Public Service Commission of Wisconsin
Office of Energy Innovation
Energy Innovation Grant Program

Wisconsin Office of Energy Innovation

ATTACHMENT A - COVER SHEET

SECTION I - Provide information summarizing the project proposal.		
Project Title:	Wastewater Recovery Campus Solar PV Installation	
PSC Grant Request ($):	**Applicant Cost Share ($):**	**Project Total ($):**
$59,000	$691,000	$750,000
Choose one Eligible Activity		
☒ Renewable Energy & Energy Storage	☐ Energy Efficiency & Demand Response	☐ Comprehensive Energy Planning
Acknowledgement of ARRA Applicability. Check all that apply. (See Section 1.3 of Application Instructions)		
☒ Buy American: Alteration, maintenance or repair of a public building or public work.		
☒ Davis Bacon and Related Acts: Use of laborers or mechanics employed by contractors and subcontractors.		
☐ Historic Preservation: Project involves historical (over 50 years old), archeological or cultural resources.		
National Environmental Policy Act (NEPA): Review the list of covered activities in Attachment C (also discussed in Section 1.3.4) of the Application Instructions. ☐ Environmental Questionnaire **is attached.** Project activity **is not** covered. ☒ No Environmental Questionnaire needed. Project activity **is** covered.		

SECTION II - Provide information for your organization, signatory, and primary contact for the project.				
Applicant Type:	☒ City	☐ Village	☐ Town	☐ County
☐ Tribal Nation	☐ Manufacturer	☐ K-12 School District		
☐ University of Wisconsin System	☐ Wisconsin Technical College System	☐ 501(c)(3) nonprofit		
☐ Municipal Utility (water, wastewater, electric, natural gas)	☐ Hospital (public or nonprofit)			

Name (on W-9):	City of Sun Prairie
Address (on W-9):	300 E Main St., Sun Prairie, WI 53590
County or Counties Served by Project:	Dane
DUNS Number or CAGE Code:	DUNS: 094367547 CAGE: 6WTT3
NAICS Code:	921120 – Legislative Body
FEIN	

Authorized Representative/Signatory (Person authorized to submit applications and sign contracts)		**Primary Contact** (if different from Authorized Representative)	
Name:	Aaron Oppenheimer	**Name:**	Scott Semroc
Title:	City Administrator	**Title:**	Sustainability Coordinator
Phone:	608-825-1193	**Phone:**	608-381-5553
E-mail:	aoppenheimer@cityofsunprairie.com	**E-mail:**	ssemroc@cityofsunprairie.com
Signature of the Authorized Representative	Aaron Oppenheimer		

City of Sun Prairie

City Hall Campus Energy Optimization & Electrification

Summary of Project Budget				
Line	**Description**	**PSC Grant Request**	**Applicant Cost Share**	**Total Project Cost**
1	Personnel			$0
2	Fringe			$0
3	Equipment	$59,000	$691,000	$750,000
4	Supplies			$0
5	Travel			$0
6	Contractual			$0
7	Other			$0
8	Indirect			$0
	Totals	$59,000	$691,000	$750,000
	% of Total	**8%**	**92%**	

Applicant Comments: PSC Grant Request amount of $59,000 would go towards equipment installation and ensuring optimal size of Solar PV system, originally in the 350-400kW range this would guarantee funds to cover costs of a 400+kW system. Applicant Cost Share is made of up $600,000 originally budgeted for this project in the cities Capital Improvement Plan, in addition to Focus on Energy incentives ($71,000) and WPPI Energy incentives ($20,000). Total project cost includes all of these funding sources. The city will maximize system size using all available funds, noting that additional load could be added to the facility in the future (EV Charging, additional equipment capacity). Currently, a system over 400kW would have diminishing economic returns as electricity (kWh) sent back to the grid would be paid at the wholesale rate.

3.3. **Application Executive Summary**

- **Project Description.**

The proposed *Wastewater Recovery Campus Solar PV Installation* project would result in the largest Solar PV/renewable energy generation facility in Sun Prairie, with a total system size of 400 kW. The City of Sun Prairie is taking significant actions to reduce energy consumption and associated negative externalities across its municipal operations. In 2020 the City was awarded a collaborative grant by the OEI to create a Municipal Energy Plan. That plan was foundational to creating a strategy to identify, prioritize, and implement energy reduction projects. City staff have been working across departments to build off this strategy and implement successful projects. Logically, the Wastewater Treatment Plant campus is a high-impact area of focus; based on the energy plan the facility is the single largest consumer of energy and contributor of total CO2e emissions (31% of total city operations; streetlights is second at 22% followed by the fleet at 13%). The vision is to create a "Sustainable Wastewater Recovery Campus" that uses the latest technology and processes to provide innovative solutions that require far less energy and produce fewer negative externalities compared to existing processes.

Installed and operational in December 2018, Sun Prairie City Hall has a rooftop mounted 80 kW Solar PV system that has a public dashboard and to date has generated 230 MWh of on-site renewable energy. Following that the city installed a larger 140 kW Solar PV system at the Westside Community Services Building in December 2019 (dashboard). These projects are highlighted as demonstration of the city's commitment to investing in sustainability-related projects, and the focus of this grant application is to optimize total site energy consumption and production. This aligns with the city's goal to install on-site renewable energy at a minimum rate of one project per year, and this would be the city's largest to date. This builds upon the city's strategy to install more Solar PV systems on city-owned facilities, and providing a demonstration opportunity for the community to see how this technology operates and the potential to generate on-site renewable energy in their homes and businesses.

The Wastewater Treatment Plant Director has already been working towards this vision, planning out multiple project phases that are included in the City of Sun Prairie 2022-2031 Capital Improvement Plan (CIP). The CIP 2022 budget year lists the Solar PV system and biofuel operations together at $800,000 with approximately $600,000 dedicated to a Solar PV system. Several energy efficiency upgrades have already been completed, including LED lighting, HVAC system upgrades, along with VFDs and highly efficient pumps and blowers throughout the campus facilities. Wastewater specific controls upgrades were also completed in recent years, including technical processes such as dissolved oxygen and aeration controls throughout the system. The plant also underwent a significant expansion upgrade in 2021 that is currently in the final stages of construction. The next phase of this project would be the installation of a 350-400 kW Solar PV system & preliminary activities for biofuel operations. The facility has already completed most of the cost-effective energy efficiency projects, and renewable energy generation would be the next step as the campus pursues more challenging aspects of new technology deployment. The outcome of this project would be onsite renewable energy generation that is maximized and sized appropriately for economics; excess power generated and sent back to the grid is credited at the wholesale rate, which is much lower than the retail rate charged for consumption. The 350-400 kW system sizes minimizes excess generation and optimizes project economics.

This project must be considered in the broader context of other activities being undertaken to realize this vision; energy efficiency, renewable energy, assessing heat pump and combined heat & power (CHP) systems, biosolids drying (with biogas and/or solar thermal), electrification of fleet vehicles used at the

facility or to visit lift stations throughout the city, and finally the potential to produce Class A biosolids that can be applied to local agricultural or farming practices. There is also the potential to convert some space in the campus to a receiving area for compostable materials from the community, which would allow this campus to help the city meet multiple sustainability-related objectives simultaneously. Any grant funds will greatly assist in both completing planned projects and expanding the scope of potential future projects. The planned ground-mounted PV system would be located on the drive up to the campus facility, providing a visible display of renewable energy generation off of Bailey Road, which is adjacent to the city's Fleet Maintenance facility.

This project would be one of several activities that lead Sun Prairie to its ultimate final outcome – an industry leading Sustainable Wastewater Recovery Campus that could serve as a model across Wisconsin and the nation. Energy consumption is already tracked comprehensively by staff, and AMI electricity consumptiondata is available to monitor continuous energy improvement processes. The outcome of this project and the associated grant application would be a sizable, measureable reduction in the amount of off-site electricity consumption, the majority of which is currently sourced from fossil fuels. This will result in economic benefits to the City of Sun Prairie and its taxpayers, environmental benefits associated with emissions reductions, line losses, and will provide educational and awareness opportunities for clean energy deployment.

- **Key Partners and Stakeholders.**

As this project involves wastewater facility operations, the primary roles and responsibilities will consist of various departments (Administration, Public Works, SPU, Wastewater) and associated staff. Various staff have convened to plan and project manage these efforts in the event the city is awarded funding, and are prepared to implement this project within the performance period if grant funding is awarded. WPPI Energy and Focus on Energy would be additional project partners, for both technical support and additional incentives for various project components. Their energy advisors and energy service representatives have also been involved in the planning of this project. There are additional logistical and technical considerations at this facility that make analysis even more important when tying into the buildings electrical system, and the importance of uninterruptable power supply at this critical facility.

- **Project Objectives and Metrics.**

There will be two primary objectives of this project, as its being considered a sustainable campus with multiple phases. The funding being requested will be specific to the 350-400 kW Solar PV system, but these funds enable an optimally sized system (400 kW) and indirectly support other phases of the project to either occur more quickly due to offset funding, or be installed at a larger capacity when compared to the absence of grant funds. WPPI Energy provided the City of Sun Prairie with a system report which estimates annual electricity (kWh) production, which will be the primary impact of this project. This analysis (included in the reference materials) found the 400 kW Solar PV would generate 542,335 kWh annually that would be consumed on-site, and an additional 4,744 kWh that would be sent back to the grid (excess generation). Estimates result in the system saving $31,113 in electricity (kWh) costs and $4,249 in demand (kW) costs annually. This is a significant amount of renewable energy generation, and leverages economies of scale to bring down the total $/watt system cost. As a critical operations facility, this also supports resiliency efforts and can facilitate the future installation of microgrid should the WWTP need to be islanded in the event of a power failure or disaster.

The over-arching objectives of this project are to (1) reduce overall operational costs at the facility, which would flow to rate payers in the form of reduced sewer charges, (2) partially transition the campus' electricity load to an on-site renewable generation source, and (3) increase overall resiliency at the facility. This is a major step towards realizing the city's vision of creating a sustainable wastewater campus that provides a variety of services (aerial view below in Figure 1.), which also includes the Fleet Maintenance Facility (3030 Bailey Road). This multi-year vision includes a net-zero facility, EV fleet co-location, the ability to use bio-gas onsite for a solar biosolids dryer system, future acceptance of resident composting materials as a drop-off site, and the utilization of strategies found as part of participating in the DOE SWIFt accelerator. They key metric of success for this project will be powering the facilities load with on-site renewable energy generation, ~23.5% of the total kWh consumed (542,335 kWh produced by a 400 kW Solar PV system out of a total 2,300,529 kWh used annually at the facility), which is the largest electricity consumer of all city facilities and would result in the largest Solar PV array in Sun Prairie.

- **Reference Materials List.**
  1. Municipal Energy Plan Report, pages 82-87
  2. City of Sun Prairie 2022-2031 Capital Improvement Plan, pages 47, 50
  3. Sun Prairie WWTP Solar Report Oct 2021 – WPPI Energy, WPPI Energy Letter of Support
  4. Wastewater facility ENERGY STAR & MyAccount examples
  5. DOE Sustainable Wastewater Infrastructure Accelerator 2.0 Fact Sheet

3.4. **Application Narrative and Merit Review Criteria**

3.4.1. **Eligibility and ability to achieve the objectives.**

The City of Sun Prairie is a municipal government duly incorporated from a village to a city in 1958 in the State of Wisconsin. The City of Sun Prairie (City) is directly eligible for this program as an established municipality located in Wisconsin. The City's Federal DUNS number is 094367547.The City has past experience administering federal and state grants and has the staff expertise required to plan, implement, and evaluate technical projects such as the energy upgrades described in this proposal. The City is capable of complying with the requirements of the requested OEI funding. The project aligns with the application instructions as provided, and the project will be completed through the cities applicable competitive procurement process to identify and contract with experienced and credentialed Solar PV system installers. No sub-contractors have been identified at this time for project planning or management activities other than for quotes or informational purposes. Applicable ARRA provisions as detailed in the EIGP 2021 Application Instructions include 1.3.1. Buy American Provisions and 1.3.2. Davis-Bacon and Related Acts (DBRA); such provisions shall be met in the procurement process by requiring vendors to demonstrate meeting these provisions in the bid responses and ensuring these parameters are met.

Various staff will be involved with this project, and the collective experience of this time will provide the skillsets and technical expertise needed to complete these project components. The following staff have been involved in the planning process and are committed to a cross-departmental implementation team should the project move forward.

Staff Name	Title	Experience	Responsibilities
Adam Schleicher	Director of Public Works	Public Works, Building Maintenance Departmental oversight	Project management and support activities
Andy Hirvela	Supervisory Engineer (SPU)	Municipal Electric Utility Engineering, Technical Services	Technical support, utility interconnection
Clint Cry	Energy Services Manager (WPPI Energy)	Energy Services, Technical support	Project logistics, funding, and support activities
Jeremy Cramer	Wastewater Treatment Director	Wastewater Treatment Facility Oversight	Lead project manager
Kristin Vander Kooi	Director of Finance	Budget support, Finance Department oversight	Budgetary, financial support
Lauren Freeman	Engineering Management Analyst	Financial analysis, project management support	Project management and support activities
Sandy Xiong	Strategic Planning & Engagement Manager	Overall administrative and project management support	Project management and support activities
Scott Semroc	Sustainability Coordinator	Grant application coordination	Grant application manager, project support

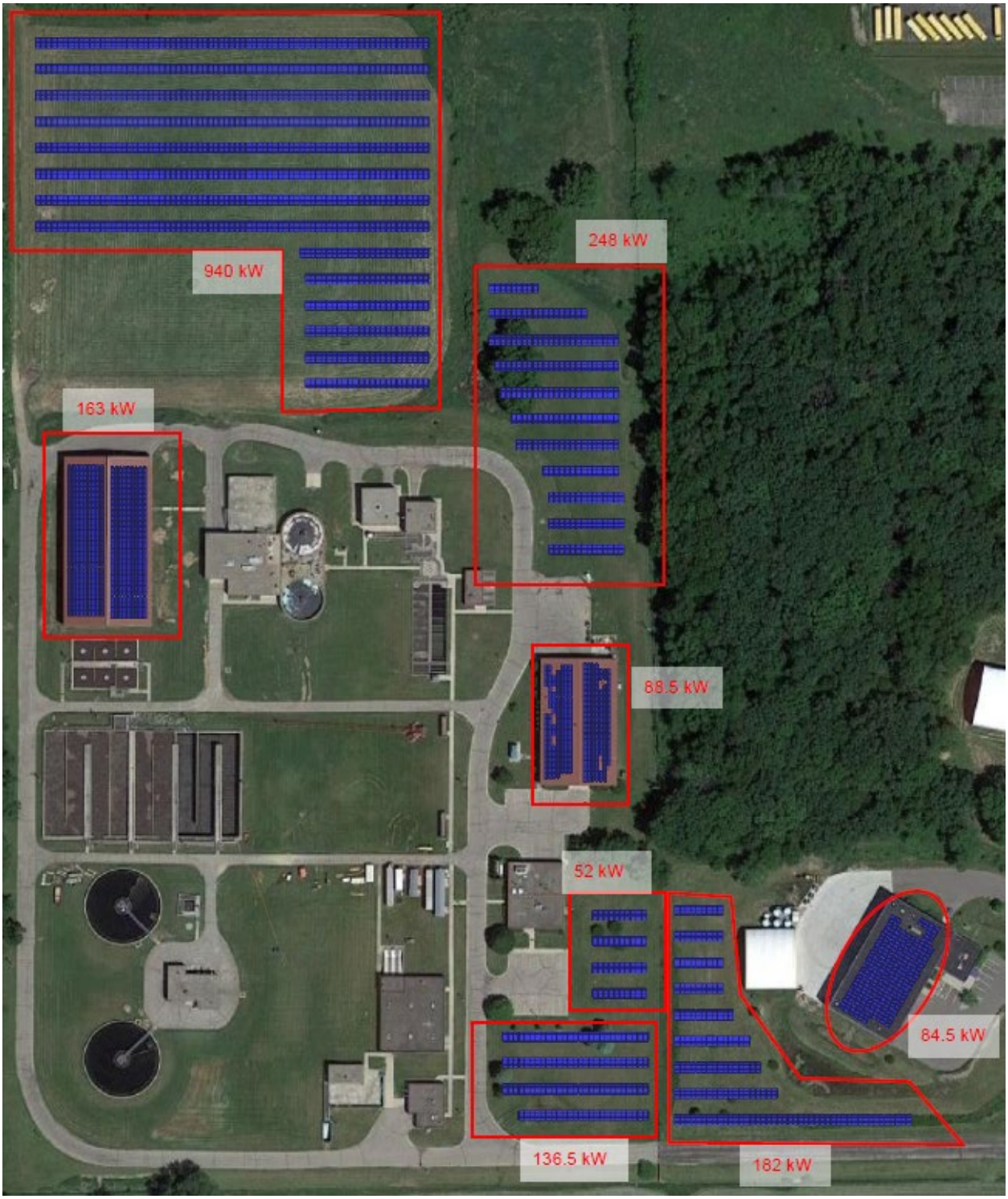


Figure 1. Potential Solar PV system locations, Wastewater & Fleet Maintenance Campus; roof-mounted options have since been ruled out.

3.4.2. **Budget Justification and Cost Share ("Match")**

Summarized in Attachment B – Budget Sheet, cost share activities include local municipal budgeted funds ($600,000 in the CIP), Focus on Energy funding ($71,000 based on 2022 incentives and assuming system can be at optimized size of 400 kW), and WPPI Energy funding ($20,000). Additionally, a significant amount of staff time will be used to plan, manage, and complete this project, but this cost share was not included as efforts include multiple phases of implementing the sustainable campus vision, including analysis of the biosolids dryer and other potential upgrades which will be a significant future investment. In total the planned project cost based on the most recent NREL data (quotes and project economics were being reviewed at the time of this application deadline and weren't included as the formal RFP process hasn't begun) result in an estimated cost/watt of ~$1.80/watt based on a planned 350-400 kW system. For a 400 kW the total cost would be $720,000, above the budgeted available amount of $600,000. This estimate also doesn't include some of the design and engineering services needed in consideration of the complexities of a wastewater treatment plant operation. With incentive amounts dependent on system size, there wouldn't be sufficient available funding to install the optimized system size (400 kW).

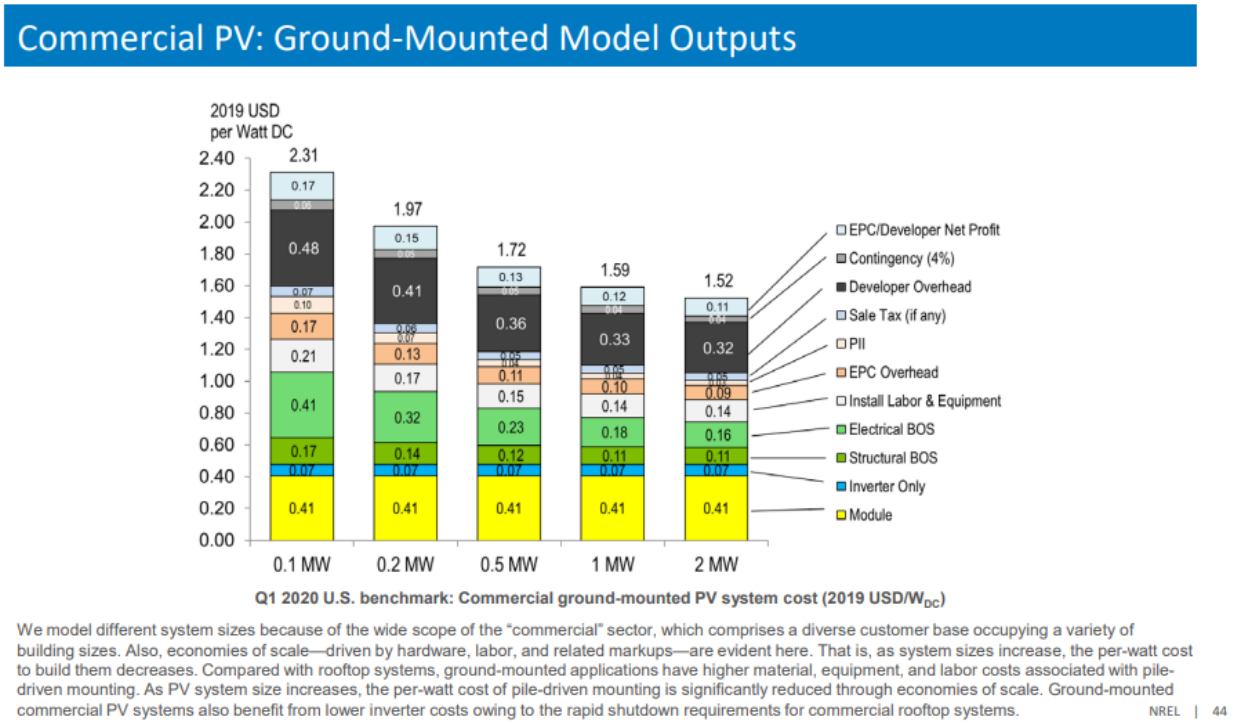


Figure 2. Commercial PV System Costs 2020 NREL Data

The city also intends to hire a design/engineering firm to support with a variety of project management and planning activities, and those services costs are estimated to cost $20,000. Taking into account the budget and estimated costs, having a total of $750,000 in capital will guarantee funding for the fully sized 400 kW system, with funds available to ensure the system is optimally designed. There are various components of wastewater operations that require careful consideration and analysis when integrating Solar PV to the system, which differ from other traditional commercial operations. These include tying into existing electrical systems and ensuring existing backup diesel generation can all be integrated into

the controls of this critical operations facility. Based on this information and available budget, the city would be able to install an additional ~50 kW with the $59,000 in grant funding, and leverage additional incentive funds from Focus on Energy as the 2022 incentives scale by system size ($71,000 for a 400 kW system vs. $66,000 for a 350 kW system). This relatively small grant amount in relationship to the total project size will have an outsized impact due to the economics of system costs and the ability to increase size to a production output that is ideal for the facility needs and existing electrical load requirements.

Special Sector Solar PV Incentive		
System Size in kW (DC)	Incentive per kW (DC)	Max Incentive
Up to 5 kW	$1,000	$5,000
5 to 10 kW	$5,000 + $700 per kW above 5 kW	$8,500
10 to 100 kW	$8,500 + $250 per kW above 10 kW	$31,000
100 to 300 kW	$31,000 + $150 per kW above 100 kW	$61,000
300 to 500 kW	$61,000 + $100 per kW above 300 kW	$81,000
500+ kW		$81,000

Figure 3. Focus on Energy 2022 Solar PV Incentive Table

3.4.3. **Savings and Payback.**

The Sun Prairie WWTP Solar Report Oct 2021 reference material provides much of this information, and several excerpts were pulled up from that document to be included in this section. Additionally, the Solar PV system would create a large renewable generation asset on the SPU/WPPI energy grid, which supports meeting both the city and electric utilities shared goals of increased renewable energy generation. The RECs associated with this project will likely be attributed to WPPI Energy for their power supply mix as part of their grant funding agreement. The value of this system is economical but also environmental in the avoided emissions, and jobs maintained supporting the clean energy deployment sector. Electricity line losses in the transmission and distribution of power are also reduced, along with providing the potential resiliency value if a microgrid/battery storage system is integrated into the facility in the future.

System Summary: 400 kW system, estimated $31,113/year avoided electric energy (kWh) costs, $4,249/year avoided demand (kW) costs. City of Sun Prairie WWTP is currently on the CP-2 rate schedule charged at $0.0636/kWh for on-peak energy and $0.0447/kWh for off-peak energy. If electricity is overproduced aka pushed back on the grid, the city would only be credited at a rate of $0.02628/kWh on-peak and $0.01953/kWh off-peak.

Assuming a total system cost of $750,000 for the fully sized system and engineering, design, and construction related services, this would result in a simple payback of 21.2 years and can be considered a conservative upper-bound estimate as the competitive bidding process will likely result in overall lower installation and equipment cost. However with economic supply channel disruptions the system component prices could be affected, with price uncertainty driving additional need for grant funding.

Specific to the requested grant amount, estimates result in the $59,000 in funding providing about $4,420 in annual energy savings to the facility, for a payback on the grant amount of about 13.3 years.

3.4.4. **Energy Savings and Environmental Impact.**

Detailed in section 3.4.3 and the WPPI Energy report, the total energy savings for this project would be 547,079 kWh annually. This can be converted to an annual environmental impact reduction of 388 Metric Tons CO2 equivalent. There are additional benefits, including the demand reduction (kW) which is typically generated by natural gas fired peaker plants, and with such a large facility the demand reduction impacts on the grid can positively impact efficient grid operations and also reduce total system costs. On-site systems also reduce line losses in the transmission and distribution of electricity, and provide a distributed generation resource. With this being a critical operations facility, there is potential future integration of microgrid or battery storage technologies that could provide additional benefits in terms of energy savings, reduced environmental impacts (in the form of a smart grid that can balance supply and demand system wide) and also smooth out demand curves.

3.4.5. **Equity and Energy Justice.**

As large energy users and policy makers, local governmental units are uniquely positioned to lead the charge of energy justice and ensuring equitable outcomes in their communities. Sun Prairie is committed to balancing the demands and impacts of economic stability, environmental protection, and social equity across our community now and in the future. Wastewater treatment operations are critical to safeguarding public health and safety and producing clean reusable water. Sustainable investments such as this project allow for several benefits to support an equitable, just, and clean-energy community. Energy generated and therefore not purchased as a result of this project reduces operational costs and associated GHG emissions. This passes on to reduced sewer bills/rates for residents and improved air quality as a result of this project. Any net reduction in municipal operational costs occur equitably across the community, and the value of additional services this project provides described elsewhere in the application result in multiple public resources.

In addition to meeting the ARRA provisions as detailed in the application instructions, Sun Prairie is committed to supporting and utilizing minority business enterprises, women business enterprises, disabled business enterprises, veteran/disabled veteran business enterprises, and small business enterprises throughout its procurement process. This would remain the case for the procurement process of these projects. This inclusive procurement strategy promotes economic growth, localizes wealth in the community and retains jobs in the community.

This project would result in a total annual cost savings of $35,362 that would directly benefit all users of the wastewater infrastructure in Sun Prairie. Sewer charges are billed monthly and are based on the amount of water a property uses. The fees collected are used to fund the operation and maintenance of the wastewater treatment plant and sanitary sewer collection system. By reducing operating costs and supporting energy efficiency optimization, this project is inherently equitable and also results in a lower total utility burden for low and moderate income residents who may be disproportionately affected by rate increases and utility costs.

3.4.6. **Financial Leverage and Economic Impact.**

EIGP funding is needed for this phase of the project for several reasons; to maximize the system size from 350 kW to 400 kW, ensure full funding is available for the project as planned, and to leverage available dollars to fund other ambitious future phases at the campus, specifically the biosolids drying system referenced in 3.4.10. Based on available funds and current system economics, the system would without funding would be sized at about 350 kW. This would result in a lost opportunity to maximize system size and position the project to generate the maximum amount of electricity that could be consumed on-site. This grant is also an enabler of future project phases as every dollar counts, and with the recent plant upgrades there has been a significant amount of ratepayers dollars committed to this facility to ensure its continued successful operations. The project would also help support the local clean energy economy by hiring solar installers that would complete the work and provide a visible example to the community of a successful ground-mount project (existing city-owned Solar PV systems are roof-mounted and not easily visible from the ground-level). By leveraging available incentive funds in addition to EIGP funding, this project can expand its scope and provide a sizable clean energy deployment. ARRA provisions also stimulate US equipment providers and the economy in general by continuing forward with projects even in the face of uncertainty with supply chain disruptions, inflation concerns, and the ever-changing dynamics of equipment costs and the timing of when to deploy a system.

3.4.7. **Existing Energy Planning Efforts.**

In 2019 the City was awarded a collaborative grant by the OEI to create a Municipal Energy Plan. That plan was foundational to creating a strategy to identify, prioritize, and implement energy reduction projects. City staff have been working across departments to build off this strategy and implement successful projects. Based on the report findings, the Wastewater Treatment Facility is a logical candidate for renewable energy upgrades, especially considering the numerous energy efficiency upgrades done to date, which have optimized the existing electricity load. The pages included as reference material directly influenced this project plan, and were an important step in establishing project priorities.

In 2021 the City hired its first Sustainability Coordinator, who has experience with energy efficiency, renewable energy, and facility energy management projects. In the second half of 2022 the city completed uploading all facilities into ENERGY STAR Portfolio Manager, an energy management tool that consolidates building information (details, energy, water, waste & materials) and allows for benchmarking, performance tracking, reporting, and goal-setting features. The city has established an automated upload of its monthly electricity consumption for all city-owned facilities, and created a data connection to bulk upload its natural gas consumption to this platform.

These efforts are foundational and critical to better tracking and understanding the various energy flows of municipal operations. These comprehensive energy planning efforts have built a strong foundation from which to plan, quantify, and implement a variety of building performance projects that will improve operations, reduce energy consumption, and improve the indoor environmental quality for occupants.

3.4.8. **Energy Resiliency.**

The generation of electricity on-site allows the facility to consider additional options, such as energy storage or microgrid solutions. The facility currently has two diesel generators for emergency operations. As part of a separate grant from the OEI (microgrid community resiliency center) there will be overlap in that feasibility study as to the potential for city facilities that currently have diesel generation could benefit from additional energy storage solutions. Having the Solar PV system online would create one technical component of an eventual microgrid solution, with onsite power generation being available in the event of a power outage or natural disaster. There have been active discussions about staged back-up power could look like at this facility, and the options to consider separate circuits so that the Solar PV system could still provide power in the event of an outage, equipment failure, or natural disaster.

3.4.9. **Education and Awareness.**

This project will be part of a larger effort to create a sustainable learning campus, which could include tours for the public and serve as a case study for other municipalities seeking to replicate these project phases at their facility. City staff are also enrolled in the current cohort of the Department of Energy SWIFt Accelerator, which works with water resource recovery facilities to accelerate a pathway toward sustainable infrastructure. SWIFt aims to catalyze the adoption of innovative and best-practice approaches in data management, advanced technologies, and financing for infrastructure improvement. Partners seek to improve the energy efficiency of their participating water resource recovery facilities by at least 25% and integrate at least one resource recovery measure. This project would help the city meet that requirement by installing on-site renewable energy generation. This platform will provide national awareness opportunities as staff can share out project status and lessons learned to a broad audience of innovators seeking to implement similar technologies at their facilities. As part of this effort the facility is also considering 50001 Ready designation by the DOE and the process improvement practices associated with considering 50001 Ready or full 50001 designation.

The city currently provides facility tours and has plans to incorporate the sustainability-related features as part of these educational efforts in the future that can show case sustainability-related projects and technologies. By including on-site tours, energy literacy, and public dashboards as outreach being done to the general public, the city can rely on several strategies to support residents and businesses in their understanding of wastewater operations. Additionally, water conservation strategies have and will be included in these efforts, for both resource efficiency and also cost saving (for both the user and facility operations) objectives. Every gallon of water conserved by user's results in lower sewer charges and a total overall decrease in treatment of wastewater at the facility.

3.4.10. **Innovation.**

This specific project (400 kW Solar PV system) is one of several phases to realize the cities vision of a "Sustainable Wastewater Recovery Campus". This phase would produce renewable energy onsite, and be located near Bailey Road, making it very visible to the public and those visiting the campus. The city also has plans to install a biosolids drying system (2023-2026). The basic principle of the Solar Biosolids Drying system is drying of biosolids in a glasshouse using the incident solar radiation. Equipment inside the glasshouse performs spreading and granulation of the sludge in the greenhouse along with aeration, turning and mixing of the sludge bed to produce a Class A biosolid product. This process is a sustainable

and eco-friendly process. This process also utilizes optimized evaporation efficiency with very low energy consumption. A very large volume reduction in biosolids will be achieved with solids content going from 13% up to 93%. It would also allow the facility to utilize the natural gas (methane) that is a byproduct of the wastewater treatment process, onsite. Currently the gas is burned in the winter to heat the digester and buildings, but in the Summer there is an excess of gas that is currently flared (estimated 5,400,000 Cubic Feet), as other use options (piping or trucking to the county landfill facility, using onsite in a combined heat & power system) have been found to be cost-prohibitive.

All of these project phases must be considered holistically, and while implemented in a sequence must be planned for in parallel. The opportunity for the campus to be a leader in implementing wastewater recovery technologies that maximize resource consumption and reduce environmental impact is a significant one; the ultimate output of this effort is clean drinking water that meets DNR standards and was facilitated by industry-leading processes and technologies.

3.5. **Reference Materials**

1.

SUN PRAIRIE BACKGROUND

Sun Prairie is a growing city of over 30,000 residents east of Madison. The city's electricity is supplied by the Sun Prairie Municipal utility which is part of the WPPI Energy, the regional power company that serves many municipal utilities. The WPPI representative for Sun Prairie utilities played an active role in this collaboration. The city's gas is supplied by both Alliant Energy and WE Energies. The City has taken a proactive role in investing in sustainable energy systems, including a recently installed 80 kW solar system on its City Hall as well as a new PV installation on the newly constructed Westside building. Sun Prairie is part of the Energy Independent Communities, which is a voluntary agreement between the State of Wisconsin and communities that adopt the goal of generating 25 percent of their energy from renewable energy sources locally by 2025. Recently, the City partnered with the Madison Metro Bus system to create an express bus route from Sun Prairie to the Capitol.

This chapter provides a detailed summary of the Sun Prairie energy plan. We begin by summarizing Sun Prairie's energy profile to provide a baseline understanding of current energy consumption, costs and carbon emissions for 2018. We then delve into our recommendations for near terms investments or action, split out into four categories: building energy efficiency, street lighting opportunities, fleet opportunities, and solar energy opportunities.

COMMUNITY ENERGY PROFILE

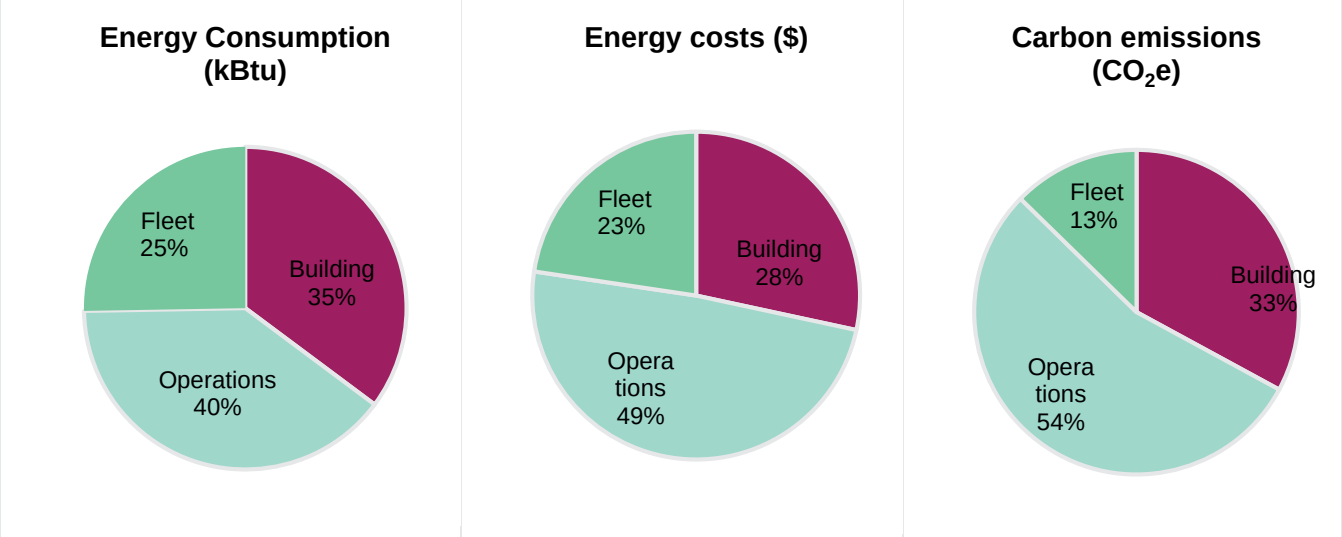
The three main energy inventory elements for Sun Prairie's energy profile include buildings, operations, and municipal fleet. Table 70 provides details by category on what was included in development of the Sun Prairie energy profile, based on the data provided by Sun Prairie staff.

Table 70: Sun Prairie inventory elements (2018 baseline)

Buildings	Operations	Fleet
Aquatic Center	Lift Stations	28 Police vehicles
City Garage	Parks and Recreation	18 Light-duty vehicles
City Hall	Streetlights	16 Emergency vehicles
EMS East	Wastewater Treatment Plant	23 Heavy-duty vehicles
Fire Department		45 Pickups
Library		64 Other
Museum		
Public Works		
Sun Prairie Utilities		
Westside Community Building		

Figure 18 shows the percent contribution of each source to total energy use, cost, and carbon emissions. The cost and carbon intensity of the different fuels (electricity, natural gas, gasoline, and diesel) can significantly impact the contribution of each source to the total.

Figure 18: Sun Prairie energy consumption, cost and carbon emissions (2018)



Breaking these elements down further, Table 71 details the annual energy use, carbon emissions, and energy cost associated with each building and operation use type. The buildings are listed individually; if there were multiple meters per building, we aggregated the values up to the building level. If there were multiple meters for operation data, it was aggregated by use type such as streetlights and lifts. Sun Prairie's City Hall hosts a net-metered PV system. The amount of electricity used by City Hall, as shown in the table, reflects the net amount of electricity that Sun Prairie purchased from the utility, with any reductions from solar panel production included as part of that amount.

Table 71: Sun Prairie baseline energy, carbon and cost data by building and operation use type (2018)

	Use/building	Net Electricity (kWh)	Natural gas (therms)	Carbon emissions (CO_2e metric tons)	Percent of total CO_2e	Energy cost
Buildings	Aquatic Center	152,000	14,736	194	3%	$25,560
	City Garage	10,126	1,859	18	0.3%	$2,230
	City Hall	609,824	16,862	554	8%	$77,200
	EMS East	43,832	3,908	54	0.8%	7,165
	Fire Department	111,575	7,236	123	2%	$16,615
	Library	479,680	21,159	478	7%	$65,460
	Museum	16,193	1,655	21	0.3%	$9
	Public Works	45,520	10,096	88	1%	$11,065
	Westside Community	558,680	36,645	620	9%	$83,440
	Sun Prairie Utilities	263,022	17	200	3%	$28,940
Operations	Parks and Recreation	30,851	4,096	45	1%	$5,850
	Streetlights	2,053,880	-	1,564	22%	$225,925
	Treatment Plants	2,648,344	43,755	2,249	31%	$317,570
	Lifts	34,832	-	27	0.4%	$3,830
	Fleet			906	13%	$255,775
Total		**7,058,359**	**162,024**	**7,141**		**$1,129,400**

Figure 19 illustrates how the baseline energy use intensity (EUI) of each Sun Prairie building compares to the ASHRAE 100-2018 target and benchmark value for similar use buildings. A few buildings were excluded as good benchmark comparisons did not exist. Additionally, it's important to note that the ASHRAE values represent a typical building type and do not account for buildings that may house multiple city departments or functions, such as the Westside Community Building which includes community spaces, EMS, fire and police department and parks department offices.

Figure 19: Sun Prairie EUI benchmarking and comparison to ASHRAE benchmark and target

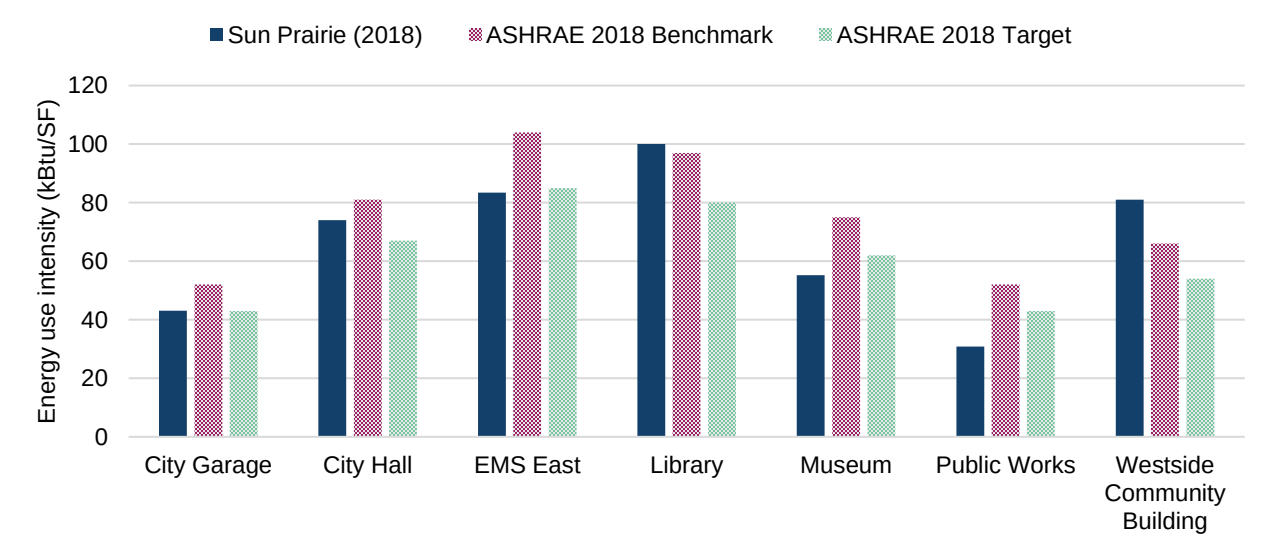


Table 72 illustrates the current renewable energy consumption in the city. On-site solar currently makes up around 4 percent of total electricity use in Sun Prairie – leaving potential for future developments. The city has two planned or installed on-site solar arrays: an 80 kW installation on City Hall and a forthcoming 130 kW installation on the Westside Community Building.

Table 72: Sun Prairie renewable energy summary - current production (as of 2019)

RENEWABLE ENERGY QUICK FACTS	
On-Site net metered solar (kWh)	261,780
Percent of gross municipal electricity	4%

Table 73 illustrates the current vehicle fuel usage, carbon emissions, and fuel cost by vehicle type. This includes both Sun Prairie utility and city vehicles. The police department has the most significant energy footprint, driven largely by the need to idle to maintain car functions while not in motion and the high relative mileage. This significant use presents an excellent opportunity for conversion to hybrid vehicles as will be outlined below.

Table 73: Sun Prairie vehicle fuel usage by vehicle type (2018)

Department	Number of vehicles	Gallons	CO_2e (metric tons)	Fuel cost
Police	28	37,515	319	$89,280
Light-duty	18	3,045 (+ 590 kWh)	26	$7,245
Emergency Vehicles	16	13,610	125	$35,915
Pickups	45	20,495	174	$48,775
Heavy-duty	23	9,175	94	$26,980
Other	64	28,020	167	$47,625
Total	195	111,860	905	$255,820

SUN PRAIRIE RECOMMENDATIONS FOR NEAR-TERM IMPLEMENTATION

Our analysis found energy investments that have a strong return on investment and significant energy savings potential. Implementing simple energy efficiency improvements to Sun Prairie's municipal buildings can reduce building energy consumption by almost 7 percent. By converting all streetlights to LEDs, Sun Prairie could cut annual streetlight electricity use in half – reducing utility costs and saving around 145 tons of carbon annually. In the fleet department, the City should prioritize converting police vehicles to hybrids as they offer a payback around one year and lead to a 40 percent decline in lifetime carbon emissions. Lastly, by adding solar arrays to 2 sites, the City can reduce fossil fuel electricity consumption by an additional 24 percent.

Table 74 summarizes the carbon and energy cost savings that the City would see if they implemented the recommended near-term actions in each major opportunity area. The following sections provide additional detail on each opportunity.

Table 74: Sun Prairie impact summary – estimated annual CO_2e and energy cost savings

Near-term Opportunity	CO_2e Reduction (metric tons)	Percent Carbon Reduction	Energy Cost Savings	Percent Energy Cost Reduction
Building efficiency	226	10%	$32,570	11%
Streetlights	738	47%	$106,605	47%
Fleet	141	16%	$41,365	16%
Solar	1,424	-	$205,620	-
Total opportunity	2,529	**35%**	$386,160	**34%**

Energy efficiency opportunities

Our analysis focused on near-term measures that not only have an energy or cost savings, but also may have possible benefits of reducing maintenance costs, improving occupant comfort, or increasing staff productivity. We also considered the ease and cost of implementation when prioritizing our recommendations.

To identify these opportunities, Slipstream conducted high-level walk-through for three buildings: the Sun Prairie City Hall, Sun Prairie Library, and Sun Prairie Westside Building. We took note of major end-uses and process, and spoke with building staff to understand building operations. The following provides a walk-through summary for each building with additional detail on energy savings potential below.

2.

CITY OF SUN PRAIRIE Wisconsin

CAPITAL IMPROVEMENT PLAN
For Years 2022 thru 2031

Project Starts
2022

Project Number: 228109
Project Name: Solar Arrays & Biofuel Operations
Type: New
Useful Life: 20 years
Category: Wastewater
Department: Wastewater
Contact: Wastewater Treatment Plant Superintendent
Priority: 3 Average

Description:

The facility will start to implement sustainable operations via solar array(s) and other renewable source methods to offset electricity.

Justification:

The wastewater facility uses more electricity annually than any other facility in the City. In order to become more sustainable and to offset electricity costs, solar panels will be installed at the facility along with other sustainable practices. The project aligns with the Sustainable Sun Prairie strategic priority by allowing for cost effective treatment of wastewater while protecting public health.

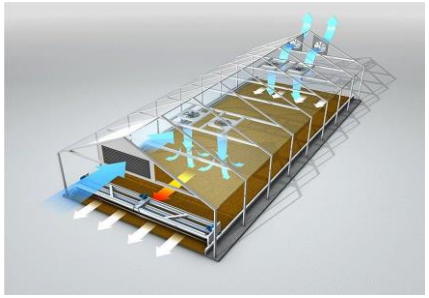
Expenditures	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Equipment	800,000	-	-	-	-	-	-	-	-	-	**800,000**
Total	**800,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**800,000**

Funding Sources	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Wastewater Fund	800,000	-	-	-	-	-	-	-	-	-	**800,000**
Total	**800,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**800,000**

CITY OF SUN PRAIRIE Wisconsin

Project Starts
2023

Project Number: **238105**
Project Name: **Biosolids Drying System/Sustainable Resource Recov**
Type: New
Useful Life: 25 years
Category: Wastewater
Department: Wastewater
Contact: Wastewater Treatment Plant Superintendent
Priority: 1 Mandatory



Description:

The basic principle of the Solar Biosolids Drying system is drying of biosolids in a glasshouse using the incident solar radiation. Equipment inside the glasshouse performs spreading and granulation of the sludge in the greenhouse along with aeration, turning and mixing of the sludge bed to produce a Class A biosolid product. This process is a sustainable and eco-friendly process. This process also utilizes optimized evaporation efficiency with very low energy consumption. A very large volume reduction in biosolids will be achieved with solids content going from 13% up to 93%.

Justification:

Meet capacity requirements for biosolids handling, WI DNR requires 180 days of storage. This upgrade addresses the growth of the city related to the solids capacity and handling. This upgrade addresses the need to be sustainable by harnessing the solar power of the sun to produce a dry, Class A biosolid. This upgrade will also address redundancy concerns on our solids handling process and also looks ahead and addresses the need to produce Class A biosolids which opens up opportunities to distribute and potentially sell the product. It is becoming very difficult to find locations to land apply our current Class B biosolids, this upgrade will greatly reduce our dependency on contracted haulers which currently haul and distribute our biosolids. This process will also provide a huge volume reduction in endproduct biosolids. This project aligns with the Quality City Services by allowing for the most cost effective treatment and handling of biosolids for our ratepayers.

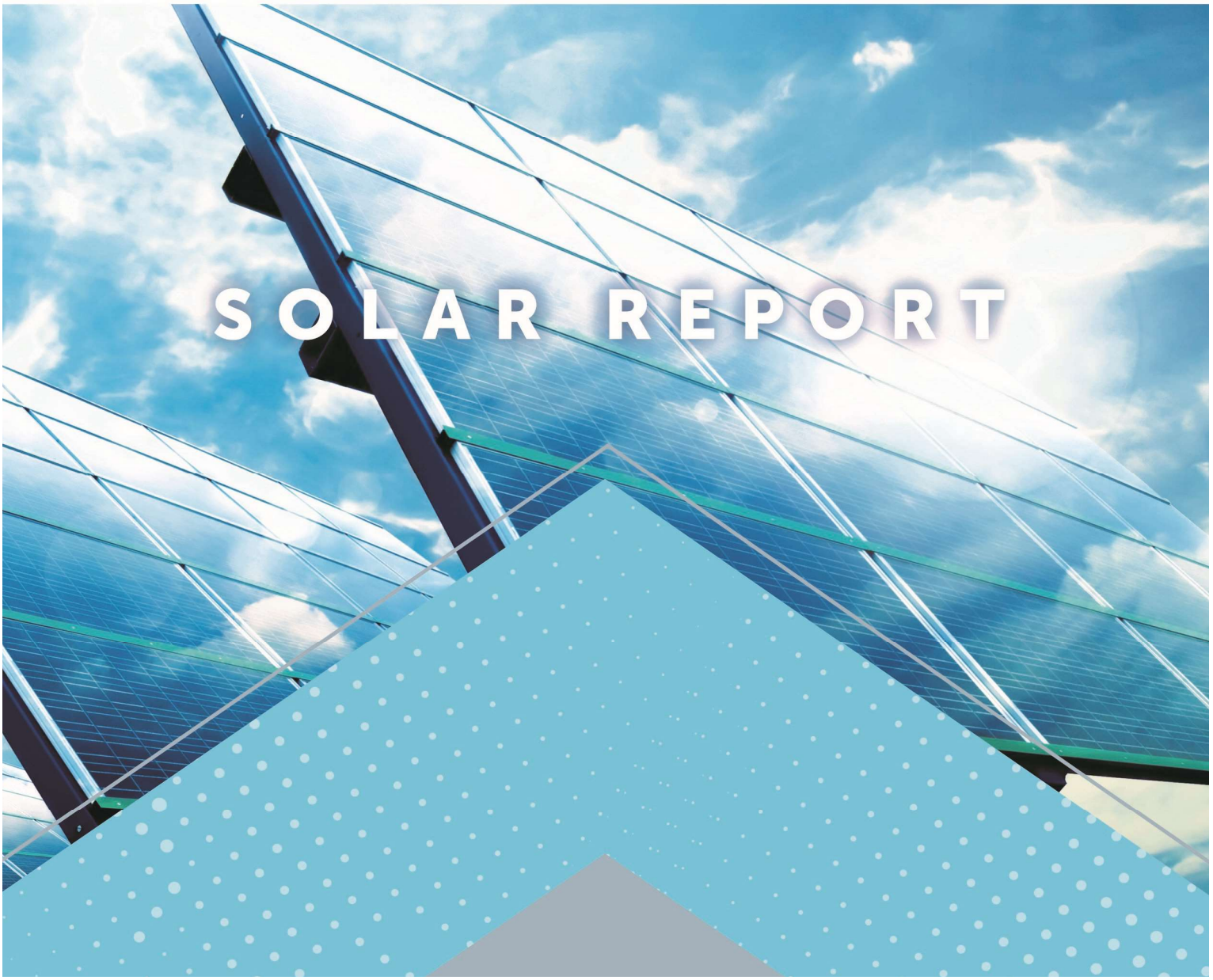
Expenditures	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**Total**
Design	-	500,000	500,000	-	-	-	-	-	-	-	**1,000,000**
Construction	-	-	-	6,000,000	6,000,000	-	-	-	-	-	**12,000,000**
Total	**-**	**500,000**	**500,000**	**6,000,000**	**6,000,000**	**-**	**-**	**-**	**-**	**-**	**13,000,000**

Funding Sources	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**Total**
Wastewater Fund	-	500,000	500,000	6,000,000	6,000,000	-	-	-	-	-	**13,000,000**
Total	**-**	**500,000**	**500,000**	**6,000,000**	**6,000,000**	**-**	**-**	**-**	**-**	**-**	**13,000,000**

3.

City of Sun Prairie WWTP
400kWdc

Sun Prairie Utilities
Clint Cry
Energy Services Manager
(608) 825-1756



SOLAR REPORT

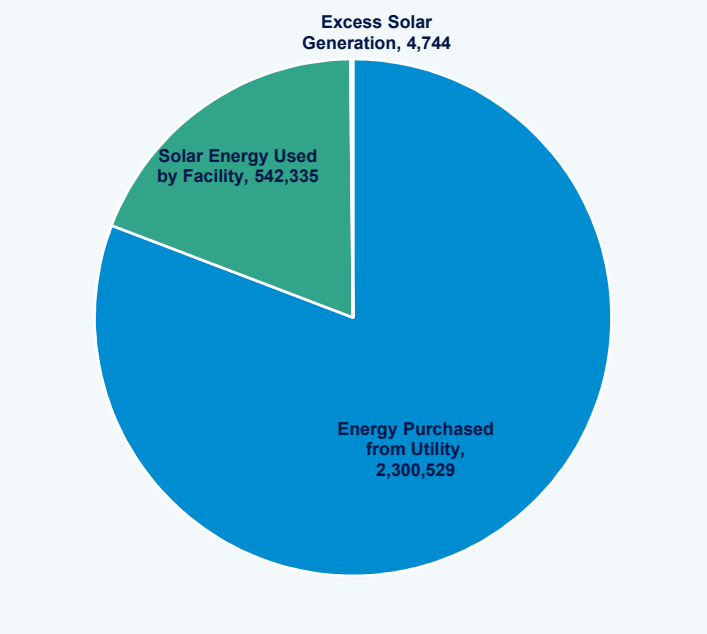
Thank You!

As your locally owned, not-for-profit utility, Sun Prairie Utilities appreciates the opportunity to assist you as you assess a potential solar PV project at your facility. The following analysis is based on the last 12-months of electric 15-minute interval data and a year's worth of solar energy production, scaled to your project size. Based on the information provided, the following analysis considers a 400 kW system.

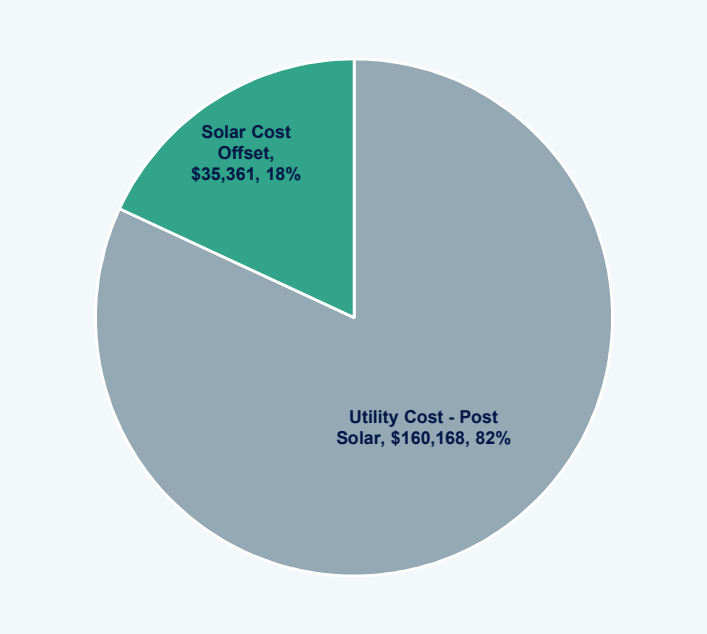
System Summary

400 kW system
Estimated $31,113/year avoided electric energy (kWh) costs, $4,249/year avoided demand (kW) costs

Energy Flow Impact - Year One (kWh)



Utility Cost Impact - Year One ($)



Solar has the highest ROI when the facility uses all of the energy produced.

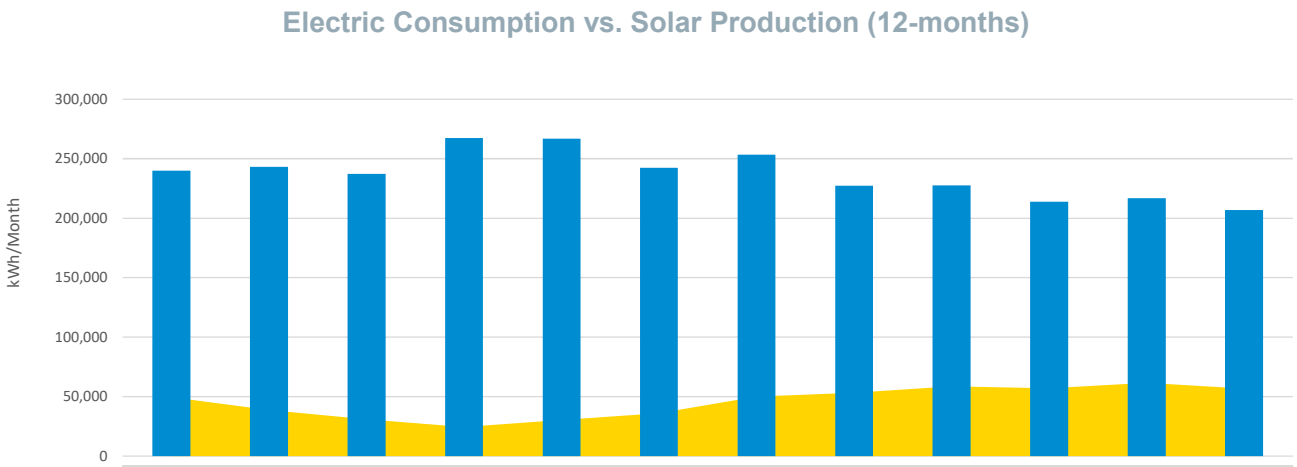
City of Sun Prairie WWTP is currently on the CP-2 rate schedule. That means that you are charged $0.0636/kWh for on-peak energy and $0.0447/kWh for off-peak energy. If you overproduce electricity, pushing it back on the grid, you would be credited at a rate of $0.02628/kWh on-peak and $0.01953/kWh off-peak.

Disclaimer: This analysis is based on average of historic conditions for solar generation and doesn't predict actual results

SOLAR REPORT

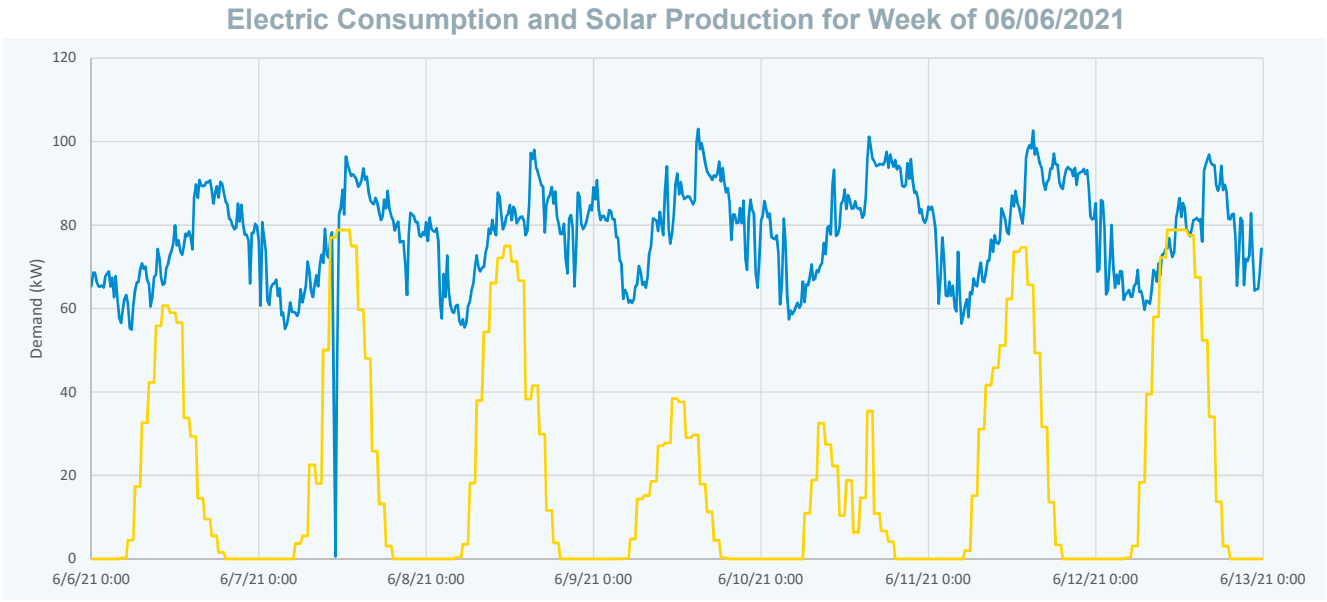
When Would You Produce Electricity?

The following graph compares the facility's electric energy use (blue bars) and the estimated energy production from the solar project (yellow bars).



	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Solar Production	49,335	38,827	31,081	24,586	30,306	35,889	50,098	53,228	58,579	57,041	61,461	56,648
Electric Usage	239,990	243,201	237,289	267,450	266,772	242,291	253,466	227,330	227,466	213,955	216,846	206,807

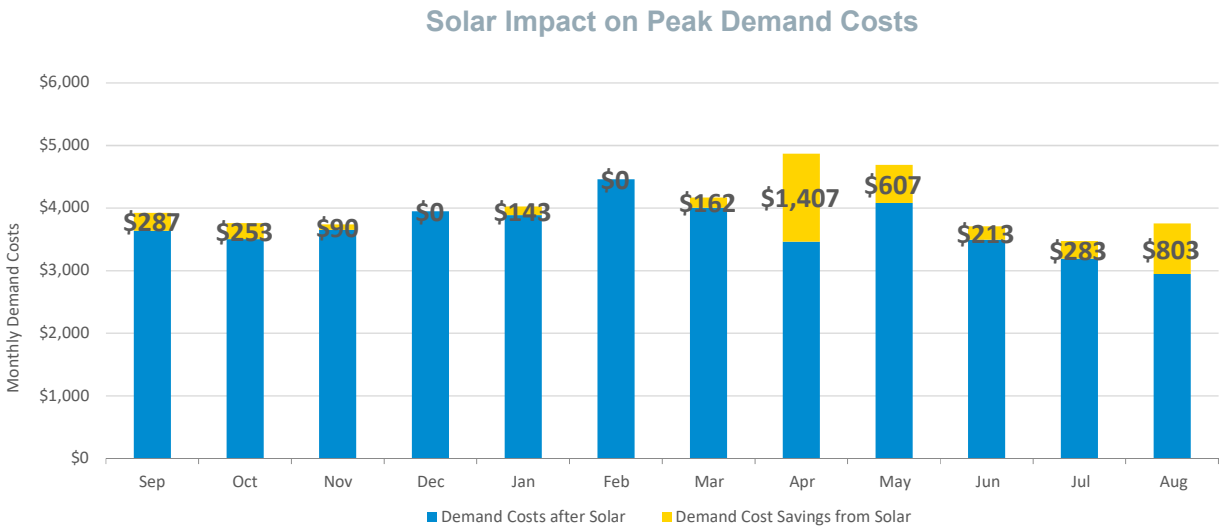
The following graph compares electric consumption vs. solar energy production for a sample week. The blue line shows the existing 15-minute electric consumption of the facility. The yellow shows the estimated solar generation.



SOLAR REPORT

Impact on Peak Demand

As a CP-2 customer, City of Sun Prairie WWTP is billed based on both energy usage (kWh) and peak demand (kW). Peak demand is measured as the maximum rate of energy consumption (kWh/hour or kW) in a 15-minute period during weekday hours. Currently, the peak demand charge for the CP-2 rate is $9.00/kW.



The addition of solar PV has the greatest impact on the kWh purchases from the utility. The graph above demonstrates how a solar PV project might have impacted your billed demand over the last 12 months. Since peak demand is set based on 15-minute intervals, solar may not consistently reduce peak demand costs.

Key Recommendations

Thank you again for involving Sun Prairie Utilities as you consider a solar array at your facility. Below, please consider these key recommendations:

Minimize excess electricity sold back to utility: You receive the best return on a solar project when the facility uses all of the energy produced.

Obtain multiple proposals: Compare costs by obtaining at least three proposals from different contractors.

Stay in contact with your utility: We are here to support you. Our Energy Services Manager can assist with proposal review and share expertise.

Consider offsetting energy use with renewable energy: With our Choose Renewable Program, you can purchase renewable energy blocks that fund new, green energy projects.

Offset with Renewable Energy

Through our Choose Renewable Program, you can purchase the green energy equivalent to this solar project for just $152/month!

Work with us on Interconnection and Permitting: When the time comes, we can be a resource to guide you through the process. You will need approvals through both the utility and municipality.

1425 Corporate Center Drive Sun Prairie, WI 53590-9109 608.834.4500 wppienergy.org

January 12, 2022

Public Service Commission of Wisconsin
Office of Energy Innovation
4822 Madison Yards Way
Madison, WI 53705

Dear Administrator Nieto:

WPPI Energy and Sun Prairie Utilities is pleased to provide this letter of support for the City of Sun Prairie grant application for the Wisconsin Public Service Commission's Energy Innovation Grant Program.

The proposed City of Sun Prairie Wastewater Treatment Facility 400 kW solar project application will demonstrate the City of Sun Prairie's commitment to sustainability best practices set by their new Sustainability Committee.

The proposed 400 kW project will reduce the City's energy usage and reduce greenhouse gas emissions. This aligns with WPPI Energy and Sun Prairie Utilities goal of reducing energy usage community wide to lower the cost of wholesale energy for all customers in Sun Prairie and reducing our carbon emissions as a power provider.

WPPI Energy will provide a grant of $20,000 for this project through the WPPI Energy Renewable Energy Grants for Non-Profits program. WPPI Energy and Sun Prairie Utilities understands the value of this project and looks forward to contributing as a strategic and technical partner of the applicant.

Regards,

Clint Cry
WPPI Energy Services Manager
Serving Sun Prairie Utilities

Waste Water Treatment Plant

3040 Bailey Rd., Sun Prairie, WI 53590 | Map It

Portfolio Manager Property ID: 16047718

Year Built: 1982 **4.**

Edit

Not currently eligible for ENERGY STAR Certification

Weather Normalized Source EUI (kBtu/ft²) Why not score?

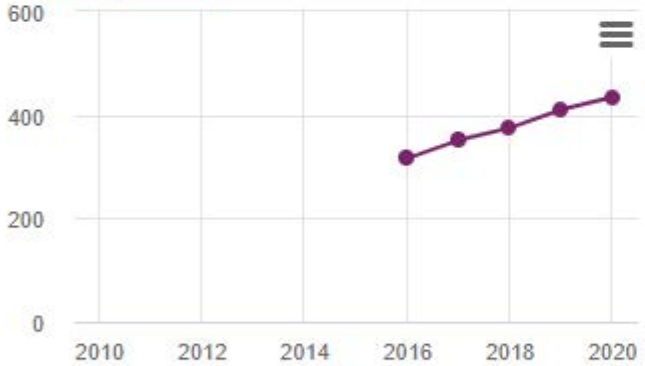
Current: 396.0
(21.41% higher than median.)

Baseline: 316.1
(21.18% lower than median.)

Summary | Details | Energy | Water | Waste & Materials | Goals | Design

Source EUI Trend (kBtu/ft²)

Change Metric



(Chart current as of 10/07/2021 03:37 PM CDT)

Refresh Chart

Change Metrics
Change Time Periods

Metrics Summary

Metric	Dec 2016 (Energy Baseline)	Oct 2021 (Energy Current)	Change
ENERGY STAR Score (1-100)	Not Available	Not Available	N/A
Source EUI (kBtu/ft²)	316.1	390.9	74.80 (23.70%)
Site EUI (kBtu/ft²)	112.9	165.8	52.90 (46.90%)
Energy Cost ($)	174,304.78	213,209.72	38904.94 (22.30%)
Total GHG Emissions Intensity (kgCO2e/ft²)	22.7	27.1	4.40 (19.40%)
Water Use (All Water Sources) (kgal)	Not Available	207.9	N/A
Total Waste (Disposed and Diverted) (Tons)	Not Available	Not Available	N/A

Select Property

Account# 354050-12
CITY OF SUN PRAIRIE
3040 BAILEY RD, SUN PRAIRIE, WI 53590

Charts | Data | Property

$[redacted] Due
Due Date: 01/31/2022
VIEW/PAY BILL

385.1 kW
Latest Daily (Jan 7)
↓ **2%** from 90 day peak

0.00 kW
Last Week (Jan 2)
↓ **100%** from previous

392.7 kW
Last Month (Dec 2021)
↑ **8%** from previous

Electric | Show Hover Chart | High / Low | Consumption (kWh) | Weekly | range | legend | marker

Zoom 3m 1y 2y

15-Minute
30-Minute
Hourly
Daily
Weekly
Monthly
Billing

Comparison Average Temperature | Comparison None | Comparison None | Comparison None

Weather information provided from Aeris Weather

Fact Sheet

SUSTAINABLE WASTEWATER INFRASTRUCTURE OF THE FUTURE ENERGY RECOVERY (SWIFter) ACCELERATOR

Background

The U.S. Department of Energy (DOE) Sustainable Wastewater Infrastructure of the Future (SWIFt) Initiative works with water resource recovery facilities to accelerate a pathway toward sustainable infrastructure. During SWIFt Phase 1 (SWIFt 1.0), DOE worked with over 70 facilities to introduce the building blocks of energy management into their operations. SWIFt 1.0 partners reduced their total energy consumption by more than 8% and put plans in place to achieve 30% facility-wide energy savings by 2021 using DOE-developed energy management decision-making tools and how-to resources. These resources have since been published as the Wastewater Energy Management Toolkit (SWIFt Toolkit).

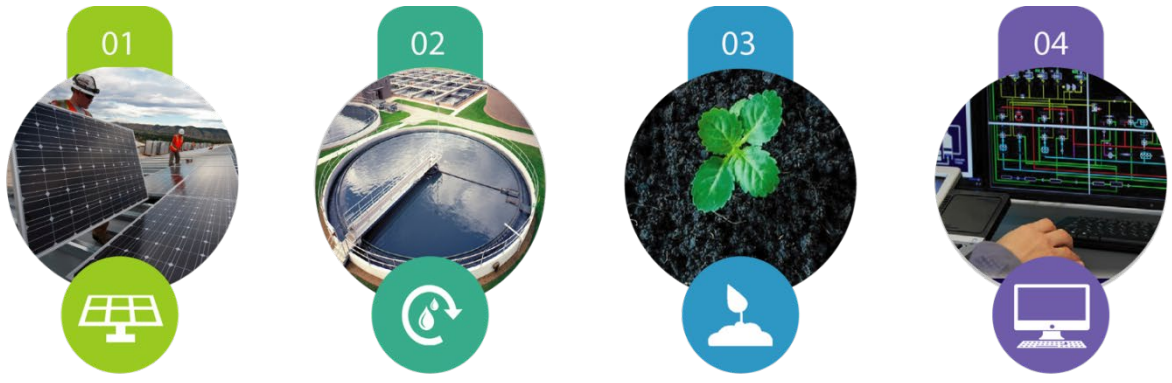
SWIFt Phase 2 (SWIFt 2.0) will continue the momentum of Phase 1 by leveraging the tools, resources, and lessons of SWIFt 1.0 to benefit the broader wastewater sector. SWIFt 2.0 will include two separate tracks to accommodate a wide range of facilities' needs. Facilities that were not able to join SWIFt 1.0 but are interested in achieving 5% short-term and 25% long-term facility-wide energy savings can participate in **SWIFt Toolkit Training**. Facilities that are ready to adopt more advanced energy technologies can join the SWIFt Energy Recovery (SWIFter) Accelerator. If you would like to learn more or are interested in signing up for the SWIFter Accelerator please contact Shannon.Zaret@ee.doe.gov.

SWIFter Accelerator

The SWIFter Accelerator is designed to provide customized technical assistance on energy and related data management, energy efficiency improvements, advanced technology integration, and project financing. Partner facilities voluntarily commit to issuing a Request for Proposals to implement at least one next-generation infrastructure improvement project. In exchange, SWIFter partners receive national recognition through technology success stories highlighted across DOE platforms, technical and financial trainings led by experts in the field, dedicated one-on-one technical assistance, energy savings resources such as data analysis tools, and opportunities for peer-to-peer networking.

Technology Tracks

SWIFter partner facilities will choose and focus on one of four advanced technology tracks. Partners have the option of observing the other track sessions, but any customization will be reserved for their chosen tracks.



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U.S. DEPARTMENT OF ENERGY

Fact Sheet

SUSTAINABLE WASTEWATER INFRASTRUCTURE OF THE FUTURE ENERGY RECOVERY (SWIFter) ACCELERATOR

TIME LINE

The SWIFter Accelerator is designed to be flexible to accomodate participants' scheduling needs and includes individual scoping meetings, tailored workshops, training on energy savings resources and data analysis tools, one-on-one consultations, and peer-to-peer exchanges. SWIFter will facilitate streamlined scheduling and communications throughout the Accelerator.

Initial Partner Conversations

FALL 2020

Once partner facilities sign the SWIFter Partnership Agreement, DOE will conduct an initial phone conversation to discuss the facilities' current progress on efficiency measures as well as advanced technology interest areas.

Track-Specific Peer-Exchanges

WINTER 2020-2021

After partner facilities have chosen their technology track of interest, DOE will schedule track specific peer exchange sessions to discuss technical assistance requests. DOE's network of national laboratories will design and develop tailored technical assistance workshops based on the feedback recieved during these sessions.

Introductory and Technical Workshop Sessions

SPRING 2021

All partner facilites will recieve a 2-hour introductory training on DOE energy management resources (e.g., SWIFt Toolkit, 50001 Ready Navigator, and Better Plants). These resources will help facilities meet their short-and long-term voluntary energy savings goals. Following this, facilities will break into their chosen technology tracks and attend customized technical assistance workshops.

Baseline Data Collection and Annual Reporting

SPRING 2021 - 2022

DOE will work with partner facilities to collect suggested data points related to the facilities' energy use in order to get a baseline metric for the energy savings achieved throughout the program. The baseline data will be collected within six months from the date of signing the partnership agreement. These same data points will be collected annually for three years. Data submission is voluntary. All data and information will be kept confidential and shared only in the aggregate.

Financial Planning Workshops

SPRING 2022 - 2023

Partner facilities will attend financial planning workshops customized to their needs. Topics will include financial planning resources and RFP drafting tips. Facilities will also have the opportunity for peer exchanges with facilities who have successfully funded infastructure upgrades.

Customized Technical Assistance

SUMMER 2022-2023

Each partner facility will recieve an additional ten hours of customized technical assistance on their chosen topic.

Issuing RFPs and Information Sharing

SUMMER 2023

Within 12-18 months following the conclusion of the program, facilities will put plans in place to achieve long term energy savings and issue RFPs to implement one next generation measure. The SWIFt Team will also work with the facilities to draft partner case studies and share lessons learned so that other facilities can benefit from the SWIFter Accelerator.

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U.S. DEPARTMENT OF ENERGY

Fact Sheet

SUSTAINABLE WASTEWATER INFRASTRUCTURE OF THE FUTURE ENERGY RECOVERY (SWIFter) ACCELERATOR

SWIFter Accelerator Partners agree to:

1. **Commit** to issuing a Request for Proposals (RFP) to initiate an infrastructure improvement that includes one next-generation advanced technology
2. **Participate** in peer exchange and technical assistance forums about tools, approaches, technologies, and options
3. **Establish** an energy use and energy intensity baseline
4. **Report** energy intensity, energy use data, and achievements annually to DOE
5. **Develop** an infrastructure improvement plan that includes best-practice energy performance tracking, a package of cutting-edge technologies with a focus on advanced technologies, and a concrete financing model within 12-18 months following the conclusion of the Accelerator
6. **Demonstrate** at least a 5% reduction in energy intensity in each facility by applying the SWIFt Toolkit's low- or no-cost energy conservation measures by the end of the three-year accelerator period
7. **Adopt** a facility-wide goal to reduce energy intensity by 25% over a 10-year period
8. **Share** results and lessons learned with DOE and other Accelerator partners

The U.S. Department of Energy agrees to:

1. **Appoint** a point of contact
2. **Provide technical assistance** and training on energy and related data management, energy efficiency improvements, advanced technology integration, and project financing
3. **Develop** additional technical tools and/or assistance necessary to meet the goals of the Accelerator
4. **Create and facilitate** networking and technical peer exchange opportunities with stakeholder organizations and other partners to develop best practices and share innovative solutions
5. **Leverage** full set of tools and resources developed by stakeholder organizations and compile best practices and approaches for striving toward sustainable infrastructure
6. **Provide national recognition** to Accelerator partners and participating facilities for achieving milestones and for their leadership in working toward a sustainable wastewater infrastructure
7. **Draft** partner case studies and share results with the U.S. Environmental Protection Agency and industry associations

Note: The SWIFter Partnership agreement is wholly voluntary and may be terminated by any party at any time, and for any reason, with no penalty.

Contact

Please visit the Better Buildings Solution Center to learn more about the SWIFt initiative and the Wastewater Energy Management Toolkit**.** If your facility is interested in participating in the SWIFter Accelerator, please contact Shannon.Zaret@ee.doe.gov or stateandlocal@ee.doe.gov.