



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Meeting Agenda

Sustainability Framework Advisory Committee

Friday, August 22, 2025

1:00 PM

City Council Work Session Room

After determining that a quorum is present, the Sustainability Framework Advisory Committee of the City of Denton, Texas will convene in a Regular Meeting on August 22, 2025, at 1:00 p.m. in the Council Work Session Room at City Hall, 215 E. McKinney Street, Denton, Texas at which the following items will be considered:

1. ITEMS FOR INDIVIDUAL CONSIDERATION

- A. [SFAC25-022](#) Consider approval of the July 25, 2025 minutes.

Attachments: [SFAC Minutes 07.25.25](#)

- B. [SFAC25-026](#) Receive a report and hold a discussion regarding updates to the Denton Renewable Resource Plan and the potential acquisition of additional dispatchable generation.

Attachments: [Exhibit 1. Agenda Information Sheet](#)
[Exhibit 2. Presentation](#)

- C. [SFAC25-020](#) Receive a report, hold a discussion, and give staff direction on the new public-facing City of Denton Air Quality Dashboard.

Attachments: [Exhibit 1. Agenda Information Sheet](#)
[Exhibit 2. Presentation](#)

- D. [SFAC25-021](#) Receive a report, hold a discussion, and give staff direction on Sustainability Framework Fund 2024- 2025 programs and 2025-2026 prioritization.

Attachments: [Exhibit 1. Agenda Information Sheet](#)
[Exhibit 2. Presentation](#)

- E. [SFAC25-025](#) Staff Reports

1. Matrix

Attachments: [Matrix](#)

2. CONCLUDING ITEMS

A. Under Section 551.042 of the Texas Open Meetings Act, respond to inquiries from the Sustainability Framework Advisory Committee or the public with specific factual information or recitation of policy, or accept a proposal to place the matter on the agenda for an upcoming meeting AND Under Section 551.0415 of the Texas Open Meetings Act, provide reports about items of community interest regarding which no action will be taken, to include: expressions of thanks, congratulations, or condolence; information regarding holiday schedules; an honorary or salutary recognition of a public official, public employee, or other citizen; a reminder about an upcoming event organized or sponsored by the governing body; information regarding a social, ceremonial, or community event organized or sponsored by an entity other than the governing body that was attended or is scheduled to be attended by a member of the governing body or an official or employee of the municipality; or an announcement involving an imminent threat to the public health and safety of people in the municipality that has arisen after the posting of the agenda.

CERTIFICATE

I certify that the above notice of meeting was posted on the official website (<https://tx-denton.civicplus.com/242/Public-Meetings-Agendas>) and bulletin board at City Hall, 215 E. McKinney Street, Denton, Texas, on August 19, 2025, in advance of the 72-hour posting deadline, as applicable, and in accordance with Chapter 551 of the Texas Government Code.

OFFICE OF THE CITY SECRETARY

NOTE: THE CITY OF DENTON'S DESIGNATED PUBLIC MEETING FACILITIES ARE ACCESSIBLE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY WILL PROVIDE ACCOMMODATION, SUCH AS SIGN LANGUAGE INTERPRETERS FOR THE HEARING IMPAIRED, IF REQUESTED AT LEAST 48 HOURS IN ADVANCE OF THE SCHEDULED MEETING. PLEASE CALL THE CITY SECRETARY'S OFFICE AT 940-349-8309 OR USE TELECOMMUNICATIONS DEVICES FOR THE DEAF (TDD) BY CALLING 1-800-RELAY-TX SO THAT REASONABLE ACCOMMODATION CAN BE ARRANGED.



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Legislation Text

File #: SFAC25-022, **Version:** 1

AGENDA CAPTION

Consider approval of the July 25, 2025 minutes.

**CITY OF DENTON SUSTAINABILITY
FRAMEWORK ADVISORY COMMITTEE MINUTES
July 25, 2025**

After determining that a quorum was present, the Sustainability Framework Advisory Committee of the City of Denton, Texas convened in a Regular Meeting on Friday, July 25, 2025, at 1:00 p.m. in the City Council Work Session Room at 215 E. McKinney St, Denton, Texas.

PRESENT: Chair Edward Soph, Vice Chair Brand Richter, Member Dave Helms, Member Adam Briggie, and Member Camelia Maier.

LEGAL REPRESENTATION: Christopher Mullins

ABSENT: None

REGULAR MEETING

1. ITEMS FOR INDIVIDUAL CONSIDERATION

A. SFAC25-015 Consider approval of the February 28, 2025, minutes.

Chair Soph requested consideration of previous meeting minutes for February 28, 2025, with an adjustment, under SFAC25-011 Staff Reports/Matrix, to add the word “climate” before “risk assessment” to read “climate risk assessment” of the City’s infrastructure.

Chair Soph requested a motion for approval. Member Briggie moved to approve the minutes. Member Richter seconded. Motion carried.

AYES (5): Chair Soph, Vice Chair Richter, Member Helms, Member Briggie and Member Maier

NAYS (0): None

B. SFAC25-014 Receive a report, hold a discussion, and give staff direction on the update regarding the Simply Sustainable Framework.

The item was presented by Julissa Amador with the Environmental Services & Sustainability Department. Julissa discussed the Simply Sustainability Framework Update including goals, municipal operations strategies, and community action strategies.

Members asked questions and held a discussion.

C. SFAC25-012 Receive a report, hold a discussion, and give staff direction on the update regarding GreenSense Energy Efficiency Incentive Program results for Fiscal Year 2023-2024.

The item was presented by Kaitlynn Davis with Environmental Services & Sustainability Department. Kaitlynn discussed GreenSense Energy Efficiency Incentive Program Reductions for Fiscal Year 2023-2024. She further discussed its background, kilowatt hour (kWh) reductions and greenhouse gas emissions reductions from GreenSense rebates as well as the program's changes, current performance, highlights, and next steps.

Members asked questions and held a discussion.

D. SFAC25-013 Receive a report, hold a discussion, and give staff direction regarding Fiscal Year 2024-2025 GreenSense Incentive Program.

The item was presented by Katherine Barnett with Environmental Services & Sustainability Department. Katherine discussed the GreenSense Incentive Program for Fiscal Year 2024-2025 including its trends, background, advertising & awareness regarding citizen connection, social media, classes and events as well as additional considerations and next steps.

Members asked questions and held a discussion.

E. SFAC25-018 Receive a report, hold a discussion, and give staff direction on the update regarding Denton's Climate Action Plan goals, measures, and dashboard.

The item was presented by Katherine Barnett with Environmental Services & Sustainability Department. Katherine discussed Denton's Climate Action Plan, focusing on its accomplishments for Fiscal Year 2023-2024, and the goals for transportation, building measures and land use for both communities and municipalities.

Members asked questions and held a discussion.

F. SFAC25-016 Staff Reports

1. Water Conservation Update
2. Mid-year Summary Memo
3. Meeting Follow Up
4. Greenhouse Gas Inventory Update
5. Matrix

Member Richter requested dates be provided from Water (Utilities) regarding their water licensing programs specifically, the Turf Buy-Back Incentive Program and the Irrigation Evaluations Incentive Program. He requested an update regarding how the programs have done over the year especially while looking over the budgets for next year. He further requested to hear from other departments regarding strategies and plans that Denton is developing for flooding risks.

Member Briggie requested updates regarding the new gas-fired power plant in the City of Denton. He supports the mayor's statement regarding a robust public input process and discussed that SFAC could possibly play a part in that process.

Chair Soph requested that DME gives SFAC presentations when they have completed their Integrated Resource Plan and the City's Renewable Energy Policy. He further requested that the city looks at a return of solar rebates and institutes new rebates for battery storage as well as type 2 car chargers. He further requested discussion about incentives for white roofs, permeable sidewalks and driveways and concrete that reflects heat.

2. CONCLUDING ITEMS

With no further business, Chair Soph adjourned the meeting at 2:13 p.m.

Edward Soph
Chair
City of Denton, Texas

Meredith Owens
Administrative Assistant III
City of Denton, Texas



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Legislation Text

File #: SFAC25-026, **Version:** 1

AGENDA CAPTION

Receive a report and hold a discussion regarding updates to the Denton Renewable Resource Plan and the potential acquisition of additional dispatchable generation.



AGENDA INFORMATION SHEET

DEPARTMENT: Denton Municipal Electric

DCM: Cassey Ogden

DATE: August 22, 2025

SUBJECT

Receive a report and hold a discussion regarding updates to the Denton Renewable Resource Plan and the potential acquisition of additional dispatchable generation.

BACKGROUND

As indicated in the prior action section of this document, DME has received direction from the City Council to: (1) create a Denton Renewable Energy Policy; (2) create an Integrated Resource Plan; and (3) explore the acquisition of up to 600 MW of dispatchable generation. Staff would encourage Committee Members to review the related meeting video archive and backup documentation for additional information related to these three areas of direction. Below is a high-level overview of each of the three areas of direction:

1. **Renewable Energy Policy** – DME staff anticipate that this process will take 6-9 months to create and bring back to the City Council for consideration. Given additional direction for public input, this process may take additional time. The goals of this policy, among other things, are to ensure that the goal is clearly outlined, address the differences and treatment of Renewable Energy Credits, treatment of Large Loads greater than 5 MW, and provide for a formulaic calculation of the goal. This policy, along with the Integrated Resource Plan, would replace the 2018 Denton Renewable Resource Plan (DRRP).
2. **Integrated Resource Plan** – DME staff anticipate that this process will take 18-24 months to create and bring back to the City Council for consideration. Opportunities for public input were already envisioned for this process and would be included in the scope of work for one or more external consultants that would be engaged for this project. While the 2018 DRRP had components of an integrated resource plan, it was singularly focused on intermittent, renewable (solar and wind) generation through power purchase agreements. Since 2018, and especially after Winter Storm Uri in February 2021, there have been numerous market and regulatory changes in the State that have impacted the wholesale electric market and the development of renewable resources. In addition, global supply chain challenges and Federal initiatives have also negatively impacted the development of renewable resources. Finally, demand for energy in the State, from all sectors including Large Loads, continue to drive electric prices higher. As such, the envisioned integrated resource plan would be forward looking to the next 15-20 years and provide to DME the mix of generation, and demand-side management programs, that would be required to continue providing the Denton community with safe, reliable and affordable power.

3. **Dispatchable Generation Acquisition** – To be clear, the direction provided to DME staff was to explore whether there is the possibility of acquiring an existing dispatchable generation resource. The City Council did not approve its acquisition. DME staff provided the City Council with some parameters that might drive this exploration and the basis for this need. As of today, and primarily given additional Federal initiatives, DME staff have not begun the exploration.

DME staff are providing responses below to two questions raised by Committee Members at their last meeting:

1. A new power plant in Denton?

Response: DME staff have not proposed a new power plant in Denton given that there is no viable acquisition possible, Denton is located in the DFW non-attainment area that would likely limit a new power plant's economic viability, and it would likely represent a competing resource to DME's Denton Energy Center.

2. Provide an update on the Renewable Energy Policy and Integrated Resource Plan?

Response: DME staff are working internally on the Renewable Energy Policy and communicated to the City Council that this process would take 6-9 months. Given additional direction for public input, this process may take additional time. Regarding the Integrated Resource Plan, DME staff are working internally on a scope of work and plan to conduct a public solicitation for an external consultant(s) to complete this project. Project completion is anticipated to take 18-24 months.

DME staff look forward to discussing the direction provided by the City Council and responding to questions from the Committee.

PRIOR ACTION/REVIEW (Council, Boards, Commissions)

On May 19, 2025, the Public Utilities Board gave unanimous direction to recommend that the City Council approve staff's recommendations with consideration to give the public an opportunity to provide input on the City Renewable Energy Policy.

On June 3, 2025, the City Council received a report, held a discussion and gave staff direction to proceed with the creation of a City Renewable Energy Policy and an Integrated Resource Plan.

On June 17, 2025, the City Council received a report, held a discussion and gave staff direction to explore the acquisition of up to 600 MW of dispatchable generation.

On July 14, 2025, the Public Utilities Board receive a report, held a discussion on Council's direction to explore the acquisition of up to 600 MW of dispatchable generation. Given that Council had already given direction, the Public Utilities Board provided no recommendation.

EXHIBITS

1. Agenda Information Sheet
2. Presentation

Respectfully submitted:
Antonio Puente, Jr.
940-349-8487
DME General Manager



Denton Renewable Resource Plan Update and Acquisition of Dispatchable Resource

Antonio Puente, Jr.

General Manager

Denton Municipal Electric

August 22, 2025



Agenda

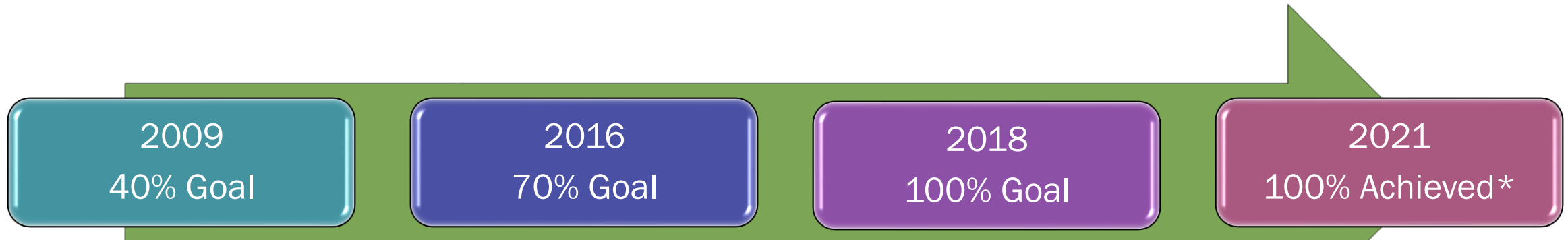
- Part 1 – Renewable Energy Policy
- Part 2 – Integrated Resource Plan
- Part 3 – Acquisition of Dispatchable Generation
- Questions

Denton Renewable Resource Plan

- Adopted in 2018 (Resolution No. 18-085)
 - Goal was to achieve 100% renewable energy as early as either 2020 or 2024.
 - Through acquisition of diversified set of power purchase agreements for renewable energy resources.
 - Five objectives: Pricing factors including least-cost supplies; uncertainty (risk) reduction; sustainability; competitiveness; and the efficient management of a renewable resource power supply portfolio.
 - Recognized the Denton Energy Center as a cost hedge during certain super high-priced hours.
 - Acknowledged the greatest challenge is balancing the supply portfolio around intermittent renewables.
 - Identified the need to create a portfolio hedging plan and strategies.

Contracted Resources (Capacity)				
Name	Type	MWs	Term	Expires
Santa Rita	Wind	150	20 yrs.	Apr. 2038
Bluebell 1	Solar	30	20 yrs.	Nov. 2038
Bluebell 2	Solar	100	15 yrs.	Jun. 2035
Longdraw	Solar	75	15 yrs.	Jun. 2035
Yellow Viking	Solar	100	15 yrs.	Dec. 2041
Total - All		455		

Renewable Goal Timeline



Calendar Year	Load Served (MWh)	Renewable Energy (MWh)	RECs w/o Energy (MWh)	Total Renewable (MWh)	Renewable %
2021	1,593,440	1,343,789	262,800	1,606,589	101%
2022	1,750,135	1,396,335	353,800	1,750,135	100%
2023	1,749,737	1,480,144	269,593	1,749,737	100%
2024	1,776,322	1,375,792	400,530	1,776,322	100%

Renewable Energy Policy

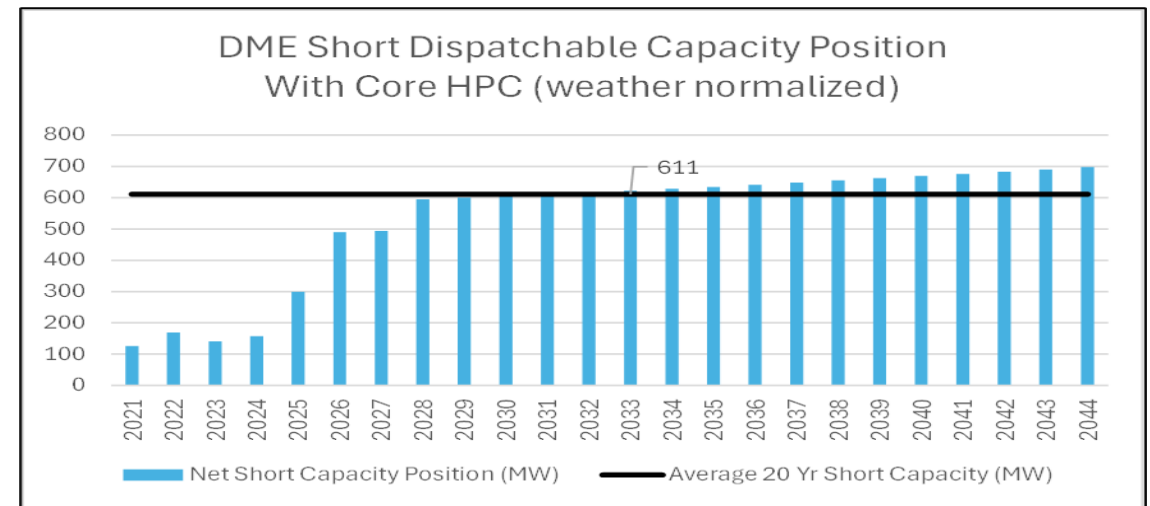
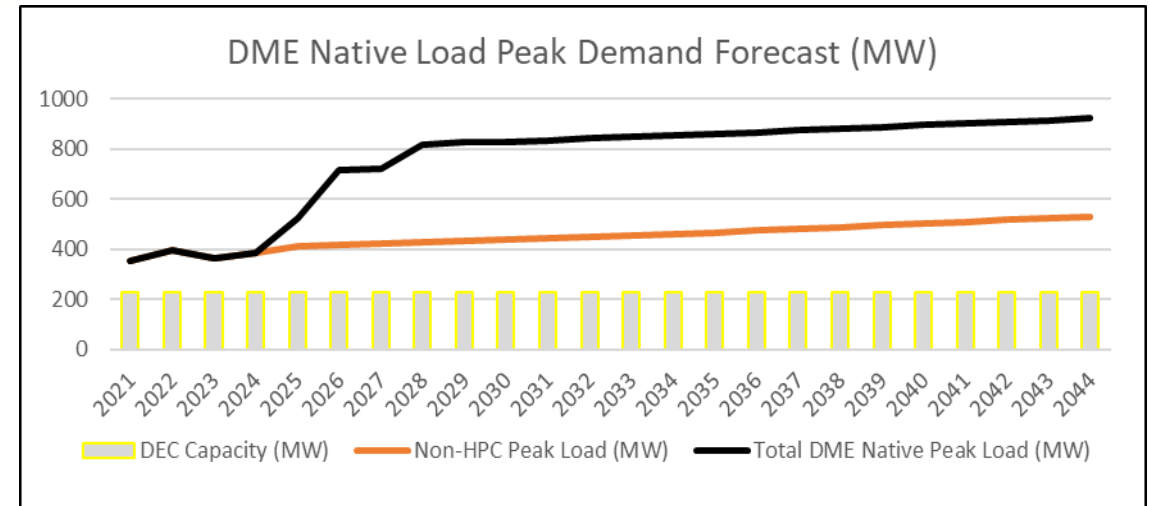
- Creation of a City Renewable Energy Policy
 - Policy Statement – This policy would only address the environmental (“offset”) goal of matching the annual load served with renewable energy, and not the resource mix needed to manage DME’s power portfolio and reliability needs.
 - Allowable Resources – Only those identified in the Texas Renewable Portfolio Standard (RPS).
 - Treatment of Renewable Energy Credits (RECs) & Compliance Premiums (CPs) (**addresses Internal Audit finding**)
 - Retire RECs and CPs counted toward the 100% goal.
 - DME to sell any excess RECs and CPs, when available, since they are not “rolled over” to the following year.
 - When needed to meet the 100% goal, DME to purchase RECs and CPs but only those generated in the same year they are counted.
 - Treatment of Large Loads > 5 MWs
 - DME will evaluate each load to determine if long or short-term energy contracts are viable or if only purchasing RECs and CPs is more appropriate. For new and emerging loads, the strategy could be split until such time as the specific load develops and proves to be more certain.
 - Goal Calculation (**addresses Internal Audit finding**)
 - Annual Goal Progression Reporting (**addresses Internal Audit finding**)
 - Glossary

What is an IRP?

- A plan created by an electric utility that outlines its strategy for meeting future electricity demand by considering both supply-side options (like building new generation resources) and demand-side options (like energy efficiency programs), aiming to achieve a cost-effective and reliable electricity supply while taking environmental factors into account; essentially, it's a roadmap for how a utility plans to generate electricity over a long period, typically 15-20 years, by balancing different resource options to best serve its customers.
- Key Points:
 - Comprehensive approach.
 - Future-oriented.
 - Cost-effectiveness.
 - Regulatory compliance.
 - Stakeholder involvement.

DME Load Forecast

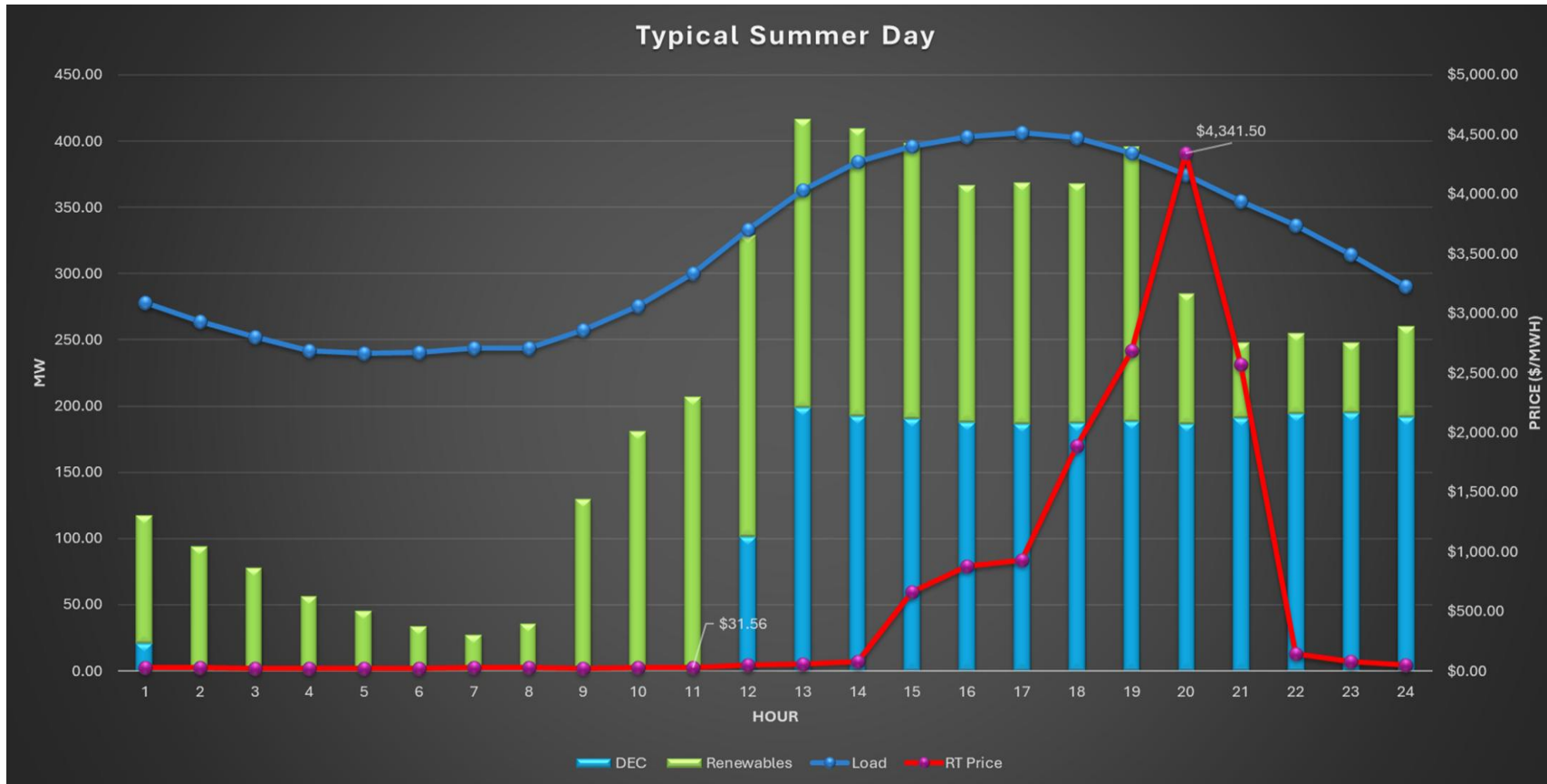
- Today, DME has a dispatchable power deficit of 183 MWs (DEC @ 225 MW less 408 MW Peak Load).
- By 2033, DME forecasts the deficit will grow to 386 MWs. (DEC @ 225 MW less 611 MW Peak Load).
- By 2044, DME forecasts the deficit will grow to 675 MWs. (DEC @ 225 MW less 900 MW Peak Load).
- DME's current forecast does not include any other large load developments although there continues to be interest. Main barrier for at least 2-3 years is infrastructure improvements.



Integrated Resource Plan

- Creation of a long-term Integrated Resource Plan, preferably 20 years:
 - Evaluate and integrate various types of resources while maintaining City's renewable energy goal.
 - Prioritize renewable resources such as nuclear, hydrogen, geothermal and battery storage as DME's load justifies these types of resources and where possible, leveraging federal and state funding opportunities.
 - Consider short-term needs to reduce rate risk while seeking opportunities that may reduce environmental impacts through innovative technologies or business opportunities to replace older, less efficient resources.
 - Incorporate and develop local demand-side management programs, and community solar installations greater than 1 MW to effectuate reductions in load.
 - Developed in concert with City's Climate Action Plan goals.
 - Utilize an external firm specialized in the development of IRPs with a focus on community engagement.
 - Staff would anticipate this would take 18-24 months to create.

How DME Works



- August 25, 2023.
- Wind/Solar PPAs priced \$20-\$40 per MWH.
- DEC strike price about \$35 per MWH.
- High prices hour 15-22.
- Demand exceeded forecast due to high temp late into the evening.
- Cost exceeded \$1 million for this period.
- In 2023, this was the trend from the last week in July thru the first week in September, and cost DME \$31 million in unanticipated costs.

Generation Need

➤ LOAD FORECAST:

- ☐ Today – 183 MW short (408 MW Peak Load vs 225 MW from DEC)
- ☐ 2033 – 386 MW short (611 MW Peak Load vs 225 MW from DEC)
- ☐ 2044 – 675 MW short (900 MW Peak Load vs 225 MW from DEC)
- ☐ Native (non-large load) growth projected to grow 100 MW by 2036. Generation shortage = 283 MW.
- ☐ Forecasted load does not assume any other large loads.

➤ SCARCITY PERIODS (DUCK CURVE) & PRICE RISK:

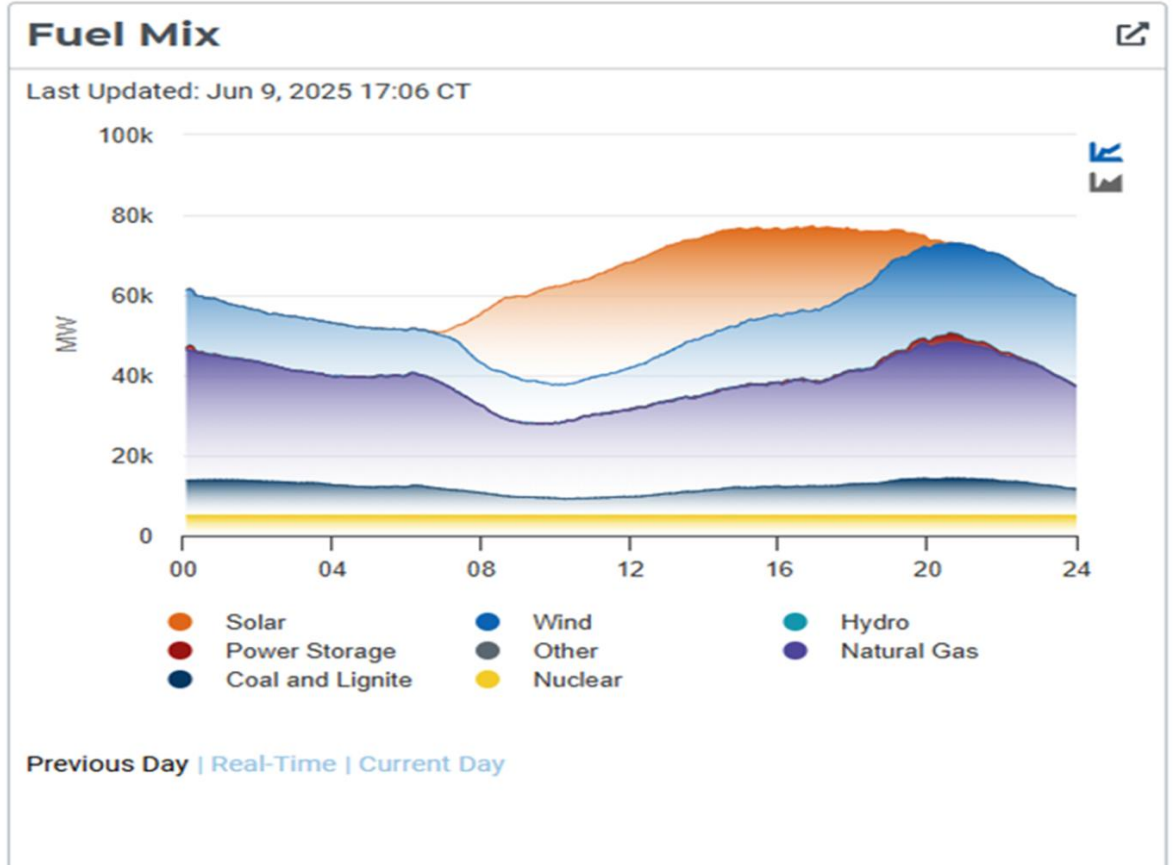
- ☐ Summer – 6 pm to 10 pm
- ☐ Winter – 7 am to 9 am and 6 pm to 10 pm
- ☐ Power prices during these periods can go to \$5,000 per MWH (\$9,000 per MWH during Winter Storm Uri).
- ☐ Wind and Solar generation not suited to meet this need and Battery Storage may be marginally viable although economics and technology may improve its viability.
- ☐ Winter Storm Uri – Financed \$140 million over 30 years (payoff in 2051).
- ☐ Summer of 2023 – Financed \$31 million over 5 years (payoff in 2029).

➤ PRIMARY NEED AND CONSIDERATIONS:

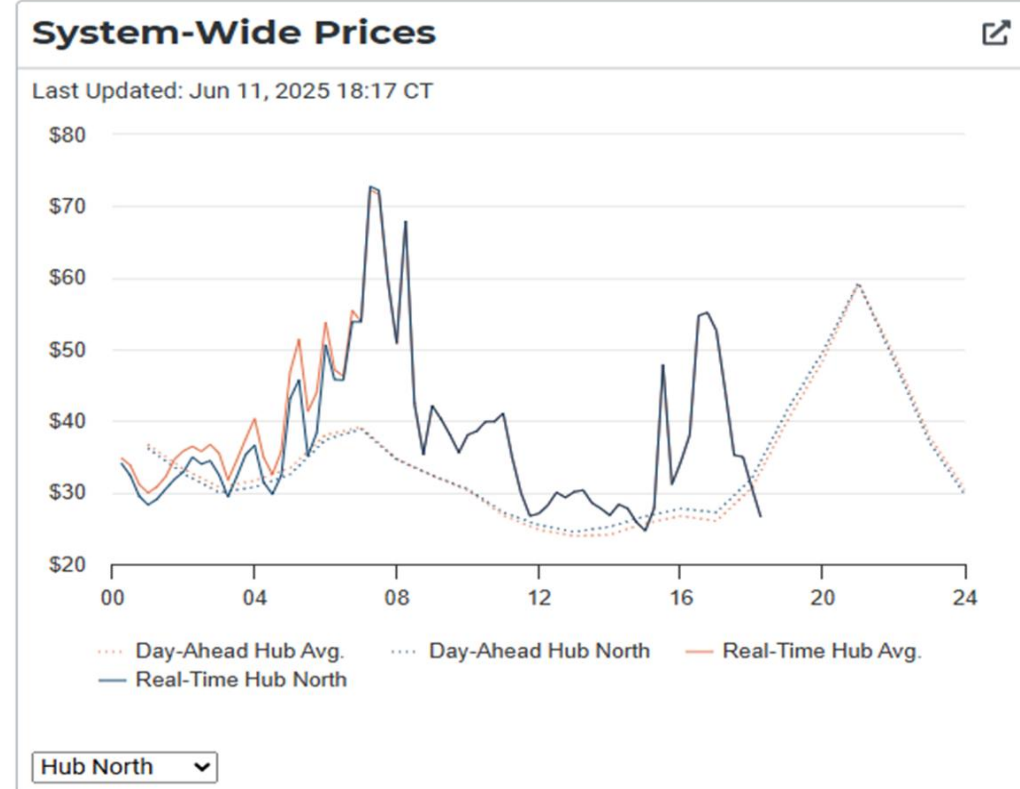
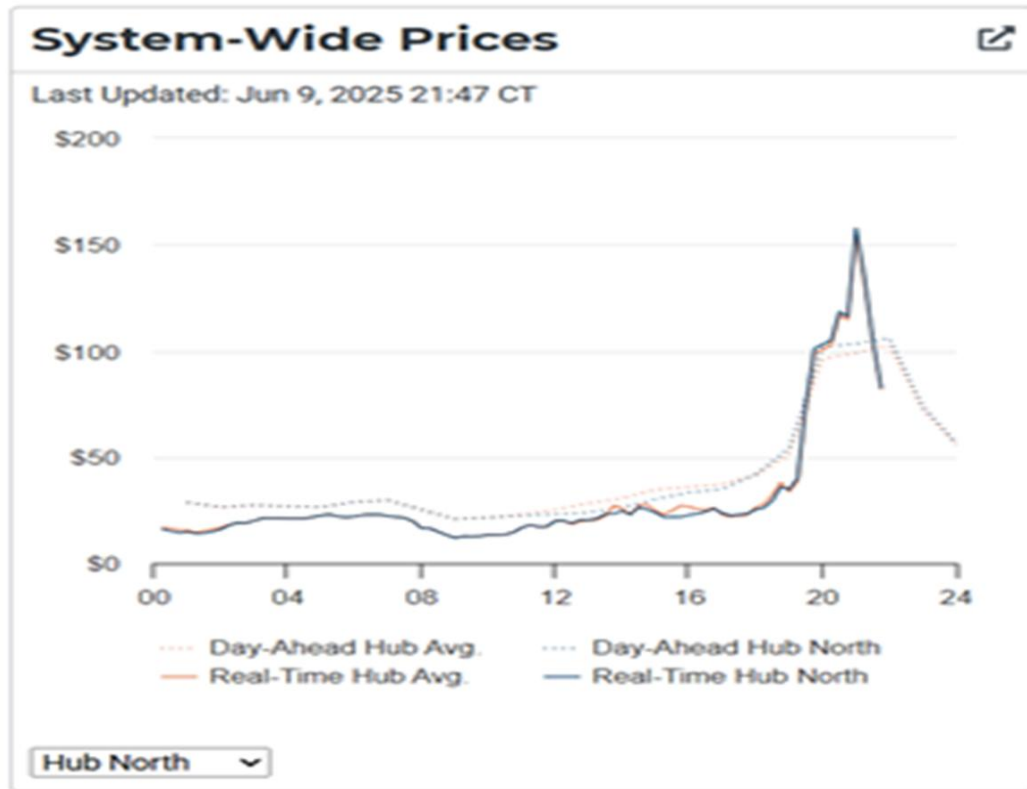
- ☐ Dispatchable Quick Start Generation – Produces power when we need it to protect against energy price increases.
- ☐ Only viable acquisition possibilities are existing natural gas facilities or proposed natural gas facilities.
- ☐ Future planning for other fuel types could be major design/re-design consideration.
- ☐ Reduces energy price risk exposure since it would be available sooner than a green field development.
- ☐ **Not in the city of Denton.**
- ☐ **Acquisition of an existing facility is a net zero impact to the environment and may represent a reduction if re-designed.**
- ☐ Public-Public and Public-Private Partnership(s) may represent opportunities for economies of scale and cost sharing.
- ☐ As a market participant, DME is also responsible for the reliability of the ERCOT grid in ensuring there is sufficient power to meet our customer's needs. Without these investments, shortages will continue, and prices will continue to escalate.

Power Trends

June 8, 2025	7:00 a.m.	Noon	8:00 p.m.
Solar	1,092 MW (2.1%)	26,274 MW (38.5%)	2,249 MW (3%)
Wind	11,916 MW (23.4%)	10,216 MW (15%)	23,123 MW (31.2%)
Hydro	138 MW (0.3%)	140 MW (0.2%)	207 MW (0.3%)
Power Storage	14 MW (0.0%)	338 MW (0.5%)	940 MW (1.3%)
Natural Gas	26,150 MW (51.3%)	21,499 MW (31.5%)	33,305 MW (44.9%)
Coal/Lignite	6,608 MW (13%)	4,688 MW (6.9%)	9,221 MW (12.5%)
Nuclear	5,021 MW (9.9%)	5,018 MW (7.4%)	5,013 MW (6.8%)
TOTAL GENERATION	50,939 MW	68,173 MW	74,058 MW



Pricing Trends



Rate Comparison

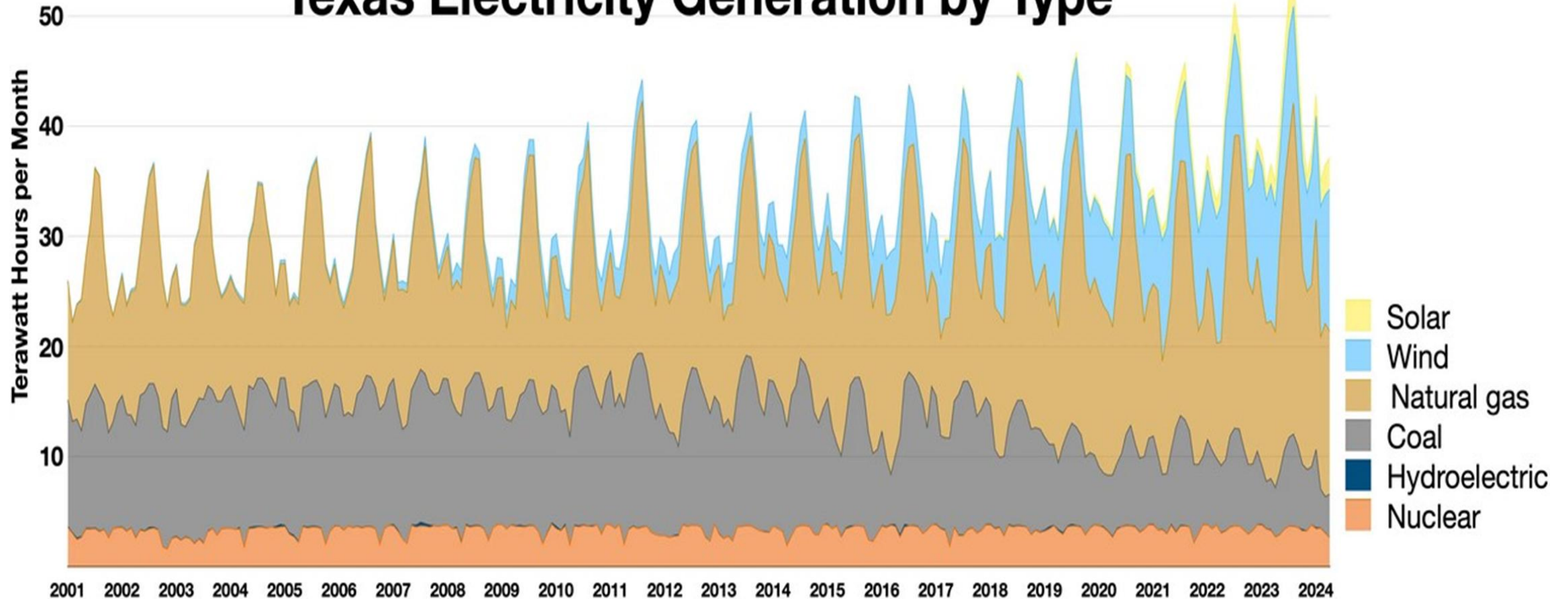
Residential - Avg (1,000 kWh)	Per kWh	Monthly Bill	Incremental Cost per Year	Commercial Customers	Current	w/o Additional Generation	w/ Additional Generation	Deferred Costs per Year
DME – Current	14.2 cents	\$142.00	-	General Service Small (1,101 kWh)	\$182.33	\$195.65	\$183.32	(\$147.96)
DME - w/o DEC*	15.0 cents	\$150.00	\$96.00	General Service Medium (13,717 kWh & 48 kW)	\$1,780.94	\$1,946.92	\$1,793.29	(\$1,843.56)
DME – w/ Additional Generation	14.3 cents	\$143.00	\$12.00	General Service Large (342,406 kWh & 867 kVA)	\$38,419.39	\$42,562.51	\$38,727.56	(\$46,019.40)
DME - w/o Additional Generation	15.4 cents	\$154.00	\$144.00					
Power to Choose Avg. – 12- month contract	15.15 cents	\$151.50						
Power to Choose Avg. – 24- month contract	15.8 cents	\$158.00						
Provider of Last Resort (POLR) – TXU Energy	19.8 cents	\$198.00						

*Assumes replacement of approximately \$40 million in foregone DEC gross margin through increase in the ECA rate paid by DME ratepayers. Does not account for an additional \$20 million in increased purchase power costs which would be offset with a reduced annual debt service of \$18 million.

Acquisition Criteria

- Geographic Location:
 - ☐ Within ERCOT.
 - ☐ Within the North Load Zone, preferably.
 - ☐ Not in the city of Denton.
- Generation Type:
 - ☐ Nuclear – Unlikely. Only 2 in the State and likely cost prohibitive.
 - ☐ Coal & Lignite – Uncertain. Environmental remediation may make it cost prohibitive but environmental impact from conversion to natural gas, or some cleaner alternative, may be good tradeoffs for the added cost. Former sites may be attractive due to proximity to transmission infrastructure but would be best suited for a new build project.
 - ☐ Natural Gas – Approximately 100 existing generators in the State; approximately 9 that are defunct but already sited near readily available transmission infrastructure; approximately 26 proposed generators under consideration for the Texas Energy Fund loan program; and approximately 7 proposed generators that have withdrawn from the Texas Energy Fund loan program.
- Design:
 - ☐ Baseload
 - ☐ Quick Start
- Capacity (MW):
 - ☐ Minimum of 100 MW
 - ☐ Ability to Expand

Texas Electricity Generation by Type



Texas Dispatchable Generators

Nuclear (2) – 4,708 MW

Coal/Lignite (12) – 16,518 MW

Natural Gas (100) – 65,855 MW

Texas Energy Fund Projects (May 2025)

Application Number	Sponsor Name	Capacity (MW)
APP-017	NRG Energy, Inc.	456
APP-021	Hunt Energy Network, LLC; John Hancock Life Ins. Co.; Manualife Infrastructure III AIV Holdings B, LP.	132
APP-031	Competitive Power Ventures (CPV Group LP), GE Vernova	1,350
APP-115	Rayburn County Electric Cooperative, Inc; Rayburn Energy Station LLC	570
APP-128	Calpine Corporation	460
APP-129	LS Power Equity Advisors, LLC	490
APP-194	Hull Street Energy through wholly owned subsidiary MPH Bastrop Peakers LLC	1,080
APP-201	Kerrville Public Utility Board Public Facility Corporation; Kerrville PUB	122
APP-219	Mercuria Investments US, Inc; Reliability Design and Development LLC	226
APP-245	Vistra Corp.	440

Application Number	Sponsor Name	Capacity (MW)
APP-016	NRG Energy, Inc.	721
APP-147	Rockland Power Partners IV LP	342
APP-018	NRG Greens Bayou 6	455
APP-256	Vistra Corp.	440
APP-159	Nightpeak Energy LLC	305
APP-161	Nightpeak Energy LLC	260
APP-221	Invenergy	890
APP-224	Invenergy	479
APP-209	EMPower USA LLC; Emerging America Financiera, SAPI de CV; Integrated Gas Services de Mexico, S de RL de CV	123
	Total – All Projects	9,341

Questions?



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Legislation Text

File #: SFAC25-020, **Version:** 1

AGENDA CAPTION

Receive a report, hold a discussion, and give staff direction on the new public-facing City of Denton Air Quality Dashboard.



City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: Environmental Services & Sustainability

ACM: Frank Dixon, Assistant City Manager

DATE: August 22, 2025

SUBJECT

Receive a report, hold a discussion, and give staff direction on the new public-facing City of Denton Air Quality Dashboard.

BACKGROUND

The Texas Commission on Environmental Quality (TCEQ) regulatory air quality monitors are located throughout the state, including one in northwest Denton. The TCEQ monitors assess regional air quality compliance with National Ambient Air Quality Standards (NAAQS) established by the Clean Air Act, and do not allow for neighborhood-level assessment of local air quality. In 2023, the City of Denton staff began the process to procure 12 non-regulatory air quality sensors that were installed in 2024 and provide neighborhood-level data. Site locations were chosen based on several criteria, including sufficient spatial distribution throughout the city, DC power availability, minimal tree canopy cover, and distance from roadway.

The City of Denton sensors record ambient temperature, humidity, ground-level ozone (O₃), carbon monoxide (CO), total volatile organic compounds (TVOC), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and particulate matter (PM_{2.5} and PM₁₀). Additionally, four of the 12 sensors measure wind speed and wind direction.

Currently, the City of Denton website educates residents on regional air quality and ongoing efforts to reduce greenhouse gas emissions and improve local air quality. Staff have built a public-facing dashboard on the website, which displays the previous week's averages of O₃, PM_{2.5}, PM₁₀, and ambient weather. Within the dashboard, there are links to the Denton Airport South TCEQ site and educational material on ground-level ozone and particulate matter. Staff are working on a live dashboard to be launched late 2025 that will report 24-hour rolling averages of the air quality parameters. This dashboard is only for informational purposes to educate residents about local air quality at the neighborhood-level.

EXHIBITS

1. Agenda Information Sheet
2. Presentation

Prepared By:
Kaitlynn Davis
Conservation Programs Coordinator



City of Denton Public Air Quality Dashboard

Kaitlynn Davis
Conservation Programs Coordinator
Environmental Services and Sustainability
8/22/2025

ID: SFAC25-020

Today's Focus

- City of Denton Air Quality Monitoring Background
- City of Denton Air Quality Dashboard Review
- Questions and Feedback from Committee
- Next Steps



Background

- Dallas-Fort Worth (DFW) is nonattainment for ground-level ozone
- An area is considered nonattainment when it has ozone levels that exceed limits set by the National Ambient Air Quality Standards (NAAQS)



Background

- The Clean Air Act establishes NAAQS for “criteria pollutants” that can be harmful to public health and the environment
 - Ground-level ozone (O₃)
 - Particulate matter (PM)
 - Carbon monoxide (CO)
 - Lead (Pb)
 - Sulfur dioxide (SO₂)
 - Nitrogen dioxide (NO₂)



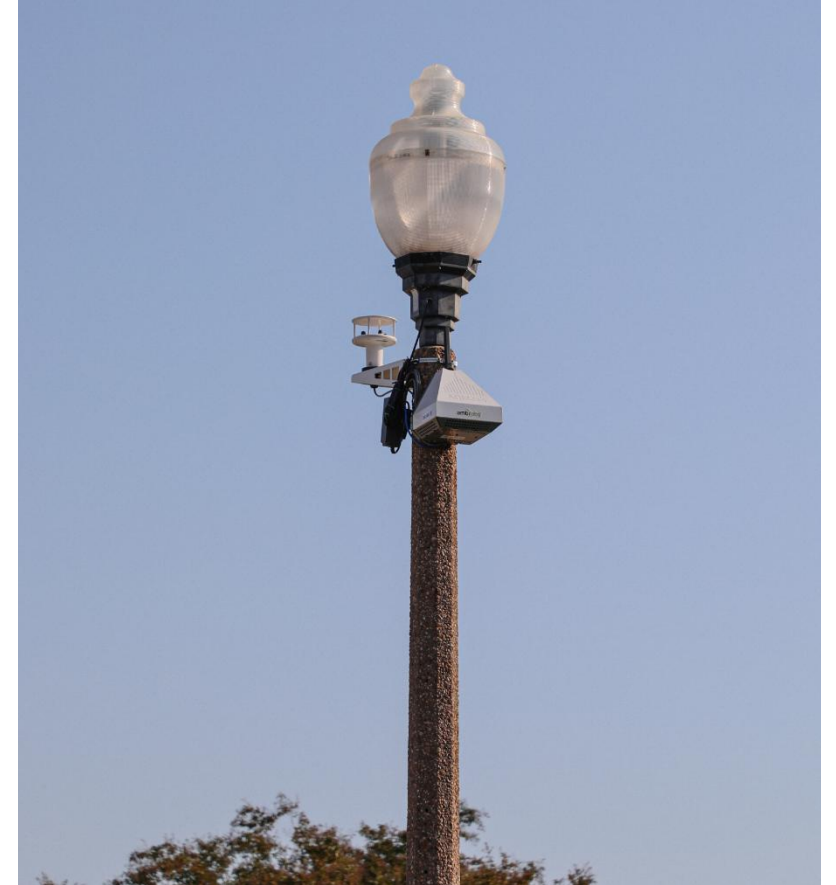
Background

- Texas Commission on Environmental Quality (TCEQ) has 46 regulatory monitors in DFW
- One TCEQ site in Northwest Denton
 - Ambient weather
 - NO, NO₂, NOX
 - PM2.5
- Does not offer a wider look at air quality at the neighborhood-level



Air Quality Sensors

- In 2023, City of Denton Environmental Services and Sustainability began the process of acquiring and installing AQMesh sensors throughout the city
- 12 sensors deployed in two phases
 - Phase 1 completed in Feb 2023 - substations
 - Phase 2 completed in October 2024 - light poles



Pollutants Recorded

Parameter	Detection Limit	Accuracy
Ozone (O ₃)	<1 ppb	5 ppb
Particulate Matter (PM2.5 & PM10)	0 µg/m ³	5 µg/m ³
Nitrogen Dioxide (NO ₂)	<1 ppb	4 ppb
Total Volatile Organic Compounds (TVOC)	<0.1 ppm	0.05 ppm
Sulfur Dioxide (SO ₂)	<2 ppb	20 ppb



City of Denton Air Quality Monitoring

For additional information, please contact SustainableDenton@cityofdenton.com or (940) 349-7733.

Current Air Quality Index



Home

Ozone

PM 2.5

PM 10

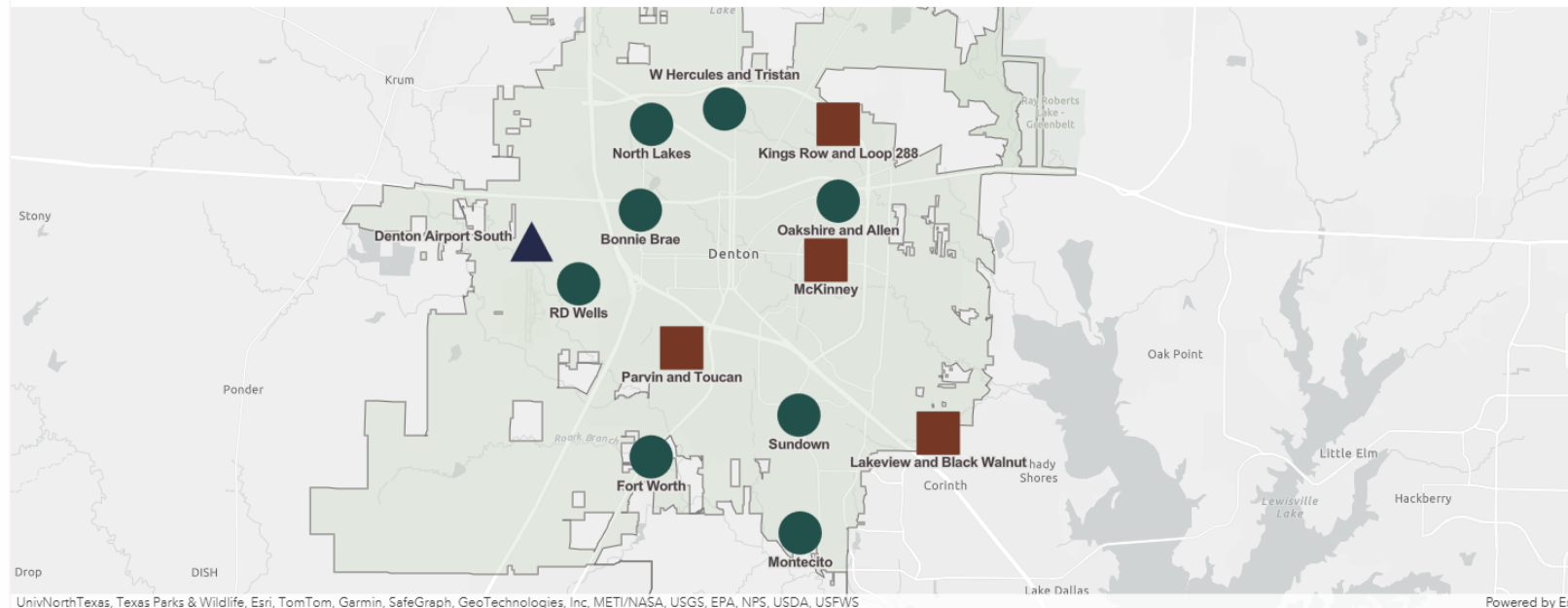
Wind Data

Ozone

PM 2.5

PM 10

Weekly Average for All Monitors



Daily AQI Color	Level of Concern
Green	Low
Yellow	Moderate
Orange	Unhealthy for Sensitive Groups
Red	Unhealthy
Purple	Very Unhealthy
Maroon	Hazardous

Air quality monitoring station locations

Monitor

- City of Denton Monitor
- City of Denton Monitor with Wind Data
- TCEQ Site



8/22/2025

ID:SFAC25-020

8



City of Denton Air Quality Monitoring

For additional information, please contact SustainableDenton@cityofdenton.com or (940) 349-7733.

Current Air Quality Index



Home

Ozone

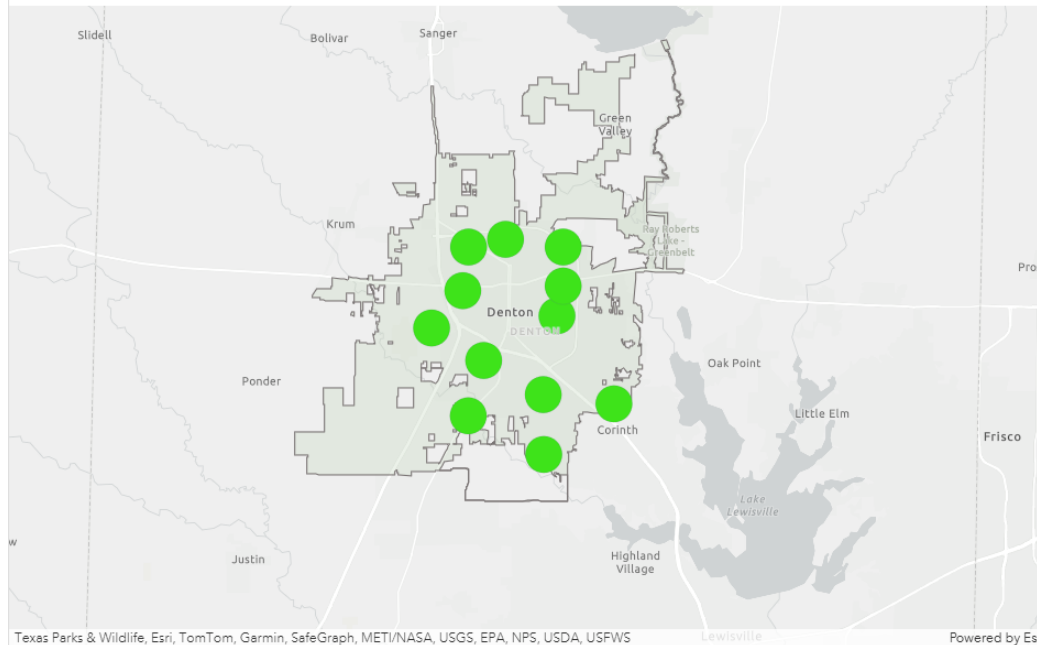
PM 2.5

PM 10

Wind Data

Ozone Weekly Averages

For more information about this pollutant, click [here](#).



Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Powered by Esri

Active Monitors

Pod Name	Ozone (ppb)
Bonnie Brae	44.40
Fort Worth	32.40
Kings Row and Loop 288	37.30
McKinney	37.60
North Lakes	30.60
Oakshire and Allen	24.40
RD Wells	44.40

Ozone Average: 33.10 ppb

Daily AQI Color	Level of Concern	Ozone (ppb)
Green	Low	0-54
Yellow	Moderate	55-70
Orange	Unhealthy for Sensitive Groups	71-85
Red	Unhealthy	86-105
Purple	Very Unhealthy	106-200
Maroon	Hazardous	> 301

Hourly Log

Pod Name	Project Time	Ozone (ppb)
Bonnie Brae	2025-08-03 23:00:00	55.00
Bonnie Brae	2025-08-03 22:00:00	59.40
Bonnie Brae	2025-08-03 21:00:00	68.10
Bonnie Brae	2025-08-03 20:00:00	73.30
Bonnie Brae	2025-08-03 19:00:00	74.00
Bonnie Brae	2025-08-03 18:00:00	68.20
Bonnie Brae	2025-08-03 17:00:00	70.20



8/22/2025

ID:SFAC25-020

9

Dashboard

- Air Quality Index (AQI) colors associated with EPA breakpoints rather than index value

Daily AQI Color	Level of Concern	Index Value	Ozone (ppb)	PM2.5 (µg/m³)	PM10 (µg/m³)
Green	Low	0 - 50	0 - 54	0.0 - 9.0	0.0 - 54
Yellow	Moderate	51 - 100	55 - 70	9.1 - 35.4	55 - 154
Orange	Unhealthy for Sensitive Groups	101 - 150	71 - 85	35.5 - 55.4	155 - 254
Red	Unhealthy	151 - 200	86 - 105	55.5 - 125.4	255 - 334
Purple	Very Unhealthy	201 - 300	106 - 200	125.5 - 225.4	335 - 424
Maroon	Hazardous	> 301	> 301	> 225.5	> 425

Next Steps

- Migrating to Application Programming Interface (API)
 - Reporting of rolling 24-hr average air quality data
- Mobile configuration of Air Quality Dashboard
- Analysis of air quality data

Questions?

Kaitlynn Davis

**Conservation Programs Coordinator
Environmental Services and Sustainability**



8/22/2025

ID:SFAC25-020

12



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Legislation Text

File #: SFAC25-021, Version: 1

AGENDA CAPTION

Receive a report, hold a discussion, and give staff direction on Sustainability Framework Fund 2024- 2025 programs and 2025-2026 prioritization.



City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: Environmental Services & Sustainability

ACM: Frank Dixon, Assistant City Manager

DATE: August 22, 2025

SUBJECT

Receive a report, hold a discussion, and give staff direction on Sustainability Framework Fund 2024-2025 programs and 2025-2026 prioritization.

BACKGROUND

The Sustainability Framework Fund Workplan for 2024-2025 included projects totaling \$600,000. To date \$232,907 has been expended or encumbered for the identified projects.

Project	Funding	Expenditures	Notes
Water Conservation Incentives	\$50,000	\$0	Funded by DWU
Ecosystem Protection and Enhancement	\$50,000	\$0	Postponed
Electric Vehicle Rebate	\$150,000	\$72,000	Paid and pending as of 8/8/25
Electric Bike Rebate	\$100,000	\$37,981	Paid and pending as of 8/8/25
Air Quality Monitor O&M	\$25,000	\$8,878	Revised contract lowered per unit data cost
Electric Lawn Equipment Rebate Pilot	\$50,000	\$34,840	Paid and pending as of 8/8/25, Launched 5/29
Electric Vehicle City Fleet Support	\$175,000	\$0	Support not needed for 2024-2025 vehicle purchases
Electric Bikes PD (6) Fire Truck Charging EV Charging Mgmt. Parks Electric Mowers		\$31,168 \$20,000 \$22,680 \$52,500	Committed in procurement
Total	\$600,000	\$280,047	

In 2024-2025 two projects have had no expenditures: Water Conservation Incentives and Ecosystem Protection and Enhancement projects. Water Conservation Incentives were funded by Denton Water Utilities and Ecosystem Protection and Enhancement will be expended in Fall 2025. Electric Vehicle and Electric Bike Rebates will expend more than 50% of allotted funding through October, and the Electric Lawn Equipment Rebate Pilot may be depleted prior to October. City fleet electric vehicles were purchased by departments that did not need additional funding, leaving that support available to assist with Parks electric mowers, City EV charging management (ChargePoint chargers at City facilities), and Police electric bikes.

Funding for the Sustainability Framework Fund in the City Manager's proposed budget for Fiscal Year 2025 - 2026 is proposed at \$1,050,150. Staff has developed the following programs for consideration for funding in 2025-2026. Staff is requesting committee feedback for prioritization of programs if the proposed funding is not realized.

Sustainability Framework Fund Proposed Programs 2025-2026 (\$1,100,000)

Transportation/Travel / Movement Focus Area - \$550,000

- Electric Vehicle Rebate (\$150,000)
- Electric Bike Rebate (\$100,0000)
- Electric Lawn Equipment Rebate (\$100,000)
- Parks Electric Mowers (\$52,500)
- Continue Air Quality Sensor O&M (\$7,500)
- Bike lane connections/ Sidewalk connections (\$140,000)

Building Focus Area \$350,000 - (Partner with 50 Homes up to \$7,000)

- Energy Efficiency Upgrade /Minor Home Repair Pilot (low-income)
 - Energy Audit
 - Install/Increase insulation to meet or exceed GreenSense R-Value
 - Increase the efficiency of systems replaced to meet or exceed GreenSense SEER2 rating
 - Weatherization support

Land Use Focus Area \$200,000 (carryover from 2024-2025 Ongoing)

- Low Water Use Median projects
- Safe Routes to Schools shade projects (bike parking canopy, tree planting)
- Ecosystem Protection and Enhancement (privet removal and replanting)

Staff recommends the prioritization of three new programs and the continuation of existing programs.

New Programs (\$590,000)

- Energy Efficiency Upgrade/Minor Home Repair Pilot (\$350,000)
- Bike lane Connections and Sidewalk Connections (\$140,000)
- Ecosystem Protection and Enhancement (privet removal and replanting) (\$100,000)

Continue Existing Programs (\$410,000)

- Electric Vehicle Rebate (\$150,000)
- Electric Bike Rebate (\$100,0000)
- Electric Lawn Equipment Rebate (\$100,000)
- Parks Electric Mowers (\$52,500)
- Continue Air Quality Sensor O&M (\$7,500)

Staff is seeking Committee direction on the prioritization of proposed programs.

EXHIBITS

1. Agenda Information Sheet
2. Presentation

Submitted By:
Katherine Barnett
Sustainability Manager



Sustainability Framework Fund Projects 2024-2025 and 2025-2026

Katherine Barnett
Sustainability Manager
Environmental Services & Sustainability
August 22, 2025

Today's Focus

- Sustainability Framework Fund 2024-2025
- Projects updates
- Expenditures
- Prioritization for 2025-2026
- Next Steps



2024-2025 Projects and Expenditures

Project	Funding	Expenditures	Notes
Water Conservation Incentives	\$50,000	\$0	Funded by DWU
Ecosystem Protection and Enhancement	\$50,000	\$0	Postponed
Electric Vehicle Rebate	\$150,000	\$72,000	Paid and pending as of 8/8/25
Electric Bike Rebate	\$100,000	\$37,981	Paid and pending as of 8/8/25
Air Quality Monitor O&M	\$25,000	\$8,878	Revised contract lowered per unit data cost
Electric Lawn Equipment Rebate Pilot	\$50,000	\$34,840	Paid and pending as of 8/8/25, Launched 5/29
Electric Vehicle City Fleet Support	\$175,000	\$0	Support not needed for 2024-2025 vehicle purchases
Electric Bikes PD (6) Fire Truck Charging EV Charging Mgmt. Parks Electric Mowers		\$31,168 \$20,000 \$22,680 \$52,500	Committed in procurement
Total	\$600,000	\$280,047	



Electric Lawn Equipment Pilot (\$50,000)

- Launched May 29, 2025
- Through August 8, 2025, 227 applications received, 15 rejected, 177 accepted, and 35 in progress or pending.
- Expenditure \$34,840 (8/8/25) including in progress and pending.

*Staff recommends inclusion of Electric Lawn Equipment project for 2025-2026



Electric Vehicle and Electric Bike Incentives

- Electric Vehicle
 - Received 83 applications through August 8, 2025
 - \$72,000 paid and pending through August 8, 2025
- Electric Bike
 - Received 69 applications through August 8, 2025
 - \$37,981 paid and pending through August 8, 2025



2025-2026 Proposed Programs

Transportation/Travel / Movement Focus Area - \$550,000

- Electric Vehicle Rebate (\$150,000)
- Electric Bike Rebate (\$100,0000)
- Electric Lawn Equipment Rebate (\$100,000)
- Parks Electric Mowers (\$52,500)
- Continue Air Quality Sensor O&M (\$7,500)
- Bike lane connections/ Sidewalk connections (\$140,000)



2025-2026 Proposed Programs

Building Focus Area \$350,000 - (Pilot with Community Development - Goal 50 Homes up to \$7,000)

- Energy Efficiency Upgrade /Minor Home Repair Pilot (low-income)
 - Energy Audit
 - Install/increase insulation to meet or exceed GreenSense R-Value
 - Increase efficiency of systems replaced to meet or exceed GreenSense SEER2 rating
 - Weatherization support



2025-2026 Proposed Programs

Land Use Focus Area \$200,000 (carryover from 2024-2025)

- Low water use median projects
- Safe Routes to Schools shade projects (bike parking canopy, tree planting)
- Ecosystem protection and enhancement (privet removal and replanting)



2025-2026 Proposed Programs Prioritization

New Programs (\$590,000)

- Energy Efficiency Upgrade/Minor Home Repair Pilot (\$350,000)
- Bike lane connections/sidewalk connections (\$140,000)
- Ecosystem protection and enhancement (privet removal & replanting) (\$100,000)



2025-2026 Proposed Programs Prioritization

Continue Existing Programs (\$410,000)

- Electric Lawn Equipment Rebate (\$100,000)
- Parks Electric Mowers (\$52,500)
- Continue Air Quality Sensor O&M (\$7,500)
- Electric Vehicle Rebate (\$150,000)
- Electric Bike Rebate (\$100,0000)



Next Steps

- Monitor and report 2024-2025 Program expenses
- Prepare 2025-2026 Sustainability Framework Fund Workplan and present to Sustainability Framework Advisory Committee



Questions?

Katherine Barnett

Sustainability Manager

Environmental Services & Sustainability



August 22, 2025

ID: SFAC25-021

12



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Legislation Text

File #: SFAC25-025, **Version:** 1

AGENDA CAPTION

Staff Reports
1. Matrix

Future Items Matrix: Sustainability Framework Advisory Committee

No.	REQUESTOR	DATE REQUESTED	ITEM	PRIORITY	DEPARTMENTS INVOLVED
24-01	Richter	6/7/2024	Consider greenspace enhancements	Medium Term -2	ESS, Parks
24-02	Soph	8/23/2024	Update on adopted climate action plan, presentation on priorities and timeline for adoption of those priorities, timeline for ordinances that might be adopted	Long Term - 3	ESS
24-03	Soph	8/23/2024	Consider solar, especially low-income households	Medium Term -2	ESS
24-05	Soph	12/13/2024	Update on carbon reduction estimates for Framework Fund items	Medium Term -2	ESS
25-01	Soph	1/24/2025	Consider an Environmental Impact Study for Hunter/Cole Ranch developments, similar to Fiscal Impact Study and City's goal for Net Zero.	Long Term - 3	ESS
25-04	Soph	2/13/2025	Consider the creation of a community awareness campaign to help the city reach its CAP/Net Zero goal.	Medium Term -2	ESS, MarCom
25-08	Richter	7/25/2025	Update on Turf Buy-Back Program/Irrigation Evaluation Incentive Program	Short Term - 1	Water, ESS
25-09	Richter	7/25/2025	Update on Denton's Flood Risk Planning	Medium Term -2	Risk, Engineering
25-10	Briggle	7/25/2025	Updates on new power plant in Denton	Short Term - 1	DME
25-11	Soph	7/25/2025	Update on Integrated Resource Plan and City's Renewable Energy Policy	Short Term - 1	DME
25-12	Soph	7/25/2025	Consider solar rebates	Short Term - 1	ESS
25-13	Soph	7/25/2025	Consider new rebates for battery storage and type 2 car chargers	Short Term - 1	ESS
25-14	Soph	7/25/2025	Consider incentives for white roofs, permeable sidewalks/driveways, and reflective concrete	Short Term - 1	Dev Services, Streets
25-15	Soph	7/25/2025	Consider Climate Risk Assessment of City's Infrastructure	Long Term - 3	Risk

*Short Term = 6 months

*Medium Term = 1 year

*Long Term = 1+ years