A Turnkey Solution for Microgrid Implementation

Frank Ventresca Senior Project Manager

Unison Energy is responsible for all aspects of the microgrid implementation process, including engineering, permitting, procurement, and construction, while ensuring our clients remain informed of all construction activities and are involved in the approval process.

During our discussions with clients, we are inevitably asked, "How does this process work once the contract is signed?" and "How much of my team's involvement do you need?" We recognize that facility teams have a long list of active projects with limited capacity to project manage new ones. Yet facility teams are responsible for the operations of the site and need to monitor, review, and approve what is happening in their facility.

Unison Energy provides turnkey solutions with a focus on client service. Our project management team has decades of experience handling microgrid projects, including the complexities of permitting, interconnect agreements, construction, and commissioning. Our team directly manages the project, organizing client reviews for critical steps and decisions and maintaining consistent, clear communications throughout the process.

Approximate Timeline for Microgrid Implementation

	Engineering and Permit Approvals <i>4-5 Months</i>		Construction 6-7 Months		Commissioning 1-2 Months	
•	Full engineering activities State & local building permits	•	Mobilization Site, structural, and civil work	•	System startup and optimization Permit close-out	
•	Air emissions permits Electric utility	•	Electrical and mechanical construction/tie-ins	•	Utility witness test to receive utility permission to operate	
•	application New gas service application	•	CHP equipment installation Gas and electrical utility	•	System placed into commercial operation	
•	Rebate program application, where applicable		Interconnection			



Project Kickoff

Once an energy services agreement (ESA) is signed and the project enters the final engineering stage, Unison Energy holds regular client meetings to ensure that your voice is heard during deployment and you are kept informed of all construction activities. We plan ahead to ensure low-impact integrations, especially for electrical and mechanical tie-ins. We also work closely

Engineering and Permit Approvals

Unison Energy handles all communication and coordination regarding state, building, and air emissions permits. In most cases, our team has already performed a preliminary analysis of the local and state permitting processes prior to signing the ESA. Once final engineering drawings (the "permit set") are complete, permits are filed. We also handle the will integrate our systems with the existing building management system (BMS). At this point, we require your input and review of our final design to ensure it works for your team in the short and long term — and a final construction schedule is published.

with your site operations team to coordinate how we

documentation for new gas lines, electric infrastructure, gas and utility interconnections, rebate programs, and local Authorities Having Jurisdiction (AHJs). In addition, we will obtain property owner approval (if applicable) and ensure interconnect and emission permits have a client signature.

Construction Phase

Unison Energy personnel are regularly on site, from mobilization through commissioning phases, with our retained general contractor as our primary point of contact. We procure all equipment, take care of any site work needed for deployment, and establish mechanical and electrical tie-ins.

We work with your central plant to develop a tiein plan that will minimally impact your heating or cooling capabilities. For both electrical and mechanical integrations, we develop a Method of Procedure (MOP), which lays out a timeline for all upgrade and deployment activities, as well as the parties responsible for executing or supporting those activities (contractors, utility personnel, etc.). The MOP is circulated in advance to ensure all aspects of your facility are considered in our workflow. For instance, we may deploy emergency generators for critical loads, provide advance notice of work to any city, police, and fire departments, or coordinate road closures for the crane lift days.



Utility Interconnect Process

Electrical interconnection often requires a utility outage that may impact the entire facility. All scheduled outage events are pre-approved and reviewed at length with your facility team. Unison Energy tries to schedule these outages during off hours, and if necessary we will arrange for temporary generation to maintain critical loads. We understand that scheduling needs vary site by site. For example, our approach to electrical interconnection for hospitals — which require roundthe-clock, reliable backup generation — is going to be much different than industrial facilities, which may

Operational Approval

Once the interconnection is established, the next step is to commission (or turn on) the microgrid and confirm the operations of the different aspects of the system such that it can produce electricity and, if relevant, thermal applications as designed. Utility personnel will windows or by temporarily adjusting shifts.

prefer to schedule work during plant maintenance

We also factor in seasonal considerations. Our team upgraded the thermal systems at Gaylord National Harbor Resort & Convention Center during the month of August to ensure that the system was operational before autumn. Similarly, we avoid work near the holidays for supermarkets to minimize in-store disruptions during periods of peak traffic.

conduct an on-site witness test to verify that the system functions as intended. If the utility grants permission to operate, the microgrid can then start to run in parallel with the grid.

A Streamlined Solution for Every Site

Unison Energy provides turnkey solutions for deploying on-site power generation systems. Project management and permitting can quickly become complicated and time-consuming. Our team brings decades of expertise to the table, ensuring that, by working together, we can deliver the ideal solution for your facility.

If you are interested in learning more about the Unison Energy microgrid implementation process, contact us at (844) 596-1291 or sales@unisonenergy.com.