2024 greenergovCT Awards

A Lead by Example Initiative

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Introduction

On April 24, 2019, Governor Lamont launched the GreenerGov CT initiative by signing Executive Order No. 1 (EO 1), which directs Executive Branch agencies to advance environmental leadership resulting in cost savings for taxpayers. The Order calls on agencies to both recommit to and expand the State's Lead by Example (LBE) program to reduce operating costs and environmental impacts of State government facilities and operations. EO 1 builds on the foundation of the LBE program, invoking deeper levels of commitment and participation by setting new sustainability goals for Executive Branch agencies. EO 1 requires Executive Branch agencies to:

1. **Reduce greenhouse gas emission by 45% below 2001 levels.**
2. **Reduce waste disposal by 25% from a 2020 baseline.**
3. **Reduce water consumption by 10% from a 2020 baseline.**
4. **Set additional sub-goals by 2030.**

Item (D) of EO 1 directs the Steering Committee on State Sustainability, comprised of appointed Senior Sustainability Officers (SSOs) and delegates from over 30 State Agencies, to establish specific subordinate objectives and interim targets to meet the overall goals. Executive Order No. 21-3 (EO 21-3) accomplishes this directive by setting the following commitments:

- By 2024, all Executive Branch agency facilities, to the extent practicable, shall implement an organics and food waste diversion program.
- By 2030, all electricity purchased and generated by the Executive Branch will be 100% zero carbon.
- By 2030, all newly leased light duty state vehicles shall be zero emission vehicles.
- By 2023, DEEP and DAS shall develop a plan to retrofit existing fossil fuel-based heating and cooling systems at state buildings to systems capable of being operated without carbon emitting fuels.
- By 2023, DEEP and DAS shall develop a plan and a budget to achieve zero-GHG emissions for all new construction and major renovations funded by the State or in facilities owned/operated by the Executive Branch, targeting construction beginning in fiscal year 2024 and after.
- By 2024, the State shall divest 1% of all Executive Branch building square footage, and an additional 2% by 2028.
- The State shall deploy an average of 10,000 kWDC of new solar capacity annually for the next 10 years, primarily new projects sited on state buildings or property.
- The State shall commit to reducing Executive Branch building GHG emissions by at least 1 % annually.

The newly established climate commitments are based on analysis conducted in 2021, which mapped out the investments and savings pathways necessary to reach EO 1 targets. Using the best available data, this analysis examined sector-specific strategies to meet the goals of EO 1, quantifying the potential energy reduction, savings, and costs of each strategy.

2024 Awards Ceremony

On June 5, 2024, GreenerGov Co-Chairs, Senior Sustainability Officers, and sustainability leaders gathered to recognize the achievements of the 2024 GreenerGov CT award winners. The awardees were celebrated for their work in advancing initiatives aligned with EO 1 and EO 21-3 goals, benefiting energy, water, waste conservation, and environmental progress through Executive Branch agencies.

Left to Right: Peter Zelez, Edward Howell, Emily Pysh, Scott Anderson, Eric Kruger, Al Subbloie, Carlos Sanchez, David Barkin, David Bruno, Deputy Commissioner Joseph Danao II, Pete Aarrestad, Kallie Taniguchi, Ryan Ensling, Judith Atalor, Alex Curry, Deputy Commissioner Eleanor Michael, Nacho Casal, Secretary Jeffrey Beckham, Commissioner Katie Dykes

The four award categories and winners of each award were:

Agency Changemaker Award

Deputy Commissioner Joseph Danao II (Department of Veterans Affairs) awarded GreenerGov Changemaker

Zachary Giron (Department of Transportation) awarded GreenerGov Changemaker

Ryan Ensling (Department of Administrative Services) awarded GreenerGov Changemaker presented by Commissioner Katie Dykes

Agency Changemaker Award

The Changemaker Award recognizes individuals who work hard to improve their agencies by addressing energy efficiency, renewable energy, water consumption, and waste management.

Zachary Giron Department of Transportation

Zachary Giron has been in the Department of Transportation for two years now as a Transportation Planner 2 in the Sustainability & Resiliency Unit. Since joining DOT, Zach Giron has accomplished jumpstarting various sustainability initiatives. In 2023, Zach's GIS background proved useful in a rooftop solar analysis he conducted. Considering factors such as rooftop slope, exposure to solar radiation, and building orientation, he was able to identify facilities that would be most suitable for the deployment of solar power. His dedication to facility-based research doesn't stop there. Zach continues his exploration of infrastructure planning with EV charging.

Working across bureaus, Zach Giron has developed the first EV charging infrastructure plan for fleet vehicles. Being the first to pilot a major program can require significant research and testing. "Most of the time, the pilot is first of its kind for your agency, but not first of its kind. I look for any useful information, strategies or examples I can find whether it be from the federal government, other state agencies, or private industry," says Zach. Tackling a new challenge with an openness to learn fosters an environment of curiosity and collaboration. "I try to make sure to answer as many of my own questions before moving things along with the project team." A space where the team can assess takeaways after identifying logistics and dependencies ensures an efficient planning process. Piloting a program like this will produce a lasting impact in the Department's efforts to electrify the light-duty fleet, complimenting the EO 21-3 objective to ensure all newly leased light duty state vehicles shall be zero-emission vehicles by 2030.

"Stepping into a role that doesn't have a playbook you can study and give you answers on how to be successful is nerve-wracking, but it also provides you the opportunity to be creative with how you address problems and reach your goals. There is no monotony in planning for a sustainable and resilient future, each day is different from the rest, and that is exciting to me."

As lead of the Carbon Reduction Program, Zach launched the development of the Department's Carbon Reduction Strategy. Designing a strategy requires collaboration with numerous stakeholders. Zach accomplishes this by determining a shared vision. "To ensure productive collaboration, there has to be a shared goal amongst the stakeholders. What are we trying to accomplish and what are the steps we need to take to achieve this goal." The process of refining research and discovering synergies in roles that follow the project scope does not go unnoticed. The program's strategy efforts have certainly made tremendous strides, receiving approval from the Federal Highway Administration this year. Zachary Giron's creativity and proactive leadership make him an individual deserving of recognition for progress in Connecticut.

Agency Changemaker Award

Deputy Commissioner Joseph D. Danao II Department of Veterans Affairs

With Deputy Commissioner Danao's leadership, the Department of Veterans Affairs has made tremendous advances in various projects reducing energy consumption and light pollution, while decreasing greenhouse gas emissions by approximately two thousand metric tons. He served more than 33 years in the Connecticut Army National Guard in a variety of command and staff positions and was deployed as the Kabul Area Officer in Charge with the Afghanistan Engineer District-North, United States Army Corp of Engineers in support of Operation Enduring Freedom in 2010. His significant military education proves effective in building infrastructure and program facilitation. "An Army Engineer learns early through formal schooling and in practice how to formulate and achieve project goals, comply with legal and regulatory guidance, and involve, acknowledge, and empathize with stakeholders. I worked with project teams at state, national and international levels that were highly successful. At every project phase my teams placed environmental stewardship as goal number one," says Deputy Commissioner Danao. Deputy Commissioner Danao has taken initiative working with American Plant Maintenance LLC to upgrade HVAC systems, radiator valves, and steam lines, as well as Salas O'Brien and DH Bolton LLC to replace boilers.

Under his leadership, the DVA team is able to identify many opportunities for project benefits to align. "I enjoy communicating our project details, celebrating the wins, inspiring every staff member and Veteran to see each project's value. Lighting, steam traps, boilers, solar lights help improve their personal climate as well as the global environment" he explains. Improvements to a HVAC system, for instance, not only decreases costs and emissions, but also improves occupant comfort and air ventilation. In every project he sees a responsibility and opportunity to positively impact all parties. The DVA's enhancements such as upgrading outside lighting to energy-efficient LED lamps with automatic timers optimizes fixtures to eliminate unnecessary lighting. With the help of Energy Source, LLC and Earthlight Technologies, these installments bring saved energy and costs.

Deputy Commissioner Danao demonstrates extraordinary influence with his unique leadership style, overseeing and engaging approximately 250 employees. He explains that a leader can build trust and confidence within their team by providing resources and an equal voice to stakeholders. "My civilian and military experiences brought me to a participative leadership style. Participative leadership theory is a perfect fit for environmental project management. Allowing project teams to ask questions, provide inputs, work within the limits of personal strengths, limitations, and authorities, with a focus on the project goals." His transferrable skills play a major role in planning and deploying infrastructure objectives throughout the entire strategic process.

Through his leadership, the CT DVA has secured significant funding through the State of Connecticut Lead By Example Program, totaling over $7.5 million in 2022. The agency plans to continue in their sustainability projects, with steps outlined until 2026. "The projects completed to date are worth celebrating but we have much more work to do to reach our energy conservation goals" says Deputy Commissioner Danao. These benchmarks include enhancements such as interior lighting upgrades, installation of solar exterior lighting, and collaboration with CT Green Bank on solar field installations.

When it comes to achieving such complex and ambitious missions, Deputy Commissioner Danao's mantra is to "follow the process with patience." It is not always linear and can require a lot of flexibility. "For every action there is a reaction, know and follow the processes." Deputy Commissioner Danao's leadership, communication, and commitment to sustainability make him a standout candidate for the Agency Change Maker award. His focused approach and future vision create an atmosphere of productive growth within the Department of Veterans Affairs.

Agency Changemaker Award

Ryan Ensling Department of Administrative Services

Ryan Ensling of the Department of Administrative Services has been an outstanding industry expert in sustainability. As a sustainability manager, Ryan Ensling takes on the responsibilities of pushing for new initiatives as well as supporting and tracking existing efforts. Knowledgeable in onsite solar and power purchasing agreements, electric vehicle infrastructure planning, and energy and waste management options, Ryan serves as an exemplary leader for aligning agency goals with Governor Lamont's executive orders, EO1 and EO 21-3. He has worked on GreenerGov CT since 2014, then called Lead By Example, and has witnessed the completion of several initiatives that were funded through GreenerGov or utility-administered programs.

Within GreenerGov CT, Ryan connects with state agencies to help them achieve their climate goals. He is currently researching the buildings that the Department of Administrative Services owns and operates and is working to develop a system to see how these buildings are complying with their climate goals. Ryan says, "it's in the early stages, but the purpose is to see how DAS is making progress, where improvements are needed to comply with our goals, and what resources are needed to make our buildings sustainable." He reaches out to DAS' Facilities and Construction Services unit to track this progress.

One of the buildings that Ryan points to for its significant climate efforts, is the Quinebaug Fish Hatchery Water Recirculation project, which is contributing to GreenerGov's CT water reduction benchmark. Other ongoing projects in which Ryan is assisting include the electrification of DAS's state fleet vehicles with EV infrastructure installations, Phase I of a decarbonization plan, and piloting a food organics diversion program.

"I work with a team that helps to juggle the various stakeholders involved in GreenerGov. Depending on what the project is, I look to see who has a hand in getting the project done and make sure we coordinate efforts. From utilities to consultants/contractors, and other agencies, communication is a key factor so that everyone stays current on what the status is of the project," says Ryan. Ryan's standout communication holds true not just for DAS, but all State Agencies involved, servicing the state across the entire range of GreenerGov CT initiatives.

He has a willingness to assist at any time with energy, water use, and efficiency questions related to DAS Construction Services projects. He truly cares about the State's efforts to improve sustainability. Going above and beyond his job duties, Ryan is a trusted resource in driving positive change in the environmental space. His responsive and helpful manner showcases his dedication to advancing facility benchmarks. Ryan Ensling is passionate about making a difference in Connecticut. He is vital to the State's effort to conserve natural resources and reduce emissions and is a model individual for this award.

Innovation Award

Paul Hinsch, Commissioner Katie Dykes, Deputy Commissioner Eleanor Michael, Secretary Jeffrey Beckham

Innovation Award

Recognizes exceptional innovations in sustainability within the public sector.

Eric Kruger UConn Health, David Bruno Connecticut Innovations, Al Subbloie Budderfly

UConn Health is leading a 12-month pilot program that aims to achieve net-zero emissions at their Child Care Center in Farmington. The pilot program is funded by Connecticut Innovations through the Governor's Innovation Lab. Budderfly, a Shelton, CT based company, is leading in the development and deployment of the novel technology used in this initiative. With the collaboration of Eric Kruger, Vice President of Facilities Development and Operations at UConn Health, David Bruno, Director of the Governor's Innovation Lab, and Al Subbloie, Founder and CEO of Budderfly, the facility is on track to significantly lower their carbon footprint, focusing on a zero-carbon electric source by 2040. Currently, the 4,500 square foot building has approximately 24 tons of electric/natural gas in packaged roof top units. To achieve net zero, several strategic initiatives will be implemented. This includes upgrades to their HVAC system, water heaters, air quality and lighting.

New insulation will be installed on the roof and under the floor to improve thermal performance levels by a projected 200%, resisting the ability for heat to escape. The integration of a state of the art Ultra-High-Performance HVAC (UHP) system will further optimize occupant comfort and energy usage. Air quality will also improve with the planned implementation of Energy Recovery Ventilators (ERVs) providing 1,000 cubic feet per minute (CFM) of ventilation and heat recovery. The higher the ventilation rate, the cleaner the indoor air. This is especially beneficial to occupant health, increasing productivity and school performance.

In addition, traditional electric-only hot water heaters will be replaced with approximately 18 tons of heat pumps, utilizing existing ductwork to enhance energy efficiency. To further aid in efficiency, fluorescent lighting will be replaced with LED lighting to meet CT Department of Health lighting level requirements in childcare centers. Individual climate controls will also be installed in each room for improved comfort and control. Finally, a structural analysis will be conducted to confirm the rooftop's load-bearing capacity. This enhancement model serves as an exemplary sustainable building project, with an honorable distinction for collaborating with all Connecticut owned partners.

Innovation Award presented by Deputy Commissioner Eleanor Michael to Eric Kruger (UConn Health), David Bruno (Connecticut Innovations), Al Subbloie (Budderfly)

Innovation Award

Michael Mendick, Scott Anderson, John Wyskiel, Carlos Sanchez, Al Messore
Department of Transportation

In February of 2024, the Connecticut Department of Transportation opened a new parking garage on South State Street, Stamford. The new facility was constructed for a 75-year design life, focusing on multimodal transportation access, electric vehicle charging, and solar energy. The garage utilized an otherwise undevelopable sliver lot along the highway right of way and reconstructed the South State Street and Washington Boulevard intersection. Their incorporation of photovoltaic panels into the architectural façade helps to use solar resources in producing clean energy. Complimentary to this, their color changing high-efficiency LED lighting creates an iconic feature that will be displayed to commemorate special events and holidays.

The project is anticipating a ParkSmart Bronze level certification. A credential developed by industry experts awarding projects who focus on implementing leading technologies, sustainability, and solution-oriented design. The increase in parking will influence connectivity and access to public transportation by relieving parking needs in proximity to the Stamford Train Station. The project also presents convenient charging for those driving electric vehicles. Offering over 90 electric vehicle charging stations (10% of all available spaces), the garage aims to attract emission reduced passenger vehicle users.

This new garage features a direct pedestrian bridge connection to the station over Washington Blvd. This pairs nicely with the redesigned boulevard intersection which incorporates new sidewalks and traffic signals for safer multimodal connectivity. In addition, 120 bicycle parking stations were installed with 50 having e-bike charging capabilities. Space is also saved with 35 bicycle hoop racks accommodating up to 70 bicycles. The new bicycle parking will increase first and last mile travel options for commuters, promoting lower carbon footprints. In this project, all users are able to find convenience in traveling, contributing to increased public transit use and decreased traffic congestion. This innovative project is a standout leader in aligning needs of citizens with an environmentally conscious strategy.

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Innovation Award presented by Deputy Commissioner Eleanor Michael to Carlos Sanchez and Scott Anderson (Department of Transportation)

Impactful Project Award

Impactful Project Award presented by Secretary Jeffrey Beckham to Pete Aarrestad, Alex Curry, and Nacho Casal (Quinebaug Fish Hatchery)

Impactful Project Award

Recognizes projects that have made significant and measurable improvements in conserving energy, water, or managing waste.

Bryan Decker, Pete Aarrestad, Dave Cooley, Alex Curry, Christopher Martin (posthumous), Nacho Casal, Ira Henowitz, Jennifer Vigneault, Peter Simmons
Quinebaug Fish Hatchery

Raising 80% of Connecticut's stockable trout population, which was over 423,000 trout this past year, Quinebaug Fish Hatchery is a prominent facility in Connecticut. Operating 24/7 and drawing water from 11 high-volume production wells, the hatchery uses 1.3 billion gallons of groundwater annually. This makes Quinebaug Hatchery the largest pumped well hatchery facility in the Eastern United States. This facility consumes more water and energy than any other building in DEEP's fleet (more than 1,000 buildings).

With this caliber of water pumping, a recirculation project is a game-changer in water conservation and sustainability. The Recirculating Aquaculture System at Quinebaug Hatchery is designed to conserve a significant amount of groundwater, ranging from 632,499,840 to 946,080,000 gallons annually. Implementing a new filtration and pump infrastructure allows the hatchery to recycle water efficiently, conserving thousands of gallons of water each day. In addition, the project applies months long resting periods for 3 to 4 out of the 11 wells at a time, extending the operational life of equipment. With this reduced stress on the aquifer, the system is projected to achieve a 10% reduction in water consumption by 2030. In addition to significant water savings, the project reduces annual energy consumption by 218,401 kWh, resulting in a significant 7.9% reduction. It is projected that the full implementation of the project will result in a 154-metric-ton reduction in greenhouse gas emissions.

Moreover, the hatchery expects annual operational cost savings of more than $100,000. These savings are due to a variety of factors, such as lower energy consumption, reduced frequency of well cleanings, and less dependence on chemical fish treatments. The use of chemical formalin treatments for disease and fungus control has decreased by nearly 90% using treated recycled water, saving more than $25,000 per year. The frequency of well cleanings will be halved from every three years to every six, also reducing annual well cleaning costs from $120,000 to $60,000. As one of the largest contributors to Connecticut's $3.9B Outdoor Recreation Economy, these cost savings make a tremendous impact.

The Quinebaug Recirculating Aquaculture System Project and energy conservation effort meets Governor Lamont's executive orders to reduce greenhouse gas emissions, curb wasteful water use, and reduce the amount of facility waste disposal. Their significant strides have not only improved their environmental influence, but additionally their operations and cost savings. The Quinebaug Fish Hatchery is a great example of aligned co-benefits that contribute to a successful triple bottom line. The project is leading by example for other Connecticut agencies and businesses.

Christopher Martin

GreenerGov CT would also like to extend the 2024 Impactful Project Award in remembrance of Christopher Martin who passed away in March of 2024 at 38 years old. Christopher's love and commitment to the natural environment was showcased in this project. Chris was an integral part of the Quinebaug Valley Hatchery team, making a lasting impact in conservation and sustainability efforts within DEEP. The state commemorates Chris for his honorable work.

GreenerGov CT Challenge

GreenerGov CT Challenge Award presented by Secretary Jeffrey Beckham to Emily Pysh and Peter Zelez (Department of Transportation)

GreenerGov CT Challenge Award presented by Secretary Jeffrey Beckham to Edward Howell (Department of Labor)

GreenerGov CT Challenge Award presented by Secretary Jeffrey Beckham to David Barkin (Department of Administrative Services)

GreenerGov CT Challenge

This award recognizes agency teams that have taken the most – and the most interesting – actions as part of our competition this year.

Emily Pysh and Peter Zelez Department of Transportation, David Barkin Department of Administrative Services, Edward Howell Department of Labor

The GreenerGov CT Challenge was a new award category this year, highlighting the chance for leaders to jump-start their sustainability endeavors within their agencies. Each has been working hard as Senior Sustainability Officers (SSOs) and making progress toward necessary goals and actions. The challenge consisted of a step-by-step framework for taking meaningful action towards our shared goals. A webinar series was offered with experts describing options to make progress on energy, waste, water, transportation, and decarbonization targets. It also provided the opportunity for Senior Sustainability Officers to connect with colleagues and share lessons learned.

This year's GreenerGov Challenge Award recipients include Senior Sustainability Officers from a variety of state agencies. Emily Pysh and Peter Zelez of the Department of Transportation, David Barkin of the Department of Administrative Services, and Edward Howell of the Department of Labor. Agency project accomplishments include energy efficient LED lighting systems and HVAC upgrades, solar panel and geothermal installations, new EV charger infrastructure and Battery Electric Buses, and the implementation of pollinator habitats. GreenerGov CT has assisted the Senior Sustainability Officers in achieving project goals either through funding or as a liaison for helpful resources.

Each year, SSOs design a Sustainability Performance Plan where they have the opportunity to outline project status, benefits, estimated savings and future plans. Planning such efforts can take a lot of collaboration and organization. There can be many obstacles in aligning stakeholders, and the path to achieving these goals is not always linear. As Senior Sustainability Officer David Barkin of the Department of Administrative Services states, "unfortunately, sustainability isn't a universally held perspective. The need to convince peers of the necessity to improve efficiency and reduce carbon emissions is an ongoing challenge." However, it is important to remain patient and refer to the project's value. As David says, "don't get frustrated and don't give up in the face of opposition." Senior Sustainability Officer Emily Pysh of the Department of Transportation takes an incremental approach is tackling these challenges. Emily suggests that an SSO "doesn't need to meet the goals all at once, start small and those reductions will help build momentum." Through this Challenge, SSOs can make connections and deliver strong progress in their identified performance initiatives.

Looking into the future, SSOs hope to continue working with GreenerGov CT in implementing the latest innovative green solutions. Senior Sustainability Officer, Emily Pysh, says that the Department of Transportation is looking into additional types of energy audits for their facilities beyond what the utilities offer. Emily explains, "we've already had success with those programs and want to see what more we can do." The GreenerGov Challenge continues to inspire participants, encouraging the desire to consistently move forward and push for growth in the sustainability sector. There is always space for new ideas, and potential for more improvement. It is this vision that motives Senior Sustainability Officer David Barkin as well. When it comes to new projects, David is most excited about applying an environmentally conscious lens. David hopes "there is continued emphasis by the administration on sustainability and decarbonization to further address long term environmental concerns and hopefully slow down or reverse the current trajectory of climate change. Every little action can help." Congratulations to the 2024 GreenerGov CT Challenge Awardees for making every action count.

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