

Renewable Resource Plan

Denton Municipal Electric

February 6, 2018



Background

- **Enterprise Risk Consulting (ERC)** presented a draft Renewable Resource Plan (Plan) to the PUB and City Council in October 2017
- Purpose of presentation was to get direction on four key questions and to present preliminary study results

Key Questions

1. Should Denton accelerate renewable purchases?
YES
2. Should Denton move forward the date of the 100% renewable goal? **YES**
3. Should Denton delay solar purchases because of a potential solar tariff? **NO**
4. Should “WhiteTail” be counted as a renewable resource? **NO**

Existing Power Resources

Generator Name	Type	Location	Capacity (MW)	Official Contract Date	Start Date	End Date	Annual Production (MWh)
WhiteTail (Nextera)	Wind	West Texas	30	5/1/2009	7/1/2011	12/31/2023	262,800.00
BlueBell	Solar	West Texas	30	1/1/2019	1/1/2019	1/1/2039	76,212.00
Santa Rita	Wind	West Texas	150	1/1/2019	4/1/2018	4/1/2038	591,300.00
Landfill	Landfill Generation	Denton	1.6	9/8/2008	9/11/2008	12/31/2024	14,016.00

- Excluding WhiteTail, Denton's renewable portfolio is about 44% of load beginning January 1, 2019

Note: Assumes retirement of Gibbons Creek on September 30, 2018.

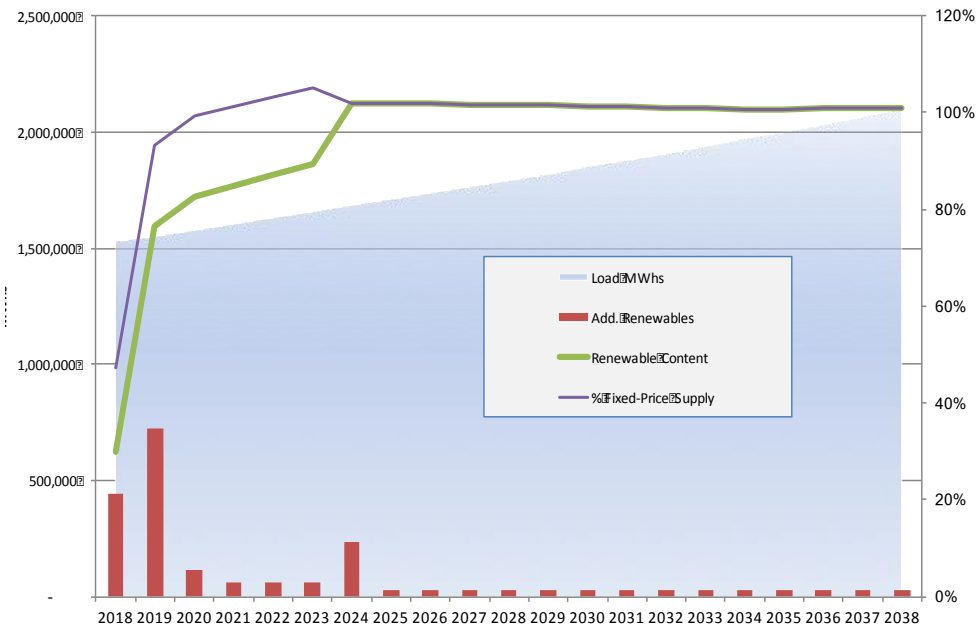
Renewable Evaluation

- Given the direction received, the Plan's principal objective was to evaluate various resource options to move to 100% renewable by 2020
- Findings:
 - Solar in a relatively low congestion zone preferred
 - “Coastal” wind rated second best
 - “Western” wind is lower rated option

100% Renewable Targets

- To get to 100% renewable goal by 2020, the Plan targets the following resource mix:
 - **200 MW Solar and 100 MW Wind**

How Much Renewable to Achieve 100%?



Note: Specific amounts and timing subject to further study.

Current Renewable RFP

- Offers received in October 2017 are under final evaluation
- 40 firms offered 84 unique projects
 - 834 iterations composed of 495 solar, 332 wind and 7 other
- DME, DCM, Purchasing and ERC reviewing offers
- One award anticipated

Future Renewable RFPs

- It is anticipated that several additional RFPs will be issued following project selection from current RFP
- Staff is considering sharing RFP results with other municipal electric utilities
 - Size of renewable project offerings to date supports the possibility of additional participants
 - Possible benefits include lower costs due to scale economies and risk reduction due to diversification
 - Denton may also join in with other municipals on their renewable RFPs.
- City Council's perspective?

Denton Energy Center

- Project is currently 89% complete
- Staffing is ongoing for plant operators, mechanics, technicians
- Commercial operation anticipated for early Summer
- As noted in the Plan, the DEC will provide a “hedge” against ERCOT electric market price spikes
 - Value may increase given the possibility/reality of early retirement of conventional power sources
- All trading/marketing options will be evaluated with a goal of enhancing the DEC's value

WhiteTail

- This 2009 contract (twice extended) with NextEra provides firm “around-the-clock” power with corresponding Renewable Energy Credits
- As noted earlier, direction was given that WhiteTail energy not be considered as renewable
 - Concern is that the source of electricity delivered to Denton is not really renewable based
- Staff is doing deeper research into the WhiteTail transaction
- If new, relevant information is developed, it will be compiled and presented to the PUB/CC for consideration

Summary

- A Renewable Resource Plan has been developed for Denton
- The primary objective of the Plan is to provide strategic input to achieve a 100% renewable goal by no later than 2020
- The highest rated renewable is Solar followed by Coastal Wind
- Evaluation of renewable offers received under current RFP is ongoing
- Future Solar and Wind RFPs are planned with possible participation by other municipals

Recommendation

- It is requested that the City Council approve a Resolution to formally adopt the Renewable Resource Plan