GOING FOR THE GREEN



A solar canopy is installed Nov. 10 at the Worcester Senior Center as part of Worcester's Green Plan initiative. CHRISTINE PETERSON/TELEGRAM & GAZETTE

Worcester's effort to fight climate change needs buy-in from homeowners, businesses

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WORCESTER – Nearly seven months since the Worcester City Council approved the Green Worcester Plan, work is underway to achieve its ambitious goal – make Worcester one of the most sustainable and climate-resilient midsize cities in the country by 2050.

"It's going pretty fast," said Matt Urban of the plan's progress to date.

Urban works in the city's facilities department and he made that assessment recently as he stood near a new solar canopy nearing completion in the Worcester Senior Center parking lot.

At a cost of \$1.3 million, the panels are expected to generate \$45,000 annually in energy savings.

That's not all.

Indoor lighting improvements, plus a planned solar canopy on the senior center's roof – along with

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the parking lot panels – will generate tothe parking lot panels – will generate to-tal annual energy savings expected to reach \$68,000. The total price tag of those three projects is \$2.3 million. City officials call that a success story

clean energy produced, plus cost sav-

Slew of challenges

Achieving the goals of the Green Forcester Plan comes with a slew of

It's one thing to make environmental changes on buildings the city owns like

changes on buildings the city owns like the senior center. It's another for the city to get proper-ty owners — both residential and com-mercial — to buy into the plan. "It's one of the fundamental chal-lenges we have in the city," said John Odell, chief sustainability officer in Worcester's Department of Sustainabil-ity and Besilience ity and Resilience

Of the 2,619 solar installations in Of the 2,619 solar installations in Worcester, per the Massachusetts Department of Energy Resources, 40 are located on commercial properties and 14 on industrial properties.

Residential homes make up the lion's share of installations at 2,545.

Also, there are six installations on multifamily properties and 14 on city-owned properties, with four more in the

The breakdown of Worcester proper-ties includes 25,500 residential, 2,677 commercial/industrial and 9,954 multi-

When it comes to solar panels, some property owners find them too expensive an investment or their buildings sive an investment or their buildings can't handle the weight on roofs or neighbors complain the panels are an eyesore and will hurt property values. The negatives are numerous. Home-energy assessments can be

another challenge.
Odell explained that energy audits Odell explaimed that energy audits spearheaded in Worcester by National Grid — designed to inform homeowners on ways to make their properties more efficient — didn't get a lot of takers.

One reason is new heating systems

The audits provide strong incentives

The audits provide strong incentives for insulation and air sealing.

But the "huge impediment," said Odell, is the programs don't cover the cost of replacing certain wiring or structural issues that need fixing before new insulation is put in.

The city is working to develop programs to help property owners and renters understand the benefits of new en-ovo-efficient heating systems. For rent-

ers understand the benefits of new en-ergy-efficient heating systems. For rent-ers, it could mean lower monthly utility bills. For owners, they could see in-creased property values, which could result in an ability to charge modest rent increases.

If money is available in city coffers, Odell said City Hall would like to explore ways to supplement the Mass Save Program to help property owners pay for updated heating systems.

Solar panels atop DCU Center?

The city has explored the idea but it's not possible without costly upgrades, Odell said.

Then there's the question of who will

Then there's the question of who will pay for the improvements.

National Grid's energy transmission system in the downtown area where the DCU Center is located was built in the 1960s. It's a one-way system. That means the power arrives from outside the area and moves in one direction.

That setup makes it impossible to connect the areavanteed from parts.

connect the energy produced from pan-els atop the DCU to National Grid's transmission network unless upgrades

are done.

"It can be done, but it's very expensive to do," Odell said.



Matt Urban of Barre is pictured as a solar canopy is installed at the Senior Center on Nov. 10. The canpoy is part of

Normally, those costs are borne by National Grid customers, including those who live outside Worcester, according to Odell. Subsidizing a Worcester project through their utility bills is something those living outside Worcester likely don't have the stomach for

ter likely don't have the stomach for.

In a prepared statement from National Grid, the utility said its power distribution network in downtown Worcester is a complex and integrated system of transformers and underground cables. Similar "underground secondary area network systems" operate in downtown Brockton and Lynn

ate in downtown Brockton and Lynn.

To ensure network reliability and
safety more engineering analysis is
needed to potentially add additional
power sources to the network.

"National Grid will continue collaboration with these distant populates."

rating with these cities to enable safe reliable and cost-effective distributed generation," the statement reads in part. "As of September 2021, we have inpart. "As of September 2021, we have in-terconnected approximately 67,000 dis-tributed generation projects totaling over 1,500 MW in Massachusetts, help-ing make the state have more installed solar than the five other New England states combined.'

Effort to change rules for new construction

Worcester ordinances lack the re-quirement that a developer of new con-struction install renewable energy sys-tems for heat and hot water.

Odell's team and others in City Hall are working on a plan to potentially change the rules and will report their findings to the City Council. Any changes require state Legislature ap-

proval.

"Changes like this can have negative effects for certain people," Odell said.

Those include employees in the fossil Those include employees in the fossil fuel industry. Someone who installs heating systems that run on oil or natural gas could lose their livelihood if new rules require renewable systems.

Also, new rules could alter the balance of energy users.

More renewable systems in new construction could eventually result in a drastic cut in the number of families left with extense that run on oil or network.

with systems that run on oil or natural

And that scenario could significantly And that scenario could significantly drive up fuel costs for those families, Odell said.

Any strategy the city develops will be sensitive to these issues, Odell said.

"It won't be perfect. There will be downsides for some but a lot more gains the control of the control of

Green Island

than losses," Odell said.

This is another challenge for the city, as the Green Worcester Plan is focused on this neighborhood, located in the city's inner core.

With few mature trees - and plenty of concrete — Green Island experiences extreme heat in the summer months. In some parts of the neighborhood, tem-peratures are six to 10 degrees higher on average than other parts of the city with tree cover, according to data from Clark

University.

By next spring, Odell said the city hopes to have a plan to add more trees and possibly more green space in Green

and possibly more green space in Green Island.

"The area has experienced tougher times than many," Odell said. "There's a greater need in that area. We have to be thoughtful about it."

It's likely going to take a lot of money to achieve the Green Worcester Plan. The exact dollar amount is anyone's

"I don't know the number. It's a mov-

"I don't know the number. It's a mov-ing target," Odell said.

Odell's Department of Sustainability and Resiliency is adding three staffers including an energy analyst and project manager. The department currently has

manager. The department currently has four employees including Odell.

Every effort will be made to keep costs down for Worcester taxpayers as the city moves away from fossif fuels, Odell said.

Sources that could help foot the bill include funds from the \$1 trillion federal infrastructure bill that President Joe Biden signed into law Monday utility in the law fonday utility in t

den signed into law Monday, utility in-

den signed into law Monday, utility in-centives and money from the state. Philanthropic donations and grants are other sources the city will pursue. Odell acknowledged there will be dis-ruptions in people's daily lives as the city moves to more of a reliance on re-newables — in sectors like transporta-tion, enhanced green space and im-proved wastewater management sysproved wastewater management sys

"The status quo is not sustainable." "The status quo is not sustainable," Odell said. "The expectation of not moving quickly is a mistake. The city manager and the City Council support that. There will be resistance by some people but not changing has a significant price."

Grassroots reaction to plan

"I'm very impressed with what the city is doing," said Paul Popinchalk, a member of 350 Central Mass, an all-volunteer climate-action organization.

A retired Worcester resident who spent his career working in power generation and apergy conservation. Poor

eration and energy conservation, Po-pinchalk sees a lot to like about the Green Worcester Plan.

Green Worcester Plan.

His likes include planting more street
trees and preserving mature ones for
carbon removal; investments in solar
technology; dedication to alternative
forms of transportation like bicycle
paths; and communication efforts with
local colleges and communication. local colleges and community groups so residents understand the existential

residents understand the existential threat of climate change.

"I'm a grandfather and I am keenly aware and concerned about the future my grandchildren will grow into," said Popinchalk.

Gaylen Moore would like to see the city issue regular bulletins on progress made on the Green Worcester Plan to

encourage community participation and hold city leaders accountable to the

Moore is the coordinator of the Worcester chapter of Mothers Out Front, a volunteer organization that supports a swift transition from fossil fuels to renewable energy. The group had a seat at the table when the Green

had a seat at the table when the Green Worcester Plan was developed.

"A lot of people are looking at (the Green Worcester Plan)," Moore said.
"Where the money is coming from, the incentives created, the regulations created the acceptance of the plan was the property of the company of the c ated, the carrots and sticks applied. We need more activity, energy and money

Accomplishments

Besides the push for renewable energy at the senior center, solar projects are nearly complete at several public schools — rooftop solar at West Tatnuck

Elementary School; and parking lot canopies at North High School and Nelson Place Elementary School.

Another boost is the Department of Canolina Black Bl

Sustainability and Resilience. The Green Worcester Plan called for its for-

Green Worcester Plan called for its for-mation and it happened. Energy-efficient LED lighting is being installed in all city-owned buildings, in-cluding public schools. The city also plans to ask for bid pro-posals from companies that can per-form an energy audit on all city-owned buildings.

Next month, City Manager Edward Next month, City Manager Edward
M. Augustus Jr. is expected to select
seven members to a new Green Worcester Committee. Each member will represent one of the city's seven districts and
Odell expects the committee's first
meeting to be held in January.

A more its below the committee will

Among its tasks, the committee will help ensure the Green Worcester Plan follows community priorities. To achieve that, members will solicit regular input from residents and community

Future projects

The city is looking at the possibility of a solar array and multiple electric charging stations at the former Allegro Microsystems building at 115 Northeast

Microsystems building at 115 Northeast Cutoff, Odell said. Electrifying the entire school bus fleet is being explored. Cost is an issue because electric bus-es are three to four times more expen-sive than gas and diesel that currently sive than gas and diesel that currently powers the fleet, Odell said. Incentives from utilities and state and federal governments could offset some of the costs but Odell said electric buses are too expensive to purchase now.

Three city-owned areas could get charging stations for electric cars: Pearl-Elm Garage, 20 Pearl St.; Federal Plaza Garage, \$70 Main St.; and Francis J. McGrath Parking Lot behind the Worcester Public Library, 3 Salem St.

When it happens is unclear. One charging station could arrive by the end of December and two more during the

of December and two more during the winter, Odell said. What creates the uncertainty is the city's process for buying the charging stations. It doesn't allow for the use of incentives to offset costs,

for the use of incentives to offset costs, so purchasing can take some time.

Currently, charging stations are located at three city-owned parking areas: two at Major Taylor Garage, 30 Major Taylor Blvd.; two at Worcester Common Garage, 3 Eaton Place; and one at City Hall at City Hall.

More urgency needed to fight climate change in Worcester

"It's not urgent enough, yet," Odell said. "But the word is finally starting to get out and spread." City government leaders, Augustus

in particular, championed the Worces-ter Green Plan, Odell said. Business and ter Green Plan, Odell said. Business and community leaders are also sounding the drumbeat for the switch to renew-able energy. And grassroots organiza-tions will hold Odell and his team ac-countable to carry out the plan's mis-

sion.'s an aggressive plan. I think we can do it. We need to do it," Odell said.
"It's a lot of work to implement. It's important to have those kinds of goals in place."

place."
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