

Renewable Energy Plan and the Denton Energy Center

Denton Municipal Electric

May 9, 2018



Some background on Denton Municipal Electric:

- Began providing electric service in 1905
- Serves about 53,000 electric customers
- Service area of ~100 square miles
- 34 miles of high voltage transmission circuits
- 810 miles of distribution lines (60% underground)

DENTON ENERGY CENTER



Denton Energy Center Facts

- City of Denton's Largest Capital Improvement Project
- Construction commenced in October of 2016 and was completed in approximately 18 months
- Plant is powered by 12 Wartsila natural gas engines
- The plant can deliver up to 220 MW of power to ERCOT grid in less than 5 minutes.
- The plant's low emissions rate and quick start capability make it suitable to back up wind and solar power supplies
- The plant will enter commercial operations on July 1, 2018

DEC: Natural Gas Engines



DEC: Radiators and Stacks



Wolf Ridge Wind Farm



30 MW “around-the-clock”



Muenster, Texas

DTE Energy Landfill Project

1 MW



Denton, Texas

150 MW

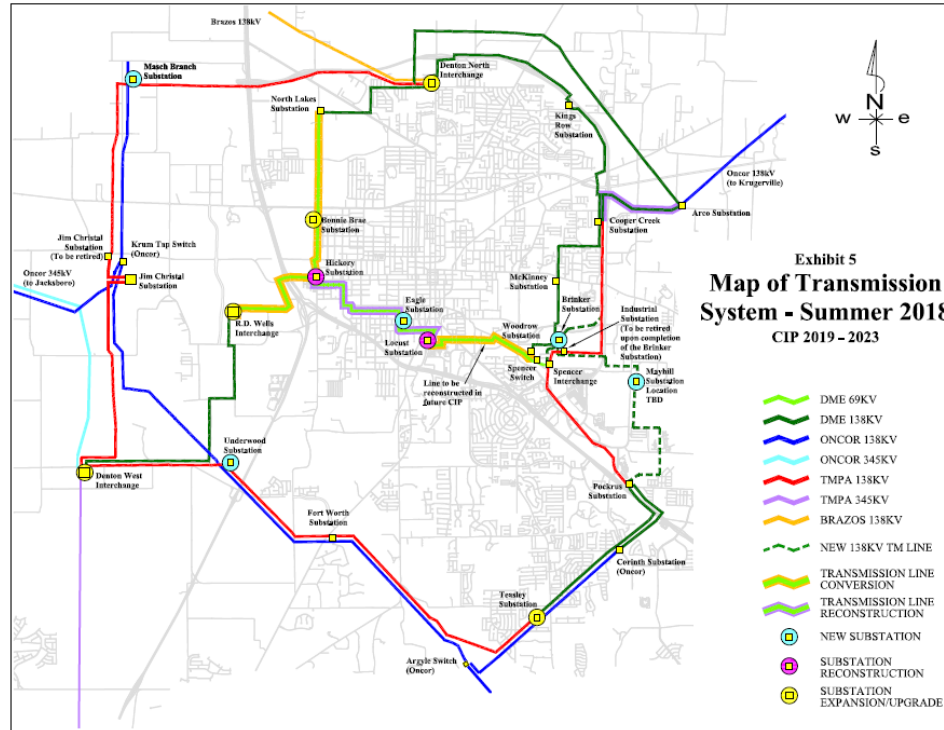


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Renewable Resource Plan

- In February 2018, the Denton City Council adopted the Denton Renewable Resource Plan (DRRP)
- The DRRP provides that DME will be 100% renewable by 2020
- In addition to existing renewable resources, near-term procurement plans are as follows:
 - Acquire an additional 100 MW of west Texas solar (approvals on 5/8)
 - Contract for a second 100 MW of solar from outstanding RFP
 - Procure up to 100 MW of coastal wind later this year
- Retire existing Gibbons Creek plant as early as September 2018 but not later than September 2019

Local Electric Grid



DME -- Prepared for the Future

- Significant expansion and modernization of the local electric system has occurred over the past 6 years and work continues
- Leadership in use of environmentally positive power resources with 100% renewable goal
- Investment in efficient fast start natural gas plant to buffer power costs during peak periods and when renewable resources underperform

