

**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](mailto: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.



**Energy Capture**

Resiliency, onsite generation, and renewable energy integration (e.g., combined heat and power, solar photovoltaic, biogas, heat recovery, and energy storage)



**Energy Efficiency**

Advanced energy efficiency technologies (e.g., ammonia based aeration control, optimized pumping system technologies, and membrane bioreactors)



**Resource Recovery**

Biosolids recovery for land application as fertilizer and water recovery



**Advanced Data Management**

Advanced data management, sensing and control for optimized energy performance (e.g., Supervisory Control and Data Acquisition (SCADA) systems and Artificial Intelligence (AI) techniques)

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**TIME LINE**

The SWIFter Accelerator is designed to be flexible to accommodate 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**

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.

FALL  
2020

**Track-Specific Peer-Exchanges**

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 received during these sessions.

WINTER  
2020-2021

**Introductory and Technical Workshop Sessions**

All partner facilities will receive 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.

SPRING  
2021

**Baseline Data Collection and Annual Reporting**

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.

SPRING  
2021 - 2022

**Financial Planning Workshops**

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 infrastructure upgrades.

SPRING  
2022 - 2023

**Customized Technical Assistance**

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

SUMMER  
2022-2023

**Issuing RFPs and Information Sharing**

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.

SUMMER  
2023

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**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](mailto:Shannon.Zaret@ee.doe.gov) or [stateandlocal@ee.doe.gov](mailto:stateandlocal@ee.doe.gov).