AECOM

Energy Solutions

Environment Business Line Overview

Delivering a better world

aecom.com

Overview

The Changing Energy System

Energy Services

Representative Projects

What Sets Us Apart

The Changing Energy System

Power Generation & Delivery

Hydropower and Dams

- Hydropower project feasibility studies and concept development
- Dams, reservoirs and hydraulic structures
- Power plant design, refurbishment and automation
- River basin studies and sustainable water resource planning
- Hydrological, topographical and geotechnical investigations
- Flood studies and safety evaluations
- Asset valuations and management

Nuclear

- Preliminary project analysis
- Private participation / financing advice
- Preliminary engineering
- Civil, mechanical and electrical engineering design
- Balance of plant
- Public involvement, planning and implementation
- Environmental resource studies and impact assessment
- Permitting
- Project and construction management
- Waste treatment advisory services

Thermal and Geothermal

- Least cost generation expansion planning
- Power plant feasibility studies concept design
- IPP project planning and development
- Power systems analysis, system planning, protection, controls and SCADA
- Design and construction of thermal and geothermal power plants
- EPCM
- Due diligence / investigations
- Rehabilitation and upgrades
- Asset management

Renewables

- Preliminary project analysis
- Wind assessments
- Load forecasting
- Private participation / financing advice
- Preliminary engineering
- Civil, mechanical and electrical engineering design
- Public involvement, planning and implementation
- Environmental resource studies and impact assessment
- Permitting
- Project and construction management

Transmission and Distribution

- T&D network planning
- Power systems analysis
- Substation and transmission line design
- Earthing analysis and design
- Power system protection
- Communications
- SCADA and energy management systems
- Load despatch centres
- Metering
- Asset valuations and management
- High voltage underground cables

The Changing Energy System

Energy Services

Energy Services D/B Project Delivery

- Energy Efficiency D/B
- Energy Generation D/B
- Energy as a Service
- Energy Savings Performance Contracting (ESPC)/Utility Energy Services Contracting (UESC)
- Electric Vehicle Infrastructure Design-Build
- M&V and O&M Services Street Lighting Design-Build

Energy Generation Consulting

- Central Energy Plants/ Shared Energy Systems
- Combined Heat & Power
- District Energy Systems
- Energy as a Service
- Energy Storage
- Heat Reclamation
- Microgrids
- Renewables
- Thermal Energy Storage

Energy Efficiency Consulting

- Design Engineering
- Energy Audits
- Energy Efficiency Upgrades
- Retro Commissioning/
- Continuous Commissioning
- Smart Buildings/High Performance Buildings

Utility Programs

- Direct Install - Lighting
- Direct Install - Other Energy Conservation Measures
- Consulting
- Program Management
- Incentive Programs

Energy Planning

- Energy & Sustainability Master Planning
- Energy Benchmarking
- Energy Engineering & Modelling
- Energy Security & Resiliency
- Public Outreach
- Routing & Siting
- Strategic & Enterprise Energy Management
- Utility Privatization

Smart Energy Consulting

- Artificial Intelligence/ Machine Learning
- Disaggregated Sensing and IoT
- Distribution & Substation
- Electric Vehicle Infrastructure
- Predictive Maintenance
- Prototype Engineering
- R&D Program Management Support
- Smart Lighting Networks
- Transmission

Environmental Services

- Air Quality Monitoring and Modeling
- Biology and Cultural Resource Surveys/Documentation
- Coal Combustion Product Management
- Decommissioning, Deactivation & Demolition
- Environmental Assessments, Compliance & Auditing
- Health and Ecological Risk Assessment
- Manufactured Gas Plant (MGP) Remediation
- Strategic Planning and Siting, Licensing & Permitting
- Surface and Groundwater Monitoring & Modeling

The Changing Energy System

Innovations

Rosetta

AECOM Energy Analytics

Machine Learning Asset Inspection Management Pilot

ev-readi

Charging as a Service

Energy Services
D/B Project Delivery

Delivering a better world

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Energy Services D/B Project Delivery Pursuits

Services

- Energy Efficiency Design/Build
- Energy Generation Design/Build
- Energy as a Service
- Energy Savings Performance Contracting (ESPC)
- Utility Energy Services Contracting (UESC)
- Electric Vehicle Infrastructure Design-Build
- M&V and O&M Services Street Lighting Design-Build

Energy Services D/B Project Delivery Pursuits

Projects

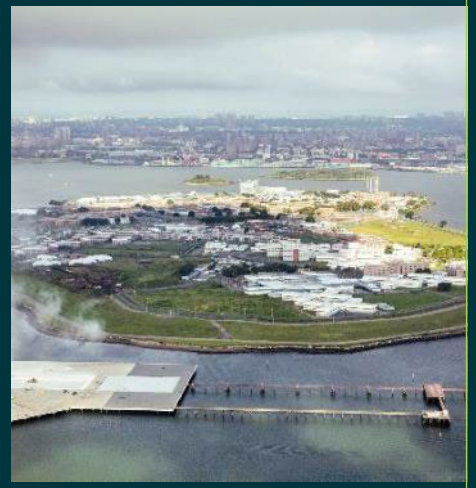
*Pictured

Federal Government

NAVWAR System Center Pacific*

Energy Savings Performance Contract, Task Orders #1-3

Utilities/Correctional Facility



Rikers Island

Cogeneration Microgrid

Utilities/Wastewater Treatment

Owls Head Wastewater Treatment Plant (WWTP)

Upgrades

Healthcare

Sutter Health SST Project

Comprehensive design-build energy retrofit project

Municipal Government

City of Huntington Beach*

Energy Savings Performance Contract (ESPC)

Beaumont Unified School District

Energy Savings Performance Contract

Energy Generation

Energy Generation

Services

- Central Energy Plants/Shared Energy Systems
- Combined Heat & Power
- District Energy Systems
- Energy as a Service
- Energy Storage
- Heat Reclamation
- Microgrids
- Renewables
- Thermal Energy Storage

Energy Generation

Projects

*Pictured

Renewables

Los Angeles Department of Water and Power
Environmental services and compliance support for 250 MW solar project

Central Energy Plants/ Shared Energy Systems

Rikers Island*
Cogeneration Microgrid

Norfolk Southern, Juniata Railyard
Combined Heat and Power Plant

Combined Heat & Power

New York Presbyterian Hospital*
Cogeneration Project

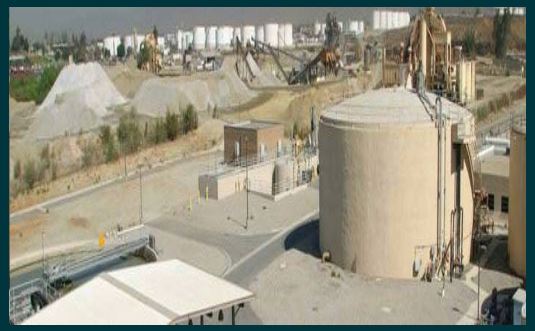
Lahey Clinic
Cogeneration project

New York Castle Hill Housing Authority
Cogeneration project

District Energy

City and County of Denver and the National Western Center Authority*
Integrated Campus Energy System

Microgrids



Water Treatment Plant Microgrid, City of Rialto, California

Design, development and project management of a water treatment plant

- CHP, Battery, Solar and
- Water treatment plant process improvement
- This development will help meet the city objectives of resiliency and lower operational cost

Confidential Bay Area Client Microgrid and Distribution Infrastructure Design

- Design, development and project management of a community microgrid serving a multi-owner, multi-tenant, mix use development
- 12 million square foot of offices, retail, residential and hospitality space with a 40 MW peak demand at complete build out
- This development will help meet Client's 24/7 Carbon Free energy and resiliency goals

New Jersey Transit, JN Board of Public Utilities, DOE and FTA

- Integrated resilience design to provide backup power to critical transit infrastructure
- The distributed generation project is designed to maintain and enhance mobility and regional security in the event of power outages and emergency situations, as well as minimize disruptions to the regional workforce and economy.

Fort Belvoir Microgrid

- AECOM has partnered with IPERC and S&C Electric to deliver a smart microgrid at the army base addressing reliability and resiliency issues related to aging infrastructure
- The project provides a cyber-secured microgrid able to provide 2MW of uninterrupted load in an islanded over 120 hours.
- This project also met the objective of utilizing many fixed and mobile assets which resulted in a quick and low-cost deployment of this microgrid

Microgrids

City of Berkeley – Energy Assurance Microgrid

- Planning, design and development of a clean energy microgrid community (CEMC)
- Also developed the regulatory framework for assisting the City through approvals
- Funded through a CEC grant, this project explored the opportunities for dense urban areas to utilize solar and energy storage across multiple facilities

Commonwealth Edison, Bronzeville Microgrid and Smart City Initiatives

- Integrated resilience performance metrics for microgrid and related grid modernization improvements.
- Smart city program management and stakeholder engagement.
- Development of processes and procedures to execute proof of concept pilots and institutionalize learnings

City-wide Resiliency, Decarbonization and Distributed Energy Study,City of Santa Rosa

- Completed a feasibility analysis of deploying multiple microgrids for increasing resiliency of City's mission-critical operations across 10 facilities
- Analyzed a total of 7 microgrids across three building clusters in downtown Santa Rosa
- When built, this microgrid will provide the City with critical infrastructure to support inhabitants during severe climate events such as wildfires

Renewable Energy Microgrid Feasibility Study and Services, City of Santa Clara

- Feasibility and design support to deploy two microgrids on City's fire stations.
- Supporting Silicon Valley Power's distributed energy resources aggregated into a virtual power plant
- Integration with EV charging infrastructure to manage microgrid loading and maximize the utilization of renewable energy generation

Battery Energy Storage Systems

Fort Carson Energy Savings Performance Contract, U.S. Army Corps of Engineers, Huntsville, Colorado

- Through ESPC federal program, AECOM delivered energy savings and microgrid resiliency
- Upgrading building controls and employing energy efficient, occupancy-based control strategies to reduce energy cost at 49 facilities.
- Implementing a 4.2 MW/8.5 MWh BESS to reduce electrical demand charges.

Cascade Battery Energy Storage, Broad Reach Power (FKA – Enel Green Power, NA, California

- 25 MW of BESS to deliver power to PG&E substation in the City of Stockton
- One of the largest BESS installations in the country with 100 MWh capacity
- The project will maintain capacity rating over 20 years with interconnection to the grid through a 60kV grid infrastructure

Beacon 250 MW and 20 MWh BESS, Los Angeles Department of Water and Power, California

- Provided comprehensive project management and construction management services for this for this project for Los Angeles Department of Water and Power (LADWP)
- Scope also included all environmental compliance support for LADWP
- This was a high priority project and essential for achieving LADWP's 50% renewable portfolio standard (RPS) goals

Pomerado BESS System, Broad Reach Power (FKA – Enel Green Power, NA, California

- Preliminary and detailed engineering for two 3 MW co-located battery energy storage projects, which is in an ideal commercial location to deliver supplemental power to San Diego.
- Strategically located within one block of the SDG&E substation in a commercial area in the City of Poway
- Only the second BESS project in San Diego

Solar + Storage Projects

RE Slate Solar + Battery Energy Storage in Kings County, California

- Provided project management during the construction and environmental compliance phase of work of this 300 MW solar project with 560 MWh battery energy storage
- Managed and reviewed RFI's, submittals and potential change orders, while coordinating with Developer
- Provided Owner's Engineer technical review of design packages and specifications.
- Provided onsite quality oversight

High Desert Solar + Storage in Victorville, California

- Served as project manager for the Owner for this 100 MW and 200 MWh project, including coordination and liaison with stakeholders, EPCs and AHJ.
- Onsite Owner's representative throughout construction to document progress and validate EPC reports and data, as well as liaise with the contractor
- Led and executed environmental compliance activities, documents, and regulatory correspondence

Brookfield (Luminace) Due Diligence, Confidential Projects

- Led detailed environmental due diligence tasks for various potential renewable energy projects including wetlands delineation and permitting, Phase 1 ESA, support during town planning board meetings, preliminary site layouts, interconnection review, and geotechnical analysis (if needed).
- AECOM's scope included onsite field inspections as well as desktop review and analysis

Austin Independent School District in Austin, Texas

- Provided detailed design and construction oversight services for solar PV arrays totaling 480 kW, the first of a two-phase program, and 782 kW in second phase.
- Energy production modeling, construction cost estimates, project scheduling support, siting analysis, technology evaluation, utility interconnection support, electrical engineering, rapid system shutdown design, structural engineering, RFP development, procurement support, and system commissioning supervision

Energy Efficiency

Energy Efficiency

Services

- Design Engineering
- Energy Audits
- Energy Efficiency Upgrades
- Retro Commissioning/Continuous Commissioning
- Smart Buildings/High Performance Buildings

Energy Efficiency

Projects

*Pictured

Energy Audits

Ikea*

Identified energy-saving measures and reduced energy use by more than 10 percent

Hillshire Brands

Identified energy efficiency opportunities representing a 27 percent reduction in annual energy cost

Energy Efficiency Upgrades

California State University, Fullerton*

Comprehensive Energy Efficiency Program

Retro Commissioning/ Continuous Commissioning

Swedish Covenant Hospital*

Verified energy-saving measures of over 1.9 million kilowatt-hours and natural gas savings of over 100,000 therms per year

Medline Headquarters, Office Facilities and Plant Warehouse

Verified energy-saving measures totaling over 3 million kilowatt-hours and 79,000 therms of natural gas

Smart Buildings/ High Performance Buildings

Norfolk Southern*

Energy Systems Site Assessment and Implementation

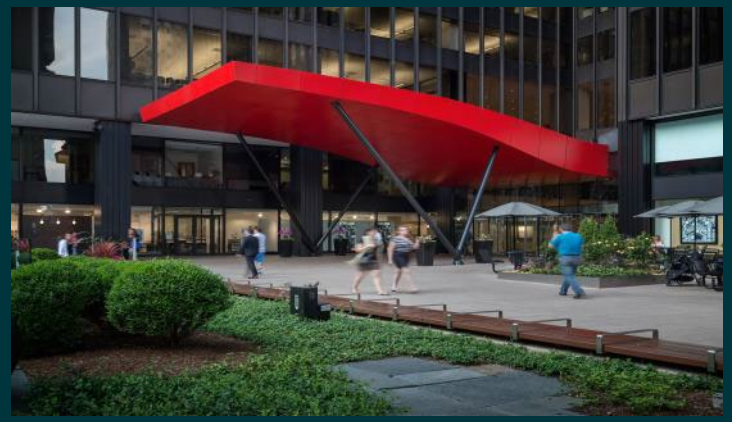
Monitoring-based Commissioning

Monitoring Based Commissioning Services (MBCx)

Transwestern aka Citigroup Center

Identified and implemented operational changes resulting in annual electricity savings of nearly 2 million kilowatt- hours with a simple payback of less than six months.

- Established protocols for analyzing heating, ventilation, and air conditioning system performance data. The team acquired a stream of data for all monitored building automation system points and employed customized software to analyze the data; highlight anomalies; and present evidence of energy-saving opportunities.
- Our MBCx program increased the building's ENERGY STAR score and decreased energy use achieving Transwestern energy goals.



MBCx Services with Local Electric Utility's Incentive Program

MB Real Estate

Implemented four energy-saving measures during the first year of engagement, reducing annual electricity use by more than 1 million kilowatt-hours, resulting in a 5 percent reduction in energy use, and a higher ENERGY STAR score that contributed towards LEED recertification.

- Generated continuous HVAC system performance data from building automation system leading to identifying small and large energy-saving opportunities for the client.
- Provided building engineers with greater insight into HVAC performance from new information available through the online dashboard our team developed for the project.

Energy Savings with MBCx Services

The Franklin

Identified and implemented significant energy-saving measures, achieving annual electricity savings of almost 6 million kilowatt-hours per year.

- Established protocols to analyze heating, ventilation, and air conditioning system performance data for points monitored by the building automation system (BAS). The team analyzed data, highlighted operating anomalies, and uncovered permanent energy-saving opportunities.
- Incorporated wireless technology to integrate and analyze energy use by equipment that is not monitored by the BAS, leading to greater energy savings.
- ASHRAE award-winning project and recognized for project success by U.S. Department of Energy Lawrence Berkley Labs Smart Energy Analytics Campaign.

Retro-commissioning Success Stories

Energy Performance Optimization Through Retro-Commissioning

Swedish Covenant Hospital

Identified energy-saving measures of over 1.9 million kilowatt-hours and natural gas savings of over 100,000 therms for this 11-building healthcare campus.

- Assisted facility staff with applying for participation in the local utility's RCx incentive program, which has underwritten the cost of our team's consulting services.
- Conducted extensive on-site evaluation and data collection, identified energy-saving opportunities involving the heating, ventilation, and air conditioning system that fit the low-cost, rapid-payback criteria.
- Energy reduction measure implementation currently in progress.

Energy Performance Optimization Through Retro-Commissioning

Medline Industries HQ

Identified, helped implement, and verified 1.8 million kilowatt-hours energy reduction in Northfield, Illinois corporate campus headquarters.

- Made extensive use of BAS trends and data loggers to collect baseline HVAC performance data.
- Worked extensively with site engineering staff to evaluate and functionally test equipment.
- Project earned Illinois Chapter ASHRAE Excellence in Engineering recognition in 2018.

Energy Performance Optimization Through Retro-Commissioning

Waubonsee Community College (WCC)

Identified, helped implement, and verified 850,000 kilowatt-hours and 180,000 therms energy reduction across the school's four suburban campuses. WCC serves a 12,000-student population.

- Divided WCC's 24 buildings into four distinct projects.
- Worked collaboratively with facilities and site engineering teams to evaluate existing conditions to establish HVAC performance baseline.
- Segueing from retro-commissioning into monitoring-based commissioning to help assure persistence of energy reduction savings and projected return on investment.

Utility Programs

Utility Program

Services

- Consulting
- Program Management
- Incentive Programs
- Direct Install - Lighting
- Direct Install - Other Energy Conservation Measures

Utility Program

Projects

*Pictured

Consulting

Elevate Energy*
Illinois *Solar for All*
Program Administration

Program Management

Commonwealth/Nexant*
Energy Audit and Retro-based
Commissioning

Los Angeles Department of Water and Power
Integrated Resource Plan (IRP)
Technical and Administrative Support

Program Management/ Stakeholder engagement

Elevate Energy*
Illinois Solar for All Program
Administration

Commonwealth Edison
Microgrid and Smart City Support

Incentive Programs

Eversource Energy*
Small Business Energy Advantage
Energy Efficiency Program

Energy Planning

Delivering a better world

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Energy Planning

Services

- Energy & Sustainability Master Planning
- Energy Benchmarking
- Energy Engineering & Modelling
- Energy Security & Resiliency
- Public Outreach
- Routing & Siting
- Strategic & Enterprise Energy Management
- Utility Privatization

Energy Planning

Projects

*Pictured

Energy and sustainability master planning

San Diego International Airport*

Energy Master Plan

Los Angeles Community College District

Measurement and Demand Response Project

Energy benchmarking

Confidential Client

Baseline Energy Use/ Cost Performance**

Energy bill and rate analysis

Cushman & Wakefield – Multi-Tenant Office Building*

Energy Audits & Assessments (Bill and Rate Analysis)**

Hillshire Brands – Distribution Centers

Energy Audits & Assessments (Bill and Rate Analysis)**

Energy engineering and modelling

Naval Facilities Engineering Command (NAVFAC)*

Guam Energy Vision

Strategic and enterprise energy management

Art Institute of Chicago*

Energy Management

Lurie Children's Hospital of Chicago

Energy Management

Energy Advisory

The Nature Conservancy (TNC), Sustainability Powering TNC Facilities, Chicago, Illinois

- Implementation plan for TNC's 412 North American sites to meet aggressive decarbonization goals
- Phase IA: Review/enhance TNC's existing energy data tracking, reporting and management
- Estimate of solar capacity and other needs for decarbonization across TNC's facilities/estimate to implement decarbonization
- Identified relevant federal, state, local and energy provider incentive programs to facilitate decarbonization efforts.
- Phase IB: Developed individual site implementation plans for each facility focused on costs, regulatory requirements, funding and financing opportunities, and a project delivery plan.

Net Zero Emissions Roadmap, Los Alamos National Lab, New Mexico

- Developed detailed strategy and approach to assess pathways to achieve net-zero emissions
- Held workshops defining LANL's sustainability and related mission goals, created a menu of technologies and strategies to support these goals: goal definition workshop, technology and strategy viability assessment and SWOT Workshop, decarbonization pathway and roadway development.

Environment Technical Assistance, Maryland Department of the Environment, Maryland

- Provided technical advisory and analysis services, to the Building Energy Transition Implementation Task Force.
- Analyzed building stock data and costs of decarbonizing these structures.
- Evaluated current fuel types and HVAC types of buildings to consider the feasibility of electrifying within the given timeframe.
- Identified funding gaps and state solutions to achieve their 2040 compliance data.

Prince Williams County Action Climate Plan, Prince Williams, County, Virginia

- Developed strategies for climate change mitigation for Prince Williams County to support their Community and Energy Sustainability Master Plan.
- Work included a vulnerability assessment focusing on assets in disadvantage communities involving, strategic planning, sustainability, stakeholder engagement, climate adaptation, greenhouse gases, and reduction modeling.
- Development of a written plan expanding upon each action and implementation steps needed to launch a high priority plan

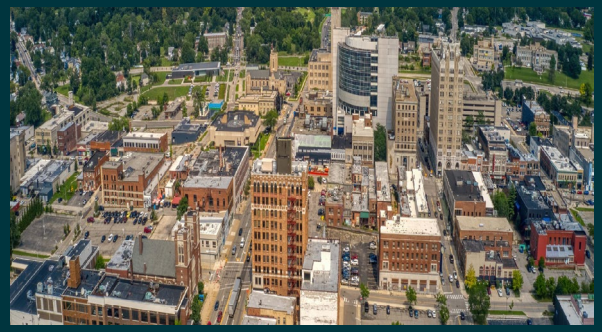
Energy Advisory

Detroit Sustainability Action Agenda, Michigan

- Developed Sustainability Action Plan, grounded in the intensive community engagement.
- Assembled a team of local partners including Detroiters working for Environmental Justice, EcoWorks, and SAGA Marketing, partnering with coUrbanize, an online engagement tool.
- Reviewed over 40 existing Detroit-based plans, strategies, and policies and best practices in sustainability planning from around the world, identifying potential action for inclusion in the Action Agenda.
- Created a prioritization tool to help the Office of Sustainability compare actions across four impact dimensions: Social, Environment, Financial, and Administrative.

Strategic Plan for Technology and Data, City of Detroit, Michigan

- Developed strategic planning process to develop a framework that provides focus/direction to technology and data-related initiatives, creating a cohesive, vision-driven approach to using technology and data in the service of Detroiters.
- Identified models to leverage existing assets, developed data governance/security, provided detailed guidance on internal and external data sharing/management, recommendations to protect and respect resident privacy through responsible data stewardship



Sustainability Framework Plan, Oakland County, Michigan

- Provided strategic planning services to develop Sustainability Framework Plan for Oakland County to improve social, environmental, and economic sustainability on their campus and sites.
- Worked with Oakland County to identify key stakeholders and collaborators, determined scope, budget, and schedule, and setup unique sustainability goals for Oakland County in all four categories.
- Developed Engagement Plan for internal and external stakeholder engagement, provided materials for these events, documenting engagement activities/results.

Sustainability and Resiliency Consulting, Argonne National Laboratory

- Providing sustainability and resiliency consulting services that include multiple strategic and tactical assignments since the summer of 2020.
- Proactively developed four key follow-on assignments, including: High-Performance Sustainable Building Workbook, Green Design Outline Specifications, Decarbonization Planning, and Resilience Planning

Energy Management Success Stories

Energy Asset Privatization

Ohio State University

Ohio State University has proposed leasing its energy facilities in a deal that will immediately result in a $1 billion payment to the university.

A third party will operate the systems that power, heat and cool Ohio State's Columbus campus under a 50-year lease of the university's energy assets.

Ohio State will pay the third party a fee each year that is made up of three components:

- A fixed fee that will start at $45 million a year and escalate by 1.5 percent per year to cover inflation.
- An operating fee that will start at about $9.2 million, reflecting the university's average operating and maintenance costs for the past three years.
- A variable fee that will be directly tied to approved capital investments that the third party makes on the Ohio State campus.

The university said it designed the fee structure to be in line with what it is currently paying annually and to provide a financial incentive for the implementation of energy conservation measures.

Energy Usage Reduction

California State Universities

Cal State's energy program has included energy master planning and development and implementation of a wide range of energy solutions, including both supply-side and demand-side strategies. Supply side has included co-generation, distributed generation, district energy, and on-site renewable and utility distribution upgrades. The demand side includes solutions such as energy conservation, energy efficient equipment replacements, and central plant upgrades.

Sustainability

Stanford University

The university has undertaken major initiatives to reduce energy and water use, apply stringent environmental standards to all new buildings, encourage sustainable living, promote low-impact transportation, conserve natural resources, and decrease waste.

Energy Management

Energy Asset Privatization

Thomas Jefferson University & Hospital

Thomas Jefferson University Hospitals and Thomas Jefferson University, a 925-bed hospital and teaching university, are partners in providing excellent clinical and compassionate care for patients in the Philadelphia region. As the institution sought to grow and renew its utility infrastructure, it also required a financing solution to advance the capital improvements. A third party provided financing, engineering and project development support for a new central chilled water plant without the upfront capital expense that would have been incurred from self-development.

Energy Generation

New York University (NYU)

In 2010, NYU built a new, state-of-the-art cogeneration (CoGen) plant, which simultaneously produces heat and electricity to serve the NYU campus. Because of the plant's efficiency, greenhouse gases have been reduced by 5,000 tons/year and there will be nearly 70 percent fewer regulated pollutants emitted. NYU has achieved and surpassed its public commitment it made in 2007 to reduce its carbon footprint by 30 percent.

Energy Security & Resiliency

Princeton

Princeton University provides another example of how grid connected microgrids can combine community service benefits with institutional energy cost savings. In 2012, when Hurricane Sandy knocked out the Public Service Electric and Gas Company (PSE&G) grid, Princeton was able to power its campus for two days until the grid was back online. Within minutes after the PSE&G grid went down, Princeton's microgrid shut off power to non-critical campus buildings. By doing so, the university was able keep 4,000 apartments, 35 high-rise buildings, garages, three shopping centers, and six schools running for two days. Princeton was able to export enough heat and power for 12,000 people in addition to the campus acting as a refuge for community members and a staging ground for emergency workers.

Smart Energy

Smart Energy

Services

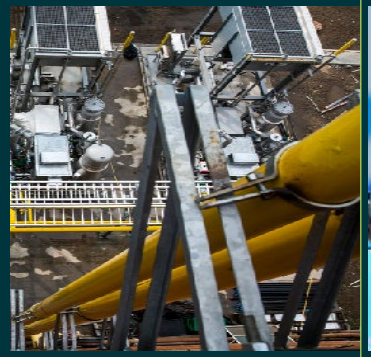
- Artificial Intelligence/Machine Learning
- Disaggregated Sensing and IoT
- Distribution & Substation
- Electric Vehicle Infrastructure
- Predictive Maintenance
- Prototype Engineering
- R&D Program Management Support
- Smart Lighting Networks
- Transmission

Smart Energy

Projects

*Pictured

Microgrids



Rikers Island*
Cogeneration Microgrid

City of Berkeley
Energy Assurance Microgrid

Electric Vehicle Infrastructure

City of Roseville*
Assessment of Growing Plug-In Electric Vehicle Demand and Charging Services

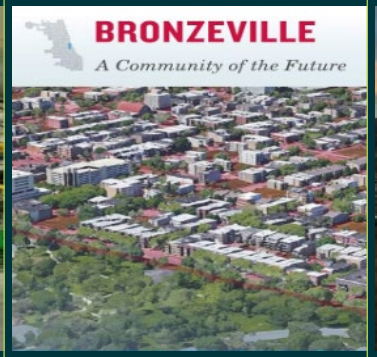
Illinois State Toll Highway Authority
Strategic plan - EV Charging

Smart Lighting Networks

Commonwealth Edison
Microgrid and Smart City Support

New York Castle Hill Housing Authority*
Heating and Lighting Upgrade

Disaggregated Sensing and IOT



Commonwealth Edison
Bronzeville Microgrid and Community of the Future

Energy Storage

Fort Carson*
Energy Savings Performance Contract with Battery Energy Storage System

Toronto Hydro
Utility-Scale Compressed Air Energy Storage

Energy Security & Resiliency

Naval Facilities Engineering Command (NAVFAC)*
Guam Energy Vision

Smart Buildings/High Performance Buildings

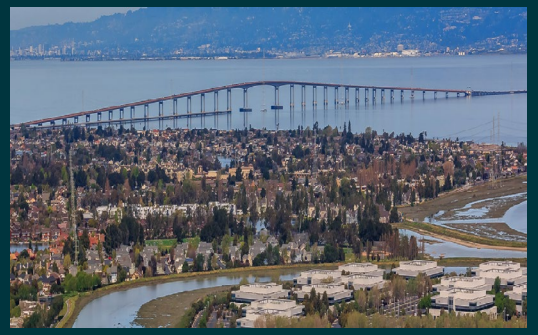
San Diego Airport*
Strategic Energy Master Plan

University of California, Merced
P3 Advisory Services

Decarbonization – Vehicle Electrification

eFuel Program, Sacramento Municipal Utility District, California

- Providing fleet, commercial, and multi-family customer turnkey services, delivering simple and comprehensive solutions to complex electric vehicle charging decisions.
- Utilized an integrated and holistic approach to deliver the eFuel program that included advisory services, engineering services, hardware procurement, network management, construction coordination, and project management.



Fleet Electrification and Charging Infrastructure Plan, County of San Mateo, California

- Developed a Sustainable Transportation Plan to meet San Mateo County's greenhouse gas emission reduction goals, while maximizing resources, keeping costs low, and ensuring long-term management tools are place.
- Work included program management support, schedule management, group meetings, and financial management.
- Conducted Zero Mission Vehicle Feasibility Assessment for transiting planning.

Electric Vehicle Charging Infrastructure Network Plan, Fresno Council of Governments, California

- Identified and addressed deficiencies of the region's public and electric vehicle charging (EV) infrastructure network with an emphasis on disadvantaged communities.
- Work included community and stakeholder engagement, assessment of existing EV charging programs, gap analysis of EV charging networks, EV adoption forecast, proposed public infrastructure, best practices to expand equity, cost recovery models, electrification best practices and roadmaps, and permitting and zoning considerations.

Public Works Fleet Transition to Zero Emission, Los Angeles County Department of Public Works, California

- Analyzed the existing light duty fleet for Los Angeles County Department of Public Works to develop a transition plan towards a zero-emission vehicle (ZEV) fleet by 2035.
- Database development on extensive market research of available zero emission vehicles, analyzing associated run time, charging time, load capacity, battery size to determine conversion options.
- Conducted economic analysis comparing lifetime operations and maintenance cost between existing fleets and ZEV replacements.

Decarbonization – Vehicle Electrification

Fleet Electrification, JEA, Florida

- Providing comprehensive fleet advisory services to support commercial fleet customers in transition to electric vehicles.
- Refine program requirements to ensure fleet electrification services effectively address the specific needs of commercial fleet customers.
- Creating a suite of standardized templates and resources to streamline an enhance the fleet electrification program's processes and customer reactions.
- Integration of BetterFleet software, enhancing capabilities in running various scenarios and analyses for fleet electrification.

Electric School Bus Study, New York Power Authority (NYPA), New York

- Conducted research and outreach study and analysis to provide the NYPA strategic guidance for expanding services into the electric school bus market.
- Research data and insights were analyzed and scored to determine a prioritization for potential future customers.

Department of Sanitation New York City Depot Electrification, New York Power Authority (NYPA), New York

- Delivery of a scalable, streamlined, and cost-effective electrification feasibility plan unique to Department of Sanitation New York City (DSNY) of light, medium, and heavy-duty fleets in operation at the DSNY garages. The feasibility assessment contains results on a potential transition timeline, grid impacts, smart charging options, resilience considerations, and financial analysis.
- Other services include fleet advisory, managing charging strategies, transition plan, funding and financing strategies, and incentives along with overall life cycle costs analysis.

Accelerate to Zero (A2Z) Electric Vehicle Strategy, San Diego Gas & Electric (SDG&E), California

- Development of electric vehicle strategy reinforces SDG&E's core objectives of fostering intergovernmental coordination and comprehensive regional strategy through sustainable transportation planning.
- Zero EV Strategy covers: existing conditions assessment, gap analysis, future needs identification, siting analysis, stakeholder engagement and outreach, implementation considerations, and infrastructure planning guidance

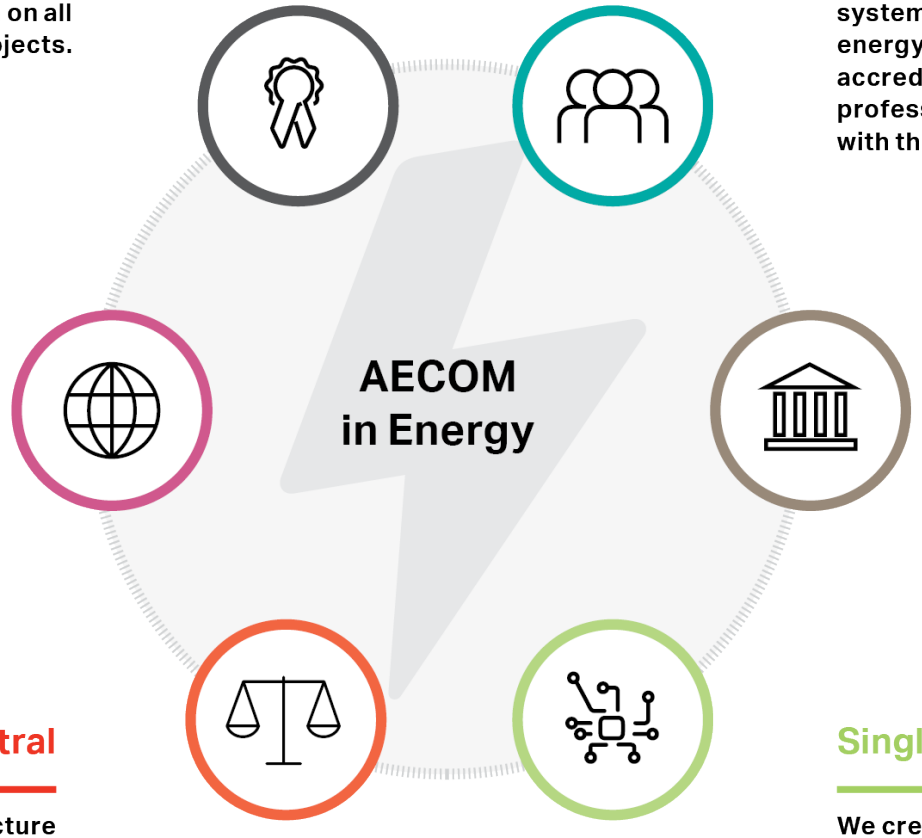
What Sets Us Apart

ISO 9001 certified

We incorporate an extensive quality management system on all of our projects.

Industry leader

We are an industry leader in system-wide comprehensive energy services and NAESCO accredited — the only major professional engineering firm with this designation.



Robust internal technical resources

Worldwide reach-back capabilities with thousands of professional engineers on staff.

Extensive project experience

We know how to work with municipalities, universities, hospitals, commercial/industrial, and utilities.

Vendor and fuel neutral

We do not manufacture equipment — our recommended solutions are in the clients' best interest.

Single-point solution

We create the plan and take a project from initial development to final system commissioning and project turnover.

Alternative layout to previous slide

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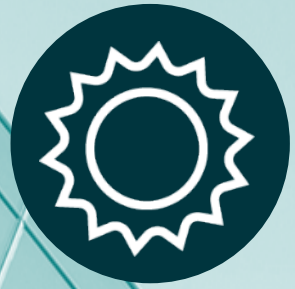
Our mission is to help our clients

Reduce energy consumption

Develop renewable sources



Cut carbon emissions

Improve grid reliability

ABOUT AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy, and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical and digital expertise, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of $14.4 billion in fiscal year 2023.

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