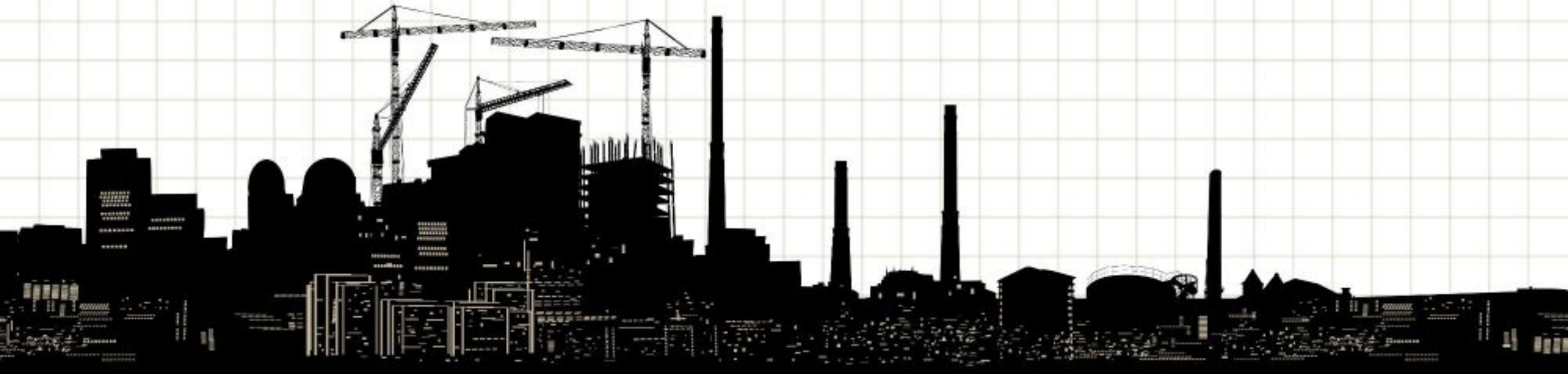




ACT 129 DEMAND RESPONSE

Seasonal Readiness

5/21/2020



PRESENTERS

Welcome!

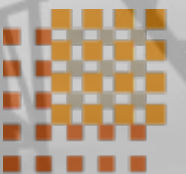


Daric Snyder

Director of Customer Experience

Jackie O'Mara

Account Executive, PJM



CPower

HOUSEKEEPING ITEMS

- Webinar is in listen only mode
- Use the Q&A panel to submit questions
- Webinar will be recorded and available at:
CPowerEnergyManagement.com/Ready20



AGENDA ITEMS

- Act 129 Overview
- Program Information Review
- Updating Information
- Your Team's Curtailment Planning
- Communications Alerts and Notifications
 - All Call System
- Scheduling and app
- Recap



MARKET UPDATES – PJM

What You Need To Know

The definitive guide for organizations that use energy...**is back for 2020.**



13 CPower experts. 250 years of energy industry experience. One book.



Download CPower's State of the Demand Side Energy Market Book to see all major updates.



PROGRAM INFORMATION

ACT 129 Demand Response Programs

Program Snapshots

- [PPL Act 129 Demand Response](#)
- [FirstEnergy Act 129 Demand Response](#)
- [PECO Act 129 Demand Response](#)
- [See All PJM ISO Programs](#)

Program Snapshots provide a very quick review and reference of all of the PJM demand response programs. Access any time and share.



PROGRAM PARAMETERS

Act 129 Participation

Program Attribute	Description
Participation Period	June 1 through September 30
Dispatch Criteria	Day Ahead forecast reaches 96% of PJM RTO summer peak demand
Event Notification	Electric Utilities will use PJM's 10:10 am forecast to determine whether the following day will be an ACT129 event
Event Days	All non-holiday weekdays between June 1 and September 30 (excluding July 4 and Labor Day)
Event Duration	4 consecutive hours
Max Number of Events	6 events per summer
Min Number of Events	Zero. If no event is called by September 1, CPower will conduct a test in mid - September
Performance Measurement	Hourly Reduction KWh = Hourly CBL KWh - Hourly Average Load KWh
Payment	Hourly Reduction in KWh * Price per KWh

2020 PJM forecasted peak is **148,092 MW**. Events will be dispatched at **142,169 MW** forecast



EVENT NOTICES

Know Your Start and End Times!

Day-ahead

- Day-ahead notice is sent out when an event is imminent for the next day
 - Between 11:00 AM – 12:00 PM and 1:45 PM EDT

Day-of Notification

- Day-of notice will be sent at 10:00 AM EDT the day of, if an event is imminent

EVENT HISTORY

Act 129 Programs – All Utilities

Year	Utility	Events
2017	FirstEnergy	6/13, 7/20, 7/21
	PPL	
	PECO	
2018	FirstEnergy	7/2, 7/3, 8/6, 8/28, 9/4, 9/5
	PPL	
	PECO	
2019	FirstEnergy	7/17,7/18,7/19,8/19
	PPL	
	PECO	

CPOWER DISPATCH

24/7/365 At The Ready For You










100% in house Dispatch Operations ensures accuracy and helps identify and resolve issues in real time so you can perform to your potential.



ALL CALL SYSTEM FUNCTIONALITY

Phone and Email Messages

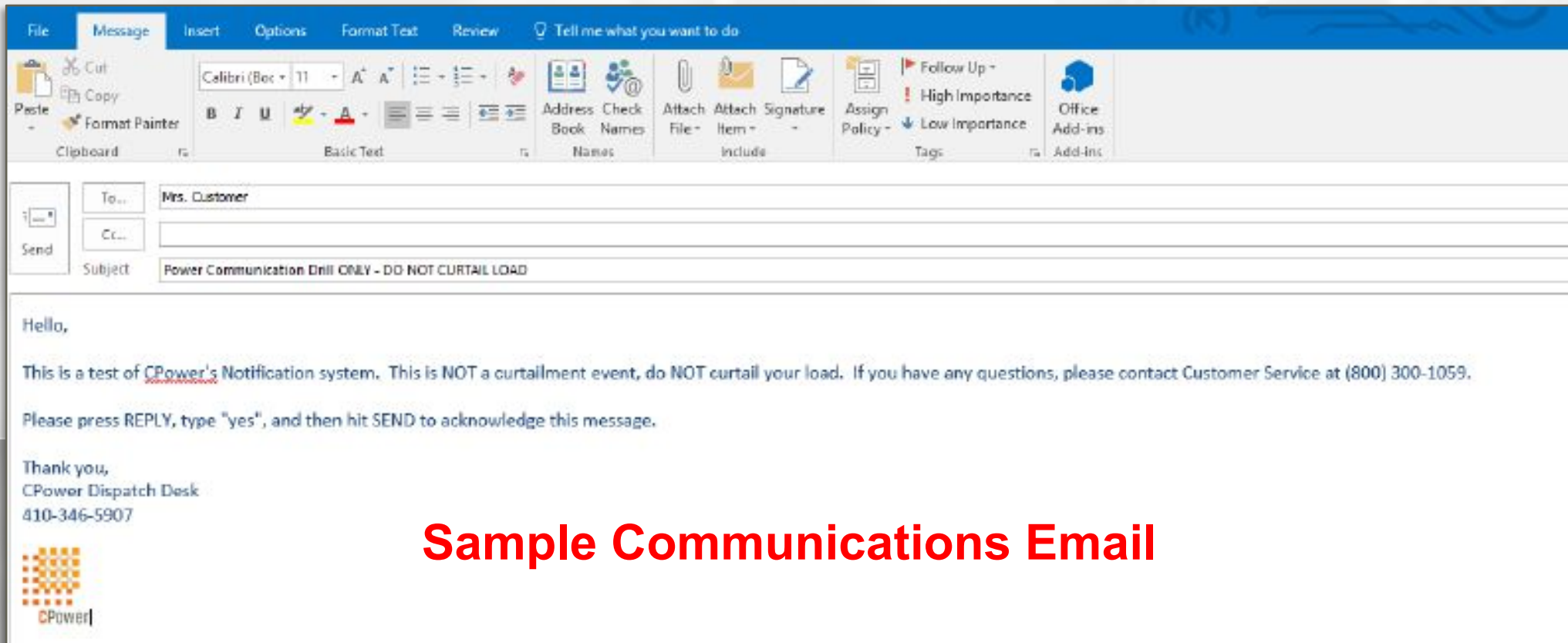
	Time	Type of Communication	Method of Communication	Description	From
Day Ahead	11 am - 12 pm	Day Ahead Notification	  	Notification will include the date and confirmed hours of the ACT129 Event	CPowerDispatch@dccnotify.com 410-346-5907
	1:45 PM	PRS (Price Responsive Schedule)		Will be sent out including Economic Pricing for next day and will identify the specific hours of the ACT 129 event	noreply@cpowercorp.com
Day Of	10:00 AM	Day Of Notification	  	Notification will confirm the hours of the ACT129 Event	CPowerDispatch@dccnotify.com 410-346-5907

DISPATCH NOTIFICATIONS

Communications Drill

TEST DATE: 6/5/2020, 2:00 PM ET

- This is only a drill to test communications
- DO NOT Curtail



The screenshot shows an email client window with a blue ribbon menu at the top. The ribbon includes 'File', 'Message', 'Insert', 'Options', 'Format Text', and 'Review'. Below the ribbon is a toolbar with various icons for editing and formatting. The email content area shows a message from 'CPower Dispatch Desk' to 'Mrs. Customer'. The subject line is 'Power Communication Drill ONLY - DO NOT CURTAIL LOAD'. The body of the email contains the following text:

Hello,

This is a test of CPower's Notification system. This is NOT a curtailment event, do NOT curtail your load. If you have any questions, please contact Customer Service at (800) 300-1059.

Please press REPLY, type "yes", and then hit SEND to acknowledge this message.

Thank you,
CPower Dispatch Desk
410-346-5907

The CPower logo is visible in the bottom left corner of the email content area.

Sample Communications Email



CONTACT INFORMATION

Make Sure To ...

- Correct and up to date by facility site:
 - Contact Names
 - Phone Numbers
 - Email Address
- Please send your updated information to:
 - Jackie O'Mara
 - Jackie.OMara@CPowerEnergyManagement.com

REVIEW & UPDATE INFORMATION

Reviewing and Updating Your Contact Information



- **Responsible Parties for Notifications:** Make sure all of relevant contacts are up to date.
 - Make sure to send the persons' names, email address and phone numbers
 - Any changes to former or added staff on your current notification group



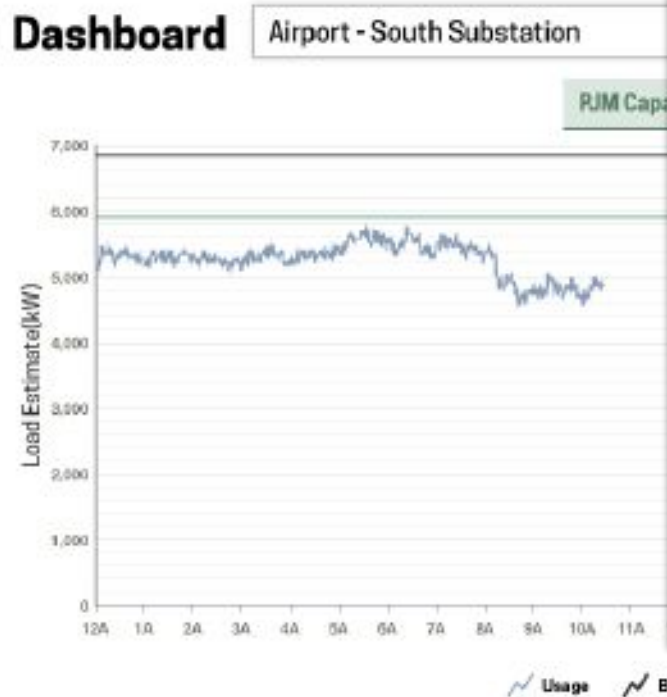
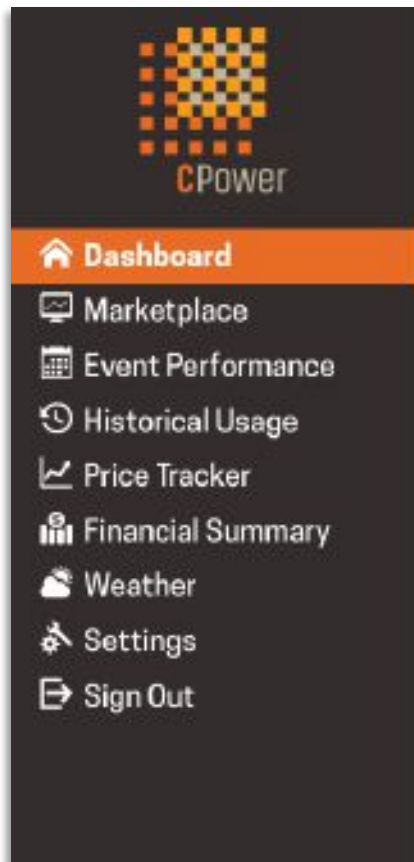
- **Whitelist CPower email domains and add dispatch number:**
 - CPowerDispatch@dccnotify.com , CPowerDispatch@dccbackup.com
 - Add the CPower Dispatch number to your cell phones – “Demand Response Notification”
 - 410-346-5907



- **Review Curtailment Plan:**
 - Make sure the plan is still accurate and aligns with your curtailment commitments and resources

CPOWER APP

Login and Credentials



- This is an interactive application between Customers and the program.
- For participation in the program, a designated person from your company will need to submit the schedule for the ACT129 events into the CPower app.
- Customer dispatch contacts will receive an enrollment letter with the user id and password for the CPower app.
- Please login into the software to become familiar with the application.
- Training materials can be found at: <http://help.cpowerenergymanagement.com/act129>

CPOWER APP

Curtailment Plan

- Curtailment plans will have a direct effect on customers' potential earnings calculations.
- Electric utilities are looking for details on how customers will be curtailing during ACT129 events.
- Based on CPower's engineering assessments, the CPower App includes customers' curtailment scenarios. Customers can update curtailment scenarios at any time.
- Link to a training video: <http://help.cpowerenergymanagement.com/economic/>

The screenshot displays the CPower App's 'Curtailment Plan' interface. On the left is a dark sidebar with navigation icons and labels: Dashboard, Marketplace, Historical Usage, Price Tracker, Financial Summary, Weather, **Curtailment Plan** (highlighted), Scheduling, Reports, Settings, and Sign Out. The main content area is titled 'Curtailment Plan' with a dropdown menu set to 'RJM Act129 only'. Below this, there are two scenario tabs: 'Act129 event (500)' and 'Act129 Alternate Scenario (200)'. A '+ Add Scenario' button is present. The 'Name' field contains 'Act129 event' with 'Active' and 'Delete' buttons. The 'Description' field is empty. The 'Days available' section shows buttons for MON, TUE, WED, THU, FRI, SAT, and SUN. The 'Actions' section contains a table of curtailment actions:

Action	Category	Value
Test scenario	WATER	200 kWh
✓ Turn off lights	LIGHTING	300 kWh
✓ Chiller	WATERHEATING	250 kWh
Halt line 3	MANUFACTURING	600 kWh

Below the table is a '+ Create / Edit Actions' button. On the right side of the interface, there is a 'Duration' slider set to '1 to 4 hours', a checkbox for 'Use as default scenario for ACT129', and a 'Notify me when...' section with two radio button options: 'Earnings are more than \$ [] per day' and 'Price is \$ [] per kWh above the minimum'. At the bottom right are 'Save Changes' and 'Cancel Changes' buttons. The footer shows 'Jowy Energy, University of Eastern West' and a 'Help' icon.

CPOWER APP

Real Time Data at Your Fingertips

The screenshot displays the CPower app interface for Economic Scheduling. On the left is a navigation menu with options: Dashboard, Marketplace, Historical Usage, Price Tracker, Financial Summary, Weather, Curtailment Plan, Scheduling (highlighted), Reports, Settings, and Sign Out. The main content area is titled "Economic Scheduling" and shows details for "RJM Real time reg 2" on "05/11/2017" for "Test1-Reg2 (30 kW) \$90".

The central chart, titled "RJM Real time reg 2 - Thursday, May 11, 2017", plots "Load Estimates (kW)" on the left y-axis (0 to 700) and "Prices (cents / kWh)" on the right y-axis (0 to 110) against a 24-hour timeline. A blue line represents the load, which drops from approximately 500 kW to 400 kW during the event period (12P to 4P). Red bars indicate high prices during this period, peaking at about 100 cents/kWh. An orange callout labeled "Load" points to the blue line, and another orange callout labeled "CBL" points to the price line. Below the chart, there are checkboxes for "ACT 129 EVENT" and "ACT 129 EVENT DAY".

At the bottom, there are several summary boxes and a table of earnings:

Baseline (Act 129)	Hourly Usage	Real-time Prices	RJM Estimated Earnings	\$48
Baseline (RJM Econ)	Sub-hourly Usage	Forecast Prices	Act 129 Estimated Earnings	\$405
Scenario Drop	Curtailment	Calculation Data	Total Estimated Earnings	\$453

A "Submit Schedule" button is located below the earnings table. The footer includes "Joey Energy, University of Eastern West" and a "Help" icon.

CPOWER APP

Scheduling

- ACT129 customers must schedule their intent to participate in an event via the app.
- A curtailment without the submitted schedule will not be valid.
- Hours of participation must be consecutive (for example, HE13, HE14, HE 15, HE16, but not HE13, HE15 and HE16)
- Customers can submit their schedule up to 15 min before the start of the first hour of a planned event.
- If a customer scheduled their participation in the CPower app the day before the event, and can not participate on the day of the ACT129 event, the customers, must modify their scheduled participation.

The screenshot displays the CPower app interface for Economic Scheduling. On the left is a navigation menu with options: Dashboard, Marketplace, Historical Usage, Price Tracker, Financial Summary, Weather, Curtailment Plan, **Scheduling** (highlighted), Reports, Settings, and Sign Out. The main content area is titled 'Economic Scheduling' and shows details for 'RJM Real time reg 2' on '05/11/2017' for 'Test1-Reg2 (30 kW) \$90'. Below this is a section for 'ACT 129 EVENT DAY' with a 'Download Economic CBL' link. The 'Economic Details' table shows various metrics over 24 hours. Below that is the 'Act129 Details' table with a 'Download Act129 CBL' link. At the bottom, a line chart shows 'RJM Real time reg 2 - Thursday, May 11, 2017' with a y-axis from 600 to 700. The footer includes 'Joey Energy, University of Eastern West' and a 'Help' icon.

Time of Day (ET)	12A	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12P	1P	2P	3P	4P	5P	6P	7P	
Price Estimate(¢/kWh)	2.02	1.86	1.69	1.81	1.8	2.06	2.27	2.95	3.86	2.68	5	3.47	4.63	4.17	3.92	12.3	14	14	16.6	7.8	
Baseline(CBL)(kW)	483	468	483	483	483	483	483	483	483	483	483	426	426	426	426	454	488	483	483	482	
Meter Load(kW)	506	506	506	506	506	506	506	506	506	506	504	404	404	404	404	453	501	253	253	263	
Load Drop Estimate(kW)																			200	219	
Customer %																			88%	88%	
RJM Earnings Forecast																				83.4	14.46

Time of Day (ET)	12A	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12P	1P	2P	3P	4P	5P	6P	7P	8P	9P	10P	11P
Price Estimate(¢/kWh)														70	70	70	70							
Baseline(CBL)(kW)	561	561	561	561	561	561	561	561	561	561	561	561	561	561	561	561	568	553	561	561	585	572	585	585
Meter Load(kW)	506	506	506	506	506	506	506	506	506	506	504	404	404	404	404	458	501	253	253	263	579	579	579	579
Load Drop Estimate(kW)														157	157	157	108							Total
Act129 Earnings Forecast														109.9	109.9	109.9	75.6							8405

CPOWER APP

Real Time Data at Your Fingertips

The screenshot displays the CPower app interface for Economic Scheduling. On the left is a navigation menu with options: Dashboard, Marketplace, Historical Usage, Price Tracker, Financial Summary, Weather, Curtailment Plan, Scheduling (highlighted), Reports, Settings, and Sign Out. The main content area is titled "Economic Scheduling" and shows details for "RJM Real time reg 2" on "05/11/2017" for "Test1-Reg2 (30 kW) \$90".

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Below the chart, there are several controls and summary information:

- ACT 129 EVENT: A row of four blue checkmarks indicating event status for each hour.
- Summary Cards: A grid of cards for "Baseline (Act 129)", "Hourly Usage", "Real-time Prices", "Baseline (RJM Econ)", "Sub-hourly Usage", "Forecast Prices", "Scenario Drop", and "Curtailment".
- Earnings Summary: A table showing "RJM Estimated Earnings" at \$48, "Act 129 Estimated Earnings" at \$405, and "Total Estimated Earnings" at \$453.
- Buttons: "Submit Schedule" and "Help".

At the bottom, the footer reads "Joey Energy, University of Eastern West" and "Help".

RECAP

Things to Remember

- Season Begins June 1, 2020
- Be sure to update contacts
- Response to all test and communications drill
- June 5, 2020 at 2 PM
- Make sure you have back up personnel in case of emergency
- Ensure everyone reviews this training
- Make sure your team understands curtailment procedures
- Make sure metering is up and running and accurate



ADDITIONAL RESOURCES

Your One Stop For Demand Side Energy Management



Learn the basics with CPower's [Demand Side Energy Management 101 Video Series](#)



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**SEASONAL
READINESS
2020**

View this webinar and content as well as all other markets we serve on our Seasonal Readiness Portal

CPOWER'S

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THANK YOU

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