

U.S. DEPARTMENT OF  
**ENERGY**

Office of  
ENERGY EFFICIENCY &  
RENEWABLE ENERGY

# CHP/DE Portfolio Meeting – Day Three

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*San Antonio, Texas*

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# *Welcome Back!*

# AMO District Energy Systems Activities

Since FY 2018, AMO has received direction from Congress to support R&D on district energy (DE) systems. The following activities were initiated:

- **FY2018 – Lab Call**
  - NREL/LBNL project to incorporate DE systems in the URBANopt tool
- **FY2019 FOA**
  - Five projects to perform verification and validation on the performance of district energy systems
- **FY 2020 FOA**
  - Two projects to demonstrate flexible CHP systems in a renewably fueled DE system
- **FY2021 FOA**
  - Research on advanced technologies in a renewably supplied DE system

# District Energy Systems and Microgrids

- **2021 FOA**
  - **Advanced Technology Demonstration in a Renewably Supplied District Energy System**
    - Seeking projects that would design, construct, and demonstrate the use/operation of advanced district energy systems supplied by renewable resources.
    - Fuel flexible systems and systems incorporating Flexible CHP, thermal or electric energy storage, or other renewable sources (ie. biomass, geothermal, solar PV, solar thermal, wind, etc) are further encouraged and will receive additional consideration.
    - Also of interest is the conversion of existing fossil-fueled thermal energy generation equipment or CHP systems in district energy systems to renewable fuels.
  - It is the intent of this solicitation to establish the technical basis for utilization of renewable energy systems broadly in district energy applications.
  - Solicitation is closed and selections are pending with announcements in early July

# Additional Activities

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In addition to the preceding research activities, AMO has also supported the following:

- Report to Congress on District Energy Systems
  - Issued in July 2019, available [HERE](#)
- District Energy is included in the CHP Potential Study prepared for DOE by ICF, International
  - Issued March 2016, available [HERE](#)

# Day 3 Meeting Overview

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- **Day Three**
  - District Energy Projects
    - 2018 Lab Call
      - National Renewable Energy Laboratory and Lawrence Berkeley National Laboratory
        - » UrbanOPT Model
    - 2019 FOA – Verification and Validation of District Energy System Performance
      - Five applications selected
        - » Houston Advanced Research Center (HARC)
        - » Paragon Robotics LLC
        - » International District Energy Association (IDEA)
        - » The George Washington University
        - » University of Colorado Boulder





# Questions?

