

Sustainability: Transitioning to OUR Energy Future



2024

2050 Net-Zero Vision

The Illinois Municipal Electric Agency (IMEA) Board of Directors sets forth this organizational vision for reducing to net-zero our power supply carbon emissions delivered to our Member municipalities by 2050.

IMEA's Member communities are committed to working together in the coming years as the transitional journey progresses, while also holding paramount the Agency's mission of providing a reliable and affordable wholesale power supply to Members' residents.

ROADMAP FORWARD:

- Target reductions in greenhouse gases
- Increase our renewable generation resources to replace current resources
- Allow the flexibility needed to embrace changes in technology, such as battery storage
- Continue and expand energy efficiency program incentives to our communities and their residents
- Reduce resource capacity needs by accelerating our demand response options
- Advance electric vehicles and EV infrastructure

The Board acknowledges that to attain its 2050 vision of a net-zero portfolio, industry innovation, developments, commercialization, and implementation must occur. Examples include the development of dispatchable emission-free resources, increased availability of economic energy storage solutions or similar new technologies, transmission upgrades to deliver new renewable generation to residents, increased integration of distributed generation, and economic exit strategies or emission reduction technologies for existing fossil-fueled resources.

SUSTAINABILITY PRINCIPLES

As we transition to our net-zero vision, we will rely on a member-driven set of sustainability principles. Illinois Municipal Electric Agency (IMEA) and its member communities are committed to the balance of being responsible governmental entities, employers and environmental stewards, while providing affordable and reliable electric power. The best way to achieve balance is through the consistent application of sustainability as a business practice.

IMEA defines sustainability as a business approach that creates long-term member value by embracing opportunities and managing risks derived from economic, environmental, and societal developments.

This document captures a snapshot of our current portfolio and future targets for the next three to four years. As conditions warrant, this document will be reviewed and updated to reflect progress and future strategies and targets.



2050 NET-ZERO VISION



Provide an affordable, reliable and sustainable power supply to member communities

IMEA's vision is to continue to work towards reducing to net-zero our wholesale power resource portfolio by 2050. Renewable energy is a larger portion of our portfolio than ever before, and we are not stopping there. Going forward, IMEA will use this vision to work in collaboration with our member communities to construct decisions around resource planning, portfolio optimization and emissions reductions. This is part of our overall strategy to diversify resources while balancing our public-service obligation to serve customers and member communities reliably and affordably.

IMEA efforts to combat climate change create many opportunities through innovative and transformative solutions. IMEA believes that our nation's power grid requires a combination of many types of generation sources to ensure reliability. Renewable resources play an increasingly important role in supplying our customers with the reliable and sustainable power supply we all depend on.

Overall, IMEA is transitioning our generation to a cleaner, more diverse portfolio in a responsible fashion. Electricity keeps our communities and businesses thriving, and IMEA will do its part to sustain the prosperity and quality-of-life that affordable, reliable electricity brings to member communities.



Leadership to Date: Building on the success of recent carbon-free milestones

IMEA has taken strides towards transforming our electricity portfolio with current renewable projects totaling 125 megawatts of aggregate solar and wind capacity at the end of 2023.

- **Investing in clean power:** IMEA has advanced carbon-free resources with 11% of our current energy coming from non-carbon emitting generation resources that include solar, wind, and municipally owned hydro.



IMEA Municipal Solar Program: Power agreements for nine solar arrays in our member communities of Altamont, Oglesby, Princeton, Marshall, Naperville, Rantoul (2 projects), Rock Falls, and St. Charles.



Wind: Wind-powered generation contracts with Lee-DeKalb Wind Farm and Green River Wind Farm in Lee and Whiteside counties.



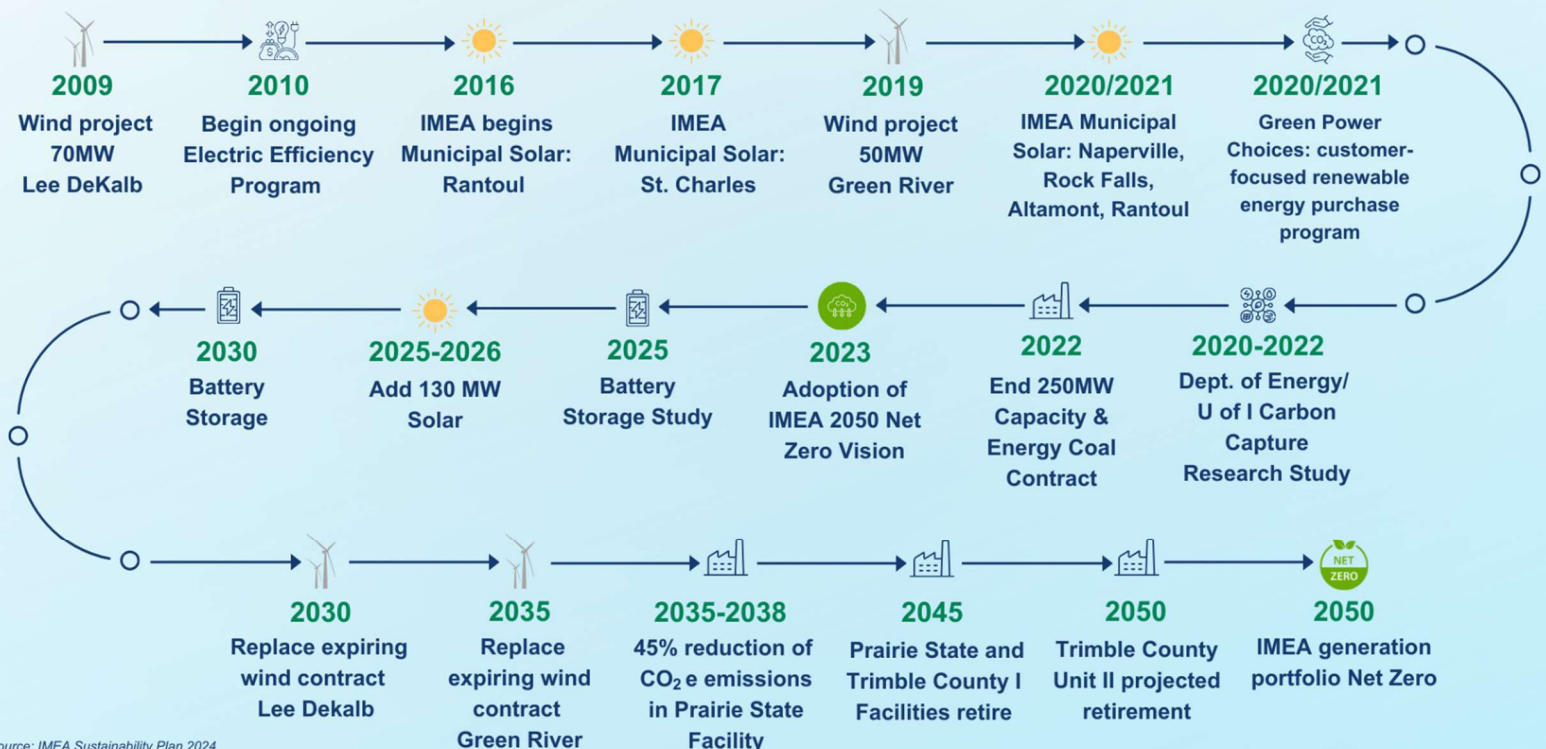
Hydro: Two municipally owned hydro power plants in Peru and Rock Falls.

- **Accelerating Towards a Greener Future:** Along with increasing and adding new renewable generation resources, IMEA has recently reduced our reliance on coal generation, successfully negotiating an early contract exit to reduce our total reliance on coal by more than 40% from a capacity perspective. The reduction was nearly 24% from an energy perspective based on the 2021 level of energy production.
- **Balancing a Reliable Portfolio:** With today's technologies, a diverse electricity mix ensures that the lights come on around the clock when customers flip the switch. This is where our baseload resources currently play a role to help ensure a reliable electric grid. Our predictable, controllable, and economic base-load generation resources all include the best available state-of-the-art environmental controls, helping to minimize the environmental footprint of our portfolio.
- **Pursuing New and Emerging Technologies:** IMEA supports technological innovation necessary to shape the energy system of the future for a decarbonized economy. That is why IMEA participated in a Department of Energy Study on Carbon Capture at one of our coal-fueled facilities. That study was completed in 2022, and, coupled with changes in federal legislation, there is a potential that a third-party developer could pursue a future carbon capture project. As technologies evolve, IMEA will continue to support innovation and technological advancements that contribute to reducing overall emissions from the energy sector to achieve a stable electric grid that reliably delivers carbon-free energy.
- **Supporting Reliable Local Generation Back-up Resources:** Several of IMEA's member municipalities have local generation units within their communities as a fall back if the main grid has an issue. During extreme weather events or other emergencies, these resources deliver high system reliability to our members and end-use customers.
- **Providing Local Green Power Choices.** As we transition our resource portfolio towards a lower-carbon future, IMEA has created Green Power Choices, a renewable energy credits program to help municipal retail customers and member municipalities reach their individual environmental goals, in addition to the overall resource changes that IMEA will be completing.

Future Targets & Strategies: Transitioning more of our portfolio to carbon-free generation resources.

- We seek to add 130 megawatts of solar as follows:
 - IMEA has contracted to add 25 megawatts of utility-scale solar starting in 2025. IMEA reached an agreement to purchase solar-generated electricity from the Big River Solar Farm located in White County, Illinois;
 - IMEA will pursue adding 100 megawatts of new utility-scale solar to our portfolio to be energized over the time frame of 2025-2026;
 - IMEA seeks to add 5 megawatts of behind the meter solar projects to our IMEA Municipal Solar Program in our member communities by 2025.
- By the end of 2025, IMEA will study the feasibility of installing utility-scale behind-the-meter battery storage on member distribution systems. If deemed economically feasible, implementation would occur no later than 2030.
- IMEA commits to researching and exploring new and innovative technologies to reduce our current resource carbon footprint. IMEA and our power resource partners will regularly review our options to cost effectively improve system efficiencies.
- IMEA will utilize a member governing body stakeholder process on a three-year review cycle and update the sustainability plan. On an annual basis, IMEA staff will report to the Board on the progress of the Sustainability Plan and provide any recommended revisions to the Board of Directors.

IMEA PORTFOLIO TRANSFORMATION & DECARBONIZATION



Source: IMEA Sustainability Plan 2024



Design and facilitate energy conservation programs in support of the concept that the most sustainable watt is the watt not generated

IMEA recognizes that electricity not generated – because it is not needed – yields the greatest environmental benefit and is essential for improving system cost effectiveness, customer retention and business development.

Reducing electricity demand and usage through innovative conservation efforts and customer efficiency improvements offered to IMEA member communities results in conservation of natural resources and emissions reductions. Our energy efficiency program has provided significant reductions in greenhouse gas emissions by harnessing technology to use less energy and reduce reliance on fossil fuel generation.

Leadership to Date

- IMEA has had a successful electric energy efficiency program in place since 2010.
- Since the beginning of the program, we have provided more than \$11 million in direct customer incentives toward the installation of energy efficient technologies and the reduction of peak loads and energy consumption by IMEA members and their commercial and industrial electric customers.
 - More than 1,100 commercial/industrial electric efficiency projects have been completed.
- In FY2021-2022¹, our program resulted in more than 39 million kWh in deemed savings delivered to businesses.
- The agency estimates that IMEA-incentivized electric efficiency projects reduced carbon emissions by 15,069 metric tons in IMEA's fiscal year 2021-2022².
- We have given away more than 100,000 LED lightbulbs to our residents and commercial customers to encourage even more home-based and small business energy savings choices.
- IMEA offers and will continue to offer energy audits, infrared scanning services, technical assistance and usage analysis to our member communities and businesses.

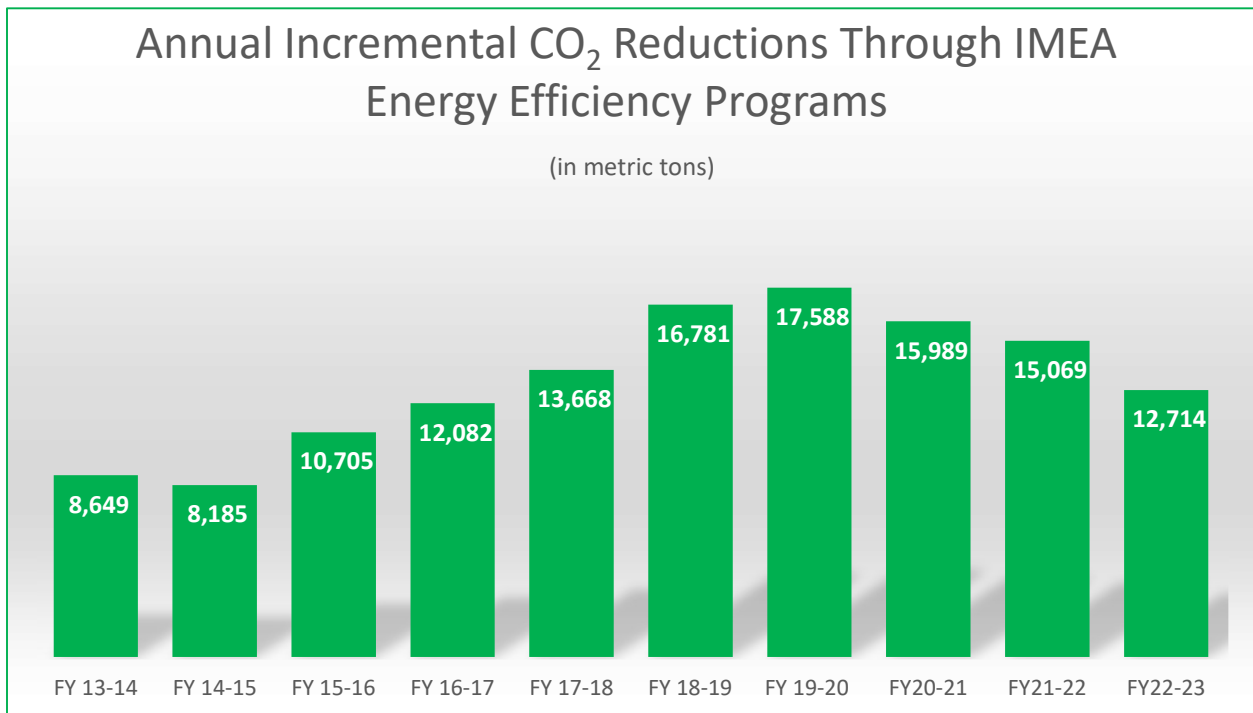
¹ The last year for which there is complete data.

² The last year for which there is complete data.



Future Targets & Strategies

- IMEA recently expanded our electric efficiency program to allow municipal members to include new residential options. These options include incentivizing smart thermostats and the installation of higher efficiency central air conditioning and air source heat pumps. Thus far, we have incentivized nearly 1,700 thermostats. **We seek to encourage more members to offer these local options.**
- IMEA’s board **will regularly review technology developments to determine whether new energy saving measures can be added** to our energy efficiency programs.
- By the end of 2025, **IMEA commits to explore a Conservation Voltage Reduction (CVR) program** to achieve energy and demand reductions for customers.
- As technology evolves, IMEA will continue to **review the potential of the appropriate additions and increased funding** for our energy efficiency program.



NOTE: As of 7/31/23, 91 out of 141 (65%) FY2022-23 projects were complete. Only completed projects are reflected in this chart.



Offer flexible programs to mitigate peak loads, increase reliability and better integrate clean energy potential

IMEA does our part by working to make power grids more efficient, environmentally friendly and reliable. IMEA supports flexible programs that give customers the opportunity to help manage electricity demand.

Demand response (DR) programs improve grid efficiency and reliability. They help create long-term grid stability by giving consumers the opportunity to voluntarily reduce or shift their electricity usage when called upon by the grid operator to relieve stress when the demand for electricity outpaces the grid's ability to supply it. This is typically during heat waves or harsh winter cold snaps. With these DR programs, the grid operator is essentially

creating an electricity "resource" to be called on in times of need to ensure reliable supply. In the future, effective DR programs can ensure that additional power supply resources may not be required and current resources may operate less often.

Leadership to Date

- IMEA recently revamped its DR program for IMEA member commercial/industrial customers in the PJM (northern Illinois) regional transmission organization. This program ensures that customers can voluntarily reduce their electric usage during a peak period in a planned fashion in exchange for a financial incentive paid directly to the end-use customer through the municipal utility.

Future Targets & Strategies

- **Expand our current DR program by offering more options to commercial/industrial customers in the MISO (central and southern Illinois) regional transmission organization territory.** This will provide additional opportunities to reduce peak loads and avoid high-cost market purchases.
- Pursue federal grant opportunities to **deploy an Optimized Charging Operations Center (OCOC)** to complement the growing level of energy management sophistication within member utilities and the communities they serve. The OCOC would seek to develop a methodology to provide visibility into times of grid congestion and establish effective real-time consumer communications, **enabling informed customer consumption decisions.** The grant could also offer the opportunity for effective customer enrollment incentives to encourage end-use customer participation in the program.
- Explore **residential demand-side management measures**, potentially using the platform developed by the OCOC.



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Enable, accelerate and integrate electric vehicles and accompanying charging infrastructure

The IMEA is working closely with our municipal partners to promote the use of EVs, reducing negative environmental impacts and helping customers save money.

Another arena to realize clean energy potential is with the increasing numbers of electric vehicles (EV). EVs produce fewer emissions that contribute to climate change and smog than do conventional vehicles. With newer options for EV infrastructure and integration, EV ownership will become more convenient and the numbers of EV owners will increase, subsequently yielding a reduction in total U.S. carbon emissions.

The Illinois Municipal Electric Agency has been working closely with our municipalities to expand our Electric Vehicle Charging Station Initiative. Through this program, we provide funds so that our member municipalities can offer incentives to install, own or lease electric vehicle charging infrastructure in a way that best serves their communities. Electric vehicles play an important role in reducing the carbon footprint, and we remain committed to helping our communities realize the benefits while working closely with local, state and national partners as the infrastructure and policies develop.

Leadership to Date

- In 2020, IMEA introduced its EV Charging Station Initiative. In one of our member municipalities alone, more than 100 retail customers have installed EV charging stations with the help of IMEA incentives.

Future Targets & Strategies

- In late 2021, the IMEA Board of Directors voted to significantly increase the scope and funding of the EV Charging Station Initiative. Over the ensuing three years, the Agency will make a total of \$750,000 available for municipal members to:
 - ✓ Own or lease EV charging stations for public use,
 - ✓ Own or lease electric vehicles for city use, or
 - ✓ Incentivize retail customers to install EV charging stations.
- IMEA, through our affiliate Illinois Municipal Utilities Association (IMUA), is working to support the Illinois Department of Transportation (IDOT) National Electric Vehicle Infrastructure Formula Program (NEVI). This plan is required for the State to access Federal EV charging station grants. IMEA and IMUA will continue to **work with regulatory agencies to pursue funding opportunities to increase the number of EVs and charging infrastructure in our member communities.**
- IMEA, through our affiliate (IMUA), will **pursue federal grant opportunities to seek to implement a newly developed Optimized Charging Operations Center (OCOC) to establish an effective agency, and member-managed electric vehicle charging program.** This program could provide signals to Level 2 charging customers to **shift patterns of demand in ways that provide grid operations and stability benefits.** The grant may provide the opportunity for enrollment incentives and on-going rewards to participants with verified performance. If this grant opportunity becomes available, IMEA will target an implementation date of the program within 3 to 5 years.



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Maintain and support a sustainable workplace

IMEA strives to be a leader in the region by making our facilities a model for other green businesses. We want to provide a workplace demonstrating our long-term commitment and vision to a sustainable culture.



Leading by Example

- The IMEA office building was the first commercial building built in the Springfield region to receive the United States Green Building Council's Silver Certification for Leadership in Energy and Environment Design (LEED) in 2008. Our building was constructed in an eco-friendly manner to achieve a top level of design and execution with energy efficiency and sustainability in mind.
- Our facility is heated and cooled with a 100% high efficiency geo-thermal heat pump system with no natural gas.
- IMEA invested in Low-E windows to reduce infrared and ultraviolet light.
- We updated our facility with all LED motion activated lighting.
- IMEA installed a 10 kilowatt solar array at our headquarters to reduce our environmental footprint.
- IMEA installed an electric vehicle charging station at our headquarters for employees, board members and visitors.
- IMEA will continue to convert our small fleet of vehicles to electric vehicles as it becomes cost effective and practical.

IMEA is committed to efforts to combat climate change and create a sustainable energy future by providing stable-priced, reliable and cleaner power that ensures our members and their residents a higher quality of life for future generations.

For further information about IMEA's programs, contact us at 217-789-4632 or visit our website at www.imea.org.