DTE Energy®

DTE Electric's Demand Response Resources

October 10, 2017

Amid growing capacity constraint concerns in the state, key stakeholders believe expansion of DR is a good option for meeting future capacity needs

"Demand response resources, which are essentially users agreeing to use less electricity when demand is spiking, are likely to be both cost-effective and can be put in place before the summer of 2018"

-Sally Talberg, chairman of the MPSC
1/31/2017

"…it seems that it will be necessary for Michigan LSEs to follow through with their current plans for demand response development. The demand response programs become increasingly important when the system is stressed due to high demand and/or unexpected plant outages."

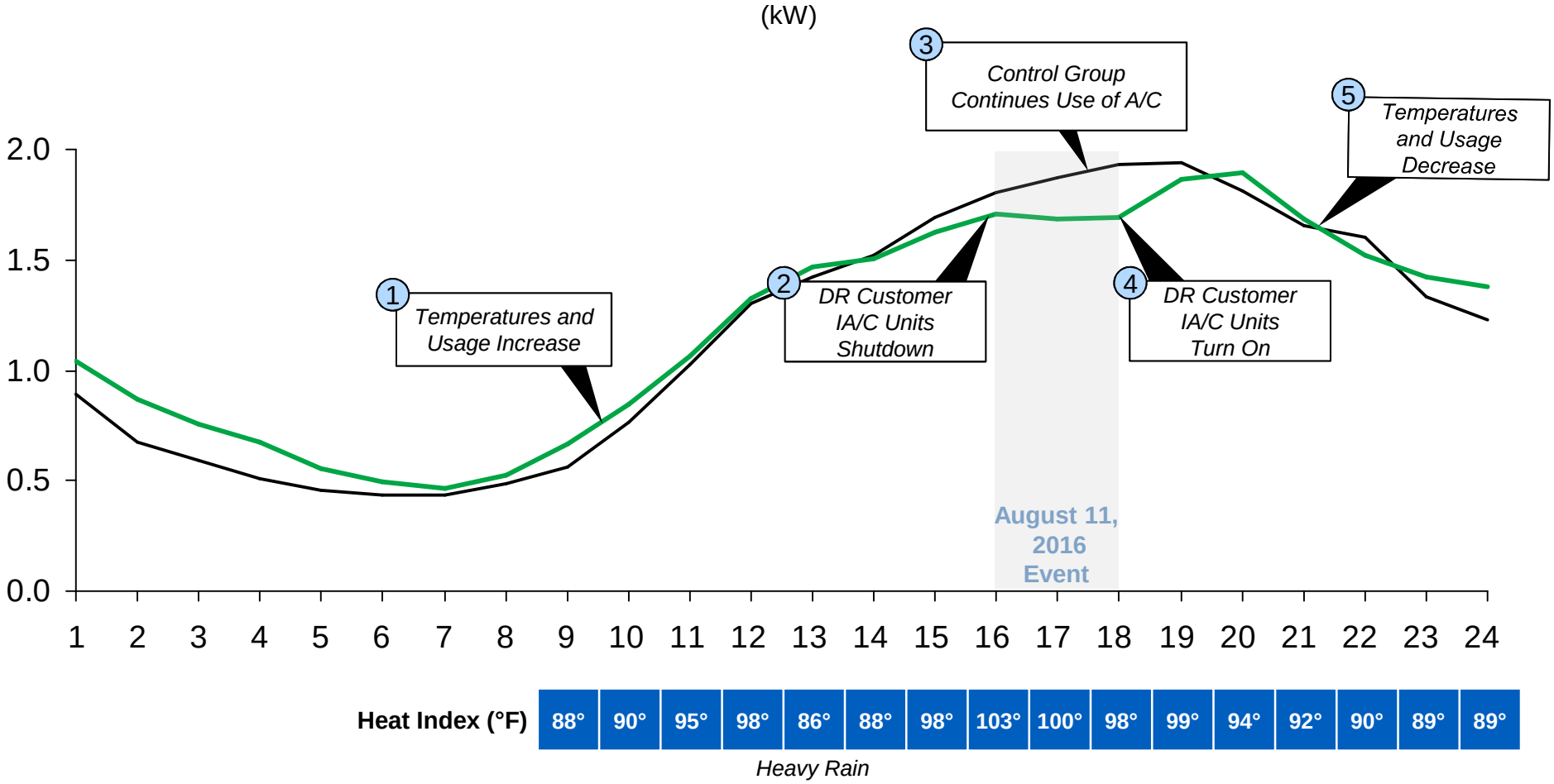
- Michigan Capacity Resource Assessment
1/31/2017

"Regulators and utilities searching ways to bring down electricity costs in the state should take this report's findings to heart and implement effective demand reduction programs."

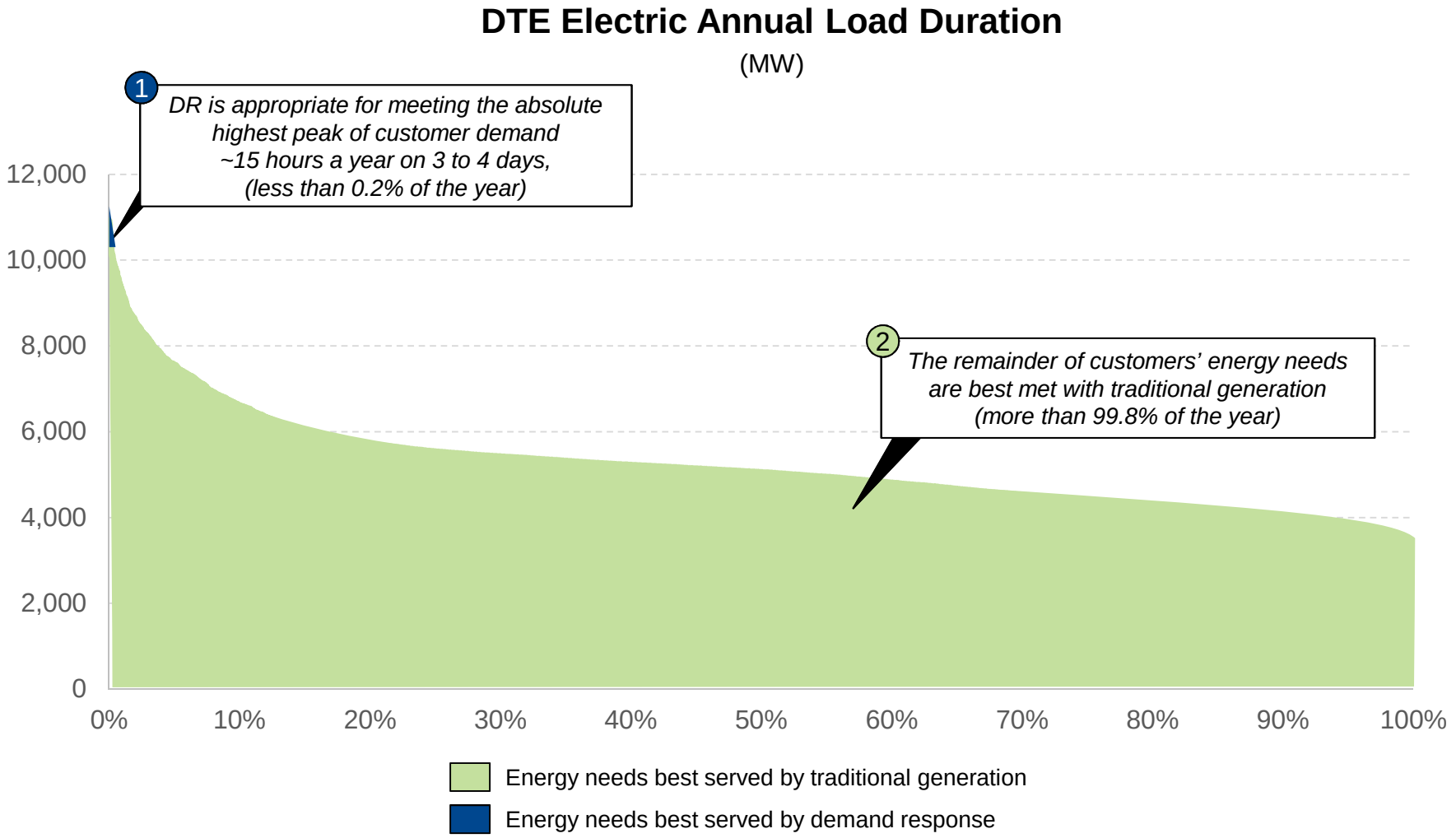
- Liesl Clark, president of the Michigan Energy Innovation Business Council
2/17/2017

DR programs focus on lowering customer usage during times of high energy demand

Average Usage for Residential Interruptible A/C Customer



These programs are intended for use during times when capacity needs are the greatest which accounts for very limited hours each year

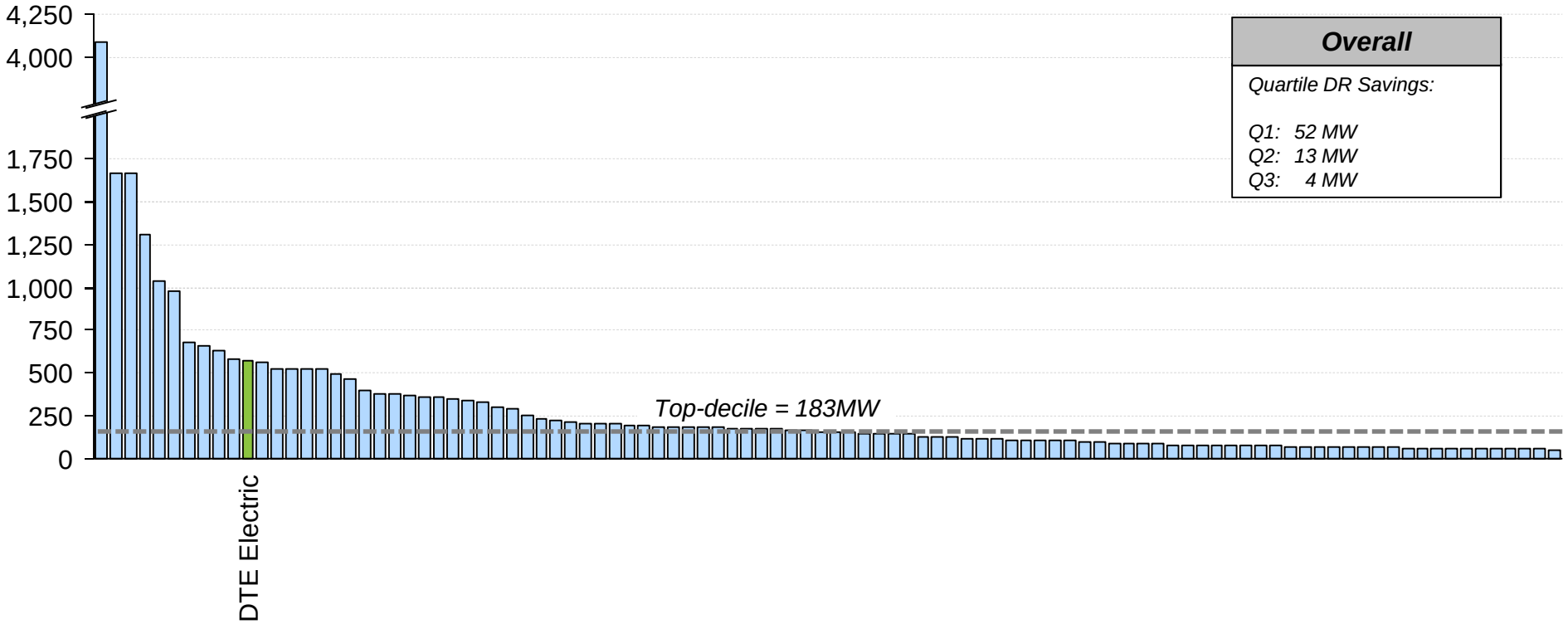


1. 630 MW of market capacity credit

DTE Electric is already one of the largest utility demand response providers in the country

2015 EIA Top 100 DR Programs - Peak Demand Savings[1]

(MW)



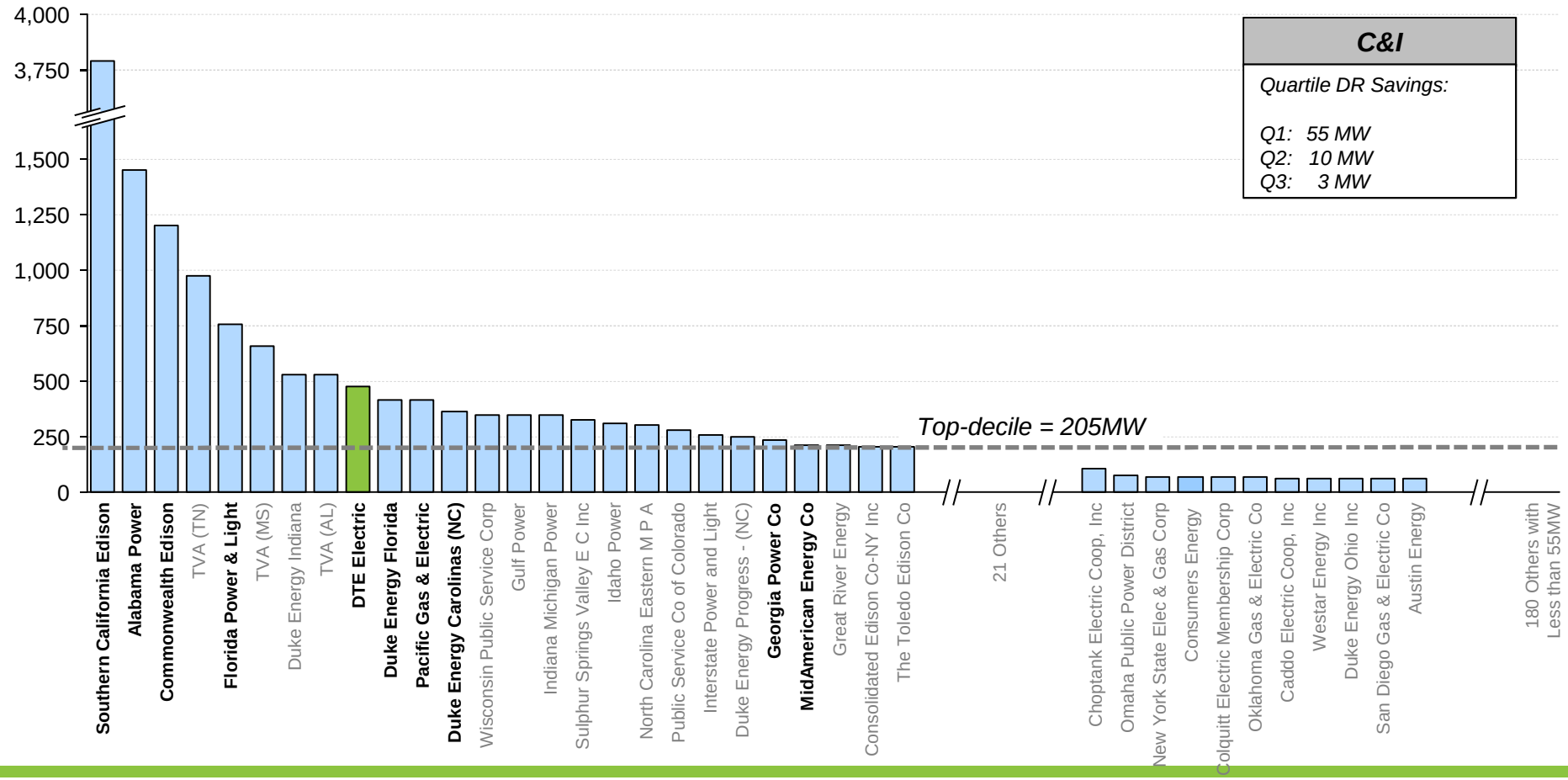
DTE Electric is a leading participant in the demand response sector with active involvement on the Boards of the Peak Load Management Alliance (PLMA) and the Smart Electric Power Alliance (SEPA)

1. Includes commercial, industrial, transportation and residential programs. Based on 2015 EIA reported data. 2017/18 DTE Electric value is self-reported since it is not listed in the EIA database, Claimed capacity value for DTE Electric

In addition to a top-decile C&I program

2015 EIA Top C&I DR Programs - Peak Demand Savings[1]

(MW)



1. Based on 2015 EIA reported data. DTE value is self-reported since it is not listed in the EIA database; Claimed capacity value for DTE Electric

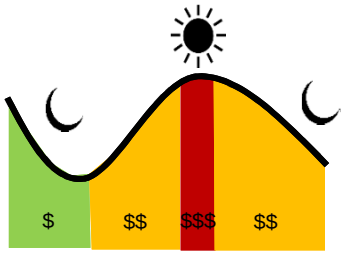
Navigant has stated that DTE Electric provides its commercial and industrial customers with a wide array of the best-in-class DR options

Navigant Best-in-Class Demand Response Options

Direct Load Control

C&I Curtailment

Dynamic Pricing



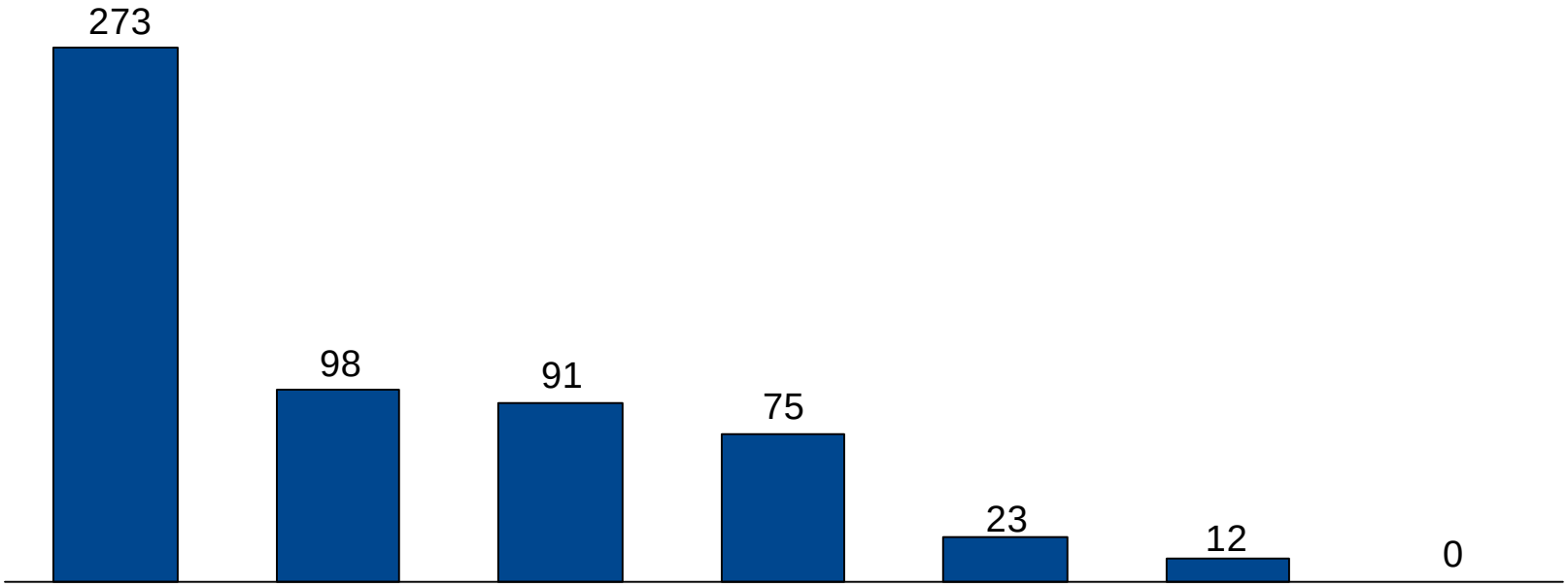
Behavioral DR

DTE Electric product

DTE Electric's 572 MW of demand response program capacity accounts for approximately 6% of our 10,000 MW peak demand in MISO

DTE Electric Demand Response Programs

(MW 2017/18 Planning Year[1])



Customers	60	287,000	156	193	119	53	10,000

1. 630 MW of market capacity credit

Current and Potential Commercial and Industrial Tariff Offerings

D3.3 Interruptible General Service - Available to no more than 300 customers desiring interruptible service in conjunction with service taken under the general service rate. Service to interruptible load shall be taken through separately metered circuits.

D8 Interruptible Primary Supply - All power delivered shall be subject to curtailment on order of the Company. Customers may be ordered to interrupt only when the Company finds it necessary to do so either to maintain system integrity or when the existence of such loads shall lead to a capacity deficiency by the utility.

R1.1 Alternative Metal Melting / R1.2 Electric Process Heat - Customers operating electric furnaces or customers using electric heat as an integral part of a manufacturing process can take interruptible supply at the above rates. The customers must provide separate circuits so that the Company may install necessary meters for only these processes.

R10 Interruptible Supply Rider - Customers desiring interruptible service for a total of not less than 50,000 kilowatts of contracted interruptible service at a single location. Used in conjunction with **D11 – Primary Supply Rate.**

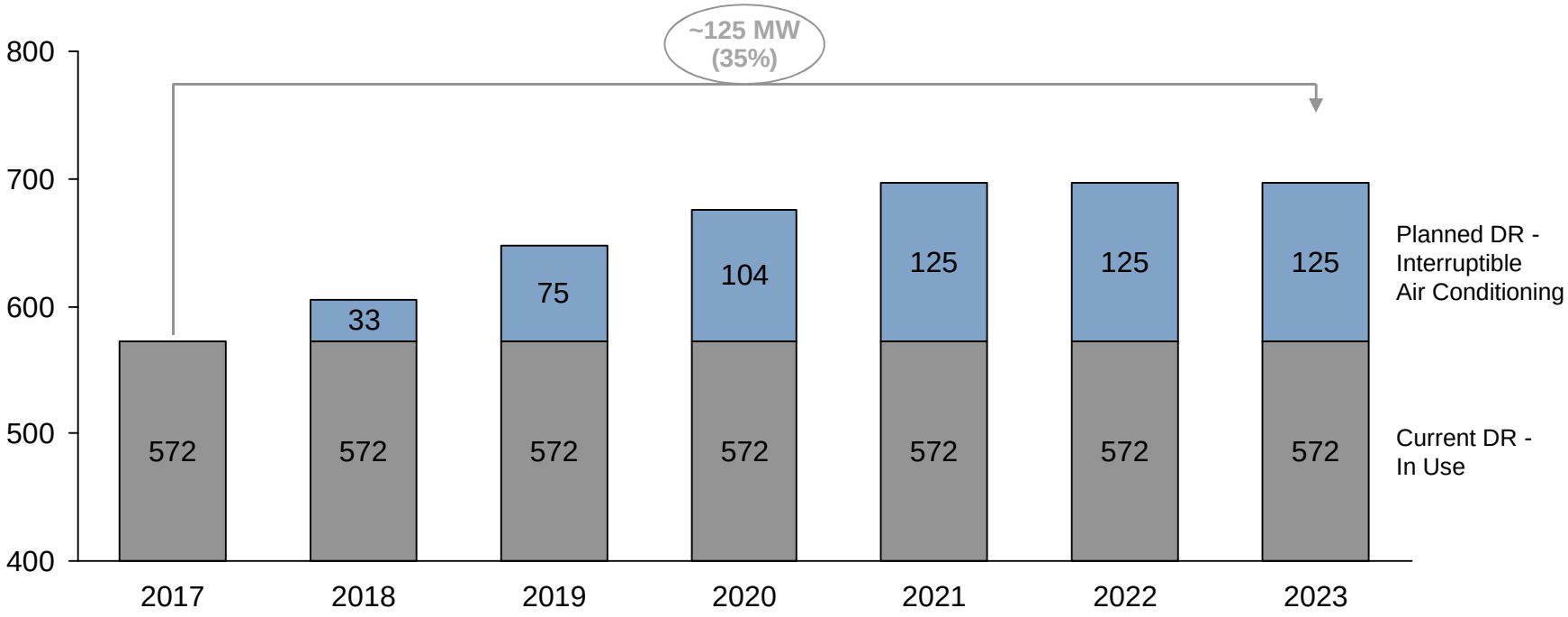
R12 Capacity Release - Available to customers desiring a voluntary capacity release payment for loads not less than 250 kW at a single location. The Company and the customer will mutually agree on the prices, terms, and conditions for load reductions

R13 Dispersed Generation - Available to customers who have on-site generators desiring a voluntary dispersed generation payment for operating their generation at the request of the Company. The customer must have on-site generation of at least 250 kW capacity at a single location. The Company and the customer will mutually agree on the prices, terms, and conditions for dispersed generation power.

DTE Electric currently plans on expanding its residential interruptible air conditioning program by approximately 125 MW

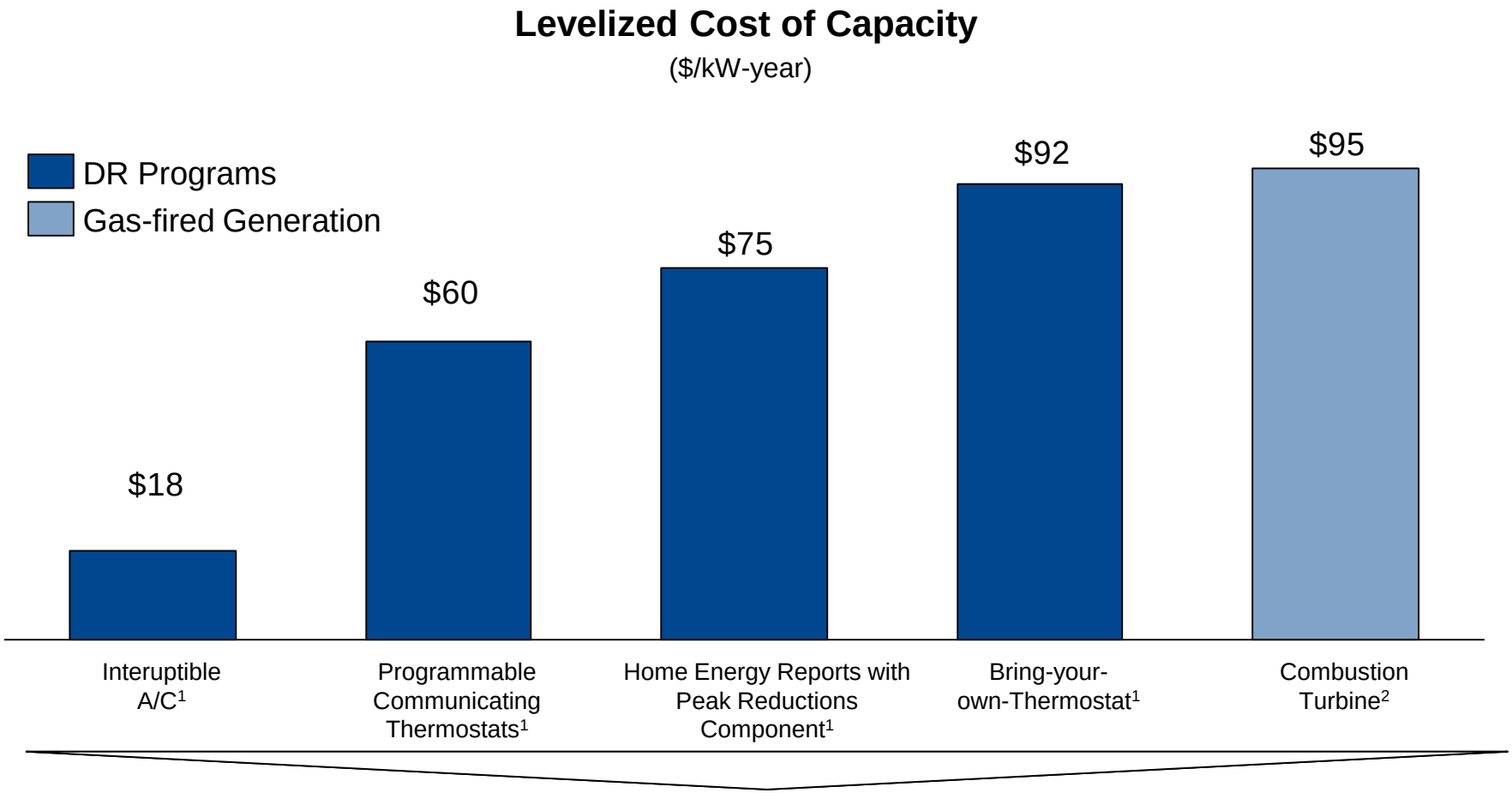
Cumulative Planned Demand Response[1]

(MW)



Nearly $14 million approved in U-18014 to begin the 125 MW of DR investment

For any additional expansion of DR, DTE Electric will evaluate and select programs based upon cost-effectiveness



The levelized cost of capacity for DR programs compares favorably to the cost of a combustion turbine

1. Internal Analysis of Levelized Program Costs
2. MISO Cost of New Entry (CONE) for Planning Year 2016/17

Next Steps for DTE Electric and Demand Response

2017:

- Review of State DR potential study for potential programs and suggested actions to be evaluated
- Monitor proceedings on filed joint comments with Consumers on FERC Notice of Proposed Rulemaking on storage and distributed energy resource aggregators
- Development of Residential Dynamic Peak Pricing and Programmable Communicating Thermostat program as approved in U-18014

2018:

- Pending filed Rate Case with requests in U-18255 for
  - $4.4 million for 11MW of T-Stat
  - $5.1 million for 25MW of IA/C Program rebuild and expansion
  - $1.4 million for new pilot projects to evaluate additional programs / technologies
- File Supply Adequacy Report with MPSC
- Implement Interruptible Rate marketing campaign and demand response outreach including demand response primer and education materials
- Development of compliance plan for U-18369 reporting