



Item 5: Discussion of 2022-2023 Biennial Budget Assumptions

Sean Taylor

Vice President and Chief Financial Officer

Urgent Finance & Audit Committee and Board of Directors Meeting

ERCOT Public

July 23, 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).

Today is **DISCUSSION** only. The vote request will be at the August meeting.



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. Extrapolation for a Ten-Year View
5. Risks to Meeting 2022-2023 Recommended Budget

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 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, unaffiliated 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 conducted 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

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
 - Incorporation of 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**
 - 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

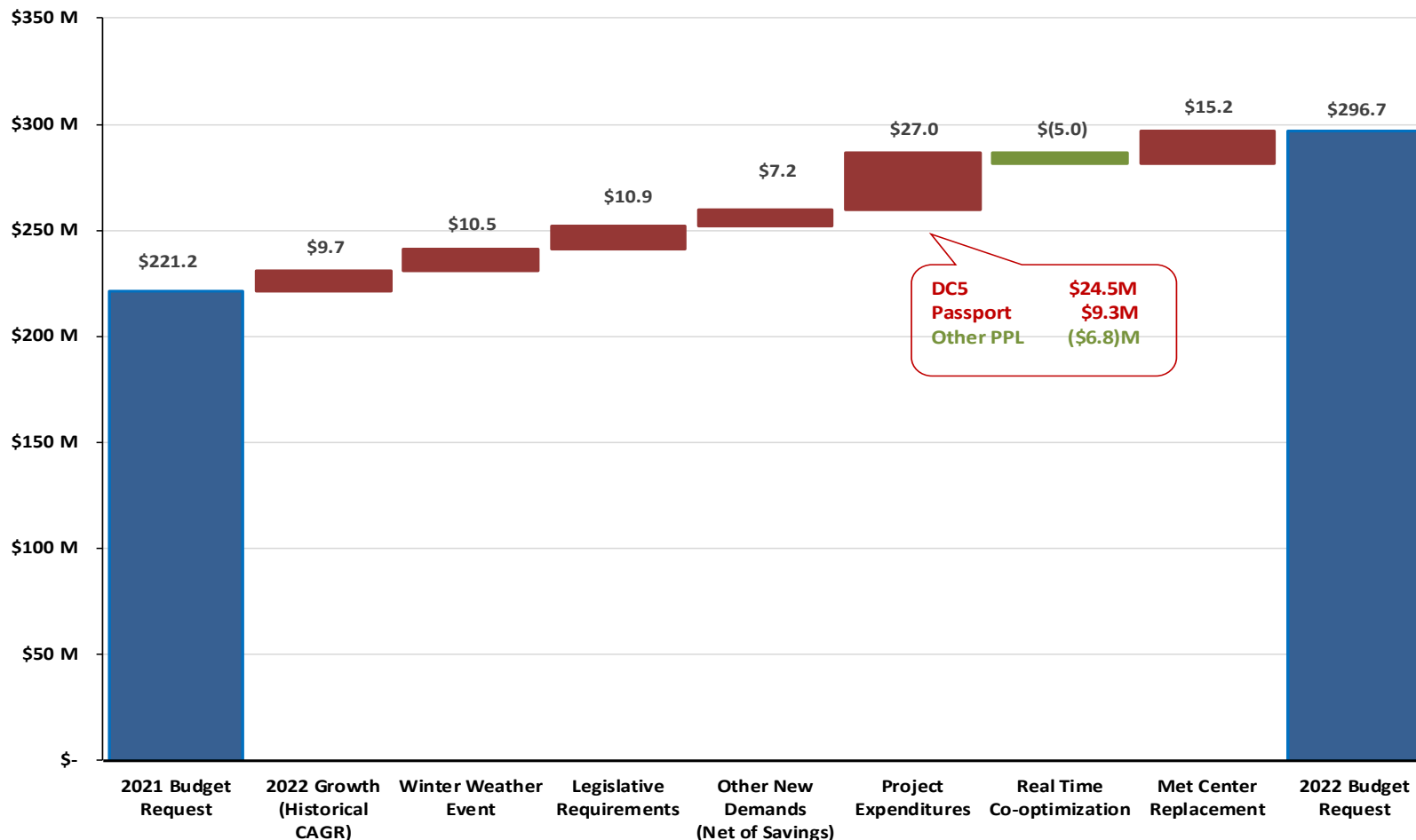


Chart may not foot due to rounding.

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

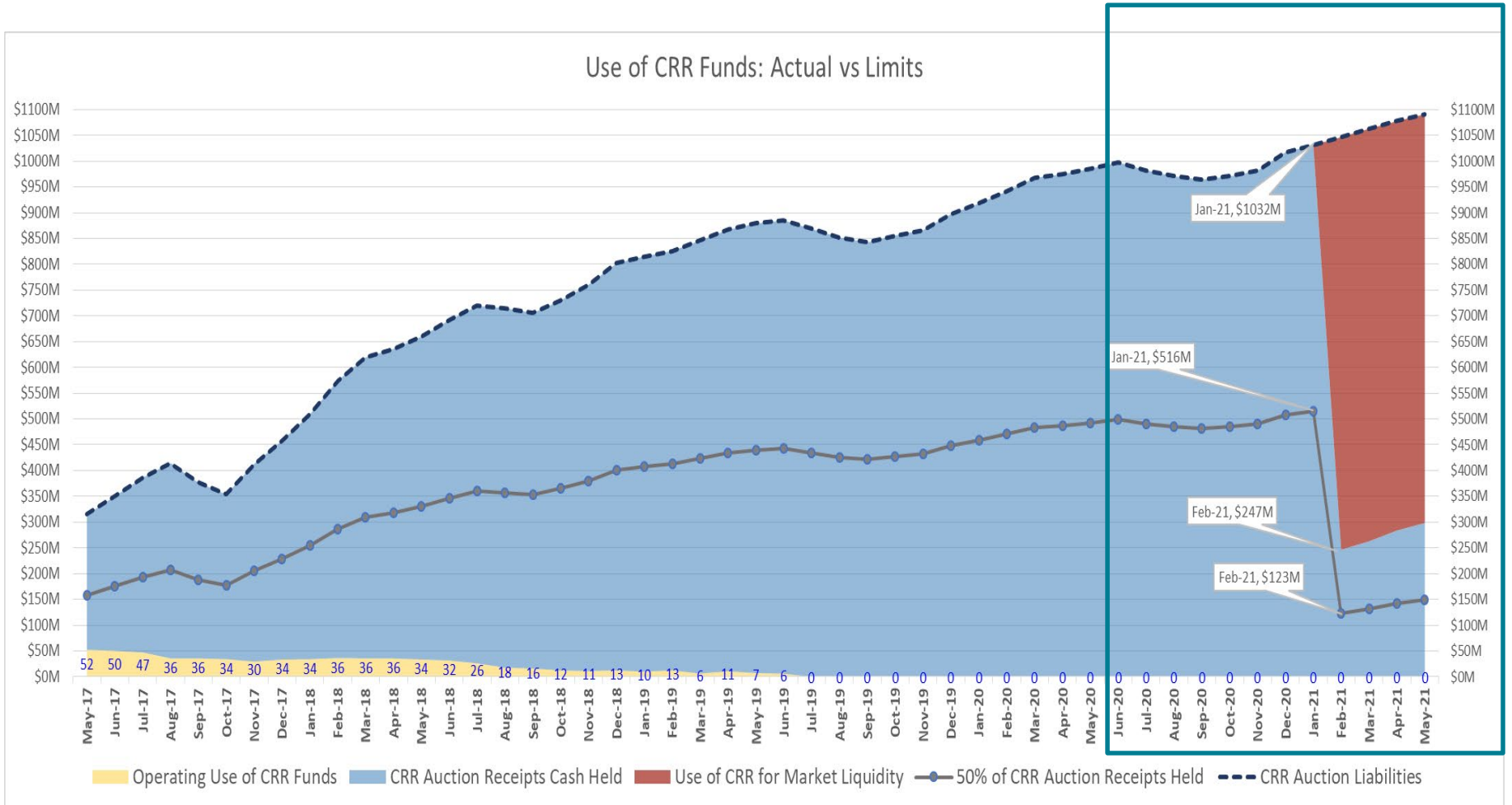
Maintain Stable, Fair and Predictable Fees

- 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



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



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	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555
2	382,315	413,107	400,705	419,616	434,006	444,426	450,676	457,854	464,903	
3	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 246,656	\$ 250,125	\$ 254,109	\$ 258,021	
4	\$ 171,561	\$ 181,085	\$ 182,066	\$ 215,277	\$ 221,613	\$ 234,023	\$ 247,128	\$ 260,967	\$ 275,582	
5	35,457	29,000	33,600	56,014	27,072	44,815	42,126	39,866	44,950	
6	2,727	5,000	1,300	-	2,415	13,060	17,637	13,230	-	
7	-	-	4,713	15,211	-	-	-	-	-	
8	\$ 209,745	\$ 215,085	\$ 221,679	\$ 286,502	\$ 251,100	\$ 291,898	\$ 306,891	\$ 314,063	\$ 320,532	
9	\$ 2,440	\$ 14,189	\$ 712	\$ (53,615)	\$ (10,227)	\$ (45,241)	\$ (56,766)	\$ (59,954)	\$ (62,511)	
10	\$ (5,577)	\$ (5,531)	\$ (5,431)	\$ (5,423)	\$ (5,481)	\$ (5,504)	\$ (5,566)	\$ (5,322)	\$ (5,079)	
11	4,298	20,000	193	6	4	7	7	7	7	
12	\$ (1,279)	\$ 14,469	\$ (5,238)	\$ (5,417)	\$ (5,478)	\$ (5,497)	\$ (5,558)	\$ (5,315)	\$ (5,072)	
13	\$ 1,161	\$ 28,657	\$ (4,526)	\$ (59,032)	\$ (15,704)	\$ (50,738)	\$ (62,324)	\$ (65,269)	\$ (67,583)	
Year-End Balances: Notes Payable, CRR Borrowings, Cash, and Real Time Co-optimization Project Funding										
Line	2020 Actual	2021 Budget	2021 Forecast	2022 Request	2023 Request	2024 Projection	2025 Projection	2026 Projection	2027 Projection	
14	\$ 47,000	\$ 43,000	\$ 43,000	\$ 39,000	\$ 35,000	\$ 31,000	\$ 27,000	\$ 23,000	\$ 19,000	
15	\$ -	\$ -	\$ -	\$ 30,619	\$ 46,323	\$ 97,062	\$ 159,386	\$ 224,655	\$ 292,238	
16	\$ 32,939	\$ 84,586	\$ 28,413	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

Schedule may not foot due to rounding.

Change to \$159.4M from \$36.2M (\$123.2M 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	\$ 30,619	\$ 46,323	\$ 97,062	\$ 159,386	\$ 224,655	\$ 292,238	\$ 382,064	\$ 455,779
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	\$ -	\$ -	\$ -	\$ 2,102	\$ 26,164	\$ 51,906	\$ 99,228	\$ 129,877
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	\$ 30,720	\$ 46,424	\$ 32,721	\$ 29,697	\$ 28,577	\$ 28,749	\$ 50,098	\$ 54,428
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	\$ 11,837	\$ 8,011	\$ 9,863	\$ 22,612	\$ 37,518	\$ 53,961	\$ 91,839	\$ 112,917
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	\$ -	\$ -	\$ -	\$ 2,332	\$ 25,406	\$ 49,638	\$ 94,901	\$ 122,868
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	\$ 20,619	\$ 25,763	\$ 16,464	\$ 17,437	\$ 19,908	\$ 23,219	\$ 47,230	\$ 53,665
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	\$ 10,229	\$ 4,524	\$ 6,334	\$ 18,575	\$ 32,492	\$ 47,426	\$ 83,243	\$ 101,641



Budget Request: Management Recommendation

Budget Request: Management Recommendation

Flat System Administration Fee Rate (\$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	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.555	\$ 0.665	\$ 0.665	\$ 0.665	\$ 0.665
2	382,315	413,107	400,705	419,616	434,006	444,426	450,676	457,854	464,903
3	\$ 212,185	\$ 229,274	\$ 222,391	\$ 232,887	\$ 240,873	\$ 295,543	\$ 299,699	\$ 304,473	\$ 309,160
4	\$ 171,561	\$ 181,085	\$ 182,066	\$ 205,277	\$ 211,053	\$ 222,872	\$ 235,352	\$ 248,532	\$ 262,450
5	35,457	29,000	33,600	56,014	27,072	44,815	42,126	39,866	44,950
6	2,727	5,000	1,300	-	2,415	13,060	17,637	13,230	-
7	-	-	4,713	15,211	-	-	-	-	-
8	\$ 209,745	\$ 215,085	\$ 221,679	\$ 276,502	\$ 240,540	\$ 280,746	\$ 295,115	\$ 301,628	\$ 307,400
9	\$ 2,440	\$ 14,189	\$ 712	\$ (43,615)	\$ 333	\$ 14,797	\$ 4,585	\$ 2,845	\$ 1,760
10	\$ (5,577)	\$ (5,531)	\$ (5,431)	\$ (5,423)	\$ (5,481)	\$ (5,504)	\$ (5,566)	\$ (5,322)	\$ (5,079)
11	4,298	20,000	193	6	4	7	7	7	7
12	\$ (1,279)	\$ 14,469	\$ (5,238)	\$ (5,417)	\$ (5,478)	\$ (5,497)	\$ (5,558)	\$ (5,315)	\$ (5,072)
13	\$ 1,161	\$ 28,657	\$ (4,526)	\$ (49,032)	\$ (5,144)	\$ 9,300	\$ (974)	\$ (2,470)	\$ (3,312)
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	\$ 47,000	\$ 43,000	\$ 43,000	\$ 39,000	\$ 35,000	\$ 31,000	\$ 27,000	\$ 23,000	\$ 19,000
15	\$ -	\$ -	\$ -	\$ 20,619	\$ 25,763	\$ 16,464	\$ 17,437	\$ 19,908	\$ 23,219
16	\$ 32,939	\$ 84,586	\$ 28,413	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Schedule may not foot due to rounding.



Budget Request: Management Recommendation

Flat System Administration Fee Rate (\$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	8,744	20,243	20,462	21,608	22,818	24,096	25,445
5	CRR Borrowings	-	-	-	20,619	5,144	-	974	2,470	3,312
6	Decrease in Cash Balance	-	-	4,526	28,413	-	-	-	-	-
7	Total Sources	\$ 242,749	\$ 275,157	\$ 255,396	\$ 322,168	\$ 286,984	\$ 338,158	\$ 344,999	\$ 353,046	\$ 360,424
8	Department Expenditures	\$ 178,427	\$ 187,168	\$ 190,811	\$ 225,520	\$ 231,515	\$ 244,480	\$ 258,171	\$ 272,628	\$ 287,895
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	-	-	-	-	-	-	-	-	-
15	Increase in Cash Balance	1,161	28,657	-	-	-	9,300	-	-	-
16	Total Uses	\$ 242,749	\$ 275,157	\$ 255,396	\$ 322,168	\$ 286,984	\$ 338,158	\$ 344,999	\$ 353,046	\$ 360,424

* 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

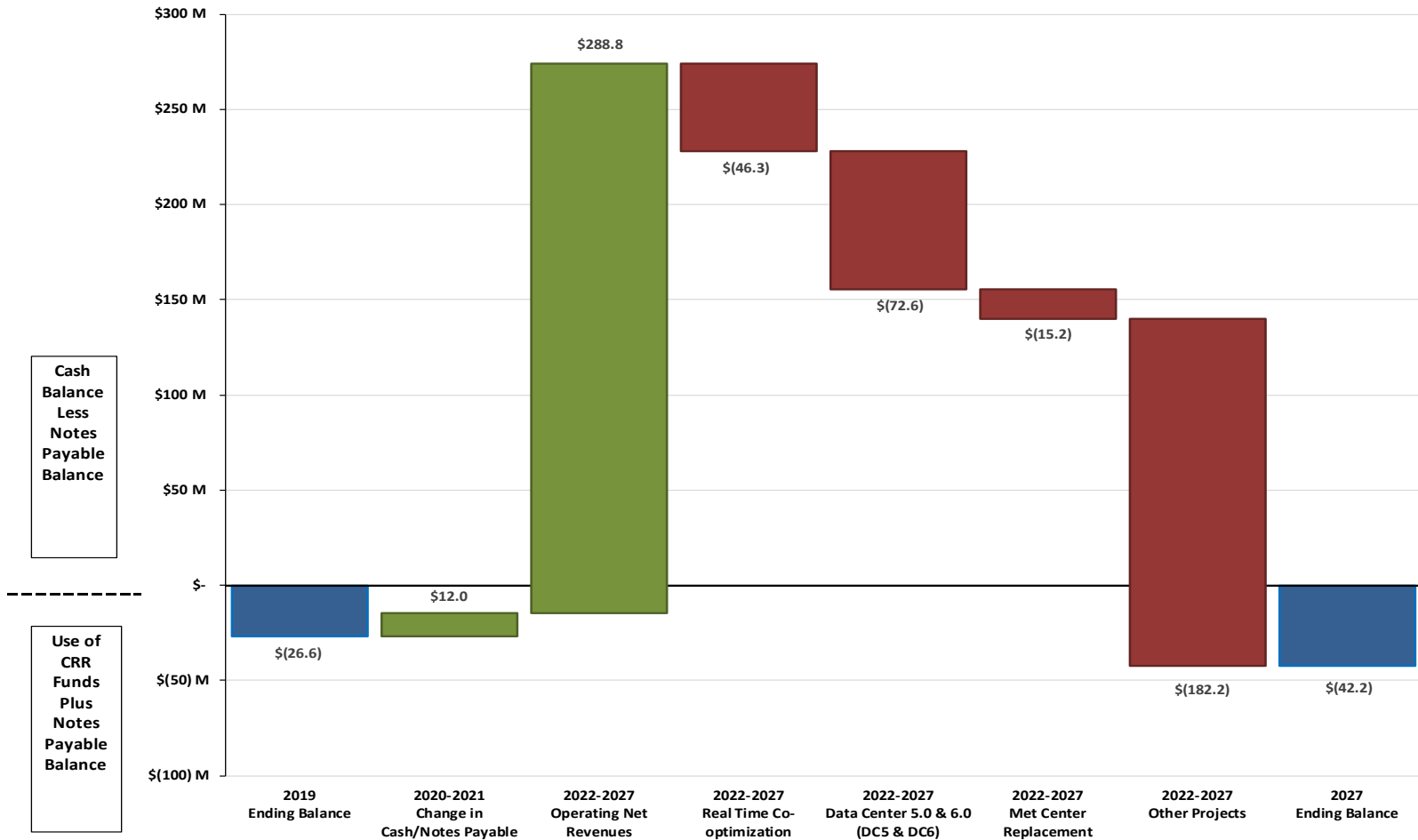
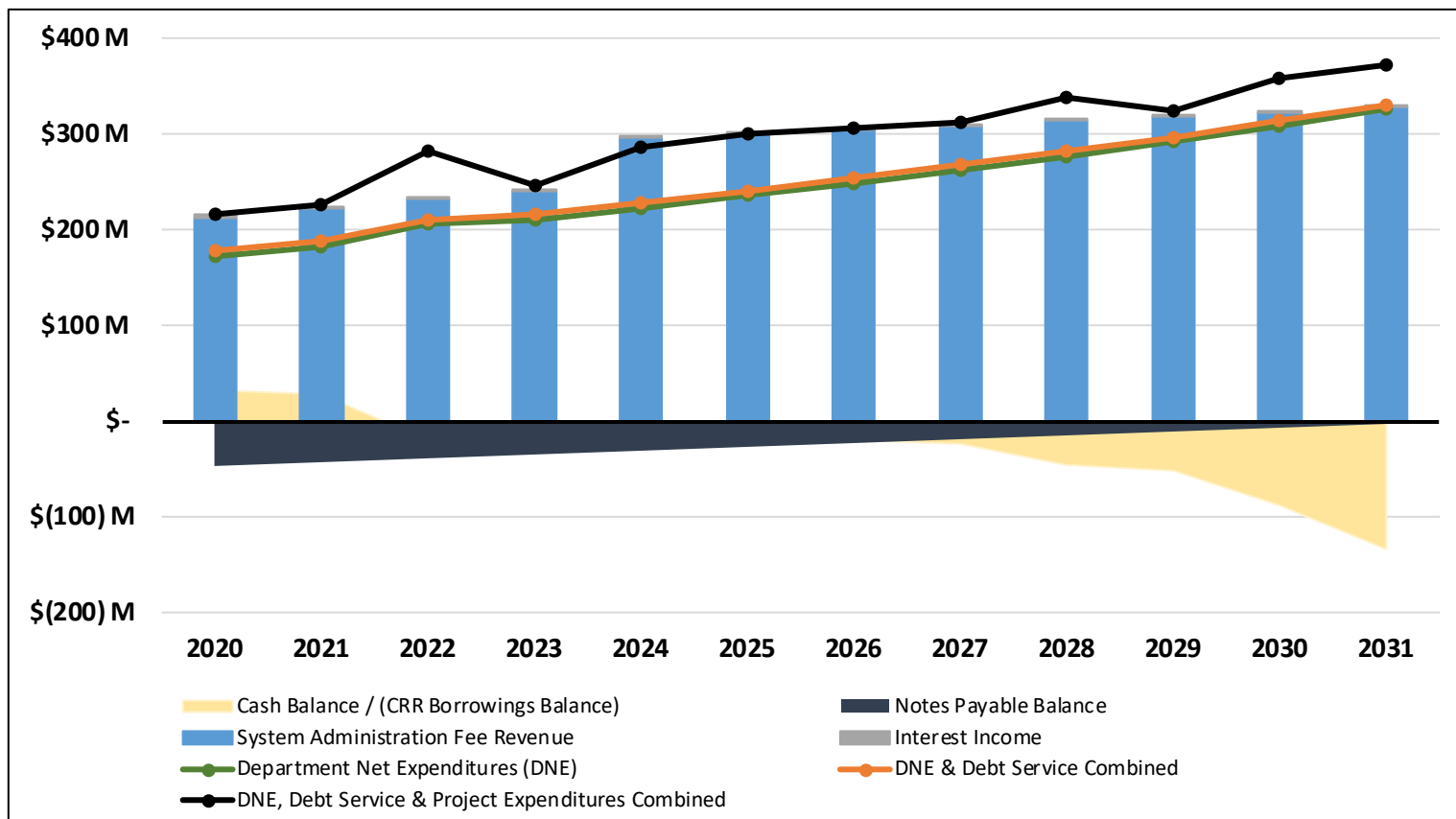


Chart may not foot due to rounding.

Extrapolation For a Ten-Year View

NOTE: Future values are extrapolated based on current assumptions; this is not a recommendation.

Extrapolation for a Ten-Year View: Annual Sources and Uses and Cumulative Debt, CRR Borrowings and Cash Balances

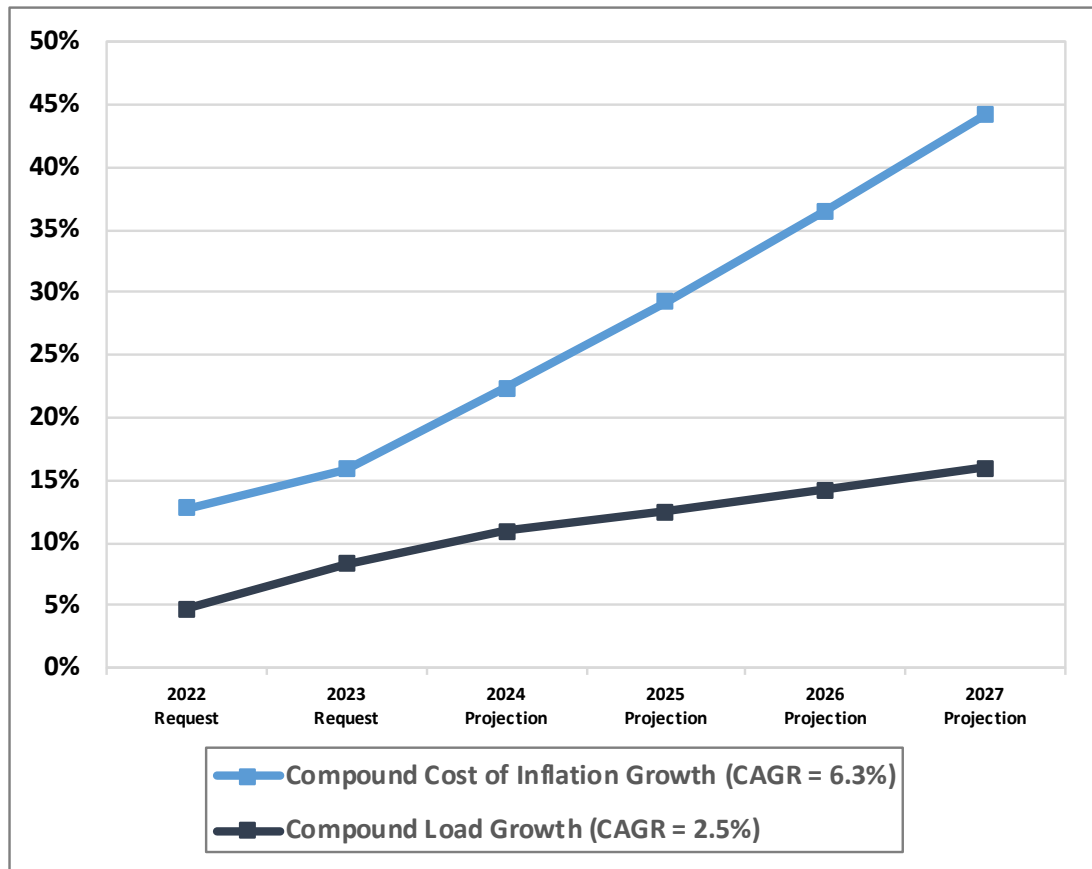


NOTE: Future values are extrapolated based on current assumptions; this is not a recommendation.



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%	6.3%	6.0%	5.5%	5.0%
CAGR for Six Year Load Growth (2021-2027)	1.0%	\$ (218.8)	\$ (193.3)	\$ (168.3)	\$ (157.7)	\$ (143.7)	\$ (119.5)	\$ (95.6)
	1.5%	\$ (174.9)	\$ (149.5)	\$ (124.5)	\$ (113.8)	\$ (99.8)	\$ (75.6)	\$ (51.8)
	2.0%	\$ (130.3)	\$ (104.9)	\$ (79.9)	\$ (69.2)	\$ (55.2)	\$ (31.0)	\$ (7.2)
	2.5%	\$ (84.3)	\$ (58.9)	\$ (33.8)	\$ (23.2)	\$ (9.2)	\$ 15.0	\$ 38.8
	3.0%	\$ (38.9)	\$ (13.5)	\$ 11.6	\$ 22.2	\$ 36.2	\$ 60.4	\$ 84.2
	3.5%	\$ 8.0	\$ 33.4	\$ 58.4	\$ 69.1	\$ 83.0	\$ 107.3	\$ 131.1
	4.0%	\$ 55.6	\$ 81.0	\$ 106.1	\$ 116.7	\$ 130.7	\$ 154.9	\$ 178.7

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

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	\$ 101,853	\$ 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)	(15,423)	(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	\$ 119,588	\$ 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	27,641	34,185	35,259	37,233	39,318	41,520	43,845
8	Outside Services	15,240	18,109	18,782	20,401	19,705	20,808	21,973	23,204	24,503
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	2,957	13,577	13,376	14,125	14,916	15,751	16,633
13	Department Expense	\$ 175,756	\$ 184,743	\$ 188,606	\$ 223,345	\$ 230,015	\$ 242,896	\$ 256,498	\$ 270,862	\$ 286,030
14	Minor Capital & Common Infrastructure	2,672	2,425	2,205	2,175	1,500	1,584	1,673	1,766	1,865
15	Subtotal - Department Expenditures	\$ 178,427	\$ 187,168	\$ 190,811	\$ 225,520	\$ 231,515	\$ 244,480	\$ 258,171	\$ 272,628	\$ 287,895
16										
17	Revenues	\$ (6,866)	\$ (6,083)	\$ (8,744)	\$ (20,243)	\$ (20,462)	\$ (21,608)	\$ (22,818)	\$ (24,096)	\$ (25,445)
18										
19	Total Department Net Expenditures	\$ 171,561	\$ 181,085	\$ 182,066	\$ 205,277	\$ 211,053	\$ 222,872	\$ 235,352	\$ 248,532	\$ 262,450

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	\$ 36,139	\$ 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)	(11,508)	(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	\$ 36,240	\$ 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	27,158	34,026	34,932	36,888	38,954	41,135	43,439
8	Outside Services	5,421	7,435	5,023	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	\$ 76,222	\$ 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	\$ 77,585	\$ 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	\$ 72,849	\$ 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

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)	(1,962)	(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	\$ 22,786	\$ 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	7,086	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	\$ 42,964	\$ 50,109	\$ 52,327	\$ 55,257	\$ 58,352	\$ 61,620	\$ 65,070
14	Minor Capital & Common Infrastructure	753	1,020	827	925	250	264	279	294	311
15	Subtotal - Department Expenditures	\$ 39,046	\$ 41,770	\$ 43,790	\$ 51,034	\$ 52,577	\$ 55,521	\$ 58,631	\$ 61,914	\$ 65,381
16										
17	Revenues	\$ 6	\$ -	\$ (8)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18										
19	Total Department Net Expenditures	\$ 39,052	\$ 41,770	\$ 43,782	\$ 51,034	\$ 52,577	\$ 55,521	\$ 58,631	\$ 61,914	\$ 65,381

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)	(1,041)	(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	\$ 32,928	\$ 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	1,583	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	1,084	11,404	11,350	11,985	12,656	13,365	14,114
13 Department Expense	\$ 35,182	\$ 35,961	\$ 36,058	\$ 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	\$ 36,073	\$ 49,169	\$ 49,998	\$ 52,798	\$ 55,754	\$ 58,877	\$ 62,174
16									
17 *Revenues	\$ (2,883)	\$ (2,353)	\$ (3,637)	\$ (16,208)	\$ (16,768)	\$ (17,706)	\$ (18,698)	\$ (19,745)	\$ (20,851)
18									
19 Total Department Net Expenditures	\$ 32,347	\$ 33,607	\$ 32,436	\$ 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)	(716)	(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	\$ 15,191	\$ 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	\$ 15,807	\$ 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	\$ 15,807	\$ 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	\$ 15,807	\$ 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)	(193)	(100)	(100)	(106)	(112)	(118)	(124)
4 Vacancy	-	(172)	-	(175)	(182)	(192)	(203)	(214)	(226)
5 Department Labor	\$ 6,111	\$ 6,643	\$ 5,628	\$ 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	698	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	\$ 6,461	\$ 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	\$ 6,461	\$ 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	\$ 6,379	\$ 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)	-	(2)	-	-	-	-	-	-
4 Vacancy	-	(101)	-	(263)	(273)	(289)	(305)	(322)	(340)
5 Department Labor	\$ 3,702	\$ 3,957	\$ 4,324	\$ 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	4,510	4,762	5,029
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	\$ 8,332	\$ 9,273	\$ 9,477	\$ 10,007	\$ 10,568	\$ 11,160	\$ 11,785
14 Minor Capital & Common Infrastructure	104	-	-	-	-	-	-	-	-
15 Subtotal - Department Expenditures	\$ 4,945	\$ 5,531	\$ 8,332	\$ 9,273	\$ 9,477	\$ 10,007	\$ 10,568	\$ 11,160	\$ 11,785
16									
17 *Revenues	\$ (285)	\$ (268)	\$ (282)	\$ (270)	\$ (270)	\$ (285)	\$ (301)	\$ (318)	\$ (336)
18									
19 Total Department Net Expenditures	\$ 4,660	\$ 5,262	\$ 8,051	\$ 9,003	\$ 9,207	\$ 9,722	\$ 10,267	\$ 10,842	\$ 11,449

*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	11,947	9,750	5,700	10,100	4,725	12,000	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 & EMS	3,261	-	6,900	9,289	5,497	4,065	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

