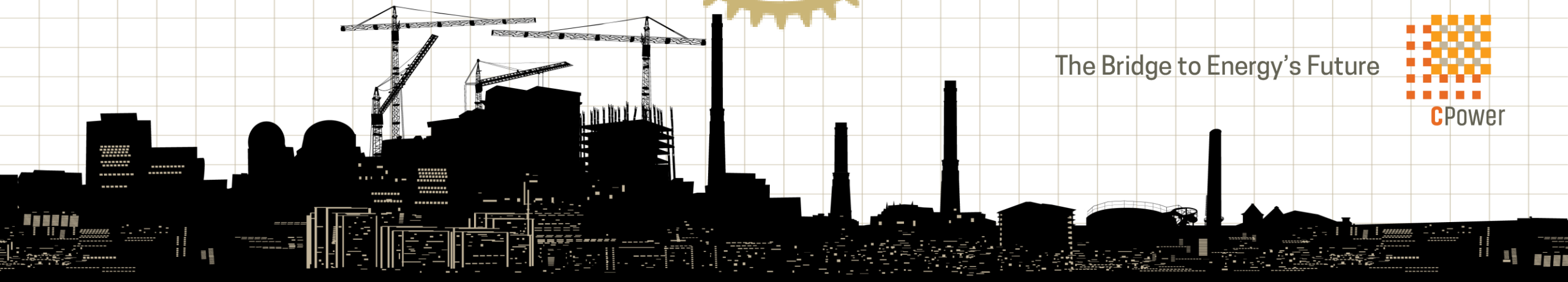


# CPower Demand Response, Peak Demand Mgmt. & Energy Efficiency Programs

2021 Partnership & Future Savings w/ CPower



The Bridge to Energy's Future



# Consider us your energy guides.

**CPower helps organizations understand, implement, and maximize the potential of curtailment programs.**

**Increase your organization's sustainability and resilience. Save on your electric spend.**

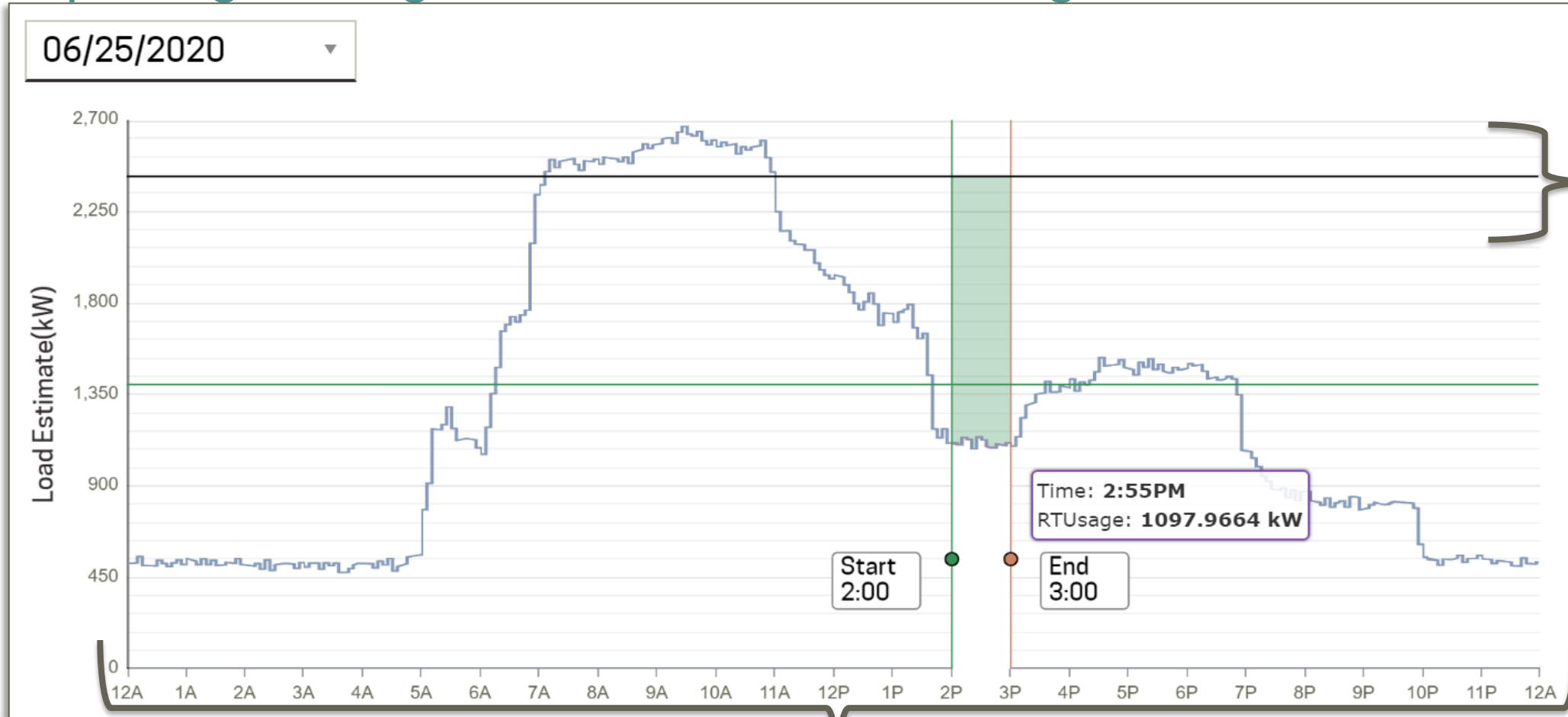
**By assessing your organization's unique needs and capabilities, we help you make the energy decisions today that position you for success tomorrow.**

The Bridge to Energy's Future



# kWh “Usage” v kW “Peaks”:

## Capturing Savings from Annual Peak Usage



kWh “Usage”: generated across all hours of the day

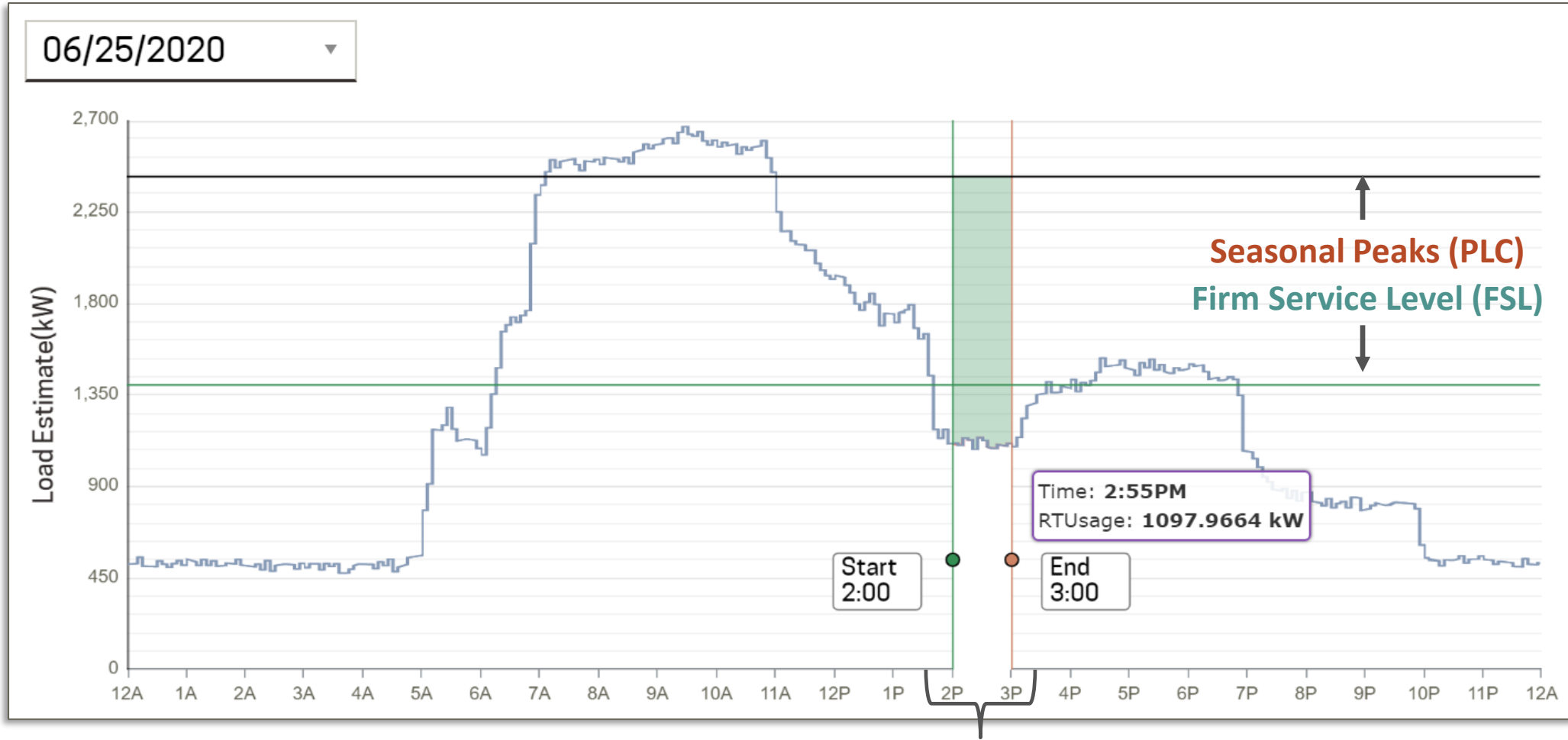
The Bridge to Energy’s Future



CPower

# What is Demand Response?

## Event Participation from the CPower Dashboard



Event Window/Test Event

The Bridge to Energy's Future



CPower

# COMMON FAQs

Understanding Demand Response (DR) Terms & Energy Efficiency (EE) Incentives

**What is PJM?**

**What is a Peak Load Contribution?**

**How do I participate in DR?**

**What is the cost for my site to participate?**

**Where do the savings come from?**

**Is there a test?**

**Can I participate in DR and EE together?**



# PJM Emergency Response Capacity Performance Program (CP)

Demand response program with summer and winter curtailment (kW) amounts.

Participation from current process load shifts, shutdowns or curtailment plans



The Bridge to Energy's Future



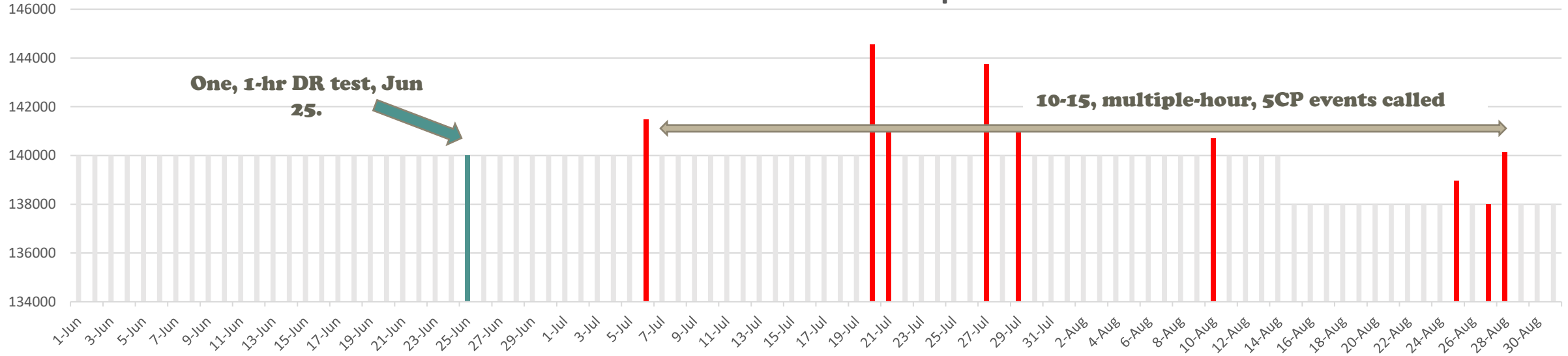
## Demand response Emergency Event history – 7 year look back

Year	# of Events	Duration	Total Hours (annual)
2014	0	1, one-hour test	1-hr
2015	0	1, one-hour test	1-hr
2016	0	1, one-hour test	1-hr
2017	0	1, one-hour test	1-hr
2018	0	1, one-hour test	1-hr
2019	0	1, one-hour test	1-hr
2020	0	1, one-hour test	1-hr

- **No events since 2014 (Polar Vortex)**
- ▪ **One event Oct 2019 for year-round participants**
- **Reduced demand from COVID not discounted**
- **Likelihood of an event is still low**

# PLC (5cp) Management & DR Bundle

## 5 CP Event Calls vs Demand Response Test



- 10 - 15 Peak management calls during summer 2020 to achieve the 5 CP target vs.
- One Capacity Performance test which lasted 1 hour
  - For facilities that don't want multiple days and hours of shutdown, CP is a better program option
  - Missing one of the 5CP days will impact the total savings realized on your utility bill

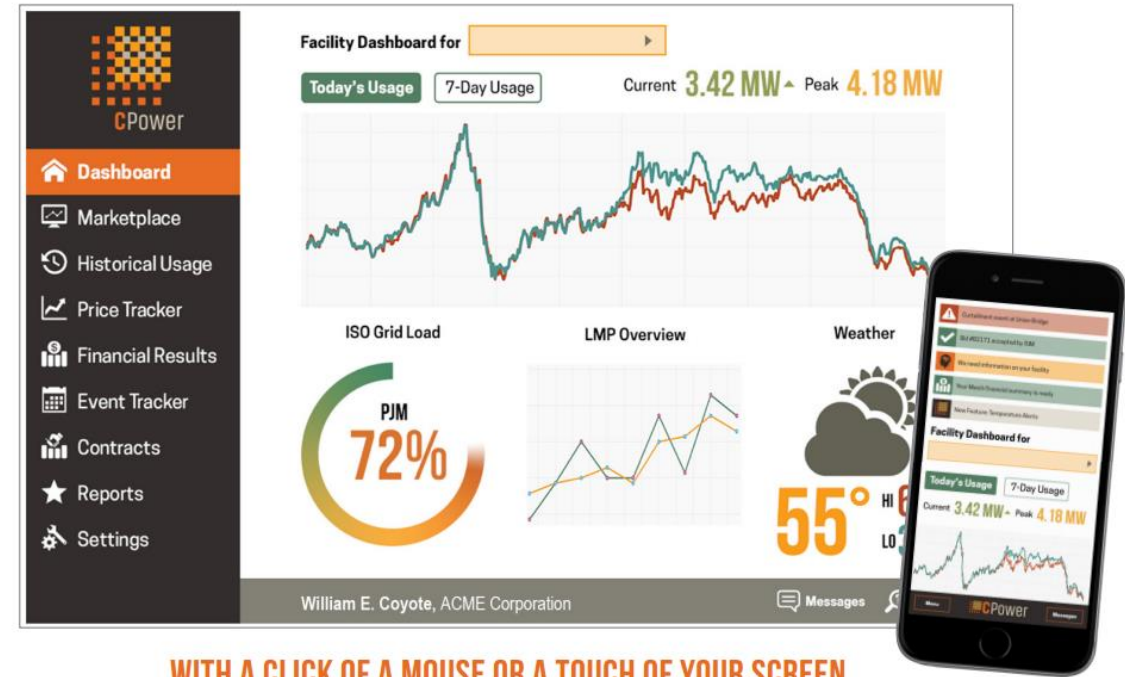


# Asset Management Tools

## CPower App & Link and More

### MANAGING COMPLEXITY WITH CONTEXT

- Full functionality on your desktop or mobile device
- Link to your independent system operator (ISO) and set your bids in synchronized, day-ahead, and real-time markets quickly and easily
- Monitor your energy consumption levels and learn to make effective energy management decisions in near real time
- Easily set bids and participation schedules
- Combined with CPower Link, you can leverage ADR (automated demand response) to participate in programs and earn revenues with less resources or business interruption
- CPower systems also support fast acting programs requiring deterministic communications, control, and telemetry in real-time



WITH A CLICK OF A MOUSE OR A TOUCH OF YOUR SCREEN,  
CPower ALLOWS YOU TO ACCESS ALL VITAL USAGE  
AND LOAD INFORMATION QUICKLY AND INTUITIVELY.

CPower |  Link



Automation

\*\*Optional Equipment, unless site does Not have Interval meter

The Bridge to Energy's Future



# 2021-2022 PJM Capacity Performance

Revenue forfeiture for non-compliance capped at the annual projected revenue amount (no “out of pocket” penalty)

**Summer: June through October and the following May**

- 7 days/week between the hours of 10:00 am – 10:00 pm

**Winter: November through April**

- 7 days/week between the hours of 6:00 am – 9:00 pm

**Emergency Events History: None since 2005**

- 12-hour event max duration in the summer & 15-hour max duration in the winter
- Thirty (30) Minute Response (unless 1-or-2-hour Exemption is granted)
- 100 kW minimum commitment
- One (1) Hour Test Event minimum, if no actual PJM-initiated events are called
- Events outside of parameters above will be communicated, but are voluntary

# City of Rochelle: Sample DR Incentives

Estimates based on Site Peaks 2,000/2,000kW

Participation Year	Seasonal Peaks kW	Summer FSL kW	Winter FSL kW	Annual Customer Payment	Avg. Quarterly Payment
2021/22	2000/2000	1000	NA	\$ 23,582	\$5,931
2021/22	2000/2000	500	NA	\$ 37,076	\$ 9,304



# CPower Energy Efficiency

Found kW Incentives from EE projects in addition or in absence of Utility Rebate programs.



The Bridge to Energy's Future



# CPower Energy Efficiency Incentives

Getting Paid *Revenue* On Top of the *Savings* You Already Receive

**What is PJM EE:** The permanent reduction of electrical demand through installing energy efficient systems, improvements or upgrades in equipment or devices.

## Types of Projects



**Lighting**



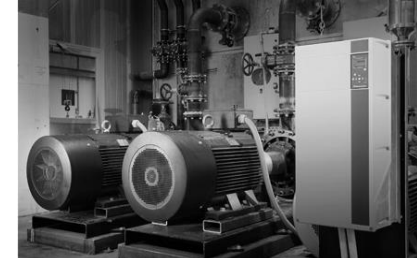
**HVAC**



**Process Improvements**



**Green/LEED Building**



**VFDs**

Installation Period	Project Fully Installed by June 1 of:	Remaining Eligible Years
June 2019 – May 2020	2019	2021/22, 2022/23, 2023/34
June 2020 – May 2021	2020	2021/22, 2022/23, 2023/24, 2024/25
June 2021-May 2022	2021	2021/22, 2022/23, 2023/25, 2025/26
June 2022-May 2023	2022	2022/23, 2023/24, 2025/26, 2026/27

# Energy Efficiency Program Parameters



<b>Minimum Size</b>	No Minimum: Cost to Recover
<b>Compensation</b>	\$/kW rates based on zone and enrollment years
<b>Compliance Period</b>	Project must be able to be measured to show demand reduction between the hours of 2 pm – 6 pm, Jun – Aug excluding weekends and NERC holidays. Starting Jun 2020 enrollments, projects will also require permanent load reductions during Jan – Feb, 7 am – 9 am and 6 pm and 8 pm
<b>Enrollment Deadline</b>	30 business days prior to Jun 1, (typically around May 1)*
<b>Measurement and Verification (M&amp;V)</b>	Verification of average load reduction during PJM peak

## Qualifying projects include:

- Lighting
- Refrigeration
- HVAC
- Motors
- Variable-frequency Drives (VFDs)
- Weatherization/Building Envelope
- LEED/Green Building
- Industrial Process Improvements
- New construction projects

---

## Non-Qualifying projects include:

- Dispatchable Resources
- Load-shifting
- Behavior change, programmable thermostats
- Solar, wind, cogeneration
- Fuel switch (conversion to natural gas)

The Bridge to Energy's Future



# THE **Current**

Stay ahead of the energy curve with CPower.

[www.cpowerenergymanagement.com/knowledge](http://www.cpowerenergymanagement.com/knowledge)



# Thank You

Kellen Bollettino  
(219) 213-8277

[Kellen.Bollettino@cpowerenergymanagement.com](mailto:Kellen.Bollettino@cpowerenergymanagement.com)

