

## SEDAC Announcements

### Spotlight on Savings

How much energy and money could your facility save? The Village of Swansea Wastewater Treatment Facility recently received an energy assessment through the Illinois EPA WWTP Energy Assessment Program. The assessment report identified energy savings measures to save the facility **750,000 kWh** a year, an annual cost savings of **\$65,000**.

The assessment report calculated the cost of implementing the recommendations, and found that energy savings would pay for the implementation cost in a mere **1.8 years**.

At SEDAC, we work hard to identify energy savings measures that have a good return on investment, and incentives that can help pay for improvements. Many of our recommendations have very short payback periods, allowing you to quickly realize cost savings.

### Apply for SEDAC services

SEDAC provides no-cost [energy assessments](#) to Ameren Illinois public sector facilities and wastewater treatment facilities. Apply [here](#).



### Village of Swansea

Type of facility	Wastewater Treatment Plant
Estimated kWh savings/yr	750,000
Estimated cost savings/yr	\$65,000
Estimated incentives	\$253,000
Simple payback (in years) with incentives	1.8

### Main recommendations

1. VFDs on blowers and pumps
2. LED lighting upgrade

## Energy Code Announcements

### Important update!

The anticipated adoption date for the new Illinois Energy Efficiency Code (based on the 2018 IECC, with Illinois amendments) has now been moved to **June 1, 2019**. Visit our website [sedac.org/energy-code](http://sedac.org/energy-code) for the latest announcements regarding code adoption. Do you have an energy code question? Contact us at 800-214-7954 or [energycode@sedac.org](mailto:energycode@sedac.org).



### Workshops and webinars

With more time to prepare for upcoming changes, consider signing up for one of SEDAC's Energy Code training sessions.

- Webinar: "2018 IECC Commercial Mechanical Systems Provisions with Corresponding IMC Sections." April 24, 2019 at 12 pm.

- Webinar "2018 IECC for Existing Buildings." Learn about energy code requirements for renovations or additions to existing buildings. May 22, 2019 at 12 pm.
- **Two workshops** in Champaign, IL on April 30th. Attend one or both.
  - "Residential Energy Code Basics & 2018 IECC Updates." 9-10:30 am
  - "2018 IECC Commercial Lighting Provisions." 11 am-12:30 pm

Find out more and register [here](#).

Funding for this program has been provided in whole or in part by the Illinois EPA Office of Energy.

## Energy Code Tip: Reducing Energy Burden in Low-Income Housing

Nowhere is there a greater need for energy efficiency than in low-income housing. Low-income households have a large **energy burden**. That is, they spend a much larger percentage of their income on energy costs than the average household, partly because their homes are not as efficient as they could be.

A [study](#) by the American Council for an Energy Efficient Economy (ACEEE) found that low-income households paid more utilities per square foot (\$1.41) than non-low-income households (\$1.17). This study estimated that raising energy efficiency in low-income homes to that of the median home would eliminate excess energy burden by 35%.

We suggest that altering existing low-income housing to meet the latest energy code standards could reduce even more of the energy burden. The challenge, of course, is that energy efficient alterations to existing homes can be expensive. Replacing drafty windows, adding attic insulation, and installing a new HVAC system can be cost-prohibitive for low-income households.

In our latest [Energy Code Smart Tip](#) we recommend low-cost energy efficiency alterations that have a high return on investment, in terms of energy and cost savings. These alterations include:

- Air sealing along breaks, joints, windows, and doors.
- Programmable thermostats
- LED lighting
- Low-flow showerheads and faucet aerators
- Water heater temperature setback

Building professionals, home owners and renters should focus on these alterations to achieve the highest energy savings at the lowest cost. In addition, utility incentives and weatherization programs for low-income households can also decrease the cost of energy efficiency alterations. [Read more](#).

### SEDAC Energy Smart Tips

Energy Code: Low-income housing

March 2019



**Energy efficiency in low-income housing**  
Nowhere is there a greater need for energy efficiency than in low-income housing. Low-income households spend a much larger percentage of their income on energy costs than the average household, in part because their homes are not as efficient as they could be.

Energy code requirements can help residents save energy and money by ensuring that new buildings are designed efficiently from the start, and that alterations meet energy efficiency standards.

#### WHAT IS ENERGY BURDEN?

**Energy burden** is the percentage of household income spent on energy bills. Compared to the average household, low-income households (income < 80% of the area median) have a significantly higher energy burden. A study by the American Council for an Energy Efficient Economy (ACEEE) found that in both single-family and multi-family homes in 22 of America's largest cities, the percentage of household income spent on energy bills is over **three times greater** for low-income households than non-low-income households, as shown in Table 1.

Household & income type	Median annual income	Median annual utility spending	Median energy burden
low-income single-family	\$24,998	\$1,692	<b>7.2%</b>
non-low-income single-family	\$96,000	\$2,112	<b>2.3%</b>
low-income multi-family	\$21,996	\$1,032	<b>5.0%</b>
non-low-income multi-family	\$71,982	\$1,404	<b>1.9%</b>

There is also significant racial disparity in energy burden. According to the study, African American households had the highest energy burden (8.4%), followed by Latino households (4.7%) and White households (2.3%).

Sources: Rao & Dreihöf, 2016, "Lifting the High Energy Burden in America's Largest Cities," ACEEE.

Low-income households paid more for utilities per square foot than non-low-income households, suggesting that their homes are not as efficient as they could be (see Table 2). Non-white households also paid more for utilities per square foot.

Table 2. Median unit size and utility cost/ft based on income and household type (adapted)

Household & income type	Median unit size (square feet)	Median annual utility costs per square foot
low-income single-family	1,200	\$1.41
non-low-income single-family	1,800	\$1.17
low-income multi-family	800	\$1.29
non-low-income multi-family	950	\$1.16

The study estimated that raising energy efficiency to that of the median household would eliminate excess energy burden by:

- **35% for low-income households**
- **42% for African American households**
- **60% for Latino households**

Eliminate excess energy burden for low-income households by following Illinois Energy Efficiency Code requirements!

**SMART ENERGY DESIGN ASSISTANCE CENTER**  
PROVIDING EFFECTIVE ENERGY EFFICIENCY STRATEGIES FOR BUILDINGS AND COMMUNITIES

## Notes from the Field: Illinois Solar for All

Recently, SEDAC has been engaging in research, outreach and advocacy to help low-income communities in Illinois have greater access to energy efficiency and renewables. Our goal is to create a more equitable energy landscape in Illinois.

To this end, we are raising awareness of exciting opportunities for low-income communities, including the [Illinois Solar for All program](#), which is now accepting applications.



The program makes solar projects affordable for income-eligible homeowners and renters, as well as for **non-profits and public facilities** serving low-income or environmental justice communities.

Some highlights of the program include:

- **No upfront costs.** Approved vendors are required to offer participants solar energy with no upfront costs, whether systems are purchased or leased.
- **Ongoing cost savings.** Ongoing costs or fees cannot exceed 50% of the value of energy produced by the solar system through avoided usage or net metering credits.
- **Approved vendors.** The program evaluates and approves vendors to meet program requirements and help protect consumers.
- **Rooftop and community solar** options are available.

If your facility is not eligible for the Illinois Solar for All program, you can still participate in solar projects at significant discounts through the [Adjustable Block Program](#). Both of these programs are available through the recently-implemented Future Energy Jobs Act (FEJA), groundbreaking legislation that makes it easier and more affordable than ever to benefit from renewable energy.

As always, SEDAC recommends pursuing energy efficiency prior to pursuing renewables. The more energy you save, the less energy you need to generate. For quick advice and referrals related to energy efficiency and renewables, contact us at 800.214.7954 or [info@sedac.org](mailto:info@sedac.org).

[sedac.org](http://sedac.org) / 800.214.7954 / [info@sedac.org](mailto:info@sedac.org)

**Providing effective energy efficiency strategies for buildings and communities**

STAY CONNECTED

