the town. Energy company Verogy, which has previously created one of those solar projects at Town Hall, also developed the one at King Philip Middle School, a recent addition the business announced in mid-December it had finished, according to a news release.**

“So we’ve done a lot of, and we continue to do, energy efficiency projects throughout our portfolio of buildings,” Diviney said. “We actually just completed over, probably about \$6 million dollars worth of energy efficiency projects, and have reduced the town’s energy use by about 25 percent in the last four or five years.”

West Hartford still has energy goals to meet. The West Hartford Clean Energy Commission has penned a draft 2020 plan in which it “aspire(s) for our entire community to use 100 percent clean energy by 2050,” with short and long-term steps detailed on how it hopes to get there.

And, as Diviney said, “It’s not just about clean energy.” It’s also about how energy use can be cut down off the bat, such as implementing “energy efficient technologies,” or having residents opt for bike riding instead of driving, she said.

Moving forward, with the recent award and completion of some energy efficiency projects for the town, Diviney said she’s “really excited.” “I am hopeful that this takes kind of sustainability and climate change and energy efficiency to the next level in West Hartford, kind of shines the spotlight on it, and gets not only town leadership, but our community involved and engaged so that we can really make some progress,” she said. [END]

## CT town uses virtual solar as new alternative to power up

[Sep. 19, 2019]

South Windsor has a new energy plan. It has a lot of numbers, a lot of charts, a lot of arcane terminology and a lot of ten-dollar words. Oh, and one photo.

The proposal is for a solar installation in neighboring East Windsor. It looks like - well - a solar installation. But the plan represents a major component of how South Windsor expects to get more than 80 percent of its municipal electricity — that's for about 40 buildings — from renewable sources in the next few years.

You heard that right. Eighty percent. It goes without saying the town expects to save money.

While the 10-acre array of solar panels is standard, how they're being used is not. They are being used under a concept called virtual net metering. Instead of putting solar directly into a building — say if you had solar panels on your roof — the solar power goes into the electric grid. And the power they generate is credited to users in another location.

In this case, the users aren't even in the same town. One hundred percent of the power from the installation — known as NorCap South, built by Lodestar Energy — is being credited to 10 municipal accounts in the town of South Windsor. South Windsor pays the local utility — Eversource — to use that power.

"It's 28 percent of our electric use," said Stephen Wagner, chairman of South Windsor's energy committee since it was formed in 2014 and keeper of all those numbers.

"Everything we're doing — basically if we can prove it's financially acceptable — we do it," he said. "We have to prove that we're saving money, not just being good green citizens."

But there's a strong good green citizen aspect to it anyway. A second virtual net metering project in a different nearby town — just about as big as the first - is waiting in the wings for state approval. [END]

## Wilton to enter Virtual Net Metering program with Weston

JANUARY 18, 2019 BY PATRICIA GAY

In an effort to reduce energy costs, the town of Wilton plans to work with the town of Weston to share the benefits of an off-site solar energy program, called Virtual Net Metering (VNM).

The program could save the town up to \$50,000 annually in energy costs.

The Board of Selectmen voted unanimously at its meeting on Jan. 7 to authorize First Selectwoman Lynne Vanderslice to confer with Town Counsel Doug LoMonte to negotiate a VNM agreement with the town of Weston and Citrine Power, the solar power provider.

Virtual Net Metering gives participants energy billing credits for renewable solar electricity generated at a location not physically connected to the account. It is available only to farms, the state, and municipalities. The joint VNM program with Weston would allow Wilton to reap the benefits of energy produced by a solar field in Middletown. Energy generated from there would go back to Eversource and Eversource then would give Wilton a credit.

### Background

In 2011, the state set a renewable energy goal of 20% by the year 2020. In response, the legislature adopted legislation to meet those goals:

- Net Metering (credit for renewable electricity generated and physically connected to an account) approved for all property owners.
- Virtual Net Metering (credit for renewable electricity generated, but not physically connected to an account) approved for farms, the state and municipalities.

In 2018, the state ended any new net metering for residential customers. Vanderslice said anyone in Wilton who puts solar panels on his or her home is grandfathered in to receive net metering benefits.

The state required Eversource and United Illuminating to develop a new plan for purchasing energy and renewable energy credits. The state is still awaiting that plan, and has set a new renewable goal of 40% renewables by 2030.

In response to the 2011 legislation, Eversource offered two programs in which municipalities could participate using solar:

- The ZREC program (Zero Emissions Renewable Energy Credit), which gives credit for solar-generated energy.
- And the VNM program. The VNM application period began in 2015, but closed out after about a year due to the limited cap availability.

Under both programs, Eversource maintains an application waitlist to ensure they meet the required minimum purchases set by the state.

### Advantages

There are five distinct advantages to VNM awards over ZRECs, Vanderslice said. Credits can be applied up to five Eversource meters. Beneficial accounts can be re-assigned each year, should energy needs change. Beneficial accounts can include accounts from other municipalities. The town is free from any involvement with the installation of solar panels and ongoing maintenance. VNM can prove additional savings for a property which also has a ZREC installation.

Under the ZREC program, the Wilton Board of Education is reaping approximately \$60,000 a year in benefits from solar panels it has on several school roofs. An award is in the process for Wilton High School, which is expected to save \$25,000 a year in electricity costs, Vanderslice said.

The town did not initially submit applications under the VNM program. But Wilton has since submitted a VNM application for one megawatt to replace Weston's waitlisted application. So now Wilton is first on the waitlist, Vanderslice said. If selected, savings could be expected to be up to an additional \$100,000 per year over the life of the agreement. "If we're lucky, we'll get taken off the waitlist" and pick up the power, she said.

### **Partnering with Weston**

The waitlist issue aside, Vanderslice said she has had ongoing talks with Weston First Selectman Chris Spaulding and Weston Town Administrator Jonathan Luiz about joining them in the VNM program.

Weston was initially awarded a one-megawatt VNM application but does not require the full megawatt of its first award. Weston has a second one-megawatt application, which remains on Eversource's waitlist. Weston does not expect to need the remaining second megawatt.

So, the town of Weston has offered Wilton its excess power, which measures more than 800,000 Kwh, for an estimated \$25,000 a year in reduced costs assuming 0% inflation in utility costs, or \$50,000 reduction if there is a 2% increase in utility costs, which there has been over the past 10 years, Vanderslice said

By accepting the offer, Wilton would need to enter into agreements with the town of Weston and Citrine Power, the company which is developing the solar project which would be the basis for Wilton and Weston's joint VNM contract.

Weston Town Administrator Luiz, who is a new resident of Wilton, said Weston's participation in the VNM program was created to support clean energy initiatives and Weston does not need the full additional megawatt it has applied for.

He said Eversource is paying Weston credits under its first VNM agreement for a solar farm in eastern Connecticut.

"It is a profitable arrangement for the town. From our perspective it has worked as advertised. We have seen credits roll in on our Eversource bills," Luiz said

The agreement with Wilton would be for a property in Middletown. The solar farm there has not yet been constructed but is expected to be completed by Citrine Power in 2019.

This would be a long-term contract for Wilton, to last 25 years. Vanderslice explained that if Wilton does not need all the power under the VNM program, it could bring in another municipality to share the excess power, just as Weston is doing now.

"I am 100% in favor of the program," said Department of Public Works Director Chris Burney. He said the one risk of the program he sees is that the town could subscribe for too much power, but he doesn't believe that would pose much of a risk.

This is a printer-friendly version of an article from Zip06.com.  
Article Published January 10, 2018

## **Bishop's Orchards Invests \$1.3M in Solar Power**

Jenn McCulloch, Correspondent

In 2015, the Bishop family began investigating options for installing solar at Bishop's Orchards. Now, two years later, Bishop's Orchards has more than an acre of newly installed ground-mount solar panels, in addition to 381 panels on the roof of the Farm Market that have been online since Aug. 18.

"I'm not sure where the next physical location that's got as many panels as we have is—this is definitely the first wide-scale ground-mount solar system in Guilford," said Keith Bishop. "We are glad to be up and running with our new investment, which is good economically for us in long run. We are also happy with the green aspect as it will decrease our carbon footprint."

The ground system is located across the street from the Farm Market, which posed several challenges to the plan. State regulations allow only public utility companies to run power lines across the street, so in order for the Farm Market to be able to use the electricity produced across the street on the ground system, Bishop's needed to get permission to send the electricity produced into the power grid on one side and take it back on the other through a virtual net metering system, which unlike the electric meter on most homes and businesses, can run backward when power production exceeds power use.

"The power you produce is first being used by you and if you have excess, it goes back into the grid," explained Bishop. "At nighttime or when there's no sun, you take power back out of the grid."

After Bishop's was awarded an allocation for the virtual net metering, it put in a bid with Eversource for the Zero Emissions Renewable Energy Credit Program, which dictates the amount generators are paid for the power they produce, and applied for and received additional permits and contracts required for this project from Eversource, as well as the town, state, and federal governments. After two rounds of requests for proposals, Bishop's worked with Independence Solar as the primary contractor, assisted by Munger Construction, Apuzzo Electric, and SKED Electric.

In addition to the contracts and application process, Bishop's made several upgrades in order to best use the panels, including installing more than \$150,000 of refrigeration, motors, and lighting improvements as well as roof upgrades before the roof panels were installed. During the process, Bishop's also reached out to neighbors to explain the project, noting the location of the panels and the reasoning for choosing the location. There are 1,108 panels installed in 17 rows that went live on Dec. 29 on a hill that was a Christmas tree farm more than 10 years ago.

“One of our goals is to have solar implemented appropriately on agricultural lands and minimize the solar panels overgrowing crops and not having a significant amount of solar on prime agricultural land,” said Bishop. “Our system is on hillside and was designed with a racking system to get optimal results. It is on land that otherwise couldn’t grow crops because of the ledge-y rock and soil.”

While Bishop noted that the cost for the solar projects was about \$1.3 million, it is projected that the ground system will provide about 60 percent of the farm’s electricity usage and the roof system will provide about 20 percent of the electricity usage to cover 80 percent of Bishop’s total electricity usage.

“We are looking at a return on the project in a six- to seven-year time period, which can go up or down depending on the cost of energy,” said Bishop. “The tax incentives and credits are part of the economic calculations.

“We’re planning for this to be here for additional generations and family ownership can use power generated for growing our produce and refrigeration for apples, which is where the big cost is,” added Bishop’s. “This is not just a short-term investment. We’re here for the long run and this is a signal to the community that we’re here for that and that we care about the environment and stewardship of the land.” [END]