



**The Finance & Audit (F&A) Committee is
expected to consider
F&A Committee Agenda Item 4:**

***Recommendation regarding
2022-2023 Budget and Fee***

at its meeting on August 9, 2021.

**The Board of Directors is expected to hear
the F&A Committee's recommendation on
this matter as part of the F&A Committee
Report at the Board meeting on
August 10, 2021.**

**Attached are the Board and Committee
materials in relation to these agenda items.**



Item 4: Recommendation regarding 2022-2023 Budget and Fee

Sean Taylor

Vice President and Chief Financial Officer

Urgent Finance & Audit Committee Meeting

ERCOT Public

August 9, 2021

2022-2023 Budget and Fee Requirements

ERCOT Bylaw Requirement

- Sections 4.10 (Duties) and 10.3 (Budget): It is the duty of the ERCOT Board to approve the budget.

Finance & Audit Committee Charter Requirement

- With respect to budget oversight...
 - Annually or biennially, the Committee shall review staff's proposed budget for the following year(s).
 - The Committee shall review the staff's recommendation of the amount and type of financing needed, both revenue and debt financing, to support the proposed budget and meet the Company's liquidity needs.
 - Following the Committee's review of the above items, the Committee shall recommend to the Board, a proposed budget and associated financing plan for the following year(s).

<VOTE> following presentation



Agenda

1. Overview of the Budget Process
2. Budget Request Drivers
 - Maintain Flat Fee for 2022-2023
 - Incorporate Key Initiatives and New Demands
 - Comply with Board's Debt Strategy Guidance
3. Budget Request
 - Options
 - Management Recommendation
4. Financial Ratios
5. Risks to Meeting 2022-2023 Recommended Budget
6. Request for Vote

Overview of the Budget Process

Overview of the Budget Process

- System Administration Fee recent history
 - Flat fee since 2016
 - ERCOT projected the fee increase would be sufficient for four to six years, and anticipated a potential fee increase no later than 2022
 - 2023 would be eighth year of flat fee
- ERCOT seeks to maintain intergenerational equity between spending and benefits, balanced against providing predictable fee increases
- Management took exceptional measures to control and cut expenses across the organization in an effort to offset the significant costs associated with the February 2021 extreme winter weather event and recent legislation

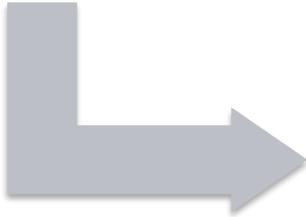
Overview of the Budget Process

Strategic Plan

- Vision
- Mission
- Strategic Objectives

Executive Accountability:

- Review
- Challenge
- Collaborate
- Communicate



Business Plans

- Operationalize Strategic Plan
- Objectives
- Key Results

Project Budget

- PPL (Project Priority List)
- Approved initiatives and anticipated efforts



Department Budgets

- Bottom-up first cut
- Top-down review

Winter Weather Event & Legislative Requirements



Budget Request Drivers: Maintain Flat Fee for 2022-2023

Budget Request Drivers: Maintain Flat Fee for 2022-2023

System Administration Fee

- Consistent Rate of \$0.555 for 2022-2023

Relative to 2020-2021 Approved Budget

- System Administration Fee Revenues – decreased due to lower-than-expected load growth
- Department Net Expenditures – increased expenditures due to cost inflation, winter weather event, legislative requirements, and new demands partially offset by cost savings
- Project Expenditures – consistent multi-year approach, including major refreshes
- Real-Time Co-optimization – revised to reflect current project forecast
- Met Center Replacement Project – purchase in 2022
- Interest Income – decreased significantly due to lower interest rates

Budget Request Drivers: Incorporate Key Initiatives and New Demands

Budget Request Drivers: Incorporate Key Initiatives and New Demands

Strategic Plan Objectives

- Enhance operating capabilities to maintain reliability of an increasingly complex system
- Improve information exchange to facilitate collaborative interaction
- Advance competitive solutions for a changing industry
- Optimize use of ERCOT, Inc.'s resources to continuously provide high-value services

Budget Request Drivers: Incorporate Key Initiatives and New Demands

Winter Weather Event – Description	Annual Cost
Increase in Company Insurance	\$7.2 Million
Increase to External Legal Services	\$2.4 Million
Increase for Communications	\$0.9 Million

Bill	Legislative Requirements - Description	Annual Cost
SB 2	ERCOT Board - Board of Directors members decrease from 16 to 11, independent directors increase from 5 to 8	\$0.3 Million
SB 3	Omnibus Reform Bill - Generation and TSP Inspections cost estimate. Studies, policy, and rulemaking support will be largely absorbed into ERCOT baseline	\$10.6 Million
SB 415	Storage Ownership - assist with PUC rulemaking	Absorb Internally
SB 713	Sunset Review accelerates ERCOT to 2021	Absorb Internally
SB 1580	Market Participation and Securitization - relating to electric cooperatives	-
HB 4492	Winter Storm Uri default balance and uplift financing	Includes funding for upfront and ongoing costs, some costs absorbed internally
SB 1281	Transmission Planning process, adding back in the consumer impact test as well as reliability assessment conduct by ERCOT staff every other year	Absorb Internally
HB 2586	Requires annual audit of ERCOT	Absorb Internally



Budget Request Drivers: Incorporate Key Initiatives and New Demands

Generation and Transmission SB3 Inspection Costs

(Estimated Range of \$3-\$20 Million, Annually)

	2022	2023	2024	2025	2026	2027
	Request	Request	Projection	Projection	Projection	Projection
SB3 Inspection Costs	\$ 10,000	\$ 10,560	\$ 11,151	\$ 11,776	\$ 12,435	\$ 13,132

Increase to External Legal Services

	2022	2023	2024	2025	2026	2027
	Request	Request	Projection	Projection	Projection	Projection
Winter Weather Event	\$ 2,370	\$ 2,370	\$ 2,503	\$ 2,243	\$ 1,991	\$ 1,747

Budget Request Drivers: Incorporate Key Initiatives and New Demands

New Demands Include:

- Regulatory Requirements
 - Increased costs associated with Critical Infrastructure Protection (CIP) compliance
 - Transmission line and generation inspections
 - Cyber security monitoring
 - Increased coordination of Resource Outages
 - Incorporate new economic standards for transmission project approval
- Protocol and Planning Revisions
 - Weatherization standard development
 - Stability assessments for interconnecting generation
 - Interconnection study increases
 - Grid forecasting improvements
- Increased IT support costs for new or enhanced services

Budget Request Drivers: Incorporate Key Initiatives and New Demands

Efficiency Savings Help Offset Costs of New Demands

- Delivery Tool Chain Modernization
 - System support labor decreased
 - Hardware cost and maintenance increased
- Enterprise Architecture Tool
 - System support labor decreased
 - Software compliance cost decreased
 - Software maintenance cost increased
- Resource Integration & On-going Operations (RIOO)
 - Support labor decreased
 - Hardware and software costs increased
- ServiceNow
 - Administrative overhead and direct labor cost decreased
 - Software maintenance cost increased
- Test Automation
 - System support labor decreased
 - Project delivery times decreased
 - Software maintenance cost increased

Budget Request Drivers: Incorporate Key Initiatives and New Demands

Department & Project Expenditures: 2021 Budget vs 2022 Request

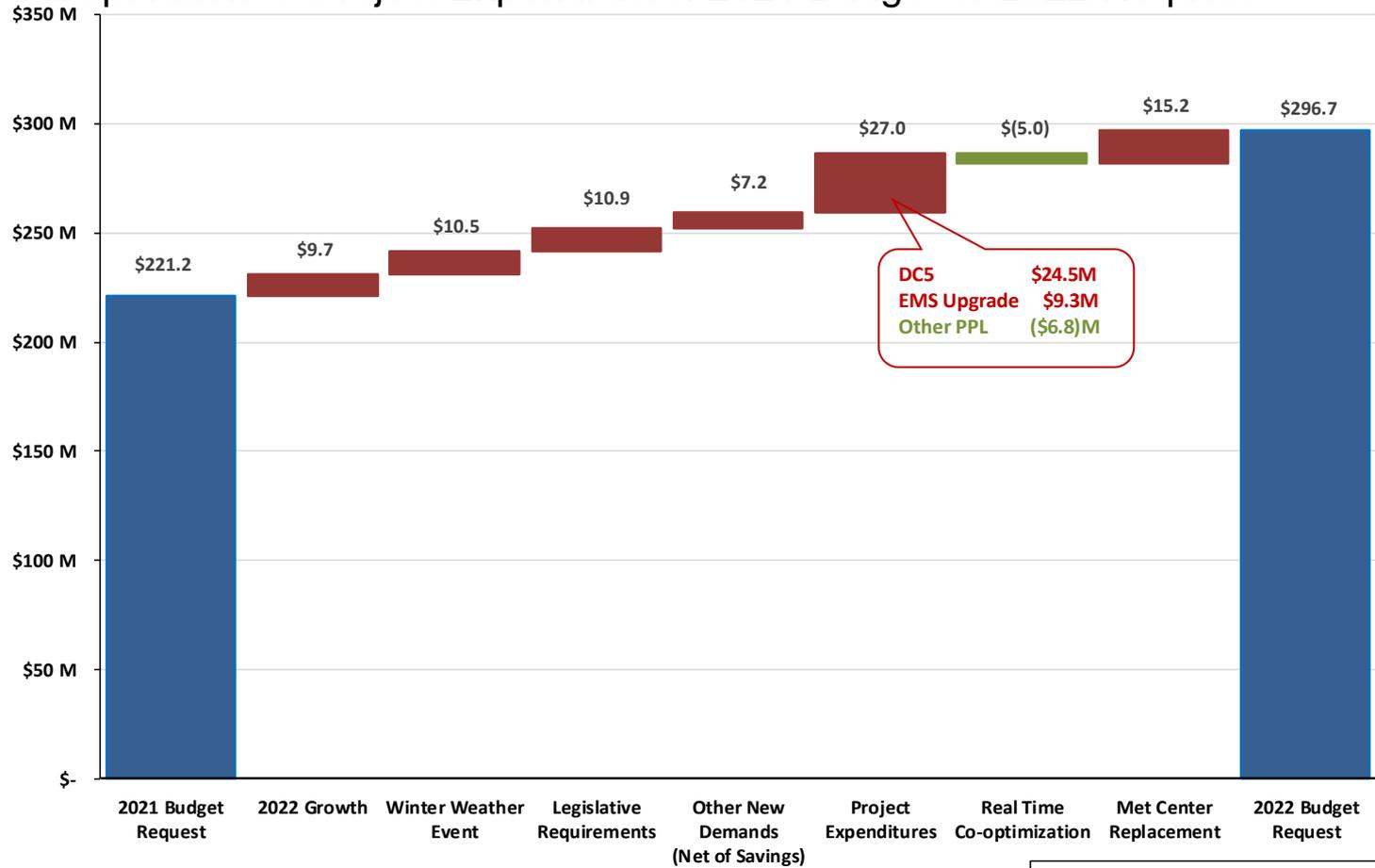


Chart may not foot due to rounding.



Budget Request Drivers: Comply with Board's Debt Strategy Guidance

Budget Request Drivers:

Comply with Board's Debt Strategy Guidance

Maintain or Improve ERCOT's Financial Integrity

- Manage impacts to outstanding debt and liquidity requirements

Maintain Stable, Fair and Predictable Fees

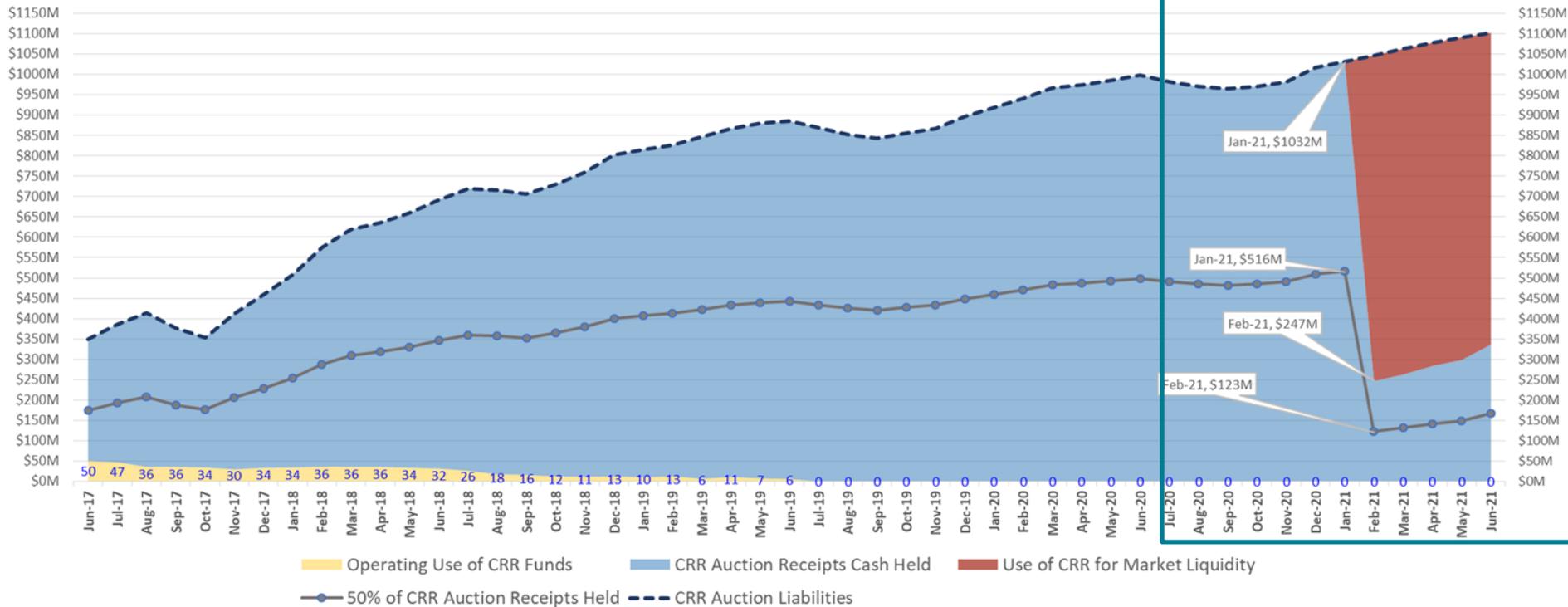
- Use debt matching appropriately

Provide Lowest Cost to Fee-Payers

- Use lowest cost debt that is available and appropriate

Budget Request Drivers: Comply with Board's Debt Strategy Guidance

Use of CRR Funds: Actual vs Limits



$$\text{Use of CRR Funds (CRR Borrowings)} = \text{Amount Owed to Market Participants} - \text{Unrestricted Cash and Bond Investments}$$



Budget Request: Options

Budget Request: Options - Base Scenario

Maintain System Administration Fee Rate Indefinitely;
No Separate SB3 Inspection Fee

\$ in Thousands, except rates

Budget Summary										
Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	System Administration Fee Rate	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555
2	Energy Consumption (GWH)	382,315	413,107	400,705	419,616	434,006	444,426	450,676	457,854	464,903
3	System Administration Fee Revenues	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 246,656	\$ 250,125	\$ 254,109	\$ 258,021
4	Department Net Expenditures	\$ 171,527	\$ 181,085	\$ 184,509	\$ 215,277	\$ 221,613	\$ 234,023	\$ 246,728	\$ 260,167	\$ 274,382
5	Project Expenditures	35,457	29,000	33,600	56,014	27,072	44,815	42,126	39,866	44,950
6	Real Time Co-optimization Project	2,727	5,000	1,300	-	2,415	13,060	17,637	13,230	-
7	MET Center Replacement Project	-	-	4,713	15,211	-	-	-	-	-
8	Total Net Expenditures	\$ 209,711	\$ 215,085	\$ 224,122	\$ 286,502	\$ 251,100	\$ 291,898	\$ 306,491	\$ 313,263	\$ 319,332
9	Net Available Before Non-Operating Sources & Uses	\$ 2,474	\$ 14,189	\$ (1,731)	\$ (53,615)	\$ (10,227)	\$ (45,241)	\$ (56,366)	\$ (59,154)	\$ (61,311)
10	Debt Service	\$ (5,577)	\$ (5,531)	\$ (5,431)	\$ (5,423)	\$ (5,481)	\$ (5,504)	\$ (5,566)	\$ (5,322)	\$ (5,079)
11	Interest Income	4,298	20,000	193	6	4	7	7	7	7
12	Non-Operating Sources & Uses	\$ (1,279)	\$ 14,469	\$ (5,238)	\$ (5,417)	\$ (5,478)	\$ (5,497)	\$ (5,558)	\$ (5,315)	\$ (5,072)
13	Net Available	\$ 1,195	\$ 28,657	\$ (6,969)	\$ (59,032)	\$ (15,704)	\$ (50,738)	\$ (61,924)	\$ (64,469)	\$ (66,383)
Year-End Balances: Notes Payable, CRR Borrowings, Cash, and Real Time Co-optimization Project Funding										
		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
14	Notes Payable Balance	\$ 47,000	\$ 43,000	\$ 43,000	\$ 39,000	\$ 35,000	\$ 31,000	\$ 27,000	\$ 23,000	\$ 19,000
15	CRR Borrowings Balance	\$ -	\$ -	\$ -	\$ 33,062	\$ 48,766	\$ 99,505	\$ 161,429	\$ 225,898	\$ 292,281
16	Cash Balance	\$ 32,939	\$ 84,586	\$ 25,970	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Schedule may not foot due to rounding.

Change to \$161.4M from \$36.2M (\$125.2M increase) shown at Segment meetings in 2020



Budget Request: Options - Summary

In which year should we increase the System Administration Fee Rate?

Do we implement separate SB3 Inspection Fee?

\$ in Thousands, except rates

	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection	2028 Projection	2029 Projection
Base Scenario: No Rate Increase								
System Administration Fee Rate	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555
CRR Borrowings Balance	\$ 33,062	\$ 48,766	\$ 99,505	\$ 161,429	\$ 225,898	\$ 292,281	\$ 380,840	\$ 453,216
Scenario 1: Increase Rate in 2022								
	16.2%	2.5%	6 year CAGR					
System Administration Fee Rate	\$ 0.645	\$ 0.645	\$ 0.645	\$ 0.645	\$ 0.645	\$ 0.645	\$ 0.645	\$ 0.645
CRR Borrowings Balance	\$ -	\$ -	\$ -	\$ 4,144	\$ 27,407	\$ 51,948	\$ 98,004	\$ 127,314
Scenario 2: Increase Rate in 2024								
			26.1%	2.9% 8 year CAGR				
System Administration Fee Rate	\$ 0.555	\$ 0.555	\$ 0.700	\$ 0.700	\$ 0.700	\$ 0.700	\$ 0.700	\$ 0.700
CRR Borrowings Balance	\$ 33,163	\$ 48,867	\$ 35,164	\$ 31,740	\$ 29,820	\$ 28,792	\$ 48,873	\$ 51,866
Scenario 3: Increase Rate in 2022, again in 2024								
	8.1%	1.3%	10.8%	5.3% 6 year/2 year CAGR				
System Administration Fee Rate	\$ 0.600	\$ 0.600	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665
CRR Borrowings Balance	\$ 14,280	\$ 10,454	\$ 12,306	\$ 24,655	\$ 38,761	\$ 54,004	\$ 90,614	\$ 110,355
Scenario 1A: Increase Rate in 2022; with Inspection Fee								
	11.7%	1.9%	6 year CAGR					
System Administration Fee Rate	\$ 0.620	\$ 0.620	\$ 0.620	\$ 0.620	\$ 0.620	\$ 0.620	\$ 0.620	\$ 0.620
CRR Borrowings Balance	\$ -	\$ -	\$ -	\$ 4,375	\$ 26,649	\$ 49,681	\$ 93,676	\$ 120,306
Scenario 2A: Increase Rate in 2024; with Inspection Fee								
			19.8%	2.3% 8 year CAGR				
System Administration Fee Rate	\$ 0.555	\$ 0.555	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665
CRR Borrowings Balance	\$ 23,062	\$ 28,206	\$ 18,906	\$ 19,480	\$ 21,150	\$ 23,262	\$ 46,006	\$ 51,102
Scenario 3A: Increase Rate in 2022, again in 2024; with Inspection Fee								
	4.5%	0.7%	10.3%	5.0% 6 year/2 year CAGR				
System Administration Fee Rate	\$ 0.580	\$ 0.580	\$ 0.640	\$ 0.640	\$ 0.640	\$ 0.640	\$ 0.640	\$ 0.640
CRR Borrowings Balance	\$ 12,672	\$ 6,966	\$ 8,777	\$ 20,618	\$ 33,734	\$ 47,469	\$ 82,019	\$ 99,078



Budget Request: Management Recommendation

Budget Request: Management Recommendation

Flat System Administration Fee Rate of \$0.555 for 2022-2023, Increase to \$0.665 in 2024; With Separate SB3 Inspection Fee

\$ in Thousands, except rates

Budget Summary										
Line	2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection	
1	System Administration Fee Rate	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665
2	Energy Consumption (GWH)	382,315	413,107	400,705	419,616	434,006	444,426	450,676	457,854	464,903
3	System Administration Fee Revenues	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 295,543	\$ 299,699	\$ 304,473	\$ 309,160
4	Department Net Expenditures	\$ 171,527	\$ 181,085	\$ 184,509	\$ 205,277	\$ 211,053	\$ 222,872	\$ 234,952	\$ 247,732	\$ 261,250
5	Project Expenditures	35,457	29,000	33,600	56,014	27,072	44,815	42,126	39,866	44,950
6	Real Time Co-optimization Project	2,727	5,000	1,300	-	2,415	13,060	17,637	13,230	-
7	MET Center Replacement Project	-	-	4,713	15,211	-	-	-	-	-
8	Total Net Expenditures	\$ 209,711	\$ 215,085	\$ 224,122	\$ 276,502	\$ 240,540	\$ 280,746	\$ 294,715	\$ 300,828	\$ 306,200
9	Net Available Before Non-Operating Sources & Uses	\$ 2,474	\$ 14,189	\$ (1,731)	\$ (43,615)	\$ 333	\$ 14,797	\$ 4,985	\$ 3,645	\$ 2,960
10	Debt Service	\$ (5,577)	\$ (5,531)	\$ (5,431)	\$ (5,423)	\$ (5,481)	\$ (5,504)	\$ (5,566)	\$ (5,322)	\$ (5,079)
11	Interest Income	4,298	20,000	193	6	4	7	7	7	7
12	Non-Operating Sources & Uses	\$ (1,279)	\$ 14,469	\$ (5,238)	\$ (5,417)	\$ (5,478)	\$ (5,497)	\$ (5,558)	\$ (5,315)	\$ (5,072)
13	Net Available	\$ 1,195	\$ 28,657	\$ (6,969)	\$ (49,032)	\$ (5,144)	\$ 9,300	\$ (574)	\$ (1,670)	\$ (2,112)
Year-End Balances: Notes Payable, CRR Borrowings, and Cash										
	2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection	
14	Notes Payable Balance	\$ 47,000	\$ 43,000	\$ 43,000	\$ 39,000	\$ 35,000	\$ 31,000	\$ 27,000	\$ 23,000	\$ 19,000
15	CRR Borrowings Balance	\$ -	\$ -	\$ -	\$ 23,062	\$ 28,206	\$ 18,906	\$ 19,480	\$ 21,150	\$ 23,262
16	Cash Balance	\$ 32,939	\$ 84,586	\$ 25,970	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Schedule may not foot due to rounding.



Budget Request: Management Recommendation

Flat System Administration Fee Rate of \$0.555 for 2022-2023, Increase to \$0.665 in 2024; With Separate SB3 Inspection Fee

\$ in Thousands

Sources and Uses				2022	2023	2024	2025	2026	2027	
	2020	2021	2021	2022	2023	2024	2025	2026	2027	
	Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection	
1	System Administration Fee Revenues	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 295,543	\$ 299,699	\$ 304,473	\$ 309,160
2	Reliability Organization Assessment *	19,400	19,800	19,541	20,000	20,500	21,000	21,500	22,000	22,500
3	Interest Income	4,298	20,000	193	6	4	7	7	7	7
4	Other Revenues	6,866	6,083	8,726	20,243	20,462	21,608	22,818	24,096	25,445
5	CRR Borrowings	-	-	-	23,062	5,144	-	574	1,670	2,112
6	Decrease in Cash Balance	-	-	6,969	25,970	-	-	-	-	-
7	Total Sources	\$ 242,749	\$ 275,157	\$ 257,820	\$ 322,168	\$ 286,984	\$ 338,158	\$ 344,599	\$ 352,246	\$ 359,224
8	Department Expenditures	\$ 178,393	\$ 187,168	\$ 193,234	\$ 225,520	\$ 231,515	\$ 244,480	\$ 257,771	\$ 271,828	\$ 286,695
9	Project Expenditures	35,457	29,000	33,600	56,014	27,072	44,815	42,126	39,866	44,950
10	Real Time Co-optimization Project	2,727	5,000	1,300	-	2,415	13,060	17,637	13,230	-
11	MET Center Replacement Project	-	-	4,713	15,211	-	-	-	-	-
12	Reliability Organization Assessment *	19,400	19,800	19,541	20,000	20,500	21,000	21,500	22,000	22,500
13	Debt Service	5,577	5,531	5,431	5,423	5,481	5,504	5,566	5,322	5,079
14	Repayment of CRR Borrowings	-	-	-	-	-	9,300	-	-	-
15	Increase in Cash Balance	1,195	28,657	-	-	-	-	-	-	-
16	Total Uses	\$ 242,749	\$ 275,157	\$ 257,820	\$ 322,168	\$ 286,984	\$ 338,158	\$ 344,599	\$ 352,246	\$ 359,224

* Reliability Organization Assessment is a pass-through collected on behalf of the Texas Regional Entity; it is not set by ERCOT.

Schedule may not foot due to rounding.



Budget Request: Management Recommendation

Financial Health – 2019 vs 2027 End of Year Balance

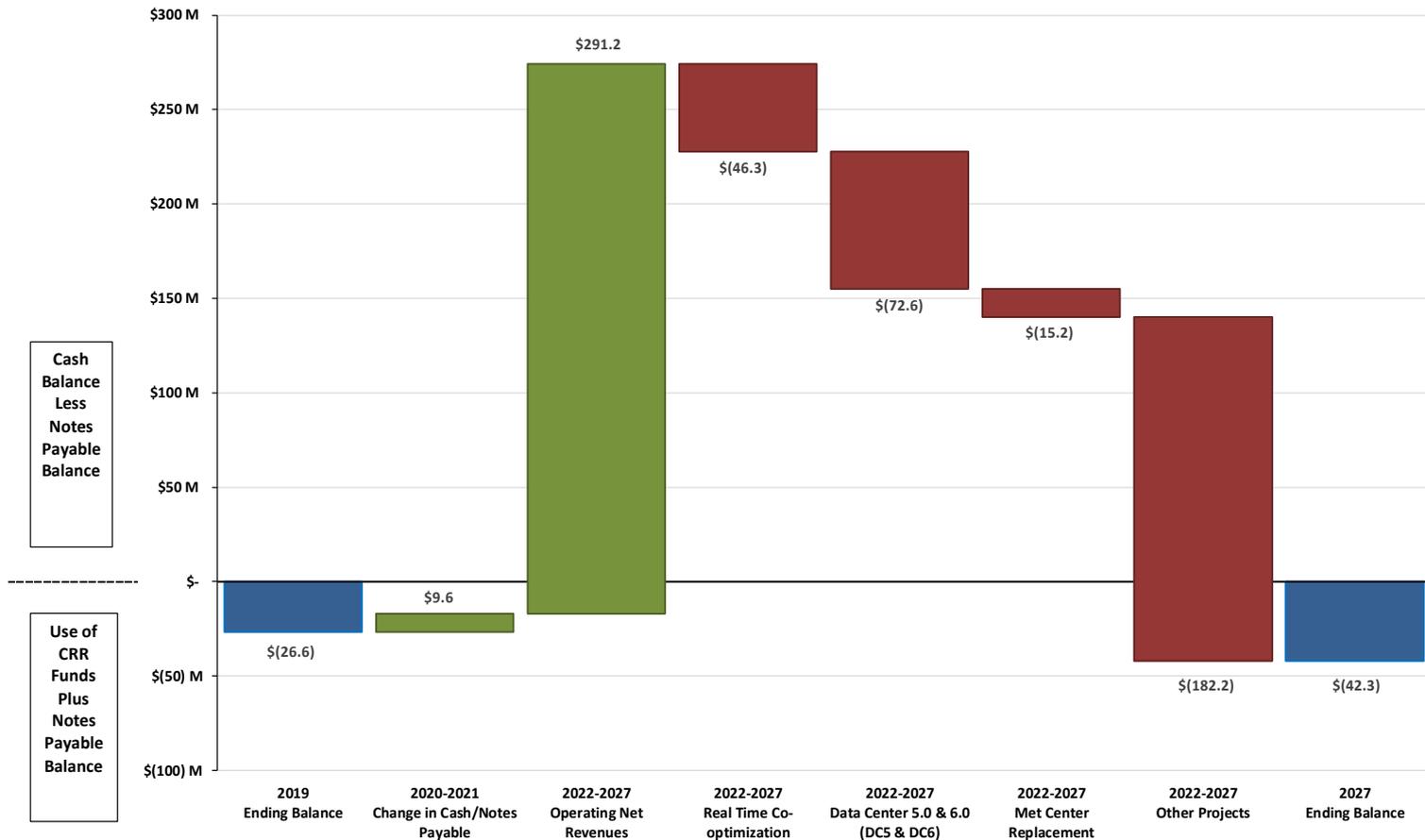


Chart may not foot due to rounding.



Financial Ratios

Financial Ratios

\$ in Thousands

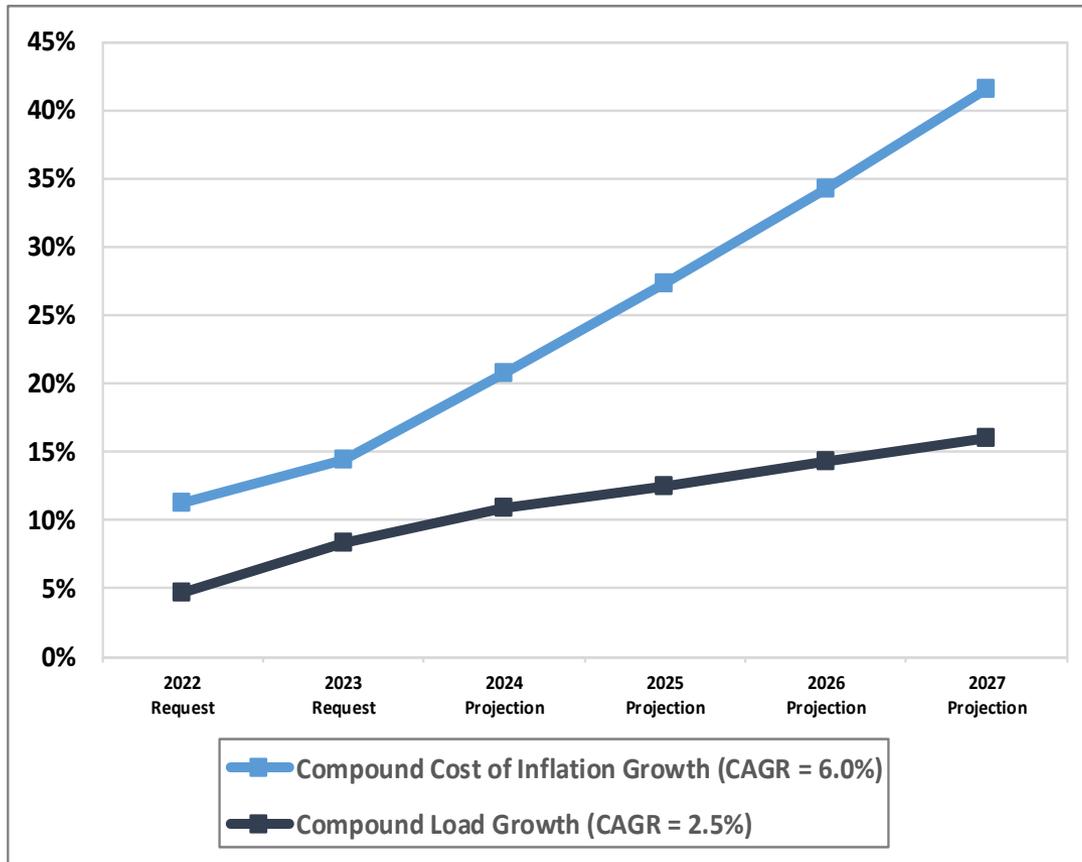
Debt Service Coverage Ratio										
	2020	2021	2021	2022	2023	2024	2025	2026	2027	
	Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection	
Revenues										
1	System Administration Fee Revenues	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 295,543	\$ 299,699	\$ 304,473	\$ 309,160
2	Reliability Organization Assessment	19,400	19,800	19,541	20,000	20,500	21,000	21,500	22,000	22,500
3	Interest Income	4,298	20,000	193	6	4	7	7	7	7
4	Other Revenues	6,866	6,083	8,726	20,243	20,462	21,608	22,818	24,096	25,445
5	Total Revenues	242,749	275,157	250,851	273,136	281,839	338,158	344,025	350,576	357,113
Less: Non-Project Expenditures										
6	Department Expenditures	178,393	187,168	193,234	225,520	231,515	244,480	257,771	271,828	286,695
7	Reliability Organization Assessment	19,400	19,800	19,541	20,000	20,500	21,000	21,500	22,000	22,500
8	Net Revenues Available for Debt Service	\$ 44,956	\$ 68,189	\$ 38,076	\$ 27,616	\$ 29,825	\$ 72,679	\$ 64,754	\$ 56,748	\$ 47,917
9	Interest Expense	1,577	1,531	1,431	1,423	1,481	1,504	1,566	1,322	1,079
10	Principal Payment	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
11	Total Debt Service	\$ 5,577	\$ 5,531	\$ 5,431	\$ 5,423	\$ 5,481	\$ 5,504	\$ 5,566	\$ 5,322	\$ 5,079
12	Calculated Debt Service Coverage Ratio	8.06	12.33	7.01	5.09	5.44	13.20	11.63	10.66	9.43
Liquidity Ratio										
	2020	2021	2021	2022	2023	2024	2025	2026	2027	
	Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection	
13	Department Expenditures (2 Month Average)	\$ 29,732	\$ 31,195	\$ 32,206	\$ 37,587	\$ 38,586	\$ 40,747	\$ 42,962	\$ 45,305	\$ 47,783
14	Debt Service (6 Month Average)	2,788	2,766	2,716	2,712	2,741	2,752	2,783	2,661	2,540
15	Project Expenditures (2 Month Average)	6,364	5,667	6,602	11,871	4,915	9,646	9,960	8,849	7,492
16	Targeted Minimum Level of Liquidity	\$ 38,885	\$ 39,627	\$ 41,523	\$ 52,169	\$ 46,241	\$ 53,145	\$ 55,705	\$ 56,815	\$ 57,814
17	Undrawn Borrowing Capacity	\$ 100,000								
18	Liquidity Ratio	2.57	2.52	2.41	1.92	2.16	1.88	1.80	1.76	1.73

Schedule may not foot due to rounding.



Risks to Meeting 2022-2023 Recommended Budget

Risks to Meeting 2022-2023 Recommended Budget: Higher-than-Projected Cost Inflation & Lower-than-Projected Load Growth



ERCOT's costs are forecast to continue to grow at a rate faster than load.

What is the sensitivity to ERCOT's financial health of variances to forecasts for these items?

Risks to Meeting 2022-2023 Recommended Budget: Sensitivity Analysis – Higher-than-Projected Cost Inflation & Lower-than-Projected Load Growth

2027 Ending (CRR Borrowing)/Cash Balance
\$ in Millions

		CAGR for Six Year Department Net Expenditures (2021-2027)						
		7.5%	7.0%	6.5%	6.0%	5.5%	5.0%	4.5%
CAGR for Six Year Load Growth (2021-2027)	1.0%	\$ (235.4)	\$ (209.6)	\$ (184.3)	\$ (157.8)	\$ (134.8)	\$ (110.7)	\$ (87.0)
	1.5%	\$ (191.5)	\$ (165.8)	\$ (140.4)	\$ (113.9)	\$ (91.0)	\$ (66.8)	\$ (43.1)
	2.0%	\$ (146.9)	\$ (121.2)	\$ (95.8)	\$ (69.3)	\$ (46.4)	\$ (22.2)	\$ 1.5
	2.5%	\$ (100.9)	\$ (75.1)	\$ (49.8)	\$ (23.3)	\$ (0.3)	\$ 23.8	\$ 47.5
	3.0%	\$ (55.5)	\$ (29.7)	\$ (4.4)	\$ 22.1	\$ 45.1	\$ 69.2	\$ 92.9
	3.5%	\$ (8.6)	\$ 17.1	\$ 42.5	\$ 69.0	\$ 91.9	\$ 116.1	\$ 139.8
	4.0%	\$ 39.0	\$ 64.8	\$ 90.1	\$ 116.6	\$ 139.6	\$ 163.7	\$ 187.4



Risks to Meeting 2022-2023 Recommended Budget: Risks Summary and Mitigation

Potential Risks

- Higher-than-Projected Cost Inflation
- Lower-than-Projected Load Growth
- Higher-than-Projected Costs from Legislative Requirements
- Higher-than-Projected Costs from Winter Weather Event
- New Costs

Mitigation Responses

- Reduce Department Net Expenditures (e.g., operational efficiencies)
- Reduce Project Expenditures
- Increase Debt & ERCOT's Use of CRR Funds
- Increase Fees

Request for Vote

Request for Vote

ERCOT staff recommends that the ERCOT Finance & Audit Committee recommend that the Board of Directors:

- Approve the recommended 2022-2023 Biennial Budget which includes \$322,167,883 and \$286,983,615 total spending authorization for operating expenses, project spending, and debt service obligations for 2022 and 2023, respectively
- Approve the recommended ERCOT system administration fee of \$0.555 per megawatt-hour rate for 2022 and 2023 and full recovery of the Senate Bill 3 generation and transmission inspection costs separately from the system administration fee
- Authorize ERCOT Legal to file the Board-approved 2022-2023 Biennial Budget for approval by the PUCT, pursuant to P.U.C. Substantive Rule Section 25.363(d)



Appendices

1. Department Net Expenditures by Office
 - ERCOT
 - Chief Information Office
 - Chief Operating Office
 - Chief Administrative Office
 - External Affairs and Corporate Communications
 - General Counsel
 - Chief Executive Office

2. Project Expenditures
 - Summary
 - Project Priority List Details

Department Net Expenditures by Office

Department Net Expenditures by Office

\$ in Thousands

ERCOT

Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	Salaries	\$ 98,852	\$ 103,460	\$ 101,834	\$ 113,023	\$ 118,909	\$ 125,568	\$ 132,600	\$ 140,025	\$ 147,867
2	Benefits & Taxes	30,818	33,314	33,158	36,636	38,357	40,505	42,773	45,169	47,698
3	Project Funded Labor	(11,893)	(11,842)	(12,278)	(13,400)	(13,939)	(14,719)	(15,544)	(16,414)	(17,333)
4	Vacancy	-	(3,414)	-	(4,361)	(4,584)	(4,840)	(5,112)	(5,398)	(5,700)
5	Department Labor	\$ 117,777	\$ 121,519	\$ 122,713	\$ 131,897	\$ 138,744	\$ 146,513	\$ 154,718	\$ 163,382	\$ 172,532
6	Materials, Supplies & Equipment	729	801	645	625	633	669	706	746	788
7	HW/SW License & Maintenance	26,522	24,836	27,441	34,185	35,259	37,233	39,318	41,520	43,845
8	Outside Services	15,240	18,109	18,429	20,401	19,705	20,808	21,573	22,404	23,303
9	Utility, Maintenance & Facility	8,873	10,367	11,105	10,933	9,793	10,342	10,921	11,533	12,178
10	Employee Expenses	1,426	3,361	1,173	1,707	2,263	2,390	2,524	2,665	2,815
11	Insurance	2,372	2,534	6,715	10,019	10,242	10,815	11,421	12,061	12,736
12	Other Expenses	2,816	3,217	2,815	13,577	13,376	14,125	14,916	15,751	16,633
13	Department Expense	\$ 175,756	\$ 184,743	\$ 191,036	\$ 223,345	\$ 230,015	\$ 242,896	\$ 256,098	\$ 270,062	\$ 284,830
14	Minor Capital & Common Infrastructure	2,638	2,425	2,198	2,175	1,500	1,584	1,673	1,766	1,865
15	Subtotal - Department Expenditures	\$ 178,393	\$ 187,168	\$ 193,234	\$ 225,520	\$ 231,515	\$ 244,480	\$ 257,771	\$ 271,828	\$ 286,695
16										
17	Revenues	\$ (6,866)	\$ (6,083)	\$ (8,726)	\$ (20,243)	\$ (20,462)	\$ (21,608)	\$ (22,818)	\$ (24,096)	\$ (25,445)
18										
19	Total Department Net Expenditures	\$ 171,527	\$ 181,085	\$ 184,509	\$ 205,277	\$ 211,053	\$ 222,872	\$ 234,952	\$ 247,732	\$ 261,250

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Chief Information Office

Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	Salaries	\$ 34,403	\$ 35,808	\$ 36,120	\$ 40,038	\$ 41,794	\$ 44,135	\$ 46,607	\$ 49,217	\$ 51,973
2	Benefits & Taxes	10,690	11,555	11,609	13,001	13,531	14,289	15,089	15,934	16,827
3	Project Funded Labor	(8,576)	(8,641)	(8,784)	(9,599)	(9,981)	(10,540)	(11,131)	(11,754)	(12,412)
4	Vacancy	-	(1,184)	-	(1,326)	(1,383)	(1,461)	(1,542)	(1,629)	(1,720)
5	Department Labor	\$ 36,517	\$ 37,537	\$ 38,945	\$ 42,113	\$ 43,961	\$ 46,423	\$ 49,023	\$ 51,768	\$ 54,667
6	Materials, Supplies & Equipment	193	157	186	189	188	199	210	222	234
7	HW/SW License & Maintenance	25,746	24,652	26,958	34,026	34,932	36,888	38,954	41,135	43,439
8	Outside Services	5,421	7,435	4,868	4,554	4,178	4,412	4,659	4,920	5,196
9	Utility, Maintenance & Facility	4,602	4,952	6,278	5,438	5,081	5,366	5,666	5,984	6,319
10	Employee Expenses	474	882	239	509	679	717	758	800	845
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	895	816	1,098	911	911	962	1,016	1,073	1,133
13	Department Expense	\$ 73,848	\$ 76,430	\$ 78,572	\$ 87,739	\$ 89,931	\$ 94,967	\$ 100,285	\$ 105,901	\$ 111,832
14	Minor Capital & Common Infrastructure	1,768	1,405	1,363	1,250	1,250	1,320	1,394	1,472	1,554
15	Subtotal - Department Expenditures	\$ 75,616	\$ 77,835	\$ 79,935	\$ 88,989	\$ 91,181	\$ 96,287	\$ 101,679	\$ 107,373	\$ 113,386
16										
17	*Revenues	\$ (3,628)	\$ (3,399)	\$ (4,736)	\$ (3,703)	\$ (3,362)	\$ (3,551)	\$ (3,749)	\$ (3,959)	\$ (4,181)
18										
19	Total Department Net Expenditures	\$ 71,987	\$ 74,436	\$ 75,199	\$ 85,287	\$ 87,819	\$ 92,737	\$ 97,930	\$ 103,414	\$ 109,205

* Private Wide-Area Network Fees

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Chief Administrative Office Total

Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	Salaries	\$ 18,655	\$ 19,476	\$ 18,686	\$ 21,304	\$ 23,042	\$ 24,333	\$ 25,695	\$ 27,134	\$ 28,654
2	Benefits & Taxes	5,775	6,230	6,062	6,686	7,136	7,535	7,957	8,403	8,873
3	Project Funded Labor	(1,912)	(1,787)	(2,058)	(2,523)	(2,520)	(2,661)	(2,810)	(2,967)	(3,133)
4	Vacancy	-	(637)	-	(700)	(754)	(797)	(841)	(888)	(938)
5	Department Labor	\$ 22,519	\$ 23,282	\$ 22,690	\$ 24,768	\$ 26,904	\$ 28,410	\$ 30,001	\$ 31,681	\$ 33,456
6	Materials, Supplies & Equipment	524	612	445	421	430	454	479	506	535
7	HW/SW License & Maintenance	754	129	481	152	317	335	354	374	395
8	Outside Services	6,919	7,364	6,848	8,135	8,470	8,945	9,446	9,975	10,533
9	Utility, Maintenance & Facility	4,236	5,415	4,790	5,473	4,691	4,953	5,231	5,524	5,833
10	Employee Expenses	408	896	241	450	600	634	669	707	747
11	Insurance	2,372	2,534	6,715	10,019	10,242	10,815	11,421	12,061	12,736
12	Other Expenses	561	517	420	690	673	711	750	792	837
13	Department Expense	\$ 38,293	\$ 40,750	\$ 42,630	\$ 50,109	\$ 52,327	\$ 55,257	\$ 58,352	\$ 61,620	\$ 65,070
14	Minor Capital & Common Infrastructure	719	1,020	820	925	250	264	279	294	311
15	Subtotal - Department Expenditures	\$ 39,012	\$ 41,770	\$ 43,450	\$ 51,034	\$ 52,577	\$ 55,521	\$ 58,631	\$ 61,914	\$ 65,381
16										
17	*Revenues	\$ 6	\$ -	\$ (8)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18										
19	Total Department Net Expenditures	\$ 39,018	\$ 41,770	\$ 43,442	\$ 51,034	\$ 52,577	\$ 55,521	\$ 58,631	\$ 61,914	\$ 65,381

*Cyber Monitoring Fees and Other Miscellaneous

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Grid Planning & Operations

Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	Salaries	\$ 24,740	\$ 25,367	\$ 25,441	\$ 27,552	\$ 28,739	\$ 30,348	\$ 32,048	\$ 33,842	\$ 35,738
2	Benefits & Taxes	8,030	8,353	8,528	9,290	9,667	10,208	10,780	11,383	12,021
3	Project Funded Labor	(423)	(739)	(424)	(500)	(500)	(528)	(558)	(589)	(622)
4	Vacancy	-	(843)	-	(921)	(960)	(1,014)	(1,071)	(1,131)	(1,194)
5	Department Labor	\$ 32,347	\$ 32,138	\$ 33,544	\$ 35,421	\$ 36,945	\$ 39,014	\$ 41,199	\$ 43,506	\$ 45,943
6	Materials, Supplies & Equipment	3	17	9	7	7	7	8	8	8
7	HW/SW License & Maintenance	5	50	0	0	0	0	0	0	0
8	Outside Services	1,659	1,550	1,547	1,933	1,157	1,221	1,290	1,362	1,438
9	Utility, Maintenance & Facility	1	-	1	1	1	1	1	1	1
10	Employee Expenses	331	892	453	404	538	569	600	634	670
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	836	1,314	943	11,404	11,350	11,985	12,656	13,365	14,114
13	Department Expense	\$ 35,182	\$ 35,961	\$ 36,498	\$ 49,169	\$ 49,998	\$ 52,798	\$ 55,754	\$ 58,877	\$ 62,174
14	Minor Capital & Common Infrastructure	47	-	15	-	-	-	-	-	-
15	Subtotal - Department Expenditures	\$ 35,230	\$ 35,961	\$ 36,513	\$ 49,169	\$ 49,998	\$ 52,798	\$ 55,754	\$ 58,877	\$ 62,174
16										
17	*Revenues	\$ (2,883)	\$ (2,353)	\$ (3,618)	\$ (16,208)	\$ (16,768)	\$ (17,706)	\$ (18,698)	\$ (19,745)	\$ (20,851)
18										
19	Total Department Net Expenditures	\$ 32,347	\$ 33,607	\$ 32,894	\$ 32,962	\$ 33,230	\$ 35,091	\$ 37,056	\$ 39,131	\$ 41,323

*Generation Interconnection Study Fees, Operations Training Seminar Registration Fees, Blackstart Training Registration Fees, & Inspection User Fees

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Commercial Operations

Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	Salaries	\$ 11,755	\$ 12,242	\$ 11,964	\$ 12,614	\$ 13,357	\$ 14,105	\$ 14,895	\$ 15,729	\$ 16,610
2	Benefits & Taxes	3,697	4,023	3,943	4,197	4,433	4,682	4,944	5,221	5,513
3	Project Funded Labor	(897)	(591)	(759)	(678)	(838)	(885)	(934)	(986)	(1,042)
4	Vacancy	-	(407)	-	(841)	(890)	(939)	(992)	(1,047)	(1,106)
5	Department Labor	\$ 14,556	\$ 15,267	\$ 15,148	\$ 15,292	\$ 16,063	\$ 16,963	\$ 17,913	\$ 18,916	\$ 19,975
6	Materials, Supplies & Equipment	3	8	4	4	4	4	4	4	5
7	HW/SW License & Maintenance	1	-	0	-	-	-	-	-	-
8	Outside Services	266	245	323	329	329	347	367	387	409
9	Utility, Maintenance & Facility	-	-	-	-	-	-	-	-	-
10	Employee Expenses	105	323	151	147	198	209	221	233	247
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	185	202	138	187	191	202	213	225	238
13	Department Expense	\$ 15,116	\$ 16,045	\$ 15,764	\$ 15,959	\$ 16,785	\$ 17,725	\$ 18,717	\$ 19,766	\$ 20,873
14	Minor Capital & Common Infrastructure	-	-	-	-	-	-	-	-	-
15	Subtotal - Department Expenditures	\$ 15,116	\$ 16,045	\$ 15,764	\$ 15,959	\$ 16,785	\$ 17,725	\$ 18,717	\$ 19,766	\$ 20,873
16										
17	Revenues	\$ -	\$ -	\$ -	\$ -					
18										
19	Total Department Net Expenditures	\$ 15,116	\$ 16,045	\$ 15,764	\$ 15,959	\$ 16,785	\$ 17,725	\$ 18,717	\$ 19,766	\$ 20,873

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

External Affairs and Corporate Communications

Line	2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1 Salaries	\$ 4,715	\$ 5,190	\$ 4,291	\$ 5,247	\$ 5,457	\$ 5,763	\$ 6,086	\$ 6,426	\$ 6,786
2 Benefits & Taxes	1,479	1,709	1,530	1,749	1,814	1,915	2,022	2,136	2,255
3 Project Funded Labor	(84)	(83)	(252)	(100)	(100)	(106)	(112)	(118)	(124)
4 Vacancy	-	(172)	-	(175)	(182)	(192)	(203)	(214)	(226)
5 Department Labor	\$ 6,111	\$ 6,643	\$ 5,568	\$ 6,722	\$ 6,989	\$ 7,381	\$ 7,794	\$ 8,230	\$ 8,691
6 Materials, Supplies & Equipment	3	4	0	1	1	1	1	1	1
7 HW/SW License & Maintenance	14	5	1	6	6	7	7	7	8
8 Outside Services	132	257	773	1,514	1,514	1,599	1,688	1,783	1,883
9 Utility, Maintenance & Facility	-	-	-	-	-	-	-	-	-
10 Employee Expenses	50	181	16	80	106	112	118	125	132
11 Insurance	-	-	-	-	-	-	-	-	-
12 Other Expenses	101	149	118	93	93	98	104	110	116
13 Department Expense	\$ 6,411	\$ 7,240	\$ 6,476	\$ 8,416	\$ 8,710	\$ 9,198	\$ 9,713	\$ 10,257	\$ 10,831
14 Minor Capital & Common Infrastructure	-	-	-	-	-	-	-	-	-
15 Subtotal - Department Expenditures	\$ 6,411	\$ 7,240	\$ 6,476	\$ 8,416	\$ 8,710	\$ 9,198	\$ 9,713	\$ 10,257	\$ 10,831
16									
17 *Revenues	\$ (76)	\$ (63)	\$ (82)	\$ (63)	\$ (63)	\$ (66)	\$ (70)	\$ (74)	\$ (78)
18									
19 Total Department Net Expenditures	\$ 6,335	\$ 7,178	\$ 6,394	\$ 8,353	\$ 8,647	\$ 9,132	\$ 9,643	\$ 10,183	\$ 10,753

*Market Participant Registration Fees

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

General Counsel

Line	2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1 Salaries	\$ 2,906	\$ 3,102	\$ 3,322	\$ 4,050	\$ 4,212	\$ 4,448	\$ 4,697	\$ 4,960	\$ 5,238
2 Benefits & Taxes	799	957	1,005	1,212	1,257	1,328	1,402	1,480	1,563
3 Project Funded Labor	(3)	-	(1)	-	-	-	-	-	-
4 Vacancy	-	(101)	-	(263)	(273)	(289)	(305)	(322)	(340)
5 Department Labor	\$ 3,702	\$ 3,957	\$ 4,325	\$ 4,999	\$ 5,196	\$ 5,487	\$ 5,794	\$ 6,118	\$ 6,461
6 Materials, Supplies & Equipment	1	4	1	3	3	3	3	3	4
7 HW/SW License & Maintenance	1	-	0	0	3	3	4	4	4
8 Outside Services	842	1,257	3,870	3,924	4,044	4,270	4,110	3,962	3,829
9 Utility, Maintenance & Facility	34	-	35	21	21	22	23	25	26
10 Employee Expenses	33	114	10	53	70	74	78	83	87
11 Insurance	-	-	-	-	-	-	-	-	-
12 Other Expenses	229	199	92	274	140	148	156	165	174
13 Department Expense	\$ 4,841	\$ 5,531	\$ 8,334	\$ 9,273	\$ 9,477	\$ 10,007	\$ 10,168	\$ 10,360	\$ 10,585
14 Minor Capital & Common Infrastructure	104	-	-	-	-	-	-	-	-
15 Subtotal - Department Expenditures	\$ 4,945	\$ 5,531	\$ 8,334	\$ 9,273	\$ 9,477	\$ 10,007	\$ 10,168	\$ 10,360	\$ 10,585
16									
17 *Revenues	\$ (285)	\$ (268)	\$ (282)	\$ (270)	\$ (270)	\$ (285)	\$ (301)	\$ (318)	\$ (336)
18									
19 Total Department Net Expenditures	\$ 4,660	\$ 5,262	\$ 8,052	\$ 9,003	\$ 9,207	\$ 9,722	\$ 9,867	\$ 10,042	\$ 10,249

*Membership Dues

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Chief Executive Office

Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	Salaries	\$ 1,678	\$ 2,276	\$ 2,010	\$ 2,218	\$ 2,307	\$ 2,436	\$ 2,573	\$ 2,717	\$ 2,869
2	Benefits & Taxes	348	488	482	500	519	548	579	612	646
3	Project Funded Labor	-	-	-	-	-	-	-	-	-
4	Vacancy	-	(69)	-	(136)	(141)	(149)	(158)	(166)	(176)
5	Department Labor	\$ 2,026	\$ 2,695	\$ 2,492	\$ 2,583	\$ 2,685	\$ 2,836	\$ 2,994	\$ 3,162	\$ 3,339
6	Materials, Supplies & Equipment	2	0	0	1	1	1	1	1	1
7	HW/SW License & Maintenance	-	-	0	-	-	-	-	-	-
8	Outside Services	-	-	200	13	13	13	14	15	16
9	Utility, Maintenance & Facility	-	-	-	-	-	-	-	-	-
10	Employee Expenses	26	72	64	64	71	75	79	83	88
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	11	20	6	18	18	19	20	22	23
13	Department Expense	\$ 2,064	\$ 2,787	\$ 2,763	\$ 2,679	\$ 2,787	\$ 2,943	\$ 3,108	\$ 3,282	\$ 3,466
14	Minor Capital & Common Infrastructure	-	-	-	-	-	-	-	-	-
15	Subtotal - Department Expenditures	\$ 2,064	\$ 2,787	\$ 2,763	\$ 2,679	\$ 2,787	\$ 2,943	\$ 3,108	\$ 3,282	\$ 3,466
16										
17	Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18										
19	Total Department Net Expenditures	\$ 2,064	\$ 2,787	\$ 2,763	\$ 2,679	\$ 2,787	\$ 2,943	\$ 3,108	\$ 3,282	\$ 3,466

Schedule may not foot due to rounding.



Project Expenditures

Project Expenditures

\$ in Thousands

Project Expenditures										
Line		2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection
1	Regulatory	\$ 567	\$ 2,000	\$ 500	\$ 2,000	\$ 2,000	\$ 2,000	\$ 3,000	\$ 3,000	\$ 3,000
2	Revision Requests	2,775	4,000	4,500	2,000	1,500	2,500	4,000	5,000	5,000
3	Internal Enhancements	11,673	11,000	9,700	5,875	2,625	10,900	12,850	11,900	11,700
4	Software Technical Health	15,197	9,750	12,400	19,389	9,884	14,167	14,400	13,000	13,750
5	IT Infrastructure	5,260	2,250	6,300	26,750	10,725	13,350	5,300	5,000	11,500
6	Passport Market Design - PPL	11	-	200	-	339	1,898	2,576	1,966	-
7	Passport Market Design - Real Time Co-optimization	2,728	5,000	1,300	-	2,415	13,060	17,637	13,230	-
8	MET Center Replacement	-	-	4,713	15,211	-	-	-	-	-
9	Project Expenditures	\$ 38,212	\$ 34,000	\$ 39,613	\$ 71,224	\$ 29,487	\$ 57,875	\$ 59,762	\$ 53,096	\$ 44,950

Schedule may not foot due to rounding.



Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
1	Revision Requests	BES (Battery Energy Storage) Combo Model Implementation NPRR963 - Base Point Deviation Settlement & Deployment Performance Metrics for ESRs (Energy Storage Resources) (Combo Model) NPRR987 - BESTF-3 ESR Contribution to Physical Responsive Capability and RT On-Line Reserve Capacity Calcs NPRR989 - BESTF-1 ESR Technical Requirements NPRR1002 - BESTF-5 ESR Single Model Registration and Charging Restrictions in Emergency Conditions NPRR1026 - BESTF-7 Self-Limiting Facilities and Self-Limiting Resources NPRR1038 - BESTF-8 Limited Exemption from Reactive Power Requirements for Certain ESRs NPRR1069 - Align Ancillary Service Responsibility for ESRs with NPRR987 NOGRR204 - Related to NPRR989, BESTF-1 ESR Technical Requirements NOGRR208 - Related to NPRR1002, BESTF-5 ESR Single Model Registration and Charging Restrictions in Emergency Conditions OBDRR017 - Related to NPRR987, BESTF-3 ESR Contribution to Physical Responsive Capability and Real-Time On-Line Reserve Capacity Calculations PGRR081 - Related to NPRR1026, BESTF-7 Self-Limiting Facilities RRGRR023 - Related to NPRR1002, BESTF-5 ESR Single Model Registration and Charging Restrictions in Emergency Conditions	\$500k-\$1M	-
2	Revision Requests	RARF Replacement (SCR781)	\$500k-\$1M	-
3	Revision Requests	Fast Frequency Response (FFR) Advancement (NPRR863)	\$100k-\$250k	-
4	Revision Requests	Increase CRR Transaction Capability (SCR807)	\$100k-\$250k	-
5	Revision Requests	Interconnection Request Cancellation and Creation of Inactive Status (PGRR066)	\$100k-\$250k	-
6	Revision Requests	Revisions to Real-Time On-Line Reliability Deployment Price Adder for ERCOT-Directed Actions Related to DC Ties and to Correct Design Flaws (NPRR904)	\$100k-\$250k	-
7	Revision Requests	Process Pricing and Cost Recovery for Delayed Resource Outages (NPRR930)	\$100k-\$250k	-
8	Revision Requests	Update Real-Time On-Line Reliability Deployment Price Adder Inputs to Match Actual Data (NPRR1006)	\$100k-\$250k	-
9	Revision Requests	Creation of Direct Current Tie Operator Market Participant Role (NPRR857)	\$100k-\$250k	\$250k-\$500k
10	Revision Requests	Incorporate Real-Time Non-Modeled Telemetered Net Generation by Load Zone into the Estimate of RTL (NPRR829)	\$100k-\$250k	-
11	Revision Requests	Allow Some Integrated Energy Storage Designs to Calculate Internal Loads (NPRR1020)	\$100k-\$250k	-
12	Revision Requests	SCED Base Point, Base Point Deviation, and Performance Evaluation Changes for IRRs that Carry Ancillary Services (NPRR879)	\$50k-\$100k	-
13	Revision Requests	CRR Account Holder Limits (NPRR936)	\$50k-\$100k	\$100k-\$250k
14	Revision Requests	Pricing and Settlement Changes for Switchable Generation Resources (SWGRs) Instructed to Switch to ERCOT (NPRR1019)	\$50k-\$100k	-
15	Revision Requests	Changes to External Telemetry Validations in Resource Limit Calculator (SCR809)	<\$50k	-



Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
16	Revision Requests	DGR (Distributed Generation Resource) DESR (Distributed Energy Storage) Implementation NPRR917 - Nodal Pricing for SODGs and SOTGs NPRR1016 - Clarify Requirements for DGRs and DESRs NPRR1052 - Load Zone Pricing for Settlement Only Storage Prior to NPRR995 Implementation NPRR1065 - Implementation Adjustment for NPRR917 NOGRR212 - Related to NPRR1016, Clarify Requirements for DGRs and DESRs PGRR082 - Revise Section 5 and Establish Small Generation Interconnection Process RRGRR026 - Related to NPRR1016, Clarify Requirements for DGRs and DESRs	<\$50k	-
17	Revision Requests	Load Forecast Model Transparency (NPRR975)	<\$50k	-
18	Revision Requests	ORDC OBD Revisions for ERCOT-Directed Actions Related to DC Ties (OBDRR009)	<\$50k	-
19	Revision Requests	Modification to Load Resources Providing RRS to Maintain Minimum PRC on Generators During Scarcity Conditions (NPRR939)	<\$50k	-
20	Revision Requests	Validation for PTP Obligations with Links to an Option (NPRR918)	<\$50k	-
21	Revision Requests	Modify Allocator for CRR Auction Revenue Distribution (NPRR1030)	-	\$100k-\$250k
22	Revision Requests	ERCOT Outage Study Cases in the System Operations Test Environment (SOTE) (SCR799)	-	\$100k-\$250k
23	Revision Requests	EMS System Change to Count DC Ties towards the 2% Constraint Activation Criterion (SCR810)	-	<\$50k
24	Revision Requests	Load Distribution Factor Process Update (NPRR1004)	-	<\$50k
25	Revision Requests	Provide Early Access to Certain 60-Day Reports to TSPs Upon Request (SCR805)	-	<\$50k
26	Revision Requests	Additional Revision Request Funding - 2022/2023	\$500k-\$1M	\$1M-\$2M

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
27	Regulatory	Real-Time Co-Optimization (NPRR1007-NPRR1013, NPRR1014, NPRR1029)	-	\$2M-\$4M
28	Regulatory	CIP-012 Data Center Communication Upgrade	\$500k-\$1M	-
29	Regulatory	CAT/PUC-Report CAT	<\$50k	\$100k-\$250k
30	Regulatory	Additional Regulatory Funding - 2022/2023	\$1M-\$2M	\$1M-\$2M



Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
31	Internal Enhancements	Application Testing Modernization	\$500k-\$1M	-
32	Internal Enhancements	Cyber Security Project #1	\$500k-\$1M	-
33	Internal Enhancements	Metadata Management and Search Enhancement	\$500k-\$1M	-
34	Internal Enhancements	CMM (Credit Monitoring and Management) Phase 3	\$500k-\$1M	\$100k-\$250k
35	Internal Enhancements	Conditional Contingency Definitions	\$250k-\$500k	-
36	Internal Enhancements	Forecast Presentation Platform	\$250k-\$500k	-
37	Internal Enhancements	Modeling and Graphic Editor (MAGE) Enhancements	\$250k-\$500k	-
38	Internal Enhancements	Second Solar Forecast	\$250k-\$500k	-
39	Internal Enhancements	Treasury Management Risk Mitigation	\$250k-\$500k	-
40	Internal Enhancements	Add Second PVGR (PhotoVoltaic Generation Resource) Forecast Vendor	\$100k-\$250k	-
41	Internal Enhancements	ECMS (Enterprise Content Management System) Implementation Phase 2	\$100k-\$250k	-
42	Internal Enhancements	Enhanced Extreme Weather Load Forecast	\$100k-\$250k	-
43	Internal Enhancements	TCC4 Switchable Control Room / Training Center	\$100k-\$250k	-
44	Internal Enhancements	Enabling Records Management in ECMS	\$100k-\$250k	\$100k-\$250k
45	Internal Enhancements	Improve Efficiency of Accessing Public API and Expired Public Data Requests	\$50k-\$100k	-
46	Internal Enhancements	Infrastructure Service Delivery Phase 2 - Automation	\$50k-\$100k	-
47	Internal Enhancements	ISM Database Modernization & Architecture Strategy	\$50k-\$100k	-
48	Internal Enhancements	Information Governance Coordinator Network Implementation	\$50k-\$100k	\$50k-\$100k
49	Internal Enhancements	Data Access Governance and Monitoring Solution	\$50k-\$100k	\$250k-\$500k
50	Internal Enhancements	Monitoring Tools Optimization	\$50k-\$100k	\$250k-\$500k
51	Internal Enhancements	Automation of Mothballed Status & Seasonal Operation Period, and other Siebel Fields	<\$50k	-
52	Internal Enhancements	CMM Phase 2	<\$50k	-



Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
53	Internal Enhancements	DSA (Dynamic Security Assessment) Application Upgrade	<\$50k	-
54	Internal Enhancements	NMMS Usability Enhancements	-	<\$50k
55	Internal Enhancements	Federated Search Experience (internal users)	-	\$50k-\$100k
56	Internal Enhancements	ISM Architecture Re-Design	-	\$100k-\$250k
57	Internal Enhancements	Replace Net Dependable Capability and Reactive Capability (NDCRC)	-	\$100k-\$250k
58	Internal Enhancements	Security Constrained Unit Commitment (SCUC)	-	\$2M-\$3M
59	Internal Enhancements	Additional Internal Enhancement Funding - 2022/2023	<\$50k	<\$50k

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
60	IT Infrastructure	DC5 Automated Provisioning	\$100k-\$250k	-
61	IT Infrastructure	DC5 Remote Access	\$250k-\$500k	-
62	IT Infrastructure	DC5 x86 and RISC Compute Infrastructure	\$15M-\$20M	\$100k-\$250k
63	IT Infrastructure	DC5 Application Migrations	\$500k-\$1M	\$250k-\$500k
64	IT Infrastructure	DC5 Licensing Purchase	\$250k-\$500k	\$250k-\$500k
65	IT Infrastructure	DC5 Telecom Core	\$1M-\$2M	\$250k-\$500k
66	IT Infrastructure	DC5 Network Core	\$3M-\$4M	\$500k-\$1M
67	IT Infrastructure	DC5 Backup and Recovery	\$2M-\$3M	\$1M-\$2M
68	IT Infrastructure	DC5 Program Control	\$100k-\$250k	\$50k-\$100k
69	IT Infrastructure	Battery Replacement - Large - Location 1	\$100k-\$250k	-



Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
70	IT Infrastructure	Battery Replacement - Small - Location 2	<\$50k	<\$50k
71	IT Infrastructure	Battery Replacement - Small - Location 3	-	<\$50k
72	IT Infrastructure	Battery Replacement - Large - Location 2	-	\$250k-\$500k
73	IT Infrastructure	Battery Replacement - Large - Location 3	-	\$250k-\$500k
74	IT Infrastructure	Replace HVAC Controls - Location 1	\$250k-\$500k	-
75	IT Infrastructure	Replace HVAC Controls - Location 2	-	\$250k-\$500k
76	IT Infrastructure	Replace Control Room Video Wall - Location 1	-	\$500k-\$1M
77	IT Infrastructure	Platform Refresh – Windows Server Upgrade	\$100k-\$250k	\$100k-\$250k
78	IT Infrastructure	Common Infrastructure	\$250k-\$500k	\$250k-\$500k
79	IT Infrastructure	Additional Internal Enhancement Funding - 2022/2023	<\$50k	<\$50k

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
80	Software Technical Health	EMS (Energy Management System) Upgrade	\$8M-\$10M	\$4M-\$6M
81	Software Technical Health	Database Operating System Upgrade	\$1M-\$2M	-
82	Software Technical Health	NMMS (Network Model Management System) Tech Stack Upgrade	\$1M-\$2M	\$50k-\$100k
83	Software Technical Health	Business Resiliency - Production Hardening - Grid Operations	\$500k-\$1M	-
84	Software Technical Health	Tech Refresh - Data Warehouse	\$500k-\$1M	-
85	Software Technical Health	Tech Refresh - Middleware Upgrade	\$500k-\$1M	-
86	Software Technical Health	Tech Refresh - MPIM (Market Participant Identity Management) - Phase 1	\$500k-\$1M	-
87	Software Technical Health	Collaboration Software Update	\$500k-\$1M	<\$50k
88	Software Technical Health	Mapping System Upgrade	\$250k-\$500k	-
89	Software Technical Health	NAESB Application Upgrade (Retail)	\$250k-\$500k	-



Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2022 Budget Range	2023 Budget Range
90	Software Technical Health	Pi Upgrade	\$250k-\$500k	-
91	Software Technical Health	Tech Refresh - MarkeTrak Upgrade	\$250k-\$500k	-
92	Software Technical Health	Cyber Security Project #2	\$250k-\$500k	\$50k-\$100k
93	Software Technical Health	IT Service Management Modernization	\$250k-\$500k	\$250k-\$500k
94	Software Technical Health	Privileged Account Management Phase 2	\$250k-\$500k	\$500k-\$1M
95	Software Technical Health	Tech Refresh - MPIM (Market Participant Identity Management) - Phase 2	\$250k-\$500k	\$500k-\$1M
96	Software Technical Health	CRR (Congestion Revenue Rights) Technical Refresh	\$100k-\$250k	-
97	Software Technical Health	Physical Security Project #1	\$100k-\$250k	-
98	Software Technical Health	Tech Refresh - ITron Upgrade	\$100k-\$250k	-
99	Software Technical Health	Tech Refresh – DSA Upgrade	\$100k-\$250k	\$100k-\$250k
100	Software Technical Health	Content Delivery Software Refresh	\$100k-\$250k	\$250k-\$500k
101	Software Technical Health	DTR User Interface Rewrite	\$100k-\$250k	\$250k-\$500k
102	Software Technical Health	Cyber Security Project #3	\$50k-\$100k	-
103	Software Technical Health	Tech Refresh - Server Operating Systems 2021	<\$50k	-
104	Software Technical Health	Tech Refresh - CMM	-	\$500k-\$1M
105	Software Technical Health	Tech Refresh - Server Operating Systems 2023	-	\$500k-\$1M
106	Software Technical Health	Tech Refresh - Monitoring Tools	-	\$250k-\$500k
107	Software Technical Health	Cyber Security Project #4	-	\$100k-\$250k
108	Software Technical Health	Cyber Security Project #5	-	\$100k-\$250k
109	Software Technical Health	Tech Refresh - MPIM (Market Participant Identity Management) - Phase 3	-	\$100k-\$250k
110	Software Technical Health	Identity Access Management Technical Refresh	-	<\$50k
111	Software Technical Health	Tech Foundation -Software Projects Expected to be Approved in 2022/2023	<\$50k	<\$50k





Date: August 3, 2021
To: Board of Directors
From: Nick Fehrenbach, Finance and Audit (F&A) Committee Chairman
Subject: 2022-2023 Budget and Fee

Issue for the ERCOT Board of Directors

ERCOT Board of Directors Meeting Date: August 10, 2021

Item No.: 9.2

Issue:

Approval by the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) of the ERCOT 2022-2023 Biennial Budget.

Background/History:

Public Utility Commission of Texas (PUCT) Substantive Rule 25.363, ERCOT Budget and Fee

P.U.C. SUBST. R. 25.363(e) provides that the ERCOT budget (Budget) and any change in the system administration fee are subject to review and approval by the PUCT. P.U.C. SUBST. R. 25.363(d) further specifies that the review and approval of a proposed Budget, or a proceeding to authorize and set the range for the amount of the fee is not a contested case.

P.U.C. SUBST. R. 25.363(e) provides that, prior to submission of the Budget for Board approval, ERCOT shall consult with PUCT staff in connection with the development of the Budget and provide PUCT staff with information concerning budget strategies, staffing requirements, categories of expenses, capital outlays, exceptional expenses and capital items, and proposals to incur additional debt.

ERCOT Bylaws

Sections 4.10 (*Duties*) and 10.3 (*Budget*) of the ERCOT Bylaws require that the Board approve the Budget.

ERCOT Board Policies and Procedures

Section 3.3 of the Board Policies and Procedures provides as follows:

The CEO will present to the Board by October of each year when the Budget is to be approved, or at such other time as directed by the Board, a Budget to carry out the Board's directives for the following year or longer as directed by the Board. The Budget will include projections of ERCOT's overall financial performance and financing plans, and describe the services, projects, programs, and the associated revenues and expenditures for the next fiscal year. Adoption of the Budget by the Board and as approved by the PUCT authorizes the CEO to complete work

plans and make associated expenditures as provided for in accordance with the Budget.

F&A Committee Charter

The Duties and Responsibilities section of the Finance & Audit Committee Charter states in pertinent part:

With respect to budget oversight...

1. Annually or biennially, the Committee shall review staff's proposed budget for the following year(s).
2. The Committee shall review the staff's recommendation of the amount and type of financing needed, both revenue and debt financing, to support the proposed budget and meet the Company's liquidity needs.
3. Following the Committee's review of the above items, the Committee shall recommend to the Board, a proposed budget and associated financing plan for the following year(s).

The F&A Committee is expected to recommend to the Board whether it should approve, reject or amend the 2022-2023 Biennial Budget at the Board's August 10, 2021 meeting.

Key Factors Influencing Issue:

- ERCOT requires approval of the Budget by the Board and the PUCT for funding to enable ERCOT to fulfill its statutory functions as an independent organization as required by Section 39.151(a) of the Public Utility Regulatory Act (PURA). For instance, ERCOT must have adequate funds in 2022 and 2023 to:
 - Maintain compliance with the Financial Corporate Standard and associated financial performance measures as approved by the Board;
 - Fund independent market monitoring, PURA, and North American Electric Reliability Corporation (NERC) compliance functions;
 - Staff appropriately to participate in and support full market operations;
 - Implement system improvements and required functionality to support the market;
 - Enhance and maintain the computer systems and associated services contracted for with vendors;
 - Maintain necessary facilities to provide secure operations and house staff; and
 - Fund additional costs resulting from the February 2021 extreme winter weather event and the 87th Texas Legislature Regular Session.
- In the fourth quarter of 2020 and the first three quarters of 2021, ERCOT staff discussed financial assumptions, methodologies, schedules and a system administration fee rate relating to the 2022-2023 Biennial Budget with PUCT staff designated by the PUCT Executive Director.
- ERCOT staff will present its recommended 2022-2023 Biennial Budget to the F&A Committee on August 9, 2021.

- The Budget recommended by ERCOT staff will keep the ERCOT system administration fee rate flat at \$0.555 for 2022 and 2023.
- The Budget recommended by ERCOT staff does not fund the inspections required by Senate Bill 3 from the system administration fee. Those inspection costs will be funded through a different recovery mechanism, such as an ERCOT user fee.

Conclusion/Recommendation:

ERCOT staff recommends, and the F&A Committee is expected to recommend, that the Board:

- Approve the recommended 2022-2023 Biennial Budget as set forth in Attachment A, which includes \$322,167,883 and \$286,983,615 total spending authorization for operating expenses, project spending, and debt service obligations for 2022 and 2023, respectively;
- Approve the recommended ERCOT system administration fee of \$0.555 per megawatt-hour rate for 2022 and 2023 and full recovery of the Senate Bill 3 generation and transmission inspection costs separately from the system administration fee as set forth in Attachment B; and
- Authorize ERCOT Legal to file the Board-approved 2022-2023 Biennial Budget for approval by the PUCT, pursuant to P.U.C. SUBST. R. 25.363(d).



ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
BOARD OF DIRECTORS RESOLUTION

WHEREAS, after due consideration of the alternatives, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to accept the recommendations of ERCOT staff and the Finance and Audit (F&A) Committee that the Board approve the ERCOT recommended 2022-2023 Biennial Budget (Budget), which includes operating expenses, project spending, and debt service obligations;

WHEREAS, Sections 4.10 (*Duties*) and 10.3 (*Budget*) of the Amended and Restated Bylaws of Electric Reliability Council of Texas, Inc., approved on July 31, 2020 (Bylaws), requires that the Board approve the Budget;

WHEREAS, ERCOT staff discussed financial assumptions, methodologies and schedules relating to the Budget in a public meeting with the F&A Committee, and consulted with the staff of the Public Utility Commission of Texas (PUCT) regarding development of the Budget;

WHEREAS, ERCOT staff presented its recommended 2022-2023 Biennial Budget, which includes a total spending authorization of \$322,167,883 and \$286,983,615 respectively; and

WHEREAS, the Budget recommended by ERCOT staff will keep the ERCOT system administration fee flat at \$0.555 for 2022 and 2023;

THEREFORE, BE IT RESOLVED, that the Board hereby:

- Approves the recommended 2022-2023 Biennial Budget as set forth in Attachment A, which includes \$322,167,883 and \$286,983,615 total spending authorization for operating expenses, project spending, and debt service obligations for 2022 and 2023, respectively; and
- Approves the recommended ERCOT system administration fee rate of \$0.555 per megawatt-hour for 2022 and 2023 and full recovery of the Senate Bill 3 generation and transmission inspection costs separately from the system administration fee as set forth in Attachment B; and
- Authorizes ERCOT Legal to file the Board-approved 2022-2023 Biennial Budget for approval by the PUCT, pursuant to P.U.C. SUBST. R. 25.363(d).



CORPORATE SECRETARY'S CERTIFICATE

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its August 10, 2021 urgent meeting by teleconference, the ERCOT Board passed a motion approving the above Resolution by _____.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of August, 2021.

Vickie G. Leady
Assistant Corporate Secretary

Attachment A

Fiscal Years 2022-2023 Management Recommended Budget

(\$ in Thousands)

Sources and Uses				2022	2023	2024	2025	2026	2027	
	2020	2021	2021	2022	2023	2024	2025	2026	2027	
	Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection	
1	System Administration Fee Revenues	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 295,543	\$ 299,699	\$ 304,473	\$ 309,160
2	Reliability Organization Assessment *	19,400	19,800	19,541	20,000	20,500	21,000	21,500	22,000	22,500
3	Interest Income	4,298	20,000	193	6	4	7	7	7	7
4	Other Revenues	6,866	6,083	8,726	20,243	20,462	21,608	22,818	24,096	25,445
5	CRR Borrowings	-	-	-	23,062	5,144	-	574	1,670	2,112
6	Decrease in Cash Balance	-	-	6,969	25,970	-	-	-	-	-
7	Total Sources	\$ 242,749	\$ 275,157	\$ 257,820	\$ 322,168	\$ 286,984	\$ 338,158	\$ 344,599	\$ 352,246	\$ 359,224
8	Department Expenditures	\$ 178,393	\$ 187,168	\$ 193,234	\$ 225,520	\$ 231,515	\$ 244,480	\$ 257,771	\$ 271,828	\$ 286,695
9	Project Expenditures	35,457	29,000	33,600	56,014	27,072	44,815	42,126	39,866	44,950
10	Real Time Co-optimization Project	2,727	5,000	1,300	-	2,415	13,060	17,637	13,230	-
11	MET Center Replacement Project	-	-	4,713	15,211	-	-	-	-	-
12	Reliability Organization Assessment *	19,400	19,800	19,541	20,000	20,500	21,000	21,500	22,000	22,500
13	Debt Service	5,577	5,531	5,431	5,423	5,481	5,504	5,566	5,322	5,079
14	Repayment of CRR Borrowings	-	-	-	-	-	9,300	-	-	-
15	Increase in Cash Balance	1,195	28,657	-	-	-	-	-	-	-
16	Total Uses	\$ 242,749	\$ 275,157	\$ 257,820	\$ 322,168	\$ 286,984	\$ 338,158	\$ 344,599	\$ 352,246	\$ 359,224

* Reliability Organization Assessment is a pass-through collected on behalf of the Texas Regional Entity; it is not set by ERCOT.

Schedule may not foot due to rounding.

Attachment B

Fiscal Years 2022-2023 Management Recommended Budget

(\$ in Thousands, except rates)

Budget Summary										
Line	2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection	
1	System Administration Fee Rate	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665
2	Energy Consumption (GWH)	382,315	413,107	400,705	419,616	434,006	444,426	450,676	457,854	464,903
3	System Administration Fee Revenues	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 295,543	\$ 299,699	\$ 304,473	\$ 309,160
4	Department Net Expenditures	\$ 171,527	\$ 181,085	\$ 184,509	\$ 205,277	\$ 211,053	\$ 222,872	\$ 234,952	\$ 247,732	\$ 261,250
5	Project Expenditures	35,457	29,000	33,600	56,014	27,072	44,815	42,126	39,866	44,950
6	Real Time Co-optimization Project	2,727	5,000	1,300	-	2,415	13,060	17,637	13,230	-
7	MET Center Replacement Project	-	-	4,713	15,211	-	-	-	-	-
8	Total Net Expenditures	\$ 209,711	\$ 215,085	\$ 224,122	\$ 276,502	\$ 240,540	\$ 280,746	\$ 294,715	\$ 300,828	\$ 306,200
9	Net Available Before Non-Operating Sources &	\$ 2,474	\$ 14,189	\$ (1,731)	\$ (43,615)	\$ 333	\$ 14,797	\$ 4,985	\$ 3,645	\$ 2,960
10	Debt Service	\$ (5,577)	\$ (5,531)	\$ (5,431)	\$ (5,423)	\$ (5,481)	\$ (5,504)	\$ (5,566)	\$ (5,322)	\$ (5,079)
11	Interest Income	4,298	20,000	193	6	4	7	7	7	7
12	Non-Operating Sources & Uses	\$ (1,279)	\$ 14,469	\$ (5,238)	\$ (5,417)	\$ (5,478)	\$ (5,497)	\$ (5,558)	\$ (5,315)	\$ (5,072)
13	Net Available	\$ 1,195	\$ 28,657	\$ (6,969)	\$ (49,032)	\$ (5,144)	\$ 9,300	\$ (574)	\$ (1,670)	\$ (2,112)
Year-End Balances: Notes Payable, CRR Borrowings, and Cash										
	2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection	
14	Notes Payable Balance	\$ 47,000	\$ 43,000	\$ 43,000	\$ 39,000	\$ 35,000	\$ 31,000	\$ 27,000	\$ 23,000	\$ 19,000
15	CRR Borrowings Balance	\$ -	\$ -	\$ -	\$ 23,062	\$ 28,206	\$ 18,906	\$ 19,480	\$ 21,150	\$ 23,262
16	Cash Balance	\$ 32,939	\$ 84,586	\$ 25,970	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Schedule may not foot due to rounding.