

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main title is centered in the middle of the slide.

# DEMAND RESPONSE

THINGS YOU NEED TO KNOW ABOUT CURTAILMENTS

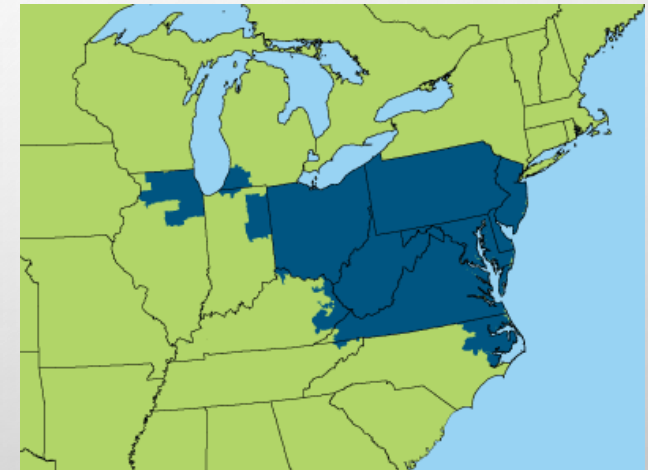
# WHAT'S ALL THE FUSS ABOUT DEMAND RESPONSE?

- WHY SO MANY CALLS ABOUT DEMAND RESPONSE OR DR?
- OPPORTUNITY: NOT MUCH DEMAND RESPONSE IN OHIO.
- MONEY: RISING CAPACITY VALUES IN NEXT FEW YEARS.



# GENERATION CAPACITY BASICS

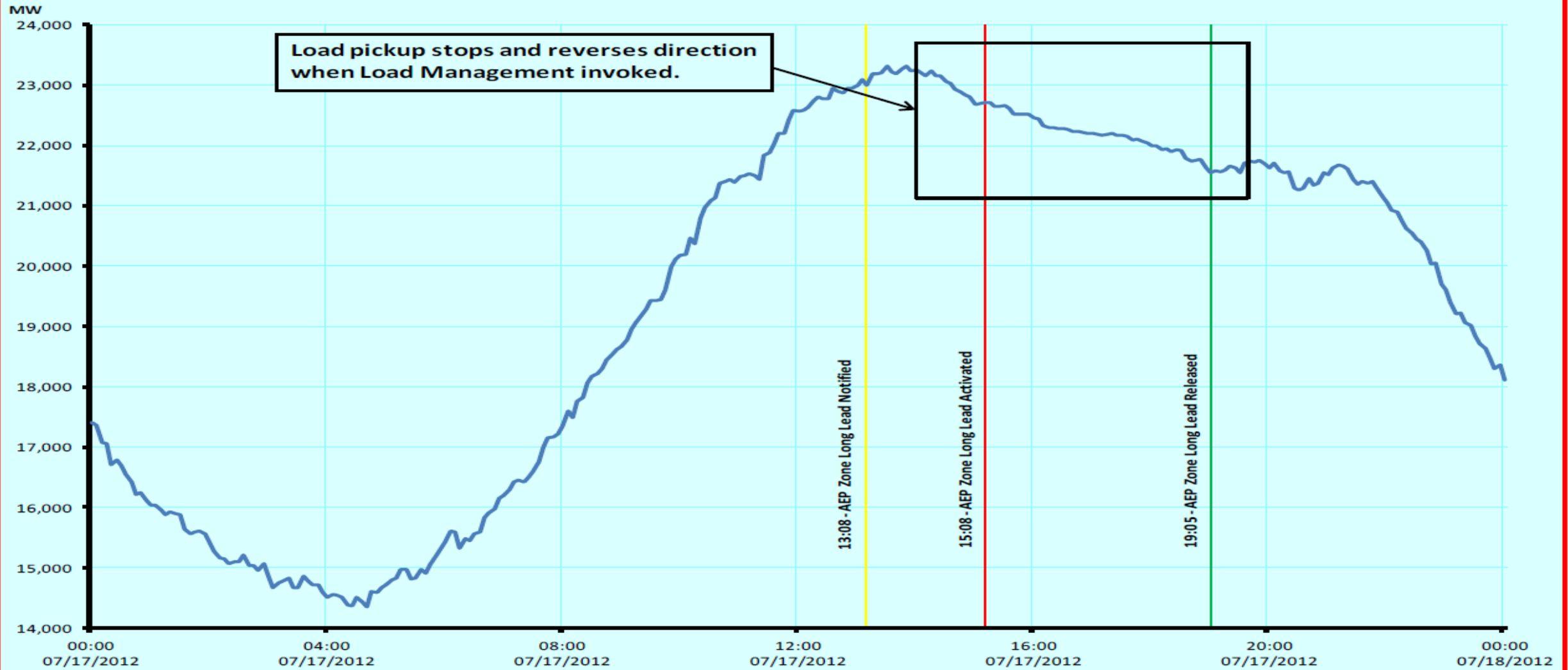
- GENERATION CAPACITY IS IMBEDDED IN YOUR ELECTRIC SUPPLY COSTS.
- GEN. CAP. ARE PAYMENTS TO POWER GENERATORS TO MEET SYSTEM NEEDS.
- AMOUNT OF CAPACITY NEEDED IS ESTABLISHED BY PJM.
- CAPACITY VALUE BY REGION ESTABLISHED VIA AUCTION.
- MAY 2013 AUCTION: JUNE 2016-MAY 2017.
- DR IS A TOOL TO AVOID BUILDING PLANTS.
- LARGE GAS FIRED PLANT UP TO \$1 BILLION.
- COAL FIRED PLANT 3 TO 4 TIMES HIGHER.
- DEMAND RESPONSE IS CHEAPER.



# GENERATION BASICS CONTD.

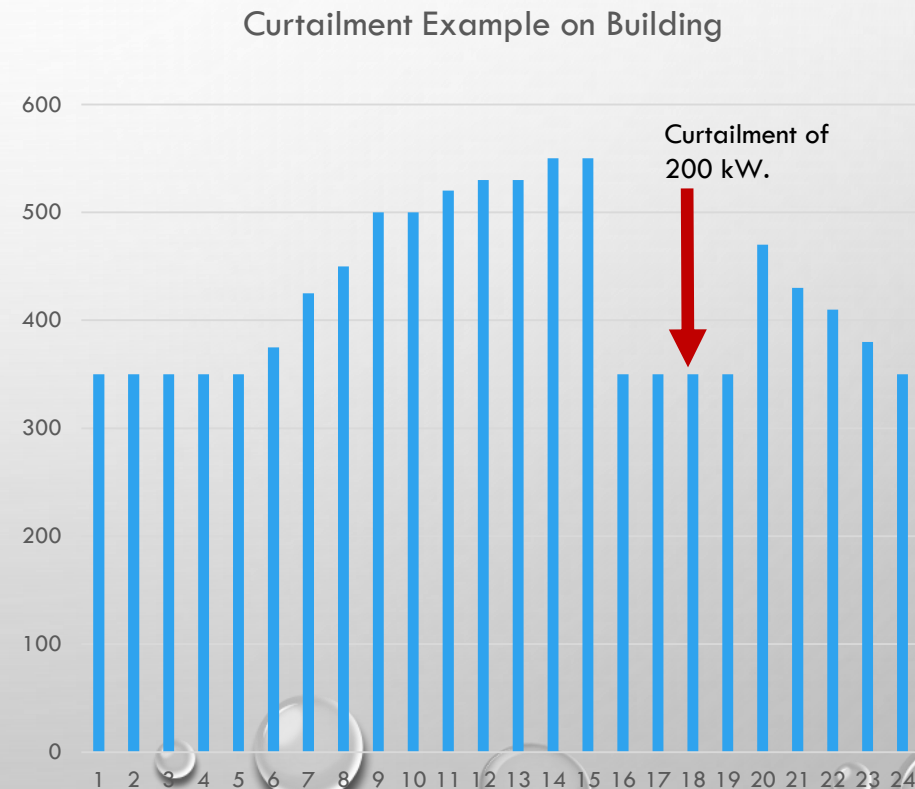
- PJM SYSTEM PLANS FOR PEAK OF 165,000 MW.
- RESERVE MARGIN OF 15% TO 20%.
- THAT IS 25 TO 30 DAVIS-BESSE PLANTS.
- >15,000 MW OF DR AND ENERGY EFFICIENCY.
- RESERVES ARE NOT USED MUCH AT ALL.





# DEMAND RESPONSE BASICS

- DEMAND RESPONSE IS SELLING ABILITY TO CURTAIL YOUR ELECTRIC NEEDS.
- PEAK PERIOD CURTAILMENTS ARE WORTH MONEY.
- VALUE VARIES BY YEAR & UTILITY.
- COMPANIES SELLING THIS SERVICE CALLED CURTAILMENT SERVICE PROVIDERS (CSP).
- OVER 70 CSP'S ON PJM.
- COMPETITION SHOULD REAP EXTRA \$.



# BASICS CONTD.

- CSP BIDS CURTAILMENT MEGAWATTS INTO THE AUCTION.
- CSP GETS PAID BY PJM TO SECURE CUSTOMERS WILLING TO CURTAIL.
- PAYMENT VALUE IN \$ PER MW-DAY BASED UPON ANNUAL CAPACITY AUCTION.

Territory	Jun '13- May '14	Jun '14- May '15	Jun '15- May '16	Jun '16 – May '17
FirstEnergy	\$10,000/yr.	\$46,000/yr.	\$110,000/yr.	Unknown until
Rest of Ohio	\$10,000/yr.	\$46,000/yr.	\$43,000/yr.	May '13 auction

# CSP INFORMATION

- CSP'S LOOK FOR 3 TO 5 YEAR CONTRACT COMMITMENTS.
- 4-5 YRS. ALLOW CSP'S TO SELL MAY '13 AUCTION (JUNE 2016/MAY 2017).
- IF CSP'S SELL 100 MW INTO AUCTION THEY ARE ON THE HOOK FOR 100 MW.
- SOME CSP'S SELL ONLY WHAT IS CONTRACTED. MANY OTHERS SELL MORE.
- AMOUNT CURTAILMENT CAPACITY IS FIXED IN AUCTION SO LIMITS DO EXIST.
- VALUE AND AMOUNT OF CAPACITY DRIVEN BY LOCATION.
- THE SPLIT CSP OFFERS VARIES BY HOW MUCH CAPACITY REMAINS TO SELL.



# DO I QUALIFY?

- DO YOU HAVE FACILITIES THAT HAVE STANDBY OR BACK UP GENERATORS?
  - SANITARY PLANTS, WATER PLANTS, LIFT STATIONS, PUMPING STATIONS, CORRECTIONS FACILITIES OFTEN HAVE STANDBY OR BACK UP GENERATION.
- CAN YOU TURN OFF A LARGER CHILLER & LET TEMPS RISE IN A BUILDING?
  - HOW LONG WILL IT BE BEFORE YOU START GETTING COMPLAINTS? 2 OR 3 HRS.?
  - HOW MUCH \$ WOULD MAKE YOU WILLING TO RISK FIELDING COMPLAINTS?
- ARE YOU WILLING DO THIS 10 TIMES/YR. FOR UP TO 6 HOURS EACH?
  - THOUGH LIKELIHOOD IS MAX. 2 OR 3/YR. FOR 2 OR 3 HOURS EACH.
- NO? THEN YOU PROBABLY SHOULD NOT PARTICIPATE.
- YES OR MAYBE? THEN HERE ARE THE NEXT STEPS.

# NEXT STEPS

- CCAO WANTS TO ASSIST COUNTIES & COMBINE EFFORTS TO MAXIMIZE VALUE.
- IF YOU ARE INTERESTED...
- DETERMINE IF YOUR COUNTY HAS ALREADY CONTRACTED. IF SO REVIEW.
- GET THAT AGREEMENT TO PALMER.
- LET US KNOW WHO TO CONTACT IN YOUR COUNTY TO DETERMINE VIABILITY....

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# QUESTIONS?

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