

## APPI ENERGY SOLUTIONS SUITE

APPI Energy provides our clients a comprehensive way to reduce energy expenses and create budget certainty. With the APPI Energy Solutions Suite, we've gone beyond procurement with our advanced services that enhance energy management, tracking, and sustainability. We learn about your organization, its operations and about your energy profile: energy consumption, costs, demand, objectives and opportunities. We conduct a holistic energy assessment and present solutions which are financially and functionally vetted to reduce energy costs, reduce demand, and improve resiliency and sustainability. Our team implements projects as part of an overall energy management portfolio of solutions and services to generate value.



### ENERGY CONSERVATION MEASURES

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APPI Energy's strategic alliances provide facility assessments to identify ways to modernize old systems and equipment and improve the environmental impact of the facility. These facility energy optimizations include HVAC upgrades, lighting retrofits, advanced metering technology, weatherization of facilities, and peak load scheduling. By having a qualified energy expert survey and analyze facilities, our clients receive customized recommendations designed to help them improve facility operations while consuming less energy.



### LED LIGHTING

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LED lighting retrofits are among the best energy efficiency solutions available to businesses, quickly providing a return on investment and supplying significant long-term expense reduction. Hospitals, grocery stores, gas stations and manufacturers have all switched to LEDs for their lighting requirements. LED lighting provides cleaner, brighter lighting at a fraction of the cost of older fluorescents and metal halides. LEDs also offer improved color rendering, causing less fatigue for employees. We utilize industry leading products that are guaranteed for a minimum of 5 years. Our services include complete installation and recycling old materials. APPI Energy secures all available rebates on your behalf and provides many options for funding projects, including off-balance sheet funding with little-to-no upfront cost.



### SOLAR

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Solar energy is the cleanest and most abundant renewable energy source available. Currently, an estimated two million solar systems are operating in the United States. Solar power is the conversion of energy from sunlight into electricity either directly using photovoltaics, indirectly using concentrated solar power, or a combination of the two. Concentrated solar power systems use lenses or mirrors and tracking systems to focus a large area of sunlight into a small beam. Innovations in solar energy have resulted in development of higher density solar panels, which require less cost and less space to produce more energy.



### BATTERY STORAGE

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Energy supply costs are increased by when you use energy and how much energy you use. Time of use charges for commercial and industrial accounts can easily comprise of 60% of the total bill. As the grids become more reliant on power sources that are decarbonized and intermittent (wind and solar), utilities have and will likely continue to shift and recover more costs to time of use rate customers. Grid reliability is strained, as the sun isn't always shining, nor the wind always blowing, resulting in more outages. Battery storage is more critical than ever before, as the excess power being generated will not be lost or wasted, but simply stored in a battery for later use. At the same time, electric utilities often provide incentives to reduce consumption during periods of peak demand decreasing your cost.

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### RENEWABLES - SUSTAINABILITY

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Renewable energy systems are rapidly becoming more efficient and less expensive and their share of total energy consumption is increasing. National renewable energy markets are projected to continue to grow strongly in the coming decade and beyond. Increased deployment of renewable energy and energy efficiency technologies is resulting in significant energy security and economic benefits.

Renewable energy procurement and solutions are available to clients nationwide. Through our strategic alliances, APPI Energy provides access to solutions and supply from all renewable sources, including solar, wind farms, hydro systems, and biomass. We can also assist clients with the purchase of Renewable Energy Credits (RECs) and carbon offsets.



### COMBINED HEAT & POWER

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Combined Heat & Power, or (CHP), generates both heat and power at the same time on site from a single fuel source. Clients often see a 25% improvement in total efficiency and can reduce energy cost by 20% or more. The benefits of cogeneration include reduced operating costs, increased energy efficiency, enhanced reliability and resiliency, avoided cost of capital investment on the grid, and reduced carbon emissions. APPI Energy will review your current electricity and natural gas use to determine if CHP could benefit your facility.



### UTILITY BILL MANAGEMENT

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Through our web-based portal system, clients can track energy usage for the past several years, set benchmarks for facilities, observe interval data reports, set alerts for anomalies, and even track greenhouse gas emissions. Clients may also implement reporting methodology established around the EPA's Energy Star Program. This data is vital for businesses that have a number of facilities or that are heavy power users. With tools such as interval data reporting and auditing, a client can readily determine if a malfunctioning piece of equipment is creating demand spikes, which could prove costly if left unchecked. In addition, analytics allow a client to determine the exact impact of energy efficiency initiatives.



### DEMAND RESPONSE

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Demand response programs allow clients to receive compensation for agreeing to curtail energy usage during times of peak energy demand (such as on the hottest and coldest days of the year). By participating in demand response, clients benefit from both the compensation they receive from the programs and a reduction in capacity tags they receive for lowering usage during peak hours. Companies may also aggregate their load-reduction capability across multiple locations, maximizing your financial incentives and your contribution to grid reliability.