Practical Energy Management: Three Facts to Transform Costs While Cutting Carbon

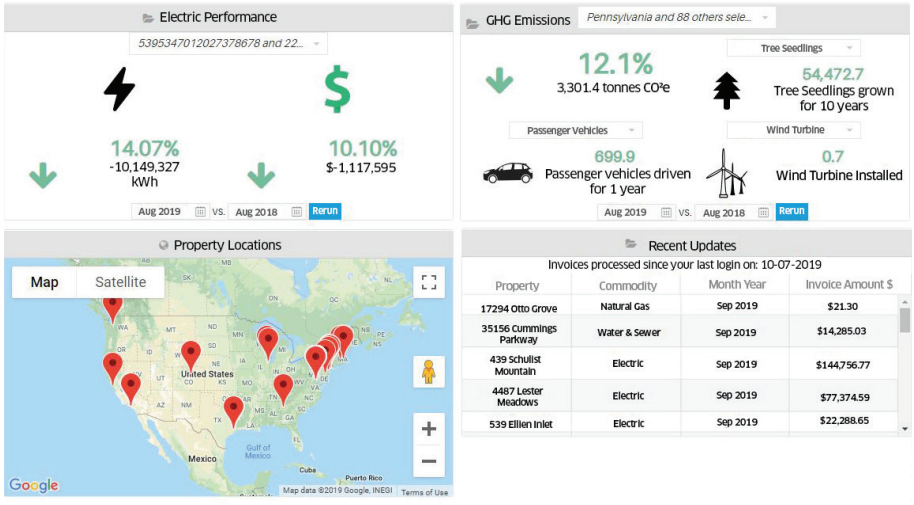
In today's world of lean manufacturing, finding ways to continuously realize efficiency while generating fiscal – and, in some cases, environmental – improvements is paramount to long-term success. But achieving this typically requires significant change. And the fact is, change is never easy, which is why most organization-wide transformations usually fail.[1]

This whitepaper is designed to help energy managers beat the odds by bringing pragmatism to energy transformation with three key facts to improve pricing positions and achieve cost – and carbon – targets.

01 Fact No. 1: Knowledge is Power

A strong data foundation is key to making informed decisions on where to begin to improve efficiency. Resources to monitor a company's commodity position can provide strategic insight to set plans and deliver measures to benchmark performance.

ENGIE Resources has worked with commercial and industrial customers of all sizes, operating in competitive markets across the United States for



The ENGIE 20/20 platform provides the data foundation customers need to identify opportunities and measure and verify project efficacy.

[1]McKinsey & Company, *The Truth About Transformation*

nearly two decades. In that time, it has seen businesses confront increasing challenges in managing the complexities of energy and has responded with several tools and insights to help customers make smarter decisions on how to cut costs and consumption.

Among them is ENGIE 20/20, a platform designed to provide proactive insights to control energy spend. With tools to benchmark against user-defined key performance indicators, customers can identify usage and demand anomalies and take action on opportunities to drive efficiency. Features include invoice auditing for variances, on-demand and automated monthly reporting, position reporting for block and index customers, portfolio analysis to track consumption across a footprint of facilities, and emissions performance across the portfolio.

Enrolling in a platform like ENGIE 20/20 is the clear first step to cutting carbon and costs.

Fact No. 2: On-Bill Financing is Always an Option

Once opportunities have been identified, overcoming financing hurdles is typically the next step. Having options to fund and structure efficiency projects to avoid upfront capital expenses can be a deciding factor in how and when to pursue operational improvements. Simple, on-bill financing gives customers the flexibility to devote capital to core, revenue-generating areas of the business while reducing energy spend to deliver rapid improvements in the cost structures of products and services.

ENGIE helps commercial and industrial customers achieve this through ENGIE Advantage. With the expertise to act on energy anomalies and aggregate utility incentives, tax benefits, and applicable grant funding, ENGIE designs and applies comprehensive solutions aligning efficiency to financing opportunities and commodity risk management to help customers achieve fiscal and environmental objectives.

Administration is seamless, with the cost of efficiency projects reflected as a single line item on energy bills and contracting terms shaped to meet the cash flow requirements of the business.

ENGIE Advantage: Simple, On-Bill Financing At-A-Glance

REPRESENTATIVE CUSTOMER PROJECT

	Status Quo	With ENGIE ADVANTAGE	
Customer Charge ($)	5.00	5.00	
Energy Charge ($)	**27,139.40**	**22,462.59**	
Usage (kWh)	459,990	380,722	
Energy Rate ($/kWh)	0.059	0.059	
Demand Charge ($)	**6,301.23**	**5,140.41**	
Peak Demand (kW)	1,260	1,028	
Demand Rate ($/kW)	5.000	5.000	
Transmission & Distribution Charge ($)	**8,739.81**	**7,233.72**	
Usage (kWh)	459,990	380,722	
T&D Rate ($/kWh)	0.019	0.019	
Sales Taxes ($)	**3,480.30**	**2,874.44**	
State at 6.25% ($)	2,636.59	2,177.61	Energy Savings
Local at 2.00% ($)	843.71	696.83	
TOTAL MONTHLY BILL ($)	**45,665.74**	**37,716.16**	**7,949.58**
Additional Non-Energy Savings ($)			762.12
ENGIE ADVANTAGE Cost ($)			-7,488.87
Net Monthly Savings ($)			**1,222.83**

TYPICAL PROJECT SCOPE

- Building automation and controls
- Lighting retrofits and controls
- Compressed air leak detection and repair
- Pumps, fans, motors, and drives
- Heating, ventilation, and air conditioning (HVAC)
- On-site generation of electricity
- Boiler system improvements

ANNUAL SAVINGS

First four years: **$14,674**
Each year thereafter: **$104,540**

Optimizing a World-Class Contract Manufacturer and Service Provider

In 2019, a leading contract manufacturer and service provider turned to ENGIE with two initial challenges: to maximize cost savings opportunities and reduce inefficiency and waste. The commodity customer quickly enrolled in **ENGIE 20/20** to establish a baseline and identify key opportunities.

A **portfolio analysis** yielded significant opportunity at a facility within the building footprint. ENGIE Services was engaged to perform a high-level **energy audit** and identify potential **energy conservation measures** to pursue.

From the audit, the customer set their sights on a subset of projects: programmable setbacks, static pressure resets, supply temperature optimization, a deadband setpoints project, and optimizing the start and stop of air handling units. These initiatives had the combined potential to achieve **18 to 20 percent in energy savings**.

The next challenge the customer had was **access to capital**. Through **ENGIE Advantage**, ENGIE was able to embed the capital costs into a restructured commodity contract, making it coterminous with the financing term of the efficiency initiatives. This yielded **immediate upfront benefits**, giving the manufacturer the ability to leverage capital in other areas of the business.

Perhaps even more significant is the immediate and long-term cost savings potential of the contract. By understanding the impact these efficiency measures have on the load profile, ENGIE was able to **optimize the supply side** of the agreement, passing through capacity and transmission charges so the customer could leverage the full benefits of reduced consumption. The manufacturer also had a higher load factor as a result of the strategy, improving the company's position for more aggressive pricing.

After the project was implemented, ENGIE turned back to **ENGIE 20/20** to track the efficacy of the initiatives, comparing projected savings against actualized figures to ensure the project remained on track to achieve the anticipated 18 to 20 percent reduction.

03 Fact No. 3: Fiscal and Environmental Responsibility Can Coexist

For most manufacturers, meeting objectives doesn't end at cutting costs. Although much can be achieved through lighting retrofits, controls, and energy conservation measures, reaching aggressive low-carbon targets may ultimately require the procurement of renewable energy, which might seem to contradict fiscal objectives.

A range of customer-centric renewable solutions are now available in the market to bridge the considerable gap between what were once the only two options available to commercial and industrial customers: renewable energy certificates (RECs) and power purchase agreements (PPAs). RECs are a fungible, tradeable commodity to support the domestic development of renewable resources, and PPAs are long-term, complex transactions to build new renewable assets.

Today, customers have access to a range of alternatives to achieve low-carbon

A Sustainable Foundation for the Ultimate Flooring Provider

Since 2016, ENGIE has supported the environmental commitments of Tarkett, supplying **RECs to offset carbon emissions** of the company's North American headquarters and manufacturing sites in Ohio. For three years, the company added an estimated **30 million kWh of demand** to the marketplace for **carbon-neutral energy generation**.

In August 2019, Tarkett began receiving **physical green supply** from a nearby wind farm through a renewal agreement with ENGIE to power nine sites. The deal also included national **Green-e® certified RECs** to further support the development of renewable assets.

By 2025, Tarkett will have procured **230,908 RECs**, demonstrating considerable strength in low-carbon leadership and a significant display in carbon offset.

The impact will be equivalent to:

The emissions from
34,668
passenger vehicles
driven for one year

The carbon displaced by
178,509,390
pounds of coal burned

The carbon sequestered by
2,699,982
tree seedlings grown for 10 years

objectives. These include portfolio-based solutions and custom structured solutions – both of which can be tailored through traditional commodity contracts at a price that in many cases is on par with brown power.

ENGIE Resources offers customers portfolioRE, easyRE, and customRE. portfolioRE, a portfolio-based solution, provides a unique opportunity to aggregate small and midsize customers with simplified renewable supply options, tailored to fit load profiles and sustainable goals.

easyRE, a custom structured solution, gives customers the ability to contract physical volumes of merchant renewable energy, primarily wind or solar, along with project-specific RECs, direct with generators or through intermediaries. customRE, also a custom structured solution, gives customers the ability to create tailored strategies for a number of services, including small-scale investments in new renewable generation, primarily wind and solar.

Regardless of where you are in your journey to reduce costs and carbon impact, ENGIE can build the right strategy for your business. Consult your ENGIE energy expert today to learn more about the right options for your business and discover how you can transform your operations through more efficient and pragmatic energy management.