

Municipal Power News



Linton Municipal Utilities

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Japanese Trade Organization Visits Linton

Last October, representatives from the Japanese External Trade Organization (JETRO), an organization that promotes mutual trade and investment between Japan and the rest of the world, visited the city of Linton. For years, city leaders, including Mayor John Wilkes, have worked with JETRO to cultivate industrial interest in the local community. JETRO has invested billions of dollars in the state of Indiana and its Japanese companies employ tens of thousands of Hoosiers. Linton officials are proud of their ongoing relationship with JETRO as it could result in future manufacturing developments in the city, similar to those in other Indiana communities.

Officials attending the meetings included JETRO's Chicago Chief Executive Director Ralph Inforzato and Carmel based consultant Larry Ingraham, who has been instrumental in Indiana's relationship with Japan for over 30 years. During their time in Linton, the group met with several local elected officials, business leaders, and citizens through visits at Linton schools, Greene County General Hospital, and a 70-acre lot primed for redevelopment. Both Inforzato and Ingraham commented that Indiana, and Linton specifically, have attributes that make the state and community attractive for investment.

"They told us that Linton is in a great position and the city is doing everything right," said Mayor

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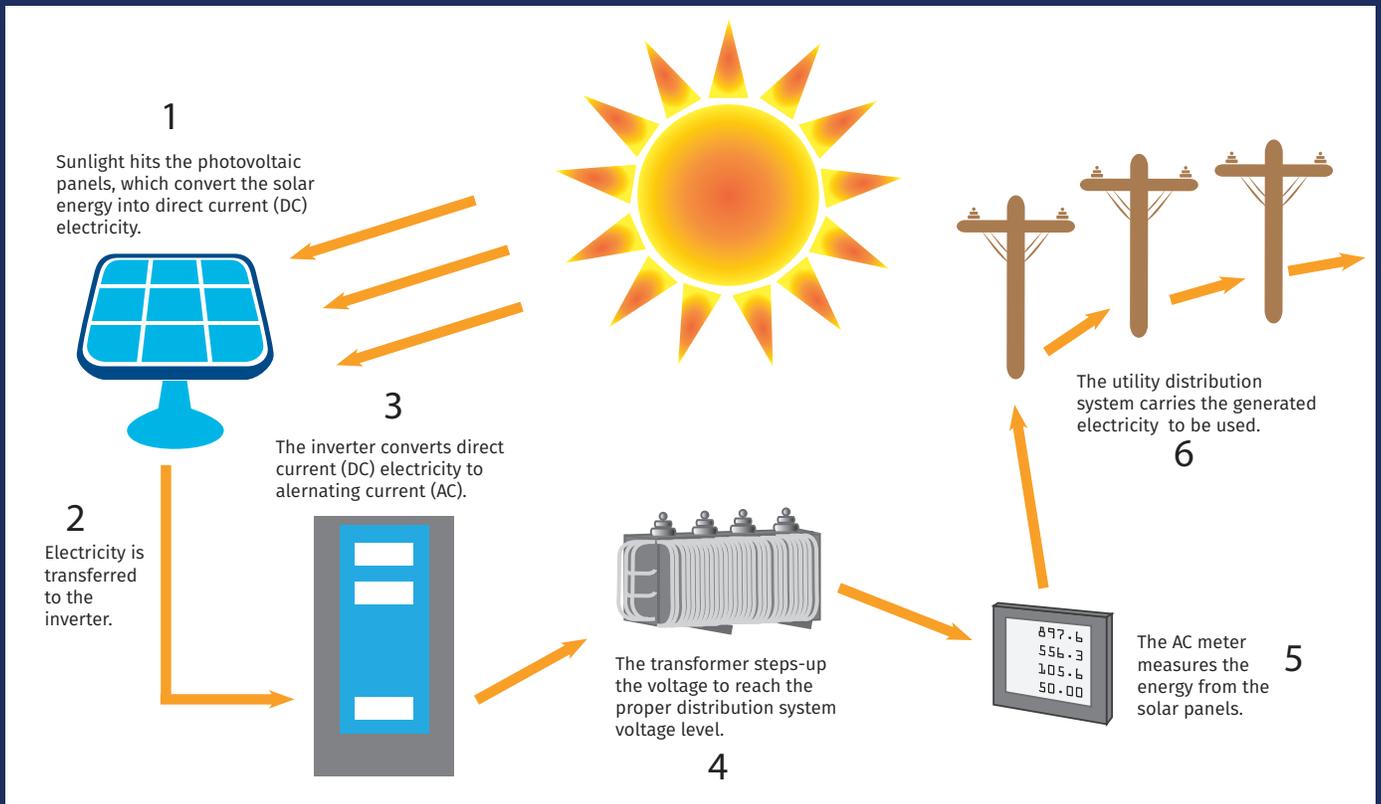
Cooking Corner

Two new recipes from residents in IMPA member communities



Powering Communities with the Sun

IMPA, your community's not-for-profit, wholesale power provider, continues to build solar parks across the state of Indiana, with the goal of constructing at least 200 MW of solar energy by 2023. These solar parks bring several benefits to all 61 of IMPA's member communities and support the Agency's goal of supplying low-cost, reliable, and environmentally-responsible power. But, how exactly do IMPA's solar parks generate electricity?

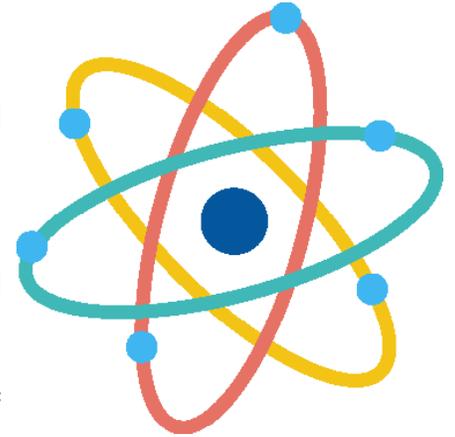


What is Electricity?

Most of us have a general sense of what electricity is. It's what we use when we turn the lights on in our home to see, put leftovers in the microwave to heat, or plug our phone in to charge. We may even know some of its history—Benjamin Franklin demonstrated the relation between lightning and static in the 1700s, Thomas Edison capitalized on his improved incandescent light bulb around 1880, and the US Department of Energy was established in 1977. But even though it is everywhere all the time, the intricacies of how electricity truly works still eludes many of us. So what exactly is it?

Let's Scale Things Down...

Electricity, like everything on Earth, has much to do with atoms. Atoms are the microscopic building blocks for all matter in the universe, and they are built with a combination of three distinct parts: electrons, protons, and neutrons. While neutrons have no electrical charge, protons have a positive electrical charge and electrons have a negative one. And, as we often say, opposites attract—meaning protons and electrons are naturally drawn to one another. Like charges, say two positive charges or two negative charges, repel.



Electricity is a phenomenon that results from the movement of electrons. If an atom has the same number of protons and electrons, then the overall charge of the atom will be neutral. However, electrons can be transferred from one place to another, offsetting the neutrality of the atom and overall objects. If an atom or object gains an electron, it will become negatively charged, whereas if an atom or object loses an electron, it will become positively charged. For example, when you rub a balloon back and forth on a head of hair, some electrons of the balloon are pulled free and gather in the hair. This leaves the balloon with slightly fewer electrons, and the hair with more electrons, resulting in the balloon having a positive charge and the hair with a negative charge. Since opposites attract, the balloon will stick to the head of hair after rubbing them together. This phenomenon is one type of electricity—static electricity. With static electricity, charges gather and remain at rest.

The other type of electricity that we're familiar with is current electricity, which is what allows us to turn on the lights and charge our phones. Put simply, this form of electricity exists when electrons are able to constantly flow, typically around a closed, never-ending loop of wire. Since electrons have like charges, they will constantly repel from one another, so when a high concentration of electrons is together in a loop, they will continuously move and flow.

In Practice

Power companies and utilities harness these basic principles to deliver electric power to homes and businesses around the world. Power plants and generation facilities use what's called alternating electric currents, a form of electricity where electrons move back and forth in an oscillating pattern, to rapidly generate power for consumption. Your community's wholesale power provider, the Indiana Municipal Power Agency (IMPA), provides electricity in this fashion with a mix of coal-fired power plants, combustion turbines, nuclear power plants, solar parks, and wind turbines to bring power to your home. Building upon a rich history of innovation and advances in electrical technology, IMPA is proud to supply 61 communities in Indiana and Ohio with the essential service of low-cost, reliable, and environmentally-responsible power. ●

Tidbits & Trivia

The **Indiana Municipal Power Agency** (IMPA) is a not-for-profit organization that provides a low-cost, reliable, and environmentally-responsible power supply to its members. IMPA provides this wholesale power to 61 communities in Indiana and Ohio, who collectively make up the Agency's membership.

Question:

Can you name at least two IMPA member communities?



Send your answer to newsletter@impa.com, along with your name, e-mail address, and address for a chance to win an energy efficiency prize pack!

Reader Survey

Is there more about your community that you would like to know? Do you have questions about how public power or your municipally-owned utility works? Would you like to learn more tips and tricks as to how you can improve your home's energy efficiency?

Reach out to newsletter@impa.com to suggest topics for future *Municipal Power News* newsletters and let us know what articles you enjoy most, and what you'd like to see next!



JETRO Visit

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Wilkes. "The men were very complimentary of our locally owned utilities after Brent Slover, our General Manager of Utilities, filled them in on what we bring to the table along with testimonials by area developers."

Access to affordable and dependable utilities are oftentimes the top priority for developers looking to invest in a community. Linton fares well in comparison with other communities as its electric utility is a public power utility—a community-owned, not-for-profit utility that invests itself in the city. With the help of the city's wholesale power provider, the Indiana Municipal Power Agency (IMPA), Linton provides low-cost, reliable, and environmentally-responsible power to interested businesses and industries (along with residents). IMPA also offers economic development incentives to members like Linton to further strengthen the city's appeal to investors.



Did You Know?

Linton's Goose Pond Fish and Wildlife Area (GPFWA) is over 9,000 acres of restored wetlands that has contributed to changes in the global migration of sandhill cranes and other notable bird species. GPFWA even hosts endangered whooping cranes, a bird native to North America with a current global population of approximately 800. The grounds of this area are also adjacent to the Green-Sullivan State Forest, which boasts more than 100 bodies of water, adding to Linton's 580 acres of its own parks and recreation.

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The efforts of Linton's local electric crew to maintain a healthy power infrastructure play a significant role in JETRO's interest in the city. Through an ongoing utility pole replacement project, regular upkeep of the system, and the introduction of an upcoming solar park, Linton's electric utility is doing all it can to support the city's economy—and it's paying off.

"We are continuing to work with JETRO and Larry Ingraham in bringing more investments and jobs to Linton and the surrounding area," said Mayor Wilkes. •

What's the Word?

Base Load Generation

noun

Base load generation is defined as the power plants that produce the minimum required amount of power around the clock to provide utility customers with access to electricity at all times.

Base load generation plants can provide power through coal, nuclear, and combined cycle plants. Intermittent power resources, such as solar and wind, cannot be considered base load generation, unless some improved form of energy storage technology becomes available in the future. The fuel mix of IMPA's power supply portfolio in a recent 2021 analysis was 62.4% coal, 21.8% nuclear, 8.3% natural gas, and 7.5% renewables.

Cooking Corner

Try these sweet treats this holiday season!

Simple Apple Crisp

Recipe submitted by Lonnie Isaac of Peru, Indiana

- 4 to 6 apples
- 1/2 cup flour
- 1 cup sugar
- 1 stick butter

Preheat oven to 350°F. Peel and dice the apples, then place them in a small baking dish. Mix up the flour and sugar in a bowl, then cut the butter into slices and add to the mixture, beat until well blended. Pour the mixture over the apples and bake 50-60 minutes. If desired, sprinkle cinnamon on top of the crust before baking. Any fruit can be substituted for the apples, including peaches, pears, cherries, etc.

Chocolate Peanut Drop Candy

Recipe submitted by Wanda Hayden of Covington, Indiana

- 1/2 cup peanut butter
- 1 1/2 cups coconut
- 1 container chocolate frosting
- 1/2 cup chopped peanuts

In a large bowl, combine peanut butter and frosting until well blended. Stir in coconut and peanuts. Onto a cookie sheet, drop mixture by the teaspoon 2 inches apart. Allow the mixture to dry at room temperature for about 6 hours. Store, loosely covered.

For a chance to be featured in the newsletter and win a prize, send your recipe to:

MPN Recipes
11610 N. College Ave.
Carmel, IN 46032
or
newsletter@impa.com

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IMPA Addresses Texas Power Reliability

Last winter, the country saw one of the electric industry's worst fears occur in Texas—an electric infrastructure incapable of serving its customers reliably. On February 15th, 2021, Texas began experiencing problems with their power supply due to sudden cold temperatures that were drastically lower than anticipated. Combined with generation that unexpectedly shut down because it is not constructed to withstand such frigid temperatures, a shortage of natural gas, and a demand for electricity that soared higher than what the state's Regional Transmission Organization predicted, the entire state faced rolling blackouts for several days.

IMPA is fortunate to have a rich history of dedicating itself to reliability, leading to a robust power supply portfolio today. The likelihood that the issues Texas faced would happen in Indiana is practically non-existent. Specifically, IMPA takes action to diversify its generation portfolio and to protect its generation and transmission assets to ensure system reliability. For instance, IMPA's combustion turbines are constructed to operate in temperatures down to -20 °F, whereas similar facilities in Texas are only expected to function in much warmer temperatures year-round. Additionally, IMPA always has 20-30 days of coal at Whitewater Valley Station so there are no limitations to generation when unexpected events occur. IMPA also has over 800,000 gallons of fuel at both its Anderson and Richmond Combustion Turbine Units to serve as backup, and these facilities are staffed around the clock during cold-weather alerts. In addition, all facilities are tested before the winter months to ensure that the units are functional and in good working order. Those who staff IMPA's power plants ensure that the facilities are prepared to run at a moment's notice.

Additionally, IMPA's achievements in renewable energy position the organization for a successful and environmentally-responsible future. IMPA has constructed dozens of solar parks across Indiana since 2014, and also incorporates wind and additional solar into its power supply portfolio through purchased power contracts. However, there are no current technology solutions for these intermittent power resources to provide a power supply when the sun is not shining, and the wind is not blowing. Technological advancements are being investigated every day to find a solution to this problem, and IMPA is conducting its own research with a battery storage project to remain on the cutting edge of energy sector changes. But until we find a dependable source of power through those intermittent times, IMPA relies on coal-fired and nuclear generation along with the combustion turbine units in its power supply portfolio. This is why protecting coal and combustion turbine units from harsh weather is imperative, as a majority of the issues in Texas emerged from the lack of reliable base load and peaking generation.

The recent events in Texas make it evident that reliability should be the number one priority of all electric utilities, and IMPA is proud to provide exceptionally reliable power. The Agency looks forward to continuing its long legacy of keeping the lights on in our member communities, even in difficult circumstances. ●



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IMPA Commissioner: Brent Slover



Did You Know?

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The city of Linton has become a prominent location for the international birding community due to these amenities, with an annual festival held in late winter each year. Check out the dates for this year's upcoming "Marsh Madness" festival!

Friday, February 25th &
Saturday, February 26th

The Friends of Goose Pond again hope to have nature-related vendors, live animal displays, the speaker series, and bus tours of GPFWA. Stay tuned at www.facebook.com/cityoflinton for further updates. •