



City of Chicago
**Franchise for
Electricity Delivery RFI**

October 15, 2021

Prepared for:

Mayor Lori E. Lightfoot
City of Chicago
121 N. LaSalle St., Unit 507
Chicago, IL 60602

Prepared by:

ENGIE
1360 Post Oak Blvd, #400
Houston, TX 77056

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Business Development
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October 15, 2021

City of Chicago Department of Assets, Information and Services
Email: ElectricityFranchise@cityofchicago.org

Re: Response to City of Chicago Franchise for Electricity Delivery RFI

Dear Mayor Lori E. Lightfoot:

ENGIE North America Inc. (itself or through its subsidiaries) is pleased to respond to the City of Chicago Franchise for Electricity Delivery Request for Information dated April 30, 2021 and as further amended on May 24 and July 28, 2021.

It is our understanding that the City of Chicago seeks to shape an equitable, affordable and resilient clean energy metropolis for the 21st century. To accomplish this goal, the City is soliciting information, ideas, and expressions of interest to inform the City's planning and determinations regarding future electricity delivery franchises. The City intends to select a qualified partner and enter a long-term Energy and Equity Agreement that establishes environmental and consumer objectives that the partnership will jointly pursue together. ENGIE can leverage its broad and deep technological expertise, structuring capabilities and exemplary delivery track records, to transition to an equitable, affordable, reliable, and sustainable solution that satisfies the goals and objectives of the City.

ENGIE offers an unrivaled team of experts well qualified in the development, construction, financing, operation, and maintenance of modernized and/or newly constructed district energy systems. Our areas of expertise include high voltage electricity transmission and distribution, heating hot water distribution, energy efficiency, solar and distributed generation, electric vehicles and electrification, and energy data transparency systems. In addition, our experience with community engagement as well as operations and maintenance services are unparalleled.

We are committed to a long-term partnership with the City. We seek to help you achieve your goals to explore new and innovative ways to implement reliable, equitable, affordable, and sustainable services, and to strengthen, maintain, and operate the electricity grid within the City of Chicago.

ENGIE would like to thank the City for the opportunity to submit a response to the City of Chicago Franchise for Electricity Delivery RFI.

Best Regards,

DocuSigned by:

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Stefaan Sercu
Senior Vice President
ENGIE North America, Inc.

DS


DocuSigned by:

53FA03E967D745A...
André Canguçu
Senior Vice President
ENGIE North America, Inc.



1. Executive Summary



1. Executive Summary

ENGIE has chosen to organize our response around the key objectives expressed by the City. The following is our list of those key objectives and our expected approach to each.

1. Potential acquisition and operation of the electric distribution network within the boundaries of the City.

ENGIE currently manages large networks for natural gas distribution and medium-sized networks for the distribution of power, steam and other utilities globally, many through public-private partnerships (PPPs) that may be appropriate if the City decides to exercise its acquisition rights for the franchise. ENGIE has significant experience structuring and financing large PPPs as demonstrated by our successes worldwide, and particularly in the US with examples such as The Ohio State University, The University of Iowa, Georgetown University, Howard University, and Longwood Medical Center. Whether in the form of a municipally-owned utility or a private utility, ENGIE is capable of facilitating your objectives.



Since being awarded a 50-year concession with the University of Iowa in 2019, ENGIE has provided electricity and water to numerous off-campus, third-party customers including the City of Iowa City.

2. Achievement of 100% renewable energy consumption by the City by 2025 and promotion of 100% renewable energy to citizens of the City subject to the State of Illinois regulations for retail choice.

ENGIE is a licensed retail energy provider in the State of Illinois and other states within the PJM Interconnection. We have extensive experience sourcing and selling renewable energy in your marketplace and we are willing to provide the City with 100% renewable energy by 2025 for all of its requirements. (Please note that this offer is for load controlled by the City and not all load within the City's boundaries).

ENGIE will work with the City to design a renewable energy plan that meets the City's needs for locationality, additionality and marketing rights. In addition, ENGIE can establish a 100% renewable energy offer available to all non-residential customers within the City's limits. This alternative would be made available within months of establishment of a relationship between the City and ENGIE.

ENGIE has developed, owns and/or operates more than 181MW of distributed solar and 63MW of storage across the country (excluding approximately 3GW of utility-scale solar and wind), and including an operating portfolio of about 46MW in Illinois, with more in construction or under development. If selected, ENGIE will evaluate the City's real estate portfolio and develop onsite solar and storage where feasible.

3. Design, and development of community solar within the City's boundaries.

ENGIE has experience with developing community solar projects in Illinois and elsewhere and we can create new solutions to enable that within Chicago. ENGIE has experience marketing community solar subscriptions to City residents and ENGIE can develop, own and operate the resulting projects.

4. Electrification of the City's public transportation system.

ENGIE is participating in transportation electrification projects throughout the world and we will bring our expertise and financing to transform Chicago into the leading city in this regard. While ENGIE maintains an equity interest in an electric vehicle charging equipment manufacturer, we remain technology-agnostic, able to identify and design a best in class solution for the City utilizing the highest quality components and systems the market has to offer.



ENGIE is providing end-to-end transit bus electrification for the city of Santiago, Chile reducing CO2 emissions by more than 10,000 tons.

5. Development of a City-wide electric vehicle charging network, including in low income areas.

ENGIE can commit to implementing, in partnership with the City, an electric vehicle charging network that serves all Chicagoans.

6. Development and implementation of energy efficiency alternatives for City residents, especially in low income areas.

Energy efficiency is the first pillar in ENGIE's approach to greater sustainability. We have working examples of contractually guaranteed energy efficiency levels at The Ohio State University and Georgetown University which we believe would be applicable in concept in Chicago. We can design and execute those energy efficiency concepts for City and commercial buildings as well as low income areas.

7. Implement expanded broadband access for the citizens of Chicago.

Access to high-quality internet service at a reasonable cost is extremely important to enabling opportunity within the City. ENGIE can partner with one or more qualified providers to develop and implement a city-wide network of affordably-priced broadband.

8. Enable workforce development for City citizens and ensure such individuals are employed for activities associated with achieving the goals stated herein. In addition, preferential treatment of contractors domiciled in the City and owned by women or minorities.

ENGIE is committed to the communities in which we operate. In fact, it is inherent in our culture to contribute to the local ecosystem through employment, education and outreach.

In addition to expanding our office in Chicago to manage our relationship with the City, ENGIE can make commitments to expand our existing internship programs on university campuses to apprenticeship programs in Chicago to train and hire residents in furtherance of achieving the objectives outlined herein. And ENGIE can make commitments to contract with local women and minority-owned businesses to perform a significant portion of the work requested.



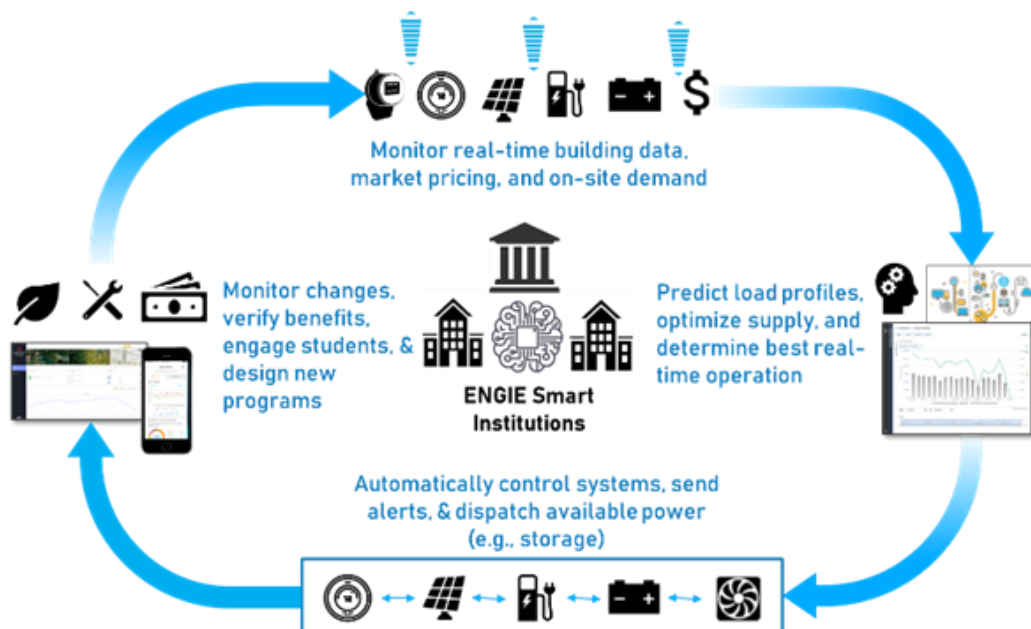
ENGIE Construction Manager, Chris Kaczowski speaking with Eastern Michigan University students at a regional career fair.

9. Elimination of customer deposits, late fees, disconnections of service due to non-payment and institution of retail pricing based on the ability to pay.

ENGIE is willing to develop retail supply alternatives that address those most challenged in paying their electricity bills, while at the same time guaranteeing a price no greater than standard brown power supply. One approach could be the creation of supply cooperatives, through which ENGIE can aggregate pools of customers and simultaneously manage, dispatch and deliver electricity. Customers in the cooperative agree to ENGIE load control and ≤ 100 load flex hours per year. Commercial customers exhibit high degrees of load flexibility, mandating deposits and late fees simply create unnecessary financial burdens on customers. Whereas, cooperative buying pools use inherent load flexibility to forego distribution system investments and activate the true power of non-correlated customer use during hours of the day.

10. Establishment of data cache for ensuring transparency with respect to all things related to the use of electricity in the City.

ENGIE is a strong proponent of the value and necessary transparency around data. To that end, ENGIE has developed digital tools that may be utilized for the capture and communication of many aspects of the City's energy consumption. We have a working example of such an energy dashboard at The Ohio State University – Smart Institutions – that we would be very happy to demonstrate to the City leadership in real time. Although we are not certain what the City's objectives are with regard to transparency, we anticipate capturing and making available data such as the City's consumption of electricity by meter; the percentage of City electricity supplied from renewables; percentage of overall City consumption (i.e. the City itself and its residents) from renewables; progress on the roll out of the City's EV transportation fleet and the City-wide EV charging infrastructure; progress on the roll out of broadband access; and ENGIE contracting efforts both as an energy supplier and as your trusted partner in bringing opportunity to City communities you wish to promote.



ENGIE Smart Institutions: AI and software to drive energy efficiency for Institutions, including universities, hospitals, and cities. Use cases include the City of Venice and the Ohio State University.



2. ENGIE Information and Past Experience



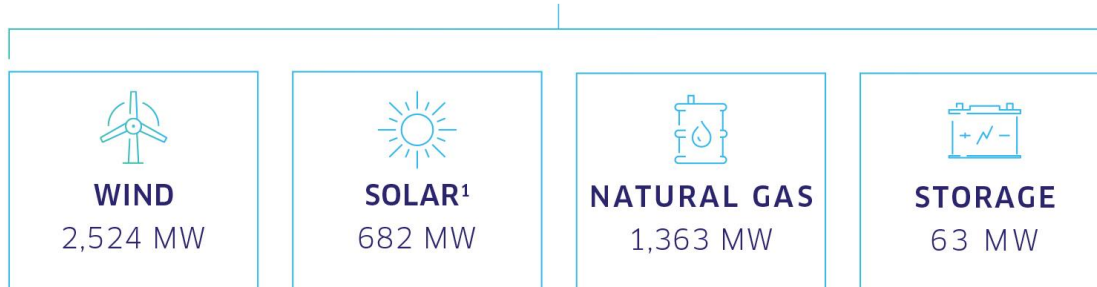
2. Company Information and Past Experience

ENGIE North America

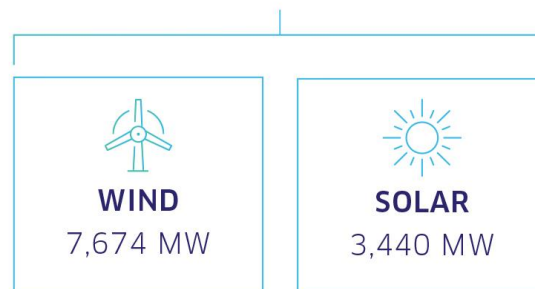
ENGIE North America (ENA) is a wholly owned, direct subsidiary of ENGIE Holdings Inc (EHI). ENA and EHI are wholly owned, indirect subsidiaries of ENGIE S.A. and are members of the ENGIE Group, a global energy and services group of Companies (the “ENGIE Group” or “ENGIE”). ENGIE Group is founded on three business areas: low-carbon power generation, particularly from natural gas and renewable energy, networks, and customer solutions. ENGIE is characterized by substantial free cash flow from its generation assets, as well as prudent financial and capital management. ENGIE is included in the Fortune Global 500 (ranked #152 out of 500) as well as Platt’s List of Top 250 Energy Companies (#71 of 250).

ENGIE has had a presence in Chicago’s clean energy ecosystem since 2018, when it acquired SoCore Energy, a developer, owner, and operator of commercial solar PV systems. SoCore was founded in 2008 by local entrepreneurs and was one of the first solar companies to call Chicago home. Today, ENGIE’s Distributed Solar & Storage headquarters is in River North in Downtown Chicago. Our Chicago-based team of about 65 professionals – engineers, project managers, business developers, financiers, and policy experts – have developed and built solar and storage projects in nearly 30 states, including a substantial portfolio in Illinois. We are excited about Illinois’ new Climate and Equitable Jobs Act and the opportunities it presents to the City of Chicago.

GENERATION IN OPERATION:
4,632 MW



GENERATION IN DEVELOPMENT:
11,114 MW



¹Includes utility-scale solar (501 MW) and distributed solar (181 MW)

ENGIE North America generation operating and under development as of 2020.



ENGIE North America Key Principals

Serdar Tüfekçi | Vice President, Major Partnerships and Campuses

Serdar's vision for sustainable energy on campus and action-based approach to ENGIE partnerships led to the building of a premier public-private partnership between ENGIE operated Ohio State Energy Partners and OSU in 2017. Now, Serdar leads ENGIE's activities regarding all major development activity for commercial/industrial clients and for large campuses. Prior to his success at OSU, Serdar served as the vice president of ENGIE's technical services, providing engineering, construction, project management, and contract management services to ENGIE in North America. He has a bachelor's degree in Mechanical Engineering from Istanbul Technical University, an MBA from Purdue University, and a Master of Science Degree in Engineering from OSU. Serdar can be reached at serdar.tufekci@engie.com or 380-218-2321.

John Walker | Business Development

John joined ENGIE's M&A and development team in 2017. From 2017-2020, Mr. Walker served as Secretary for ENGIE North America's Investment Committee, leading the execution of ENGIE's investment process. In parallel, Mr. Walker has supported and led various M&A and development opportunities including renewables, district energy systems, public-private partnerships, and broader energy solutions. Prior to joining ENGIE, John Walker worked in software development and consulting roles. John earned his MBA in Finance from the University of Houston and his B.A. in Computer Science and Plan II Liberal Arts Honors from the University of Texas at Austin. John can be reached at Johnnie.Walker@engie.com or 713-636-1213.

Keith Crane | Business Development

Keith has 30 plus years of experience in the energy industry, primarily in new business development, mergers & acquisitions, deal structuring and corporate finance. His current responsibilities include identifying new business opportunities with commercial and industrial customers and the development of solutions that contribute to greater energy efficiency and sustainability for our clients. He can be reached at Keith.Crane@engie.com or 713-636-1399.

Pablo Martinez | VP Business Development

Pablo has over 11 years of experience in the energy sector on an international level, and joined the ENGIE Group in 2009 in Paris, France. There, he conducted analysis of corporate strategy and markets for the natural gas and LNG business line. Pablo then moved to the ENGIE Latin America Business Unit, first based in Chile for seven years. During that time, he focused on a variety of areas including strategy, business development, mergers and acquisitions (M&A), portfolio management and commercial topics regarding natural gas and power. He also holds an MBA from the Collège des Ingénieurs in Paris. Pablo can be reached at Pablo.Martinez@engie.com or 713-636-1944.



ENGIE Leadership

Catherine MacGregor, Chief Executive Officer/ ENGIE Group

Catherine MacGregor is Chief Executive Officer of the ENGIE Group which oversees all of ENGIE companies. She has spent her entire career in the energy sector and has managed numerous complex international industrial projects.

Bill Collins, Chief Executive Officer and Chief Finance Officer

Bill Collins is the CEO and CFO of ENGIE North America responsible for growing ENGIE North America's business and advancing our goal to achieve a carbon neutral future.

Stefaan Sercu, Chief Energy Solutions and Operations Officer

Stefaan Sercu is responsible for delivering comprehensive energy solutions for public- and private-sector customers. During his 23 years at ENGIE, he has held multiple roles, most recently responsible for all commercial, operational and management activities within our Cities and Communities and Operations.

David Carroll Chief Renewables Officer

David Carroll is responsible for the Renewables activities that encompass utility scale wind and solar, distributed generation and storage, focused on development, engineering, construction, operations and maintenance, including partnership management. He has more than 15 years' experience across the industry contributing to more than 7 GW of renewable energy globally.

André Cangucu, Chief Networks Officer, Americas

André Cangucu oversees the operations and business development activities encompassing transmission lines, gas pipelines, distribution companies, gas storage, regasification and biogas biomethane.

Axel Leveque Chief Thermal Officer, Americas

Axel Leveque leads Thermal & B2C Supply for North America, overseeing the performance of the existing fleet, accelerating the greening of ENGIE assets including hydrogen and green gases and supporting Renewables on large-scale storage and generation.

Will Davis Chief Legal and Ethics Officer, Government & Regulatory Affairs

Will Davis leads the legal and government and regulatory affairs functions for the North America Region, including ethics, privacy, and compliance. He has been practicing law in the energy sector for over 20 years.

Coy Wright VP, IT & Digital, CIO

Coy Wright is responsible for IT & Digital for ENGIE North America. Coy has over 25 years of experience managing IT in energy, financial and manufacturing industries.

Philippe Vedrenne Chief Executive Officer, Global Energy Management

Philippe Vedrenne leads our Wholesale Energy Trading and Retail Energy Supply activities in North America. He oversees risk and asset management, origination, trading, and retail activities. Prior his current role, Philippe spent more than 20 years working on the development of gas and power trading within various entities and geographies of ENGIE around the world.

Previous Experience Distribution/Energy Sector:

ENGIE is a global leader in sustainability solutions and energy services. Our status as a leader in these areas are among ENGIE’s key qualifications to support the City of Chicago’s sustainable objectives. We differentiate ourselves from others in the field by our:



ENGIE's Differentiating Qualifications

As one of only a handful of companies that offer a full range of energy services and renewable projects, ENGIE has the people, processes, technology, and delivery model to meet and exceed the City’s sustainable needs and goals.



City of Chicago Sustainable Goals

Technology Agnostic

ENGIE made a deliberate decision to be technology agnostic and act as an integrator and service provider, rather than a technology supplier, allowing us the freedom to provide the most appropriate solution for every use-case. Through extensive project engagement, we have developed close relationships with all leading technology suppliers and a keen appreciation of the competition across all technology pillars, ensuring access to the best technologies at best prices.

Global Leadership Across the District Energy System Value Chain

Renewable district heating and modern district cooling are among the most efficient and cost-effective ways to reduce the carbon footprint of densely-populated areas like city centers and industrial or office parks. They can be fueled by resources like biomass, geothermal, solar energy, and/or waste heat from industrial processes, or energy from waste that could not otherwise be used. Doing so typically generates 30% energy savings and up to 50% less CO₂.

400 networks operated in 20 countries







Excluding state-owned firms, ENGIE is #1 and #3 globally in cooling networks and heating networks, respectively. ENGIE operates over 400 district heating and cooling networks around the world, helping businesses and the public sector to meet long-term energy needs. Over the past 30 years, we have honed our technological expertise in energy efficiency, renewables, and waste-to-energy solutions, and we take pride in designing, financing, building and operating highly efficient district networks. It is our conviction that district heating and cooling networks can be the backbone of better, more sustainable cities.



From design to operations, ENGIE accompanies its customers at every step of the value chain, helping cities to meet their sustainability targets over the long term.

Distribution System Experience

In the US, ENGIE has meaningful experience operating and maintaining high-voltage electricity distribution systems structured with long-term, comprehensive energy solutions. The following table provides illustrative examples of ENGIE's electric distribution system footprint.

	 THE OHIO STATE UNIVERSITY	 THE UNIVERSITY OF IOWA	 <small>1789</small> GEORGETOWN UNIVERSITY	 HARVARD MEDICAL SCHOOL
System Attribute	The Ohio State University	The University of Iowa	Georgetown University	Longwood Medical Center of Harvard University
Peak demand (MW)	110	67.5	21	68.5
Installed import and distribution capacity (MW)	504	175.9	94	94
Voltage rating (kV)	13.2	13.8	13.8	13.8

Outside the US, ENGIE has experience managing municipal electric distribution systems. For the Principality of Monaco, ENGIE manages the electricity and gas distribution system for over 25,000 customers, including the public lighting system, under a long-term concession.

ENGIE has experience with large distribution networks. Globally, ENGIE is a leader in gas distribution networks, operating approximately 252,000 km of gas distribution networks. In Europe, ENGIE has the #1 natural gas distribution network. In France, ENGIE serves over 9,500 municipalities and approximately 10.9 million customers. In Mexico, ENGIE operates eight local distribution companies providing natural gas to over 150 municipalities (approximately 630,000 customers) through a 12,500 km network.

Research & Development

ENGIE's Research & Development consists of 8 centers in 7 countries leading a community of more than 900 researchers. ENGIE invests \$230 million per year to advance scientific and industrial knowledge on decentralized green thermal solutions, electrification, microgrid and demand response as well as hydrogen applications. More than 23 targeted research laboratories explore, study, test and run pilots for our industrial customers with these technologies daily. ENGIE also manages a venture capital investment fund endowed with \$215 million, supporting more than 26 start-ups since 2014.

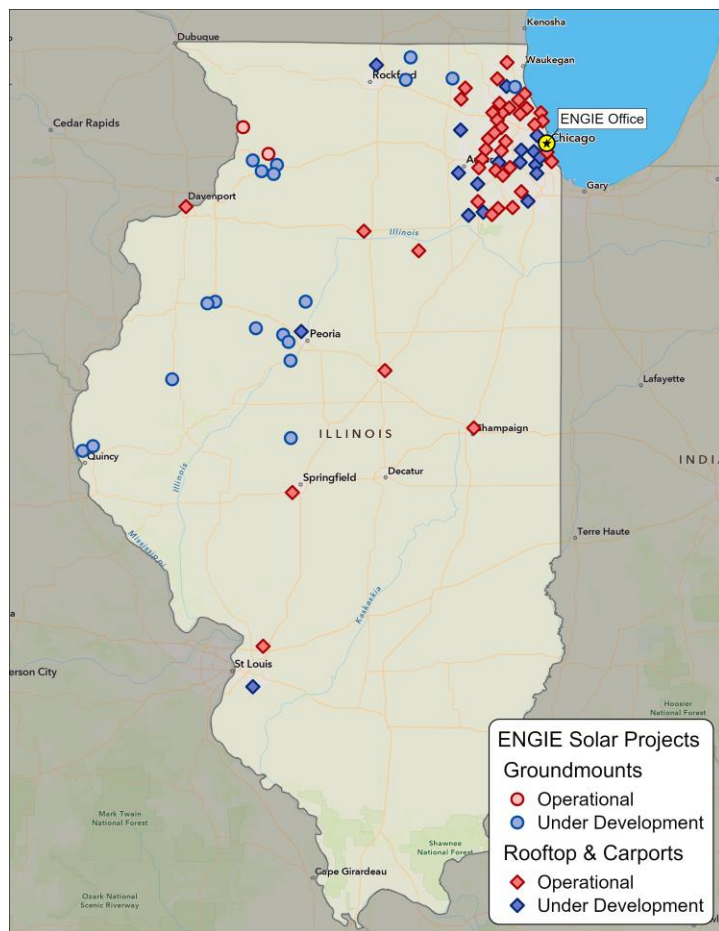
Our first Energy Innovation Center in the USA is currently under construction as part of our partnership with The Ohio State University (<https://buildingthefuture.osu.edu/energy-advancement-and-innovation-center>)

Renewable Energy

ENGIE is a leading developer and owner of both grid scale and distributed renewable energy projects globally and throughout the U.S. As a result of integrated development teams, energy marketing capabilities, and retail electricity delivery, ENGIE offers a multitude of contract structures including build transfers, virtual power purchase agreements, physical power purchase agreements, and retail delivery.

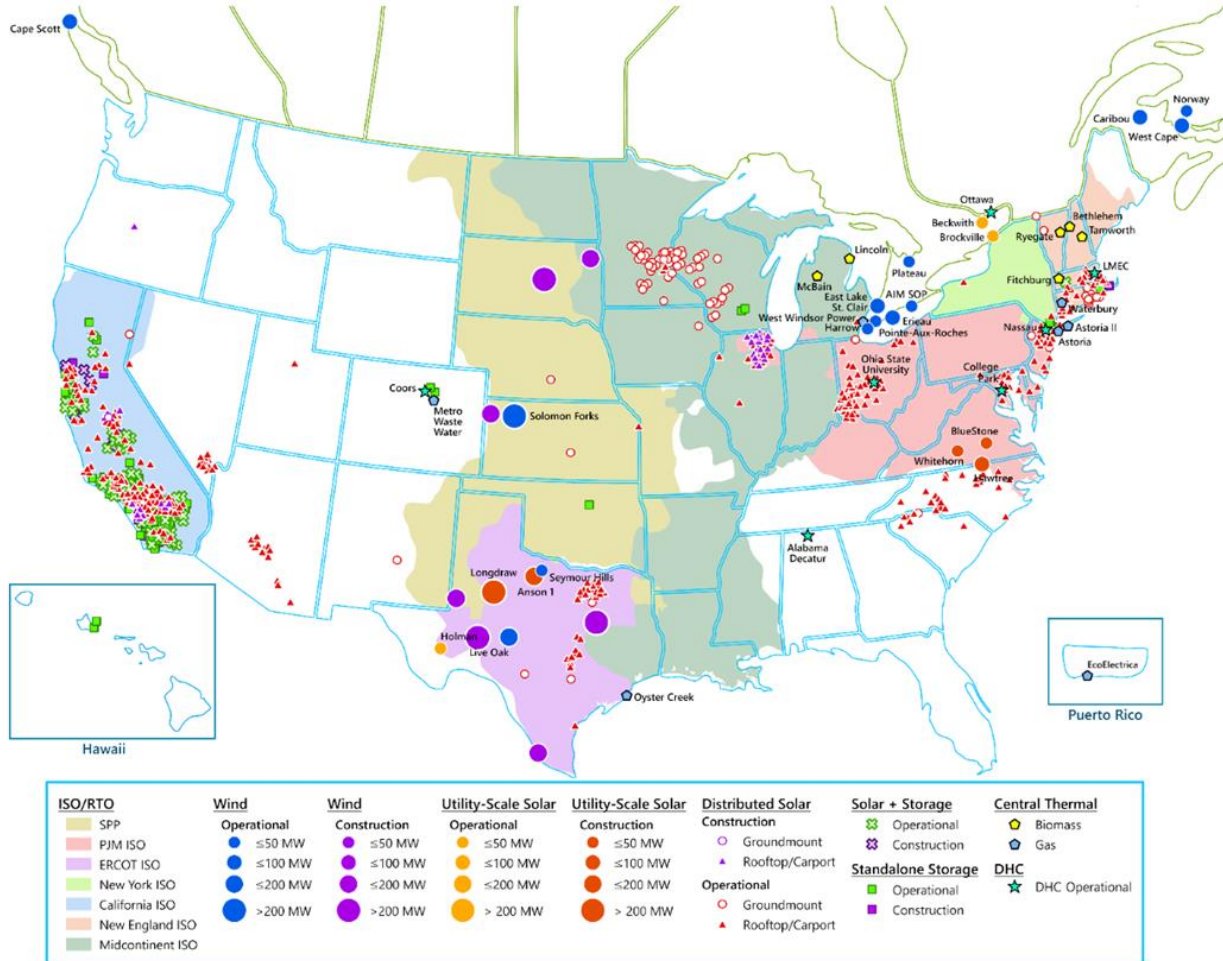
In Illinois, ENGIE has an operating portfolio of 38 distributed solar projects with a capacity of approximately 46MW_{AC}. Over 25 additional projects are under development, and we are currently building a strong pipeline of solar projects to bring forth with support via the recently enacted Climate and Equitable Jobs Act, including some in Chicago.

ENGIE has enabled numerous municipalities and public organizations, as well as commercial and industrial clients, to bring their sustainability goals to fruition across approximately one million sites. We own and operate a diverse portfolio of North American generation facilities, with nearly 90% producing little-to-no carbon emissions. As a result, our customers have achieved some of the most transformational, large-scale projects in North America, becoming more efficient, productive, and sustainable as a result.



While ENGIE has a regional, national, and global presence, ENGIE's distributed solar team is both heavily embedded and invested in Chicago and Illinois.

ENGIE North America has transformed its generation portfolio through divestiture of its thermal generation fleet and significant investment in renewable energy projects, reducing our global greenhouse gas (GHG) footprint by 39% and our emissions from power production by 50%. ENGIE has a corporate commitment to investing in renewables, as evidenced by our U.S. renewable portfolio depicted in the map below



As cities and communities across the country commit to ambitious climate action, ENGIE has heightened its focus on data collection to track decarbonization and communicate progress to our customers, aligning our capabilities with your expectations in the journey toward decarbonization.

Additional information regarding ENGIE’s contributions to economic growth via renewables is provided in the video at the following link:

<https://www.youtube.com/watch?v=dRUtKHVYPW8&feature=youtu.be>

Energy Storage

Energy storage is fundamental to resiliency and renewable energy integration, and ENGIE is an established leader in power and natural gas storage globally. In the U. S., ENGIE is the top distributed energy storage company, delivering turnkey energy storage projects in front and behind the meter to drive peak demand reduction, reliability, and ancillary services.

Our performance-based financing options and guarantees, and our high sustainability standards help ensure that both our customers and our planet can thrive.



ENGIE recently commissioned and is operating a 5.76 MW solar array at our decommissioned Mt. Tom coal plant in Holyoke, MA. The array provides energy to Holyoke Gas and Electric distribution system.

Green Mobility, Electric Vehicles, and Electrification

ENGIE has installed over 150,000 charging stations across more than 70 countries worldwide and is currently the second largest company in the world of electric vehicle (EV) charging stations and charging management software in 2020. In line with our aim to become the leader of the energy transition in moving towards net-zero carbon neutrality, ENGIE delivers a broad range of products and services to help fleets move to Zero Emission buses. At the heart of the strategy for our customers, green mobility is a key lever to improving air quality, reducing greenhouse gas emission levels, lowering costs, and enabling cleaner and efficient fuels, smoother traffic flows, and more efficient mass transit.



In 2018, ENGIE contracted to provide Santiago, Chile's public transportation system with 100 leased buses and installation and maintenance of the related electric charging infrastructure supplying 100% certified renewable energy. By 2019, with 200 e-buses operating —half supplied by ENGIE— Chile became the #2 country (after China) with the largest e-bus fleet.

ENGIE has proven capabilities in implementing large-scale EV programs with a network of providers. Implementing a “Bus as a service” for 100 electric buses in Chile, providing charging solutions for hydrogen buses in Pau or supporting many school districts in their electrifications are good example of our capabilities in zero-emission mobility. ENGIE’s ambition is to have over 1 million charging points installed by 2025. ENGIE is also working with many EV charging partners—EVGO, BYD, Proterra, and ChargePoint—who are including ENGIE’s solution into their projects. ENGIE’s full service EV charging infrastructure capabilities include:

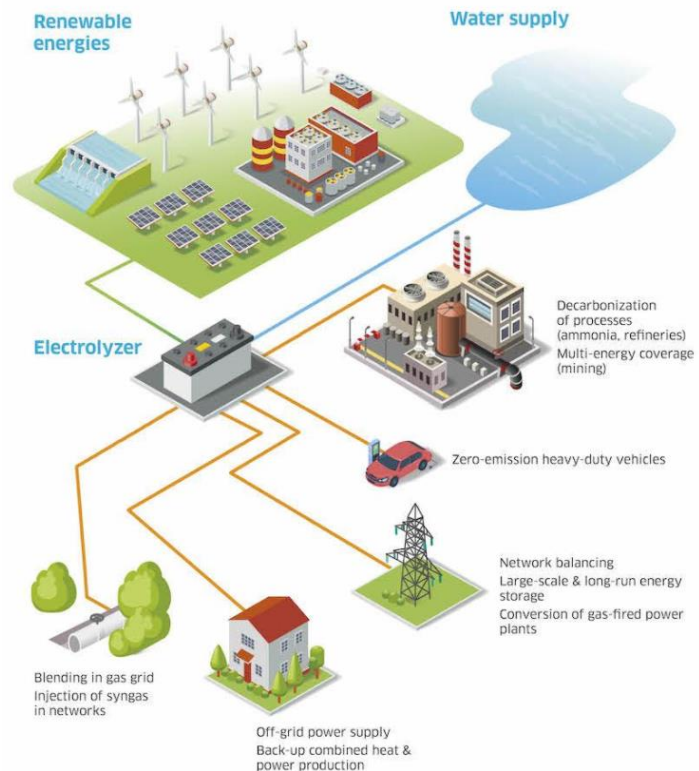
- EV fleet migration planning with in-house tool
- Customized, easy-to-use charge points
- Energy solution assessment and design

- EV infrastructure installation
- Renewable energy supply, including onsite, virtual Power Purchase Agreement (PPA), and retail power
- Fleet management information
- Remote monitoring and maintenance
- Resilient battery energy storage systems (BESS)
- Ongoing EV fleet management

Green Hydrogen

At ENGIE, our strategy is to leverage our global presence and decades of expertise working across the electricity and gas value chains to help lead the world in developing a green hydrogen economy. We created our Hydrogen Business unit in 2015, long before our closest competitors, and made the strategic decision to devote our efforts solely to green hydrogen (“GH2”) created through electrolysis utilizing renewable energy to ensure our mission was clear. Our team of more than 200 experts focuses on mastering every step in the GH2 value chain – from research to project design and construction, renewable energy operation, electrolyzer management, storage and transport – with the goal of enabling maximum learning and cost savings.

We are strategically expanding our H2 project portfolio – which currently covers Europe, Africa, APAC, and Latin America – globally, and particularly into the USA, to grow technical expertise as well as relationships with local private and public sector partners that are key to success in this fledgling market.



ENGIE has positioned itself as a major player in renewable hydrogen and operates along the entire length of the hydrogen value chain – from production of renewable energies to end use



Summary of Recent Projects:

The table below highlights examples of recent ENGIE projects completed, including micro-grids, storage, solar, and wind.

Project	Location	Year	Project Type	Capacity
Target Stores – Illinois Portfolio	Illinois (Multiple Cities)	2017-21	Solar	15 MW
Illinois Community Solar	Whiteside County, IL	2021	Solar	11.3 MW
United Power BESS	Firestone, CO	2018	Storage	4.5 MW/18 MWh
Longwood Medical Center of Harvard University	Boston, MA	2018	Microgrid	99 MW
Santa Rita Jail	Dublin, CA	2013	Microgrid	6.6 MW
Comoros Hybrid Microgrid	Comoros	2018	Microgrid	10 MW
Island of Lifou	New Caledonia	2019	Microgrid	15 MW
Hebrew Home	Riverdale, NY	2019	Microgrid	1.6 MW
Anza Electric	Anza, CA	2020	Microgrid	5.4 MW
Massachusetts Smart Program (for the DOER)	Massachusetts	2019	Solar/BESS	38 MWh
Mt. Tom Solar & BESS	Massachusetts	2017	Solar/BESS	3-MW/6-MWh
Long Draw Solar	Texas	2020	Solar	225 MW
Anson Solar	Texas	2020	Solar	200 MW
Holman Solaire	Texas	2020	Solar	50 MW
Dakota Range III* Wind Farm	South Dakota	2020	Wind	~151 MW
East Fork Wind Farm	Kansas	2020	Wind	~196 MW
Jumbo Hill	Texas	2020	Wind	160 MW
King Plains*	Oklahoma	2020	Wind	248 MW
Las Lomas	Texas	2020	Wind	~202 MW
Live Oak	Texas	2018	Wind	200 MW
Prairie Hill	Texas	2020	Wind	300 MW
Seymour Hills	Texas	2019	Wind	30 MW
Solomon Forks	Kansas	2019	Wind	276 MW
Triple H*	South Dakota	2020	Wind	250 MW

Case Studies Highlights



Compagnie Parisienne de Chauffage Urbain (CPCU) *Parisian Urban Heating Company*

The CPCU represents Europe's largest thermal network, providing steam and hot water to over 500,000 households across 13 municipalities, including Paris. Among the customers CPCU serves are 65 universities, including La Sorbonne, and 16 hospitals.

ENGIE's 99-year contract with CPCU involves operating, maintaining, designing, and financing expansions to the district heating system. The system consists of a 440-km distribution network, 3,291 MW capacity, 1,660 substations, and 5,700 connection valves.

Half of the energy sold by CPCU comes from renewable energy sources, including 3 waste-to-energy plants, 7 combustion plants and 2 cogeneration plants. These innovative green power initiatives have dramatically reduced the region's carbon footprint. CPCU's additional sustainable energy sources geothermal energy to provide heating and cooling services, and several areas have innovative applications of energy balancing.

ENGIE performs engineering design to support ongoing projects, including expansion and addition of heating plants, expansion and optimization of the distribution system, and conversion of parts of the distribution system from steam to hot water. Engineering is guided by ENGIE's proprietary NEMO network analysis software.

KEY FIGURES

- **Location:** Paris, France
- **ENGIE Engagement:** Concessionaire 100%
- **Contract Length:** 99 years

District Energy in Cities Paris



The Longwood Medical Center of Harvard University

In Longwood Medical Area in Boston, ENGIE established a 33-year partnership with Harvard Medical School and six Harvard-affiliated hospitals - Beth Israel Deaconess Medical Center, Boston Children's Hospital, Brigham and Women's Hospital, Dana-Farber Cancer Institute, and Joslin Diabetes Clinic – through ownership of a critical energy infrastructure.

This microgrid and district energy system, with a capacity to produce 99 MW of electricity, 1,000,000 lbs/hr of steam, and 41,000 tons of chilled water, is integral to the day-to-day operation of these world-renowned healthcare institutions, which are active in critical research initiatives and have approximately 2,000 beds serving more than 100,000 inpatients and 2.4 million outpatients annually.

Additionally, ENGIE is responsible for operating the system – comprising 2 miles of thermal distribution and 3.5 miles of electrical distribution – which serves a campus of 74 buildings and developing and investing into planned expansions as well as energy efficiency and sustainable energy solutions.

In addition to managing the day-to-day operations, ENGIE is performing further upgrades to the electric and thermal distribution infrastructure and is in the process of connecting two large campus expansions (Boston Children's expansion completion in 2020 and Beth Israel expansion in 2022) to the central utility facility. ENGIE is responsible for the operations, management and modernization of the microgrid and district energy system.

KEY FIGURES

- **Location:** Boston, Massachusetts
- **ENGIE Engagement:** 99 MW electricity, 1,000,000 lbs/hr of steam, and 41,000 tons of chilled water
- **Project Cost:** \$600 million
- **Contract Length:** 50 years

Harvard Medical School & Affiliated Hospitals are powered by ENGIE



The Santa Rita Jail Smart Grid Project

Alameda County's Santa Rita Jail Smart Grid Demonstration Project in Dublin, California, is the country's largest Consortium for Electric Reliability Technology Solutions (CERTS)-based microgrid with renewable generation and large-scale energy storage. Designed and constructed by ENGIE, this first-of-its-kind project is a powerful enabler toward a smarter grid. It brings together multiple partners and technologies to deliver an essential component of the U.S. Department of Energy's plan to deploy an advanced, interconnected energy network capable of meeting the consumption needs of tomorrow.

Santa Rita Jail is the fifth largest county jail in the nation, requiring 3 MW of reliable, secure electricity 24 hours a day, seven days a week to power the million-square-foot facility. Any interruption to that power supply could have negative consequences for the Sheriff's Department staff or the inmates housed there.

ENGIE worked with Alameda County to install the self-sustaining smart grid, mitigating concerns by integrating all of the jail's onsite generation with energy storage to ensure power is never lost. The Santa Rita Jail smart grid is the only CERTS-enabled system of its size and scale, providing a key pathway for reducing utility grid peak demand while improving power quality and reliability, increasing grid security, reducing grid full CERTS functionality—meaning, it now has the capability to “island” itself off the main utility grid and independently generate and store its own energy.

KEY FIGURES

- **Location:** Alameda County, CA
- **\$1.7 million** annual electrical cost savings (70% reduction)
- **\$258,000** natural gas cost savings (40% reduction)
- **\$540,000** in water and sewage cost savings (50% reduction)

Alameda County



The smart grid has Black Start capability.



The Ohio State University

ENGIE provides the University with operation, management, and modernization of the utility system and the implementation of energy conservation measures and future projects to improve the University's energy efficiency by at least 25%.

ENGIE will develop, finance, construct, operate, and maintain the central utility plant (CUP) and District Energy systems for OSU over a 50-year concession term under a Public Private Partnership construct, working with partners HDR and FVB. ENGIE committed to reducing OSU's energy usage index (energy units per square foot of facility) by at least 25% in the concession agreement, in advance of any building audits being done. ENGIE designs energy conservation measures and building upgrades, photovoltaic systems, and a cogeneration system. Thermal (i.e. steam, hot water, chilled water) system upgrades and expansion are planned and analyzed using ENGIE's proprietary network analysis software. ENGIE works with OSU to design system expansions to support OSU's planned new facilities. ENGIE is designing and deploying energy hardware (expand district energy network) and software to enable OSU's Smart Campus initiative, which "leverages data analytics and technological advances to improve campus life through enhanced university services."

KEY FIGURES

- **Location:** Columbus, OH
- **ENGIE Engagement:** Concessionaire (50% Equity Sponsor, 100% Operator)
- **Project Cost:** \$1.2 billion
- **Contract Length:** 50 years

The Ohio State University



Dakota Range III Wind Farm

Dakota Range III is sited in a rural area where large-scale energy projects bring much needed economic development, including short- and long-term employment as well as tax benefits to the local community. Located in northeastern South Dakota, the project site is surrounded by active agricultural fields. The Project started construction in Quarter 2 of 2020.

KEY FIGURES

- **Location:** Grant/Roberts Counties, South Dakota
- **ENGIE Engagement:** 151.2 MW
- **Customer:** Xcel Energy
- **Project Area:** 19,000+ acres
- **20 years** project duration

[Dakota Range III Wind](#)



Miller-Coors Brewery, Golden, CO

This award winning utility outsourcing project involved the Colorado facility that resides inside the Coors brewery in Golden, Colorado, the largest brewery in the U.S. In 2012, ENGIE began planning a project to complete a blended fuels plan originally envisioned in the 1970s. ENGIE harnessed environmental, regulatory, and commercial incentives to replace obsolete control systems and to convert a co-gen facility from coal to 100% natural gas. The plant provides 45 MW of electricity and 600,000 lb/hr of steam to support the brewery activities, 24/7/365. The project was well coordinated with scheduled maintenance overhauls and other projects. The result was a well-managed, highly coordinated project that was executed without a safety incident, came in 10% under budget and started on schedule. The project won the 2015 Reinvention Award from Power Magazine for producing greater fuel and operating flexibility

KEY FIGURES

- **Location:** Golden, Colorado
- **ENGIE Engagement:** 100% O&M
- **Capacity:** 36 MW
- **Award Winning**

[Power Magazine Article](#)


Corporate Compliance/Ethics

ENGIE's policy in terms of ethics and compliance is to act, everywhere and in all situations, in accordance with its fundamental ethical principles. Compliance with this commitment, as well as the principle of zero tolerance for fraud and corruption, is subject to special monitoring by the ENGIE Group's Executive Board.

ENGIE has developed a number of reference documents as well as annual training on our policies and a rigorous application and control process. ENGIE ensures the proper application of reference documents governing its ethics and compliance policy through a set of complementary measures:

- An assessment of ethical risks, including corruption and human rights risks
- A system for whistle-blowing and receiving alerts
- Managerial reporting of ethics incidents, whether they are allegations or proven incidents through our INFORM ethics tool*
- An internal control program
- Internal and external audits

**Note: an alert can be initiated in four languages at any time by email or phone. It is received and managed by an external service provider that guarantees the confidentiality of the information and sends the anonymous report to ENGIE for review and investigation.*



Let's keep Ethics at the heart of our activities!

A new Ethics & Compliance portal is waiting for you!
Complete the Ethics & Compliance modules and gain competence!

ENGIE requires annual training and certification with our Ethics and Compliance portal.

Diverse Workforce

ENGIE North America established a Diversity and Inclusion Committee in 2020 with the goal of creating more opportunities to maximize the unique perspectives of our people and partners. This past year we expanded our employee resource groups (ERGs), with the formation of three new ERGs: the Asian and Pacific Islanders, Black ENGIE Employee Network, and Veterans ERG. All ERGs, including the Young Professionals Network, ENGIE Pride, and Women in Networking, now meet in quarterly roundtables to collaborate, inspire and empower work across the organization and promote an inclusive culture.

ENGIE also led an effort among the clean energy sector to take a stand against racism and injustice that prevails throughout society. Together, along with 29 other industry leaders, ENGIE pledged to stand in solidarity for racial justice and equality, committing to listening, learning, and working together to take meaningful action for lasting change.

In addition, in an effort to further best practices and better address challenges and opportunities, ENGIE hosted a Diversity and Inclusion Roundtable at the start of 2021, bringing together 27 organizations to discuss diversity, equity, and inclusion.

For more information on ENGIE's Diversity and Inclusion see our [2020 Sustainability Report](#).



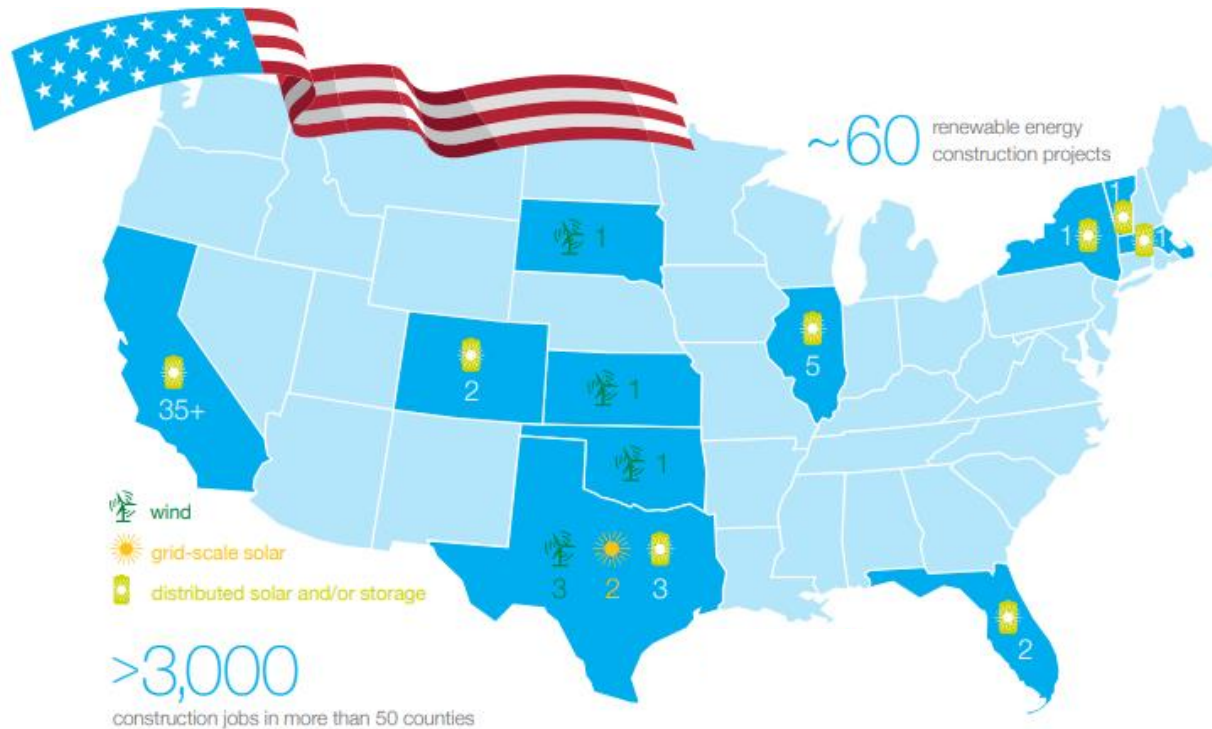
Supply Chain

ENGIE tracks procurement from minority-, women-, LGBTQ- and veteran-owned enterprises as well as certified small businesses as part of our Supplier Diversity Program. This information gives us a better picture of the total spend with minority-owned businesses, while delivering insights into opportunities for improvement to ensure inclusivity in procurement decisions. As of early 2021, 330 suppliers have self-identified, representing a total contracted amount of \$67 million. The number of self-identified suppliers increased nearly 200% from 2019. Efforts are now underway to verify these self-identifications to validate our diverse supplier network.

ENGIE is dedicated to utilizing local subcontracting companies when needed, to maintain project dollars in the local economy. Recently we were selected by the Dormitory Authority of the State of New York for a long-term comprehensive program based upon our proven ability to deploy multiple diverse teams across the state to serve our customers.

330
SUPPLIERS SELF-IDENTIFIED²
WITHIN A DIVERSITY CATEGORY

\$67 million
SPEND ON SELF-IDENTIFIED²
SUPPLIERS



With a total of 60 renewable projects in 2020, ENGIE North America funded the creation of nearly 3,000 construction jobs in 40 counties in 12 states and created 150 jobs in rural communities.

In 2020, ENGIE began an assessment process to evaluate suppliers every two years through the EcoVadis platform. This helps us ensure alignment with our priorities. EcoVadis produces a sustainability score for each supplier by collecting and evaluating information regarding environmental activities, ethics, sustainable procurement, and labor and human rights performance. This gives suppliers a benchmark to help identify opportunities to reduce risk, drive performance, and improve environmental and social outcomes. An initial assessment by EcoVadis demonstrated that 50% of our major suppliers scored 45% or higher. Our objective is for 100% of all major suppliers to meet this threshold by 2030.



In addition, in 2020, we co-signed the Solar Energy Industry Association (SEIA) pledge, to publicly oppose forced labor within the solar supply chain and raise awareness of this critical issue within the industry. To assist in these efforts and continuously reinforce the fight against forced labor, we contribute to the development of an industry-led solar supply chain traceability protocol as a tool to better identify where the primary raw materials of manufactured materials are sourced.



3. Project Narrative





3. Project Narrative

Why Sustainability is Crucial to Chicago's Future

The increasingly ambitious climate commitments made by Chicago continue to strengthen the alignment between our core businesses and our Chicago's needs. The timing with a post-pandemic recovery presents a unique opportunity for Chicago to accelerate progress towards a reliable, equitable, affordable, and sustainable electricity grid within the City.

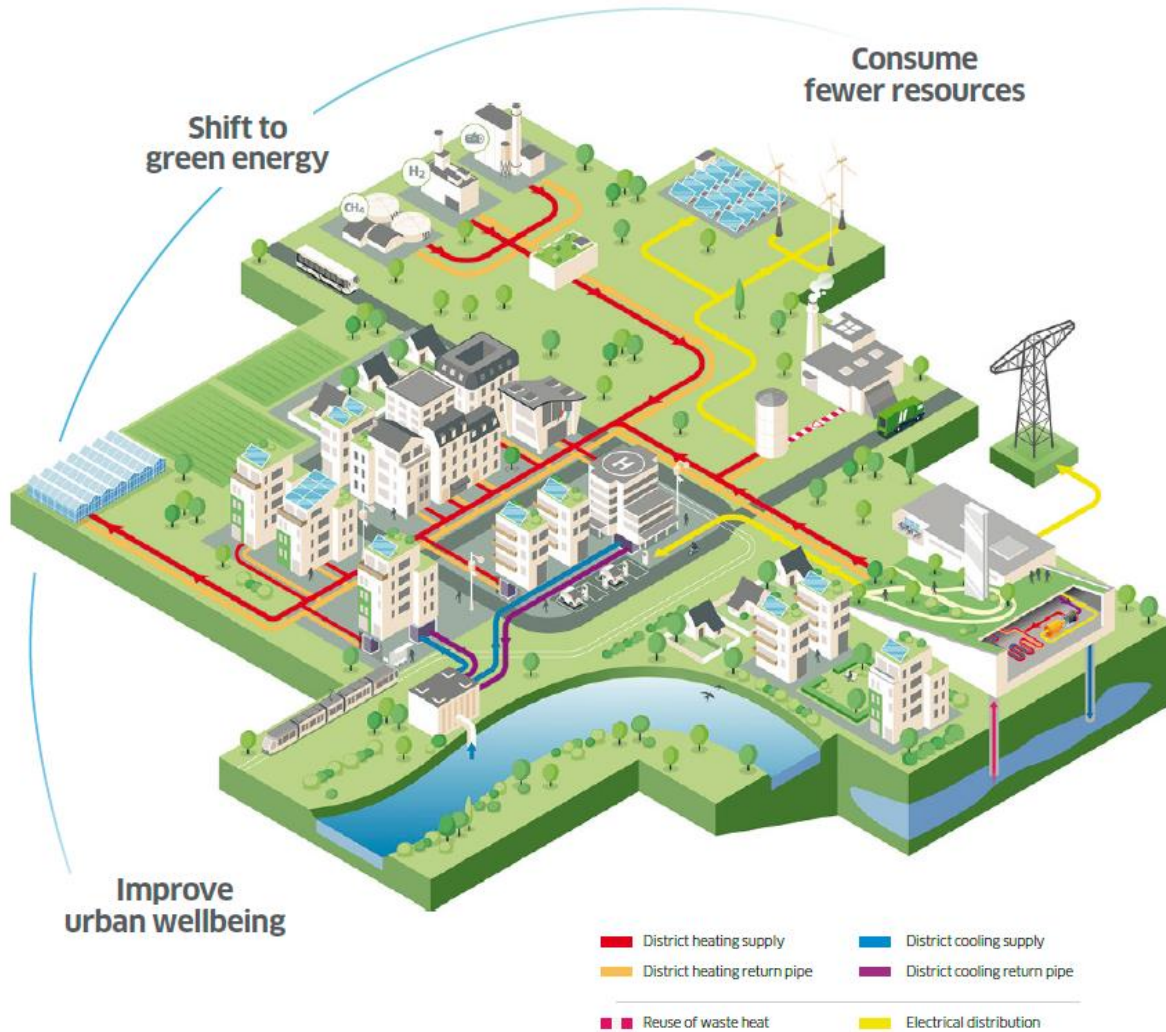
But, for many cities, even a C40 city like Chicago, developing a zero-carbon strategy is a daunting task. In 2020, the City ran a \$1.2 billion deficit, driven significantly by the COVID-19 pandemic. That's why ENGIE offers its expertise in decarbonization. Through our global approach, we can balance Chicago's environmental impact and financial costs with the City's sustainability goals and community objectives. The result is tailored solutions and services that enable a transition to carbon neutrality.

Planning the equitable, affordable and resilient clean energy metropolis for the 21st century

At ENGIE, we believe the "Chicago of Tomorrow" will transform its 77 community areas into eco-districts. Energy will be generated onsite from renewable sources. Buildings will be carbon neutral. And these "campus-like" utilities will be energy efficient thanks to district heating, smart metering, and green mobility. To help Chicago realize this vision, ENGIE offers zero-carbon solutions "as a service." Through this approach, you entrust ENGIE to install and operate green technology (e.g. solar panels, HVAC, micro-grids, energy storage, distributed energy resources, etc.), helping you to mitigate risk while accelerating your decarbonization journey.

Our 3 Pillars for a Decarbonized City

When we work with a city, we assess every energy optimization opportunity, from building efficiency to mobility, as well as exploring green energy sourcing. Across all these activities and our solutions, we focus on three main pillars.



Consume Fewer Resources

To achieve massive cuts in energy use and CO₂ emissions, we help you upgrade or replace parts of your existing infrastructure while exploiting technology to optimize energy management.

Our solutions

- Offer the best available technology for boilers, chillers, heat pumps, energy transfer stations, storage, distribution, microgrids, etc.
- Reduce CO₂ emissions
- Optimize consumption through energy management systems & digital monitoring and intelligence

- Reduce water leakages
- Reduce energy losses (LTHW Low Temperature Hot Water)
- Establish District Heating and Cooling based on renewable sources



Howard University

Faced with an aging energy distribution infrastructure, Howard University in Washington D.C. partnered with ENGIE to completely overhaul its existing central utility plant. The collaboration takes the form of a long-term agreement for the design, construction, operation, and maintenance of a cost-effective and funded combined heat and power (CHP) plant. When completed, it will generate 35- 40% of the university's electricity consumption onsite.

Shift to Green Energy

We enable you to rely on greener energy, both on-site and off-site. To help you achieve this, we can assess your financing options and offer you sharing-based energy aggregation systems. Our solutions

- Develop on-site energy production: combined heat & power, cogeneration, biomass, biogas, solar thermal, geothermal, hydrogen, etc.
- Offer Green Power Purchase Agreement including blockchain certification
- Re-use local excess heat (industry, data centers, etc.)
- Recycle waste to create energy
- Procure your gas & power supply
- Develop energy storage
- Implement sector coupling
- Create smart academic places



The Ohio State University

Through its long-term collaboration with ENGIE, Ohio State University (OSU) will achieve a 25% targeted reduction in energy use intensity over a period of 10 years. The project focuses on off-campus energy conservation, system improvements, and an expansion of the utility system to serve new campus facilities. In addition, ENGIE and OSU have jointly founded the Energy Advancement and Innovation Center to develop the next-generation of solutions in smart energy, renewable energy and green mobility.

Improve Urban Wellbeing

Through our global and personalized approach, we help you cater for every resident in various community areas. And through regular reassessments, we enable continuous improvement of your smart campus.

Our solutions

- Develop urban planning that considers DHC systems as a whole
- Deliver guaranteed availability
- Ensure safe installations & safety for people
- Reduce the number of points of emissions to simplify management
- Implement end-user satisfaction surveys
- Develop green roofs and greenery in city areas
- Create visitor centers

ENGIE Smart Institutions™

ENGIE Smart Institutions™ is the first AI-powered energy and carbon emissions management solution tailored to the needs of institutions and campuses. Using a machine-learning based approach, Smart Institutions™ offers you a clear picture of your energy spending and greenhouse gas emissions, and then prioritizes actions to reduce your operational costs and carbon footprint.

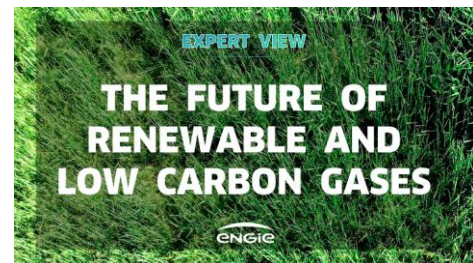


ENGIE helps fund and lead the zero-carbon transition.

The application uses advanced AI algorithms to model building operations, detect anomalies, predict peak demand events, identify energy savings opportunities, and measure and verify project results. To achieve this, it collects and analyzes data in near real-time from multiple sources, including meter readings, lighting, HVAC, boilers, building audits and even the Building on ENGIE's world leading approach to R&D for decarbonization, the Monash research community has an incredible opportunity for long-term societal impact starting right here on our own campus. Associate Professor Ariel Liebman Director of the Monash Energy Institute weather. The resulting analyses provide key insights, empowering you to take control of your energy management and realize your cost and carbon reduction objectives.

The Energy Sector is the Center of the Climate Issue

The energy sector bears significant responsibility for global warming since 75% of greenhouse gas (GHG) emissions come from energy combustion. But a large part of the solutions depends on it as well. The two avenues for reducing GHG emissions are the reduction and decarbonization of energy consumption and the development of renewable energy. Energy efficiency has the potential to reduce global energy consumption by more than a third. Renewable energies, both electrical and gaseous (biomethane, green hydrogen) have seen their capacity increase by 50% in 2020, or an additional 260 GW. They can enable a near-total decarbonization of electricity production and tackle the points of resistance that are mobility and energy-intensive industries.



[Expert Paper](#)

Despite the Health Crisis, the Transition to a Decarbonized World is Accelerating



[ENGIE, No 1 in the world in clean energy](#)

The Covid-19 health crisis, with its lockdown measures and their economic fallout, caused a global 6% decline in energy consumption, a 20% reduction in investments and a collapse in energy prices in 2020. It also caused CO2 emissions to fall by a record 9% and return to their 2010 levels. The decline in CO2 emissions is the combined result of the economic slowdown and the climate policies implemented over the last decade, which set off a downward trend in Europe, the United States and Japan. Taking a closer look, the health crisis had a greater adverse impact on carbon-based energy and demonstrated the resilience of sustainable technologies: while oil demand fell by 9%, coal demand by 8% and electricity production by 5%, electrical renewable energy grew by 5% due to low marginal costs. Similarly, investments in green technologies and energy efficiency have been relatively unscathed (-6%) compared with investments in fossil fuels (-30%).

The Emergence of a Consensus Around Carbon Neutrality for the Middle of the Century

Despite the Covid-19 crisis, the international community was also able to adhere to its climate agenda. Carbon neutrality by 2050 has been announced as an official target by nearly 70 countries (EU, United Kingdom, Norway, Japan, etc.) Joe Biden put the US back in the Paris Agreement and has said he is in favor of carbon neutrality by 2050 or earlier, as well as by a hundred or so cities and as many companies that are structuring this approach around labels such as the Science- Based Targets (SBTs).

Alignment of Our Strategy with the Expectations of Our Clients and Society

The increasingly ambitious climate commitments made by cities and companies continue to strengthen the alignment between our core businesses and our clients' needs. This is particularly true in the United States. In this context, the ENGIE's strategic directions taken in 2020 appear all the more relevant, including:

- Growth in renewable energies and decentralized infrastructures
- Increase ENGIE distributed infrastructure capacity by 8GW by 2025
- Helping ENGIE's customers avoid 45 million tons of CO2e emissions by 2030
- Achieving Net Zero Carbon for all of ENGIE's emissions scopes by 2045
- Only investing in projects and regions consistent with ENGIE's long-term goal of reducing its GHG emissions



4. Public Benefits



4. Public Benefits

ENGIE proposes working with the City to foster collaboration around the Ready for 100 Resolution, targeting 100% clean, renewable energy by 2050 and providing behavioral programs to encourage residents to make healthier energy choices. The work that ENGIE can do alongside the City will target neighborhoods that are historically disinvested—Chicago’s South and West Sides. ENGIE can support the City in energy education, climate mitigation and adaptation through community education; economic and workforce development; and championing diversity within the various programs.



Climate Mitigation and Adaptation

ENGIE can improve the supply of low-cost power to City residents, businesses, and energy users through community solar options as well as community charging stations.

Community Solar

Lowering a household’s typical utility spend can be done through implementing community solar. ENGIE can work in partnership with the City to build solar farms in the community. Ratepayers can sign up for a share of the solar farm that would produce energy year-round. The solar shares that ratepayers purchase are provided through the utility’s power grid, there is no need for residents to install anything on their homes or apartment complexes. Residents who sign up for community solar are given credits that are applied directly to the monthly utility bill, reducing the total cost of the residents’ utility spend.

How it Works



Your Solar Farm

Get a portion of a solar farm in your area allocated to you to produce clean, renewable energy on your behalf.



Your Utility

You get a discount on your normal utility bill for the electricity produced by your allocation.



Your Home

You benefit from affordable clean energy without any installation, extra costs, or downtime!



Charging stations in community parks use the sun's energy to offer free charging to area residents.

Community Charging Stations

ENGIE can support charging stations located in public places such as schools, parks and libraries. This offering provides City residents with energy during the day to charge devices as well as protection from the sun. A battery is included within the station to hold extra power for the days that do not generate as much energy. Normal weather conditions can be tolerated by the charging station.

Environmental Stewardship

Working with the City, ENGIE can support renewable power and reduction in greenhouse gas emissions associated with current forms of energy usage in the City through community liaisons; solar playgrounds; green business impact; green building impact; and environmental leadership seminars.

Community Liaisons

In the partnership between ENGIE and the City, community liaisons could be employed from within the community to bridge the communication of energy advances to residents of the South and West Sides of the City. The community liaisons would act as mediators between the companies and the west side residents. This role would serve a dual purpose as the community liaison could provide the partnership with grassroots conversations and a knowledgeable path forward for the partnership's initiatives.

Energy Playgrounds

ENGIE can collaborate with the City to modify or upgrade playgrounds to energy playgrounds where children can learn scientific principles and understand energy alternatives along with the importance of sustainability. Scientific principles are addressed within the play areas such as a cycle that illuminates lights, a seesaw that turns a wheel and more! Information boards can be included with interactive activities around the solar system, sustainable energy, and ecofriendly programs. Children utilizing the play area will gain an understanding of the basics of renewable energy and other scientific principles.



Energy bikes use kinetic energy to power a light display.

Green Business Impact

In the partnership between ENGIE and the City, we work with local students and small businesses and/or residents to come together to mitigate climate change, through energy usage and sustainability. Students are provided cloud-based tools and training to go out and conduct free energy assessments for local, small businesses in their community. Student volunteers receive professional skills through hands-on experience for future careers as climate changemakers. In the process, small businesses receive the custom, actionable information they need to make their business more energy efficient, profitable, and environmentally sustainable.

Green Impact

ENGIE and the City can partner with a national non-profit organization devoted to helping schools and municipalities create a culture of conservation and resource stewardship through student and teacher engagement. We would work directly with city administrators and schools or youth programs to create “Green” action plans that leverage student involvement to help the City and school district in achieving climate- and sustainability-oriented goals. With guidance, students conduct resource audits of their local campuses and city buildings, analyze the data gathered, present findings to school and city leaders, and facilitate training sessions to ensure their recommendations generate sustained results.



ENGIE and Eastern Michigan University students and staff worked together to design dashboard graphs and points to relay information on the installed solar.

Students come away from the paid internships with real-world, project-based experience and with the reward of knowing they have made a lasting impact on their own community. School and city administrators achieve progress towards their climate goals while training the next generation of locally-minded innovators. We will work hand-in-hand with school and city administrators to customize a plan around Ready for 100 Resolution that is right for the City.

Environmental Leadership Seminars

ENGIE can develop a set of seminar topics and in collaboration with the City, invite local subject matter experts, including ENGIE, to host these events. Residents would attend the seminars and learn about topics that could connect directly back to actions to promote local initiatives around the Ready for 100 Resolution. Additionally, we could work with local youth organizations to create achievement badges or certificates for attending a set of seminars.

Energy Burden Reduction & Economic Development

ENGIE can provide programs designed to provide opportunities to reduce the impact of electricity-related costs within hard-to-reach segments of the City’s population.

Behavioral Programs

Effective behavioral programs can reduce electricity demand, thus increasing the impact of the efficiency measures and renewable generation that are part of the partnership between the City and ENGIE. These programs can teach community members about energy conservation and the link between energy, natural resources, economics and the environment. This can be done in a school setting where students and faculty are engaged in lessons, activities, and data collection that serve to inform building occupants about their impact, as well as develop best practices and messaging to encourage a culture of sustainability.

Energy Efficiency Renovations

The partnership between the City and ENGIE can offer residents with upgrades that are high return, low risk. In this offering, we can create paid internship opportunities through local businesses and schools to carry out the energy efficiency upgrades for residents.

Home Efficiency Kits

In this partnership, working with schools to provide hands-on energy education paired with tools to bring home and improve energy efficiency in their homes. Equipping students with energy efficiency education and providing kits to reduce energy use at home are quick wins for energy savings.



Appliance Recycling Programs

Encouraging residents of the City to switch out old appliances to ENERGY STAR® certified models will help reduce energy use and lower monthly electric bills. ENGIE can partner with the City to offer a program that hauls away old appliances once residents have purchased an energy efficient appliance through the grant or rebate option.

Grants for Energy Efficient Appliances

Offering residents grants or rebates for energy-efficient options on home appliances such as refrigerators, HVAC (cooling), water heating and more are incentives for residents to save significantly on utility expenses.

Energy Education in Schools

Partnering with the district to offer hands-on science, technology, engineering and math (STEM) education for students can support the Ready for 100 Resolution work and help the district to overcome hurdles, solve problems, and reach their goals. From lessons plans and extra-curricular activities to hands-on experiments and project-based learning, ENGIE can formulate a program that will reach the district and the City's goals and challenges around STEM.



Students at S. San Francisco USD create a protective home for lizards crafted out of solar UV beads.

Professional Development

We know that the teacher is the most important factor in impacting student learning. We also know that teachers need time, knowledge, and resources to be most effective. We know this because ENGIE's education staff are former informal and formal educators who develop programs and resources for teachers and their students that exhibit educational best practices for teaching and learning. Our professional development sessions are designed to increase teachers' content knowledge about energy and sustainability topics as they relate to their campus energy project.

Support of Economically Disadvantaged Neighborhoods / Communities

Support Minority / Women-Owned Businesses in the City

ENGIE can continue to promote minority and women-owned businesses associated with the operations of an electric utility. At ENGIE North America, we celebrate diversity, and together take action to embrace an inclusive culture to better ourselves, our company, our communities and our world. a supplier diversity program to attract and encourage diverse suppliers in all areas of our spending. ENGIE often exceeds MWSBE goals on our projects and will continue to focus on reaching and incorporating the diverse population within the communities we serve.

Community Workforce Development

ENGIE can support community workforce development tied to renewables, the solar industry and the trades associated. ENGIE can support working with the local IBEWs, Associated Builders and Contractors, and Women in Trades to collaborate on new programming for training and apprenticeships that meets the skilled labor needs for the region. We have worked with local IBEWs and Workforce Investment Boards in creating photovoltaic training for supporting workforce needs while also supporting training through the Electrical Training Institute. We have existing programs that we have worked with in California through the Net Zero Training Facility and the IBEW. In Hawaii, we worked with a local Oahu company on solar training programs for at-risk youth. Currently in New York we are employing programs through Green City Force with a focus on racial equality and social justice, Urban Futures Lab for startups and entrepreneurship an area that we could expand for underrepresented groups and WEACTION that focuses on racial equality and social justice. We focus on localized programming to support nationally recognized apprenticeship programs that would support training programs for underrepresented groups on the South and West Sides of the City.



Investments in Technology ENGIE will seek out opportunities to showcase new energy efficient technologies to improve community aspects of electricity use.



5. Lessons Learned / Next Steps



5. Lessons Learned / Next Steps

We have learned that the public private partnership approach is the most effective for achieving ambitious goals like those you have for Chicago. A PPP combines a long-term bond based on shared objectives and includes mechanisms that allow for continuous improvement over time. The approach most effectively pairs the societal aspirations of government with the efficient use of private capital and operational expertise. And a PPP should and will stress transparency in aspects of the relationship.

Like Chicago's desire to lead the country in sustainability and societal fairness, ENGIE wishes to lead its industry in the same. So with regard to next steps, we suggest a brainstorming session at your convenience. Such an event would allow for a sharing and prioritization of objectives as well as a discussion of significant considerations, timelines, etc. We expect that by the end of such a session, not only will we all be clearer with respect to scope and expectations, we will likely know a great deal about how successful we can be as partners. We look forward to the opportunity.



ENGIE would like to thank the City for the opportunity to submit a response to the City of Chicago Franchise for Electricity Delivery RFI. Please do not hesitate to contact the following ENGIE team members regarding this submittal.

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