

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

***Recommendation regarding 2020-2021
Budget and Fee***

at its meeting on June 10, 2019.

**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
June 11, 2019.**

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



Item 4: Recommendation regarding 2020-2021 Budget and Fee

Sean Taylor
Controller

Finance & Audit Committee Meeting

ERCOT Public
June 10, 2019

2020-2021 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
 - Incorporate Key Initiatives and New Demands
 - Comply with Board's Debt Strategy Guidance
3. Real Time Co-optimization Project and Funding
4. Budget Request
5. Financial Ratios
6. Risks to Meeting 2020-2021 Recommended Budget
7. Request to Vote

Overview of the Budget Process

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

Real Time
Co-optimization
Project and Funding

Budget Request Drivers

Budget Request Drivers: Maintain Flat Fee

System Administration Fee

- Consistent Rate of \$0.555

Relative to 2018-2019 Approved Budget

- Department Net Expenditures – consistent with prior projections
- Real Time Co-optimization Project – new item added
- Project Expenditures – consistent multi-year approach of approximately \$200 Million across six years, including major refreshes
- System Administration Fee Revenues – increased materially due to higher load growth
- Interest Income – increased significantly due to more Congestion Revenue Rights (CRR) auction receipts and higher interest rates

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

New Demands Include:

- Regulatory Requirements
 - IT Change Management and Configuration Management improvements for Critical Infrastructure Protection (CIP) Compliance
 - Emergency Operations Plans for Reliability Standards
- Protocol and Planning Revisions
 - Stability Assessments for interconnecting generation
 - Voltage Set Point Communications
 - Interconnection Study Increases
- System Improvements to better manage ERCOT business and an increasingly complex grid
 - System Grid Geospatially (Grid Geo) Viewed Program
 - Enterprise Content Alignment Program (ECAP) Taxonomy and Governance

Budget Request Drivers: Incorporate Key Initiatives and New Demands

Efficiency Savings Help Offset Costs of New Demands

- CRR Changes and Improvements
 - 3-year CRR auction increased workload
 - CRR Framework Upgrade created efficiencies
- Statistical Analysis System (SAS) Technical Architecture Redesign
 - System support labor increased
 - Hardware cost and maintenance decreased
- Transmission Planning Revisions
 - Sub-Synchronous Resonance studies increase workload
 - Increasing the Regional Planning Group (RPG) review threshold reduces workload

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

Maintain or Improve ERCOT's Financial Integrity

- Continue to decrease outstanding debt and increase liquidity.

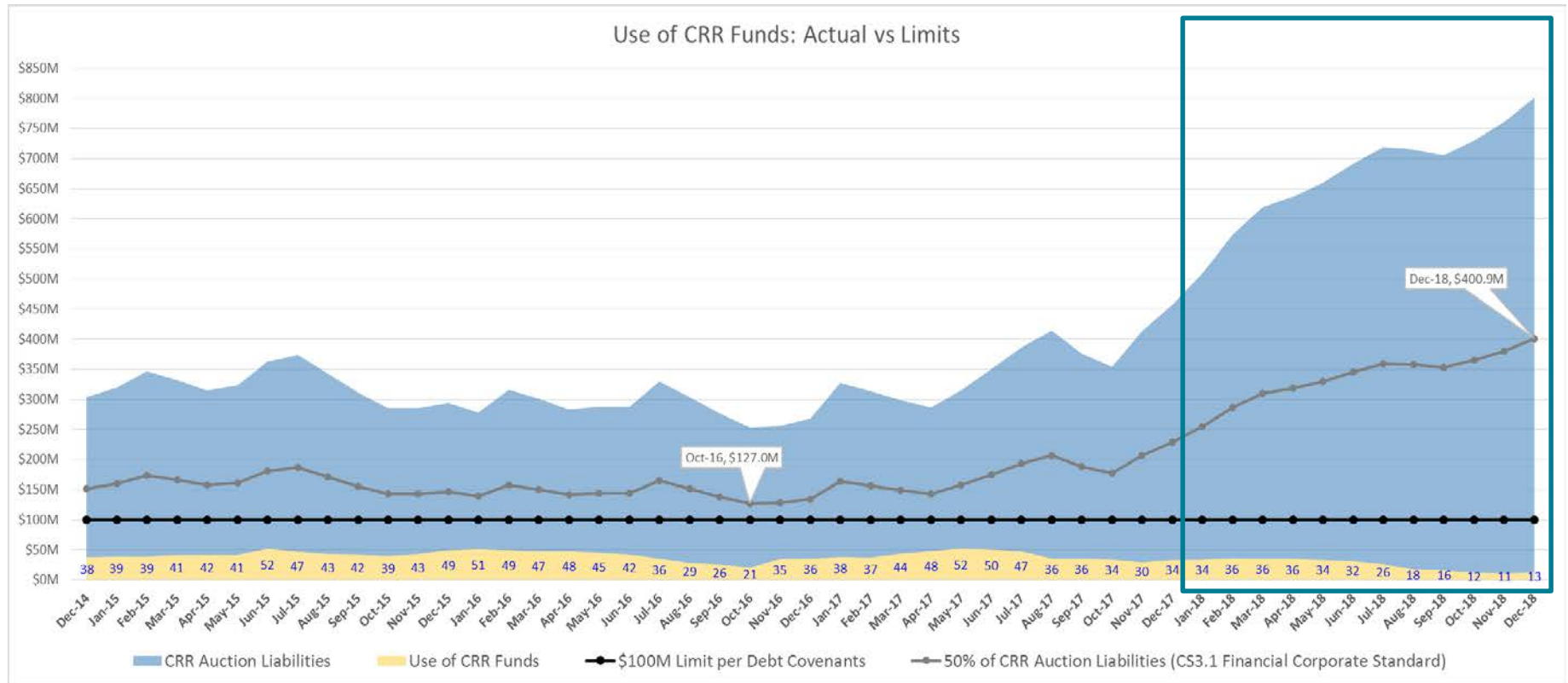
Maintain Stable, Fair and Predictable Fees

- 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 (CRR Borrowings) =
Amount Owed to Market Participants - Cash and Bond Investments*



Real Time Co-optimization Project and Funding

Real Time Co-optimization Project and Funding

PUCT Project Nos. 48551, 48539 and 48540,
Chairman Walker's Memorandum (Jan. 17, 2019)

Real Time Co-optimization

I believe real time co-optimization brings not only economic benefits that exceed its costs, but operational benefits for ERCOT as well. These benefits and costs were discussed in detail by ERCOT and the IMM in filings made on June 29, 2018. After consideration of the information provided by ERCOT, the IMM, and the many parties that commented on the issue, I propose that the Commission instruct ERCOT to proceed with the implementation of real time co-optimization. If the Commission determines that real time co-optimization should be implemented, then there are additional issues that must be addressed either by the Commission or in the stakeholder process before ERCOT can move forward with implementation.

If the Commission decides to implement real time co-optimization, then I propose having the Commission Staff bring back to the Commission on February 7th a list of policy issues that can be published for stakeholder comment. I also propose requesting that ERCOT submit a high-level implementation plan and timeline, so that the Commission can determine the expectations for timing and milestones during the implementation of the project. Lastly, I propose that the project be funded through the favorable variance in the revenues that occurred in 2018 and will likely occur in 2019 by ERCOT. Such funds should be set aside for future use for this project.

Real Time Co-optimization Project and Funding

\$ in Millions

Favorable Financial Variances	2018 Actual	2019 Forecast	Total
System Administration Fee Revenues	\$ 8.1	\$ 4.2	\$ 12.3
Department Net Expenditures	8.4	2.0	10.5
Project Expenditures	(11.8)	8.1	(3.7)
Debt Service	0.6	0.2	0.8
Interest Income	11.8	18.7	30.5
Available for Real Time Co-optimization Project	\$ 17.1	\$ 33.2	\$ 50.3

Schedule may not foot due to rounding.

Real Time Co-optimization Project and Funding

Statement of Financial Position Reporting

\$ in Millions

	Pre RTC	2018-2019 Favorable Variance	Adjusted for Variance	\$35 M RTC Assets Addition	Adjusted for Asset Add	\$5 M RTC Direct Expense	Adjusted for Direct Expense	Depreciate RTC Assets	Post RTC
Assets									
Unrestricted cash	\$ 791.3		\$ 791.3	\$ (35.0)	\$ 756.3	\$ (5.0)	\$ 751.3		\$ 751.3
Bond investments	100.3		100.3		100.3		100.3		100.3
Total unrestricted cash and bond investments (a)	891.6		891.6	(35.0)	856.6	(5.0)	851.6		851.6
Restricted cash	458.5		458.5		458.5		458.5		458.5
Other current assets	36.5		36.5		36.5		36.5		36.5
Other long term assets	143.2		143.2	35.0	178.2		178.2	(35.0)	143.2
Total assets	\$ 1,529.8		\$ 1,529.8	\$ -	\$ 1,529.8	\$ (5.0)	\$ 1,524.8	\$ (35.0)	\$ 1,489.8
Liabilities and Net Assets									
CRR auction liabilities-current	\$ 498.3		\$ 498.3		\$ 498.3		\$ 498.3		\$ 498.3
CRR auction liabilities-long term	303.4		303.4		303.4		303.4		303.4
Other market liabilities	102.5		102.5		102.5		102.5		102.5
Total market settlement liabilities (b)	904.2		904.2		904.2		904.2		904.2
Security deposits	458.5		458.5		458.5		458.5		458.5
Other current liabilities	25.5		25.5		25.5		25.5		25.5
Other long term liabilities	51.2		51.2		51.2		51.2		51.2
2018-2019 Favorable Variance		50.3	50.3	(35.0)	15.3	(5.0)	10.3		10.3
Other net assets	90.3	(50.3)	40.0	35.0	75.0		75.0	(35.0)	40.0
Total net assets without donor restrictions	90.3	-	90.3	-	90.3	(5.0)	85.3	(35.0)	50.3
Total liabilities and net assets	\$ 1,529.8	\$ -	\$ 1,529.8	\$ -	\$ 1,529.8	\$ (5.0)	\$ 1,524.8	\$ (35.0)	\$ 1,489.8
CRR Borrowings [(b)-(a)]	\$ 12.6	\$ -	\$ 12.6	\$ 35.0	\$ 47.6	\$ 5.0	\$ 52.6	\$ -	\$ 52.6

Note: These numbers are for discussion purposes only.



Budget Request

Budget Request: Management Recommended Flat Fee (\$0.555)

\$ in Thousands, except rates

\$ in Thousands, except rates										
Budget Summary										
		2018	2019	2019	2020	2021	2022	2023	2024	2025
Line		Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection
1	System Administration Fee Rate	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550
2	Energy Consumption (GWH)	378,163	373,739	381,374	401,153	413,107	425,665	437,595	450,426	461,025
3	System Administration Fee Revenues	\$ 209,881	\$ 207,425	\$ 211,663	\$ 222,640	\$ 229,274	\$ 236,244	\$ 242,865	\$ 249,986	\$ 255,869
4	Department Net Expenditures	\$ 156,623	\$ 168,649	\$ 166,616	\$ 175,215	\$ 181,085	\$ 187,262	\$ 194,388	\$ 201,023	\$ 208,564
5	Project Expenditures	40,324	28,500	20,400	29,000	29,000	27,250	42,650	38,850	31,250
6	Real Time Co-optimization Project	-	-	-	3,000	5,000	12,000	10,000	10,000	-
7	Total Net Expenditures	\$ 196,947	\$ 197,149	\$ 187,016	\$ 207,215	\$ 215,085	\$ 226,512	\$ 247,038	\$ 249,873	\$ 239,814
8	Net Available Before Non-Operating Sources & Uses	\$ 12,934	\$ 10,277	\$ 24,647	\$ 15,425	\$ 14,189	\$ 9,733	\$ (4,173)	\$ 114	\$ 16,055
9	Debt Service	\$ (5,438)	\$ (5,997)	\$ (5,821)	\$ (5,683)	\$ (5,531)	\$ (5,340)	\$ (5,007)	\$ (5,010)	\$ (5,170)
10	Interest Income	13,091	1,300	20,000	20,000	20,000	20,000	20,000	20,000	20,000
11	Non-Operating Sources & Uses	\$ 7,653	\$ (4,697)	\$ 14,179	\$ 14,317	\$ 14,469	\$ 14,660	\$ 14,993	\$ 14,990	\$ 14,830
12	Net Available	\$ 20,587	\$ 5,580	\$ 38,826	\$ 29,741	\$ 28,657	\$ 24,392	\$ 10,820	\$ 15,104	\$ 30,885
Year-End Balances: Notes Payable, CRR Borrowings, Cash, and Real Time Co-optimization Project Funding										
		2018	2019	2019	2020	2021	2022	2023	2024	2025
		Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection
13	Notes Payable Balance	\$ 55,000	\$ 51,000	\$ 51,000	\$ 47,000	\$ 43,000	\$ 39,000	\$ 35,000	\$ 31,000	\$ 27,000
14	CRR Borrowings Balance	\$ 12,639	\$ 7,059	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Cash Balance	\$ -	\$ -	\$ 26,188	\$ 55,929	\$ 84,586	\$ 108,978	\$ 119,798	\$ 134,902	\$ 165,786
16	Real Time Co-optimization Project Funding Balance	\$ 17,089	\$ -	\$ 50,335	\$ 47,335	\$ 42,335	\$ 30,335	\$ 20,335	\$ 10,335	\$ 10,335
							Schedule amount for future rounding			

Schedule may not foot due to rounding.



Budget Request:

Management Recommended Flat Fee (\$0.555)

\$ in Thousands
(\$ in Thousands)

Sources and Uses									
	2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1 System Administration Fee Revenues	\$ 209,881	\$ 207,425	\$ 211,663	\$ 222,640	\$ 229,274	\$ 236,244	\$ 242,865	\$ 249,986	\$ 255,869
2 Reliability Organization Assessment *	16,328	15,000	15,789	19,800	19,800	19,800	19,800	19,800	19,800
3 Interest Income	13,091	1,300	20,000	20,000	20,000	20,000	20,000	20,000	20,000
4 Other Revenues	5,630	4,287	6,533	5,871	6,083	6,235	6,391	6,544	6,695
5 Total Sources	\$ 244,929	\$ 228,012	\$ 253,985	\$ 268,311	\$ 275,157	\$ 282,279	\$ 289,056	\$ 296,330	\$ 302,363
6 Department Expenditures	\$ 162,252	\$ 172,936	\$ 173,148	\$ 181,086	\$ 187,168	\$ 193,496	\$ 200,779	\$ 207,567	\$ 215,258
7 Project Expenditures	40,324	28,500	20,400	32,000	34,000	39,250	52,650	48,850	31,250
8 Reliability Organization Assessment *	16,328	15,000	15,789	19,800	19,800	19,800	19,800	19,800	19,800
9 Debt Service	5,438	5,997	5,821	5,683	5,531	5,340	5,007	5,010	5,170
10 Repayment of CRR Borrowings	20,587	5,580	12,639	-	-	-	-	-	-
11 Increase in Cash Balance	-	-	26,188	29,741	28,657	24,392	10,820	15,104	30,885
12 Total Uses	\$ 244,929	\$ 228,012	\$ 253,985	\$ 268,311	\$ 275,157	\$ 282,279	\$ 289,056	\$ 296,330	\$ 302,363

* 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: Comparison to 2018-2019 Approved Budget

Debt, CRR Borrowings, and Cash Balances at End of Year 2025

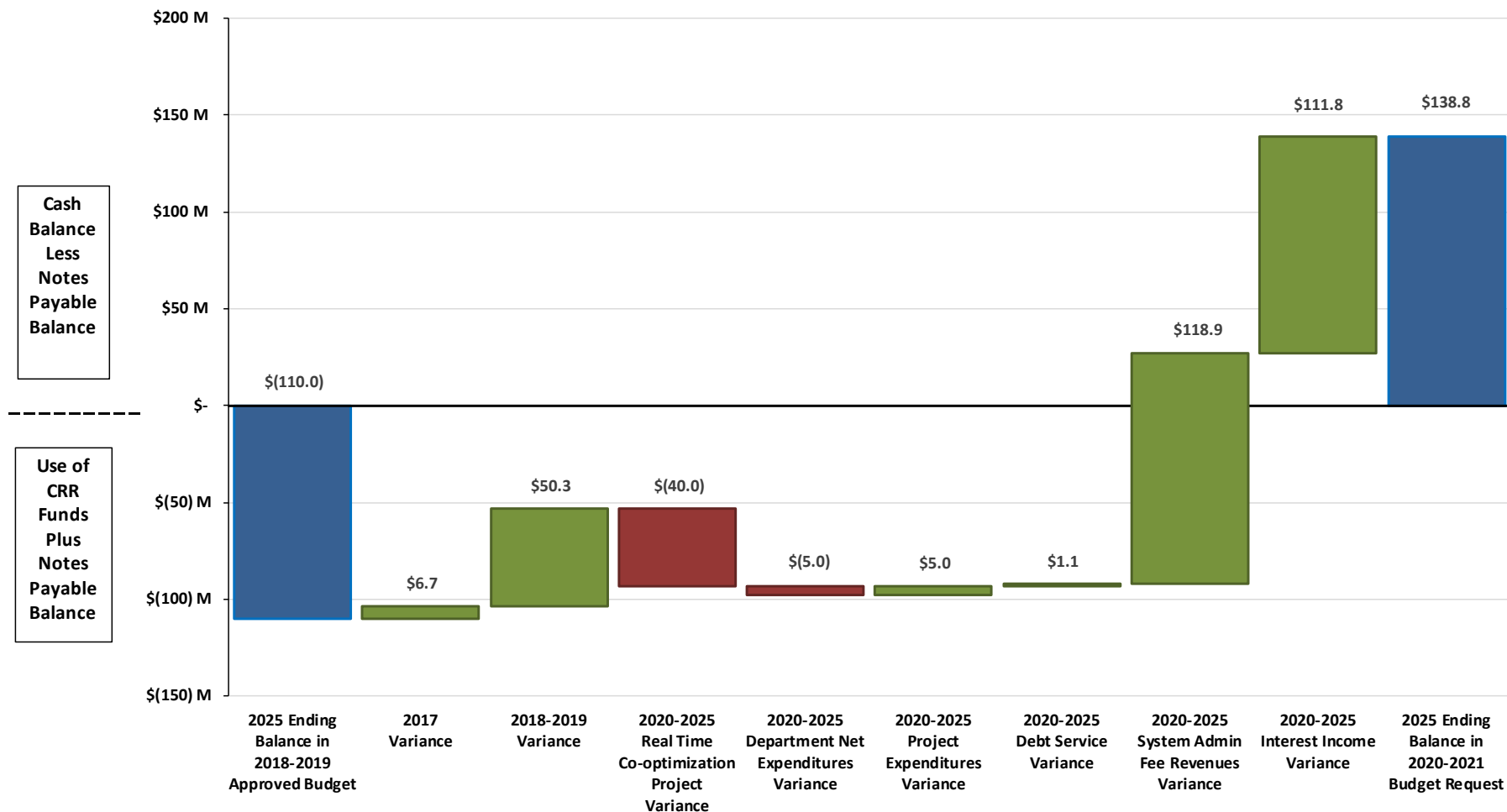


Chart may not foot due to rounding.

Financial Ratios

Financial Ratios

\$ in Thousands

Debt Service Coverage Ratio									
	2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
Revenues									
1 System Administration Fee Revenues	\$ 209,881	\$ 207,425	\$ 211,663	\$ 222,640	\$ 229,274	\$ 236,244	\$ 242,865	\$ 249,986	\$ 255,869
2 Reliability Organization Assessment	16,328	15,000	15,789	19,800	19,800	19,800	19,800	19,800	19,800
3 Interest Income	13,091	1,300	20,000	20,000	20,000	20,000	20,000	20,000	20,000
4 Other Revenues	5,630	4,287	6,533	5,871	6,083	6,235	6,391	6,544	6,695
5 Total Revenues	244,929	228,012	253,985	268,311	275,157	282,279	289,056	296,330	302,363
Less: Expenditures									
6 Department Expenditures	162,252	172,936	173,148	181,086	187,168	193,496	200,779	207,567	215,258
7 Project Expenditures	40,324	28,500	20,400	32,000	34,000	39,250	52,650	48,850	31,250
8 Reliability Organization Assessment	16,328	15,000	15,789	19,800	19,800	19,800	19,800	19,800	19,800
9 Free Cash Flow (FCF)	\$ 26,025	\$ 11,577	\$ 44,648	\$ 35,425	\$ 34,189	\$ 29,733	\$ 15,827	\$ 20,114	\$ 36,055
10 Interest Expense	1,438	1,997	1,821	1,683	1,531	1,340	1,007	1,010	1,170
11 Principal Payment	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
12 Total Debt Service	\$ 5,438	\$ 5,997	\$ 5,821	\$ 5,683	\$ 5,531	\$ 5,340	\$ 5,007	\$ 5,010	\$ 5,170
13 Debt Service Coverage Ratio (FCF)	4.79	1.93	7.67	6.23	6.18	5.57	3.16	4.01	6.97

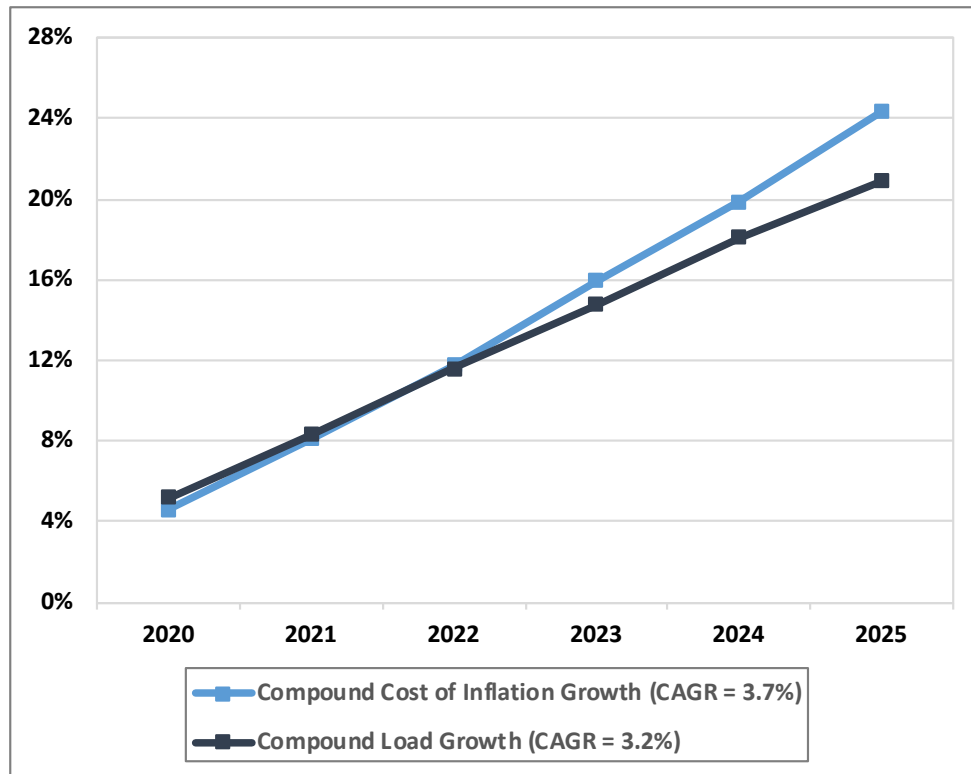
Liquidity Ratio									
	2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
14 Department Expenditures (2 Month Average)	\$ 27,042	\$ 28,823	\$ 28,858	\$ 30,181	\$ 31,195	\$ 32,249	\$ 33,463	\$ 34,594	\$ 35,876
15 Debt Service (6 Month Average)	2,719	2,999	2,911	2,842	2,766	2,670	2,504	2,505	2,585
16 Project Expenditures (2 Month Average)	6,721	4,750	3,400	5,333	5,667	6,542	8,775	8,142	5,208
17 Targeted Minimum Level of Liquidity	\$ 36,482	\$ 36,571	\$ 35,169	\$ 38,356	\$ 39,627	\$ 41,461	\$ 44,742	\$ 45,241	\$ 43,670
18 Undrawn Borrowing Capacity	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
19 Liquidity Ratio	3.43	3.42	3.55	3.26	3.15	3.01	2.79	2.76	2.86

Schedule may not foot due to rounding.



Risks to Meeting 2020-2021 Recommended Budget

Risks to Meeting 2020-2021 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.

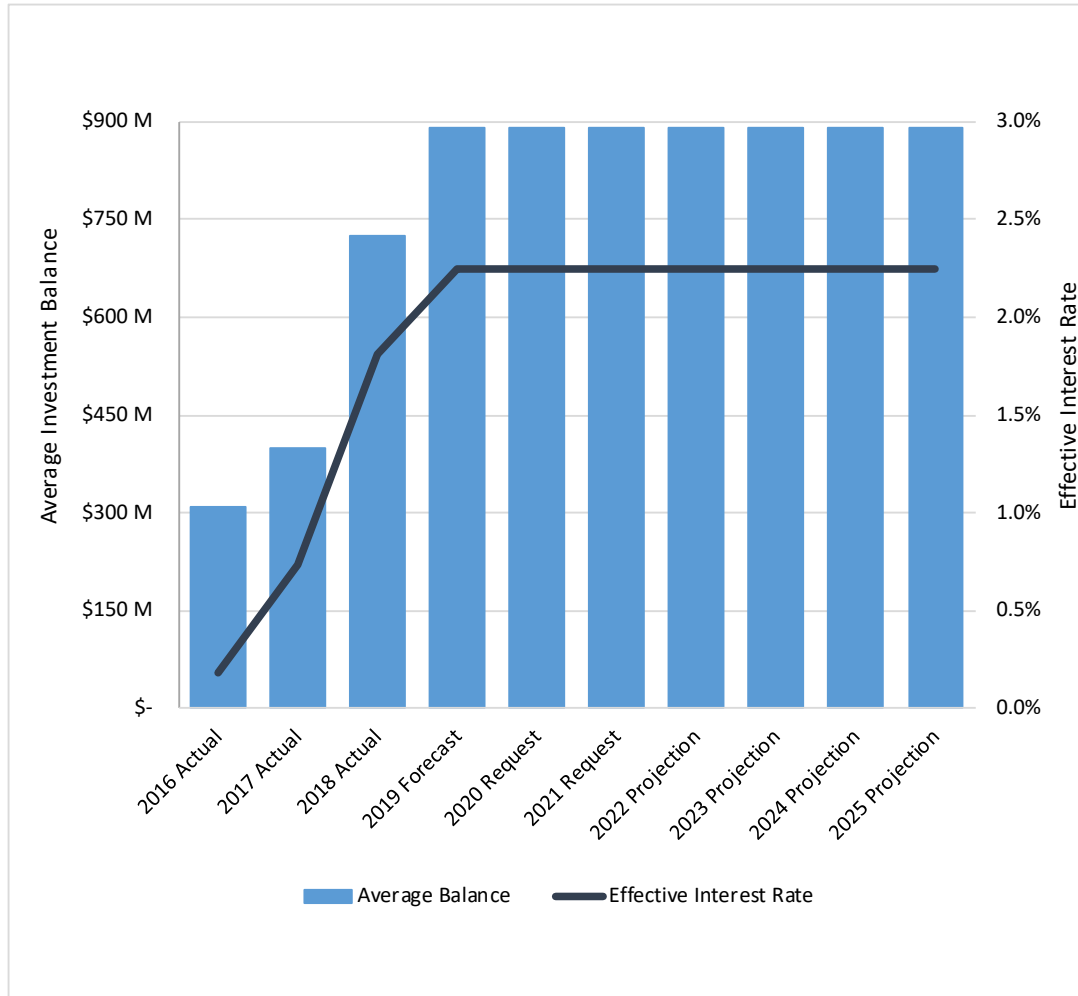
What is the sensitivity to ERCOT's financial health of variances to forecasts for these items?

Risks to Meeting 2020-2021 Recommended Budget: Sensitivity Analysis – Higher-than-Projected Cost Inflation & Lower-than-Projected Load Growth

2025 Ending Cash Balance \$ in Millions

	CAGR for Six Year Department Expenditures (2020-2025)														
CAGR for Six Year Load Growth (2020-2025)															
		6.0%		5.0%		4.0%		3.7%		3.0%		2.0%		1.0%	
	0.0%	\$ (83.3)	\$ (39.7)	\$ 2.5	\$ 15.1	\$ 43.4	\$ 82.9	\$ 121.1							
	1.0%	\$ (38.1)	\$ 5.5	\$ 47.7	\$ 60.3	\$ 88.6	\$ 128.1	\$ 166.3							
	2.0%	\$ 8.7	\$ 52.3	\$ 94.5	\$ 107.1	\$ 135.3	\$ 174.8	\$ 213.0							
	3.2%	\$ 67.4	\$ 111.0	\$ 153.2	\$ 165.8	\$ 194.0	\$ 233.5	\$ 271.7							
	4.0%	\$ 106.9	\$ 150.5	\$ 192.7	\$ 205.3	\$ 233.5	\$ 273.0	\$ 311.2							
	5.0%	\$ 158.5	\$ 202.1	\$ 244.3	\$ 256.9	\$ 285.1	\$ 324.6	\$ 362.8							
	6.0%	\$ 211.8	\$ 255.4	\$ 297.6	\$ 310.2	\$ 338.4	\$ 377.9	\$ 416.1							

Risks to Meeting 2020-2021 Recommended Budget: Lower-than-Projected Interest Income



Interest rates and CRR balances are outside of our control.

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

Risks to Meeting 2020-2021 Recommended Budget:

Sensitivity Analysis – Lower-than-Projected Interest Income

2025 Ending Cash Balance
\$ in Millions

		Average Investment Balance (2020-2025)													
Average Interest Rate (2020-2025)		\$	300	\$	500	\$	700	\$	890	\$	1,100	\$	1,300	\$	1,500
	0.75%	\$	59.1	\$	68.1	\$	77.1	\$	85.7	\$	95.1	\$	104.1	\$	113.1
	1.25%	\$	68.1	\$	83.1	\$	98.1	\$	112.4	\$	128.1	\$	143.1	\$	158.1
	1.75%	\$	77.1	\$	98.1	\$	119.1	\$	139.1	\$	161.1	\$	182.1	\$	203.1
	2.25%	\$	86.1	\$	113.1	\$	140.1	\$	165.8	\$	194.1	\$	221.1	\$	248.1
	2.75%	\$	95.1	\$	128.1	\$	161.1	\$	192.5	\$	227.1	\$	260.1	\$	293.1
	3.25%	\$	104.1	\$	143.1	\$	182.1	\$	219.2	\$	260.1	\$	299.1	\$	338.1
	3.75%	\$	113.1	\$	158.1	\$	203.1	\$	245.9	\$	293.1	\$	338.1	\$	383.1

Risks to Meeting 2020-2021 Recommended Budget: Risks Summary and Mitigation

Potential Risks

- Higher-than-Projected Cost Inflation
- Lower-than-Projected Load Growth
- Lower-than-Projected Interest Income

Risk Characteristics

- Low Probability
- Slow Velocity

Mitigation Responses

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

Request for Vote

Request for Vote

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

- Approve the recommended 2020-2021 Biennial Budget which includes \$268,310,985 and \$275,156,917 total spending authorization for operating expenses, project spending, and debt service obligations for 2020 and 2021, respectively;
- Approve the recommended ERCOT system administration fee of \$0.5550 per megawatt-hour rate for 2020 and 2021, which represents no increase from the current ERCOT system administration fee; and
- Authorize ERCOT Legal to file the Board-approved 2020-2021 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

ERCOT

Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1	Salaries	\$ 88,918	\$ 94,052	\$ 92,653	\$ 99,140	\$ 103,174	\$ 107,301	\$ 111,593	\$ 116,057	\$ 120,699
2	Benefits & Taxes	27,534	30,873	30,201	31,698	33,470	34,809	36,201	37,649	39,155
3	Project Funded Labor	(10,518)	(9,794)	(9,177)	(11,851)	(11,842)	(12,538)	(12,538)	(13,235)	(13,235)
4	Vacancy	-	(3,010)	-	(3,271)	(3,416)	(3,501)	(3,589)	(3,675)	(3,760)
5	Department Labor	\$ 105,935	\$ 112,121	\$ 113,677	\$ 115,717	\$ 121,386	\$ 126,069	\$ 131,666	\$ 136,795	\$ 142,859
6	Materials, Supplies & Equipment	661	840	782	780	801	821	842	862	882
7	HW/SW License & Maintenance	22,230	23,607	22,329	24,653	24,836	25,456	26,093	26,719	27,334
8	Outside Services	14,326	13,896	16,090	18,725	18,209	18,664	19,130	19,590	20,040
9	Utility, Maintenance & Facility	8,313	10,757	9,613	9,938	10,499	10,761	11,030	11,295	11,555
10	Employee Expenses	2,333	3,630	2,906	3,354	3,361	3,445	3,531	3,615	3,699
11	Insurance	2,222	2,804	2,327	2,423	2,534	2,598	2,663	2,726	2,789
12	Other Expenses	2,389	2,876	2,779	3,142	3,118	3,196	3,276	3,355	3,432
13	Department Expense	\$ 158,409	\$ 170,531	\$ 170,502	\$ 178,731	\$ 184,743	\$ 191,011	\$ 198,231	\$ 204,958	\$ 212,589
14	Minor Capital & Common Infrastructure	3,842	2,405	2,647	2,356	2,425	2,486	2,548	2,609	2,669
15	Subtotal - Department Expenditures	\$ 162,251	\$ 172,936	\$ 173,149	\$ 181,086	\$ 187,168	\$ 193,496	\$ 200,779	\$ 207,567	\$ 215,258
16										
17	Revenues	\$ (5,630)	\$ (4,287)	\$ (6,533)	\$ (5,871)	\$ (6,083)	\$ (6,235)	\$ (6,391)	\$ (6,544)	\$ (6,695)
18										
19	Total Department Net Expenditures	\$ 156,621	\$ 168,649	\$ 166,616	\$ 175,215	\$ 181,085	\$ 187,262	\$ 194,388	\$ 201,023	\$ 208,564
								Schedule may not foot due to rounding.		

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Chief Information Office

Chief Information Office										
Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1	Salaries	\$ 30,149	\$ 31,148	\$ 30,820	\$ 33,103	\$ 34,537	\$ 35,919	\$ 37,355	\$ 38,850	\$ 40,404
2	Benefits & Taxes	9,298	10,196	9,997	10,515	11,135	11,580	12,043	12,525	13,026
3	Project Funded Labor	(7,523)	(6,801)	(6,249)	(7,855)	(7,904)	(8,369)	(8,369)	(8,834)	(8,834)
4	Vacancy	-	(1,009)	-	(1,090)	(1,142)	(1,170)	(1,200)	(1,228)	(1,257)
5	Department Labor	\$ 31,924	\$ 33,534	\$ 34,568	\$ 34,672	\$ 36,626	\$ 37,960	\$ 39,830	\$ 41,312	\$ 43,339
6	Materials, Supplies & Equipment	130	123	131	147	155	159	163	167	171
7	HW/SW License & Maintenance	21,956	23,538	22,133	24,260	24,652	25,268	25,900	26,521	27,131
8	Outside Services	5,798	3,587	5,487	7,319	7,371	7,556	7,745	7,930	8,113
9	Utility, Maintenance & Facility	3,857	4,954	4,566	4,635	4,952	5,076	5,203	5,328	5,450
10	Employee Expenses	632	1,049	614	879	865	887	909	931	952
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	925	1,014	1,053	789	809	829	850	870	890
13	Department Expense	\$ 65,222	\$ 67,799	\$ 68,551	\$ 72,701	\$ 75,430	\$ 77,734	\$ 80,599	\$ 83,060	\$ 86,047
14	Minor Capital & Common Infrastructure	2,646	890	1,090	1,361	1,405	1,440	1,476	1,512	1,546
15	Subtotal - Department Expenditures	\$ 67,868	\$ 68,689	\$ 69,641	\$ 74,062	\$ 76,835	\$ 79,174	\$ 82,075	\$ 84,571	\$ 87,593
16										
17	*Revenues	\$ (2,912)	\$ (2,959)	\$ (3,334)	\$ (3,187)	\$ (3,399)	\$ (3,484)	\$ (3,571)	\$ (3,656)	\$ (3,740)
18										
19	Total Department Net Expenditures	\$ 64,956	\$ 65,731	\$ 66,307	\$ 70,875	\$ 73,437	\$ 75,690	\$ 78,504	\$ 80,915	\$ 83,852
* Private Wide-Area Network Fees							Schedule may not foot due to rounding.			

* Private Wide-Area Network Fees

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Chief Operating Office

Chief Operating Office										
Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1	Salaries	\$ 40,171	\$ 42,272	\$ 41,563	\$ 43,789	\$ 45,546	\$ 47,368	\$ 49,263	\$ 51,233	\$ 53,283
2	Benefits & Taxes	12,792	14,223	13,968	14,365	15,174	15,781	16,413	17,069	17,752
3	Project Funded Labor	(1,228)	(1,040)	(1,279)	(1,458)	(1,400)	(1,482)	(1,482)	(1,565)	(1,565)
4	Vacancy	-	(1,348)	-	(1,454)	(1,518)	(1,556)	(1,595)	(1,633)	(1,671)
5	Department Labor	\$ 51,735	\$ 54,107	\$ 54,253	\$ 55,243	\$ 57,802	\$ 60,111	\$ 62,598	\$ 65,104	\$ 67,799
6	Materials, Supplies & Equipment	494	699	636	595	606	621	637	652	667
7	HW/SW License & Maintenance	257	16	147	269	119	122	126	129	132
8	Outside Services	1,848	2,819	3,005	3,360	2,650	2,716	2,784	2,850	2,916
9	Utility, Maintenance & Facility	2,570	3,438	2,893	3,084	3,312	3,395	3,480	3,563	3,645
10	Employee Expenses	1,035	1,579	1,407	1,538	1,556	1,595	1,635	1,674	1,713
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	930	914	825	1,482	1,533	1,571	1,610	1,649	1,687
13	Department Expense	\$ 58,868	\$ 63,571	\$ 63,165	\$ 65,571	\$ 67,579	\$ 70,132	\$ 72,869	\$ 75,622	\$ 78,559
14	Minor Capital & Common Infrastructure	1,196	1,515	1,557	995	1,020	1,045	1,072	1,097	1,123
15	Subtotal - Department Expenditures	\$ 60,064	\$ 65,086	\$ 64,722	\$ 66,566	\$ 68,599	\$ 71,177	\$ 73,941	\$ 76,720	\$ 79,681
16										
17	*Revenues	\$ (2,245)	\$ (1,020)	\$ (2,842)	\$ (2,353)	\$ (2,353)	\$ (2,412)	\$ (2,472)	\$ (2,532)	\$ (2,590)
18										
19	Total Department Net Expenditures	\$ 57,819	\$ 64,066	\$ 61,880	\$ 64,213	\$ 66,246	\$ 68,765	\$ 71,469	\$ 74,188	\$ 77,091

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

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

Chief Administrative Office

Chief Administrative Office											
Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection	
1	Salaries	\$ 9,886	\$ 11,491	\$ 11,174	\$ 12,535	\$ 12,988	\$ 13,508	\$ 14,048	\$ 14,610	\$ 15,195	
2	Benefits & Taxes	2,988	3,540	3,369	3,807	3,985	4,144	4,310	4,482	4,661	
3	Project Funded Labor	(1,822)	(1,823)	(1,578)	(2,455)	(2,455)	(2,599)	(2,599)	(2,743)	(2,743)	
4	Vacancy	-	(351)	-	(409)	(424)	(435)	(446)	(457)	(467)	
5	Department Labor	\$ 11,052	\$ 12,857	\$ 12,965	\$ 13,478	\$ 14,094	\$ 14,618	\$ 15,313	\$ 15,892	\$ 16,646	
6	Materials, Supplies & Equipment	34	11	9	31	31	32	33	33	34	
7	HW/SW License & Maintenance	17	15	16	115	60	62	63	65	66	
8	Outside Services	6,001	5,889	6,063	6,534	6,673	6,840	7,011	7,179	7,344	
9	Utility, Maintenance & Facility	1,831	2,310	2,100	2,219	2,235	2,291	2,348	2,404	2,460	
10	Employee Expenses	391	576	533	572	572	587	601	616	630	
11	Insurance	2,222	2,804	2,327	2,423	2,534	2,598	2,663	2,726	2,789	
12	Other Expenses	329	547	509	404	409	419	430	440	450	
13	Department Expense	\$ 21,876	\$ 25,009	\$ 24,521	\$ 25,775	\$ 26,609	\$ 27,445	\$ 28,461	\$ 29,356	\$ 30,419	
14	Minor Capital & Common Infrastructure	-	-	-	-	-	-	-	-	-	
15	Subtotal - Department Expenditures	\$ 21,876	\$ 25,009	\$ 24,521	\$ 25,775	\$ 26,609	\$ 27,445	\$ 28,461	\$ 29,356	\$ 30,419	
16											
17	Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
18											
19	Total Department Net Expenditures	\$ 21,876	\$ 25,009	\$ 24,521	\$ 25,775	\$ 26,609	\$ 27,445	\$ 28,461	\$ 29,356	\$ 30,419	
							Schedule may not foot due to rounding.				

Schedule may not foot due to rounding.



Department Net Expenditures by Office

\$ in Thousands

External Affairs and Corporate Communications

		2018	2019	2019	2020	2021	2022	2023	2024	2025
Line		Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection
1	Salaries	\$ 4,478	\$ 4,875	\$ 4,677	\$ 5,058	\$ 5,260	\$ 5,471	\$ 5,689	\$ 5,917	\$ 6,154
2	Benefits & Taxes	1,409	1,618	1,546	1,640	1,731	1,801	1,873	1,947	2,025
3	Project Funded Labor	(71)	(103)	(103)	(83)	(83)	(88)	(88)	(93)	(93)
4	Vacancy	-	(157)	-	(167)	(175)	(179)	(184)	(188)	(192)
5	Department Labor	\$ 5,817	\$ 6,233	\$ 6,121	\$ 6,447	\$ 6,733	\$ 7,004	\$ 7,290	\$ 7,583	\$ 7,894
6	Materials, Supplies & Equipment	2	4	3	4	4	5	5	5	5
7	HW/SW License & Maintenance	1	39	33	5	5	5	5	5	5
8	Outside Services	-	251	250	257	257	264	270	277	283
9	Utility, Maintenance & Facility	-	-	-	-	-	-	-	-	-
10	Employee Expenses	125	218	184	179	181	186	190	195	199
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	86	103	95	149	149	153	157	161	164
13	Department Expense	\$ 6,031	\$ 6,847	\$ 6,686	\$ 7,042	\$ 7,330	\$ 7,615	\$ 7,917	\$ 8,225	\$ 8,550
14	Minor Capital & Common Infrastructure	-	-	-	-	-	-	-	-	-
15	Subtotal - Department Expenditures	\$ 6,031	\$ 6,847	\$ 6,686	\$ 7,042	\$ 7,330	\$ 7,615	\$ 7,917	\$ 8,225	\$ 8,550
16										
17	*Revenues	\$ (61)	\$ (40)	\$ (53)	\$ (63)	\$ (63)	\$ (64)	\$ (66)	\$ (67)	\$ (69)
18										
19	Total Department Net Expenditures	\$ 5,971	\$ 6,807	\$ 6,633	\$ 6,979	\$ 7,268	\$ 7,551	\$ 7,851	\$ 8,158	\$ 8,481
*Market Participant Registration Fees							Schedule may not foot due to rounding.			



Department Net Expenditures by Office

\$ in Thousands

General Counsel

General Counsel										
Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1	Salaries	\$ 2,682	\$ 2,684	\$ 2,745	\$ 2,982	\$ 3,102	\$ 3,226	\$ 3,355	\$ 3,489	\$ 3,629
2	Benefits & Taxes	725	846	851	908	957	995	1,035	1,077	1,120
3	Project Funded Labor	127	(27)	33	-	-	-	-	-	-
4	Vacancy	-	(86)	-	(97)	(101)	(104)	(107)	(109)	(112)
5	Department Labor	\$ 3,533	\$ 3,417	\$ 3,629	\$ 3,793	\$ 3,957	\$ 4,117	\$ 4,283	\$ 4,456	\$ 4,637
6	Materials, Supplies & Equipment	2	3	3	3	4	4	4	4	4
7	HW/SW License & Maintenance	-	-	-	4	-	-	-	-	-
8	Outside Services	680	1,350	1,285	1,255	1,257	1,289	1,321	1,353	1,384
9	Utility, Maintenance & Facility	55	55	55	-	-	-	-	-	-
10	Employee Expenses	85	102	85	113	114	117	120	123	125
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	104	265	270	298	199	204	209	214	219
13	Department Expense	\$ 4,459	\$ 5,192	\$ 5,326	\$ 5,466	\$ 5,531	\$ 5,730	\$ 5,937	\$ 6,149	\$ 6,368
14	Minor Capital & Common Infrastructure	-	-	-	-	-	-	-	-	-
15	Subtotal - Department Expenditures	\$ 4,459	\$ 5,192	\$ 5,326	\$ 5,466	\$ 5,531	\$ 5,730	\$ 5,937	\$ 6,149	\$ 6,368
16										
17	*Revenues	\$ (411)	\$ (268)	\$ (303)	\$ (268)	\$ (268)	\$ (275)	\$ (282)	\$ (289)	\$ (296)
18										
19	Total Department Net Expenditures	\$ 4,048	\$ 4,924	\$ 5,023	\$ 5,198	\$ 5,262	\$ 5,455	\$ 5,655	\$ 5,860	\$ 6,073
*Membership Dues							Schedule may not foot due to rounding.			



Department Net Expenditures by Office

\$ in Thousands

Chief Executive Office

Chief Executive Office										
Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1	Salaries	\$ 1,552	\$ 1,581	\$ 1,673	\$ 1,673	\$ 1,740	\$ 1,810	\$ 1,882	\$ 1,958	\$ 2,036
2	Benefits & Taxes	321	450	469	464	488	507	527	549	570
3	Project Funded Labor	-	-	(0)	-	-	-	-	-	-
4	Vacancy	-	(58)	-	(53)	(56)	(57)	(59)	(60)	(61)
5	Department Labor	\$ 1,873	\$ 1,973	\$ 2,142	\$ 2,084	\$ 2,172	\$ 2,260	\$ 2,351	\$ 2,446	\$ 2,545
6	Materials, Supplies & Equipment	0	-	-	0	0	0	0	0	0
7	HW/SW License & Maintenance	-	-	-	-	-	-	-	-	-
8	Outside Services	-	-	-	-	-	-	-	-	-
9	Utility, Maintenance & Facility	-	-	-	-	-	-	-	-	-
10	Employee Expenses	65	107	84	72	72	74	76	77	79
11	Insurance	-	-	-	-	-	-	-	-	-
12	Other Expenses	15	32	27	20	20	20	21	21	22
13	Department Expense	\$ 1,953	\$ 2,112	\$ 2,252	\$ 2,176	\$ 2,264	\$ 2,354	\$ 2,448	\$ 2,545	\$ 2,646
14	Minor Capital & Common Infrastructure	-	-	-	-	-	-	-	-	-
15	Subtotal - Department Expenditures	\$ 1,953	\$ 2,112	\$ 2,252	\$ 2,176	\$ 2,264	\$ 2,354	\$ 2,448	\$ 2,545	\$ 2,646
16										
17	Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18										
19	Total Department Net Expenditures	\$ 1,953	\$ 2,112	\$ 2,252	\$ 2,176	\$ 2,264	\$ 2,354	\$ 2,448	\$ 2,545	\$ 2,646
							Schedule may not foot due to rounding.			

Schedule may not foot due to rounding.



Project Expenditures

Project Expenditures

\$ in Thousands

\$ in Thousands

Project Expenditures										
Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1	Revision Requests	\$ 2,557	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 4,000
2	Regulatory	948	2,000	800	2,000	2,000	2,000	2,000	2,000	2,000
3	Internal Enhancements	23,060	7,500	6,900	11,250	11,000	6,000	6,000	6,000	8,000
4	Technical Foundation - Hardware Refreshes	8,027	4,000	4,200	2,250	2,250	7,250	18,750	18,850	8,250
5	Technical Foundation - Software	5,733	11,000	4,500	9,500	9,750	9,000	12,900	9,000	9,000
6	Real Time Co-optimization Project	-	-	-	3,000	5,000	12,000	10,000	10,000	-
7	Project Expenditures	\$ 40,324	\$ 28,500	\$ 20,400	\$ 32,000	\$ 34,000	\$ 39,250	\$ 52,650	\$ 48,850	\$ 31,250
							Schedule may not foot due to rounding.			

Schedule may not foot due to rounding.

Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2020 Budget Range	2021 Budget Range
1	Revision Requests	CMM NPRRs Phase 2 (NPRR484, NPRR867, NPRR829, NPRR907)	\$500k-\$1M	-
2	Revision Requests	Require ERCOT to Issue a DC Tie Curtailment Notice Prior to Curtailing any DC Tie Load (NPRR825)	\$100k-\$250k	-
3	Revision Requests	Creation of Direct Current Tie Operator Market Participant Role (NPRR857)	\$500k-\$1M	-
4	Revision Requests	Creation of ERCOT Contingency Reserve Service and Revisions to Responsive Reserve (NPRR863)	\$500k-\$1M	-
5	Revision Requests	Adjustments to Pricing and Settlement for Reliability Unit Commitments (RUCs) of On-Line Combined Cycle Generation Resources (NPRR884)	\$100k-\$250k	-
6	Revision Requests	Revision Request Funding - 2020/2021	\$2M-\$3M	\$3M-\$4M
Line	Project Category	Project Name	2020 Budget Range	2021 Budget Range
7	Regulatory	Cyber Security Project #27	-	\$500k-\$1M
8	Regulatory	2021 CIP (Critical Infrastructure Protection) Enhancements	-	<\$50k
9	Regulatory	Regulatory Funding - 2020/2021	\$1M-\$2M	\$1M-\$2M

Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2020 Budget Range	2021 Budget Range
10	Internal Enhancements	ECMS (Enterprise Content Management System) Implementation Phase 2	\$1M-\$2M	\$50k-\$100k
11	Internal Enhancements	EPS (ERCOT-Polled Settlement) Metering Enhancements	<\$50k	-
12	Internal Enhancements	Security Constrained Unit Commitment (SCUC)	\$1M-\$2M	\$1M-\$2M
13	Internal Enhancements	Automation of Market Participant Partnership Deletions, Mothballed Status & Seasonal Operation Period in Registration System	\$100k-\$250k	-
14	Internal Enhancements	Objectives and Key Results (OKR) Tool Implementation	\$50k-\$100k	-
15	Internal Enhancements	Network Model Impedance Parameter Estimation Enhancement	\$50k-\$100k	-
16	Internal Enhancements	Standard Report for Events and Near-Miss Analysis	\$100k-\$250k	-
17	Internal Enhancements	Outage Scheduler System Enhancements	\$250k-\$500k	-
18	Internal Enhancements	API (Application Programming Interface) Management Strategy	\$250k-\$500k	-
19	Internal Enhancements	IT Archive (ITA) - Implementation	\$100k-\$250k	-
20	Internal Enhancements	Reactive Power Coordination - Execution Phase	\$1M-\$2M	\$250k-\$500k
21	Internal Enhancements	Network Model CIM (Common Information Model) Upgrade	\$100k-\$250k	-
22	Internal Enhancements	Centralized Application Log Management (CALM) - Phase 2	\$100k-\$250k	-
23	Internal Enhancements	Implementation of Portfolio Management Tool(s)	\$100k-\$250k	\$100k-\$250k
24	Internal Enhancements	Replacement of Enterprise Monitoring Software	\$100k-\$250k	-
25	Internal Enhancements	Improve Efficiency of Managing Public Data Requests	\$250k-\$500k	\$100k-\$250k
26	Internal Enhancements	Cyber Security Project #27	\$250k-\$500k	-
27	Internal Enhancements	IT Application Development Operations Tool Enhancement	\$500k-\$1M	\$500k-\$1M
28	Internal Enhancements	Enterprise Architecture Framework	\$100k-\$250k	-
29	Internal Enhancements	Email Integration with Document Management System	\$100k-\$250k	-
30	Internal Enhancements	ERCOT Internal Records Management Enhancement	\$100k-\$250k	-



Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2020 Budget Range	2021 Budget Range
31	Internal Enhancements	Market Rules Automation of Business Processes	<\$50k	\$100k-\$250k
32	Internal Enhancements	Database Activity Monitoring Expansion	\$100k-\$250k	\$100k-\$250k
33	Internal Enhancements	Intra-Hour Variability Monitoring Tool	\$100k-\$250k	-
34	Internal Enhancements	On-Site Physical Storage - Taylor Location	\$100k-\$250k	\$100k-\$250k
35	Internal Enhancements	Repurpose Blue Building	\$250k-\$500k	\$250k-\$500k
36	Internal Enhancements	Data Analysis Architecture Enhancement	<\$50k	-
37	Internal Enhancements	Control Room Macomber Map Replacement	\$100k-\$250k	\$100k-\$250k
38	Internal Enhancements	Privileged Account Management - Phase 3	\$100k-\$250k	\$100k-\$250k
39	Internal Enhancements	Test Data and Environment Enhancement - Implementation	-	\$250k-\$500k
40	Internal Enhancements	Automate Verifiable Cost Data Gathering	-	\$500k-\$1M
41	Internal Enhancements	Changing Grid Enhancements	\$500k-\$1M	\$1M-\$2M
42	Internal Enhancements	Capital Efficiencies and Enhancements - 2020/2021	\$500k-\$1M	\$500k-\$1M
43	Internal Enhancements	Efficiency/Enhancement Projects Funding - 2020/2021	\$1M-\$2M	\$1M-\$2M

Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2020 Budget Range	2021 Budget Range
44	Technical Foundation - Hardware Refreshes	Common Infrastructure	\$1M-\$3M	\$1M-\$3M
45	Technical Foundation - Hardware Refreshes	Tech Foundation - Hardware Projects Funding - 2020/2021	\$250k-\$500k	\$250k-\$500k
Line	Project Category	Project Name	2020 Budget Range	2021 Budget Range
46	Technical Foundation - Software	Privileged Account Management (PAM) Phase 2	\$500k-\$1M	-
47	Technical Foundation - Software	Enterprise Database Upgrade	<\$50k	-
48	Technical Foundation - Software	Retail System Replacement - EDI (Electronic Data Interchange) Map and Translator	\$1M-\$2M	<\$50k
49	Technical Foundation - Software	Tech Refresh - MMS/OS (Market Management System/Outage Scheduler)	\$1M-\$2M	\$50k-\$100k
50	Technical Foundation - Software	Tech Refresh - REC (Renewable Energy Credit) Rewrite	\$250k-\$500k	-
51	Technical Foundation - Software	Tech Refresh - Business Intelligence	\$100k-\$250k	-
52	Technical Foundation - Software	Middleware Job Scheduling Software Replacement	\$100k-\$250k	-
53	Technical Foundation - Software	Tech Refresh - NAEBS (North American Energy Standards Board) Application	<\$50k	-
54	Technical Foundation - Software	Wide Area Network (WAN) Refresh	\$100k-\$250k	-
55	Technical Foundation - Software	MPIM (Market Participant Identity Management) Replacement	\$500k-\$1M	-
56	Technical Foundation - Software	Tech Refresh - Desktop Productivity Software Upgrade	\$500k-\$1M	-
57	Technical Foundation - Software	Tech Refresh - Work Management System Upgrade or Replacement	\$50k-\$100k	-
58	Technical Foundation - Software	Internet Protocol Address Management (iPAM)	\$100k-\$250k	-
59	Technical Foundation - Software	Cyber Security Project #25	\$50k-\$100k	-
60	Technical Foundation - Software	Tech Refresh - MV90 Software & Database upgrade	\$250k-\$500k	-

Project Expenditures: Project Priority List Details

Line	Project Category	Project Name	2020 Budget Range	2021 Budget Range
61	Technical Foundation - Software	Tech Refresh - Registration System Upgrade	\$500k-\$1M	\$100k-\$250k
62	Technical Foundation - Software	Settlements Code Enhancement: Invoices & Statements, Bill Calculations	\$100k-\$250k	-
63	Technical Foundation - Software	Cyber Security Project #26	\$100k-\$250k	\$100k-\$250k
64	Technical Foundation - Software	Tech Refresh - Control Room	-	\$500k-\$1M
65	Technical Foundation - Software	Tech Refresh - EMS (Energy Management System) Upgrade	\$500k-\$1M	\$1M-\$3M
66	Technical Foundation - Software	Tech Refresh - MarkeTrak Upgrade	-	<\$50k
67	Technical Foundation - Software	Tech Refresh - CRR (Congestion Revenue Rights)	-	\$500k-\$1M
68	Technical Foundation - Software	Tech Refresh - NMMS (Network Model Management System)	-	\$500k-\$1M
69	Technical Foundation - Software	Tech Refresh - Enterprise Database Software	\$500k-\$1M	-
70	Technical Foundation - Software	Tech Foundation - Software Projects Funding - 2020/2021	\$1M-\$2M	\$4M-\$6M



Date: June 4, 2019
To: Board of Directors
From: Terry Bulger, Finance and Audit (F&A) Committee Chair
Subject: 2020-2021 Budget and Fee

Issue for the ERCOT Board of Directors

ERCOT Board of Directors Meeting Date: June 11, 2019

Item No.: 8.1

Issue:

Approval by the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) of the ERCOT 2020-2021 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 2020-2021 Biennial Budget at its June 11, 2019 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 2020 and 2021 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; and
 - Maintain necessary facilities to provide secure operations and house staff.
- In the fourth quarter of 2018 and the first and second quarters of 2019, ERCOT staff discussed financial assumptions, methodologies, schedules and a system administration fee relating to the 2020-2021 Biennial Budget with PUCT staff designated by the PUCT Executive Director.
- ERCOT staff will present its recommended 2020-2021 Biennial Budget to the F&A Committee on June 10, 2019.
- The Budget recommended by ERCOT staff will keep the ERCOT system administration fee flat at \$0.5550 for 2020 and 2021.

Conclusion/Recommendation:

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

- Approve the recommended 2020-2021 Biennial Budget as set forth in Attachment A, which includes \$268,310,985 and \$275,156,917 total spending authorization for operating expenses, project spending, and debt service obligations for 2020 and 2021, respectively;
- Approve the recommended ERCOT system administration fee of \$0.5550 per megawatt-hour rate for 2020-2021, which represents no increase from the current ERCOT system administration fee, as set forth in Attachment B; and
- Authorize ERCOT Legal to file the Board-approved 2020-2021 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 2020-2021 Biennial Budget (Budget), which includes operating expenses, project spending, and debt service obligations; and

WHEREAS, Sections 4.10 (*Duties*) and 10.3 (*Budget*) of the Amended and Restated Bylaws of Electric Reliability Council of Texas, Inc., approved on January 17, 2019 (Bylaws), requires that the Board approve the Budget; and

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; and

WHEREAS, ERCOT staff presented its recommended 2020-2021 Biennial Budget, which includes a total spending authorization of \$268,310,985 and \$275,156,917 respectively; and

WHEREAS, the Budget recommended by ERCOT staff will keep the ERCOT system administration fee flat at \$0.5550 for 2020 and 2021;

THEREFORE, BE IT RESOLVED, that the Board hereby:

- Approves the recommended 2020-2021 Biennial Budget as set forth in Attachment A, which includes \$268,310,985 and \$275,156,917 total spending authorization for operating expenses, project spending, and debt service obligations for 2020 and 2021, respectively; and
- Approves the request for the ERCOT system administration fee of \$0.5550 per megawatt-hour for 2020 and 2021 as set forth in Attachment B; and
- Authorizes ERCOT Legal to file the Board-approved 2020-2021 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 June 11, 2019 meeting, the ERCOT Board passed a motion approving the above Resolution by _____.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of June, 2019.

Vickie G. Leady
Assistant Corporate Secretary

Attachment A
Fiscal Years 2020-2021 Management Recommended Budget
(\$ in Thousands)

Sources and Uses									
	2018	2019	2019	2020	2021	2022	2023	2024	2025
	Actual	Budget	Forecast	Request	Request	Projection	Projection	Projection	Projection
1 System Administration Fee Revenues	\$ 209,881	\$ 207,425	\$ 211,663	\$ 222,640	\$ 229,274	\$ 236,244	\$ 242,865	\$ 249,986	\$ 255,869
2 Reliability Organization Assessment *	16,328	15,000	15,789	19,800	19,800	19,800	19,800	19,800	19,800
3 Interest Income	13,091	1,300	20,000	20,000	20,000	20,000	20,000	20,000	20,000
4 Other Revenues	5,630	4,287	6,533	5,871	6,083	6,235	6,391	6,544	6,695
5 Total Sources	\$ 244,929	\$ 228,012	\$ 253,985	\$ 268,311	\$ 275,157	\$ 282,279	\$ 289,056	\$ 296,330	\$ 302,363
6 Department Expenditures	\$ 162,252	\$ 172,936	\$ 173,148	\$ 181,086	\$ 187,168	\$ 193,496	\$ 200,779	\$ 207,567	\$ 215,258
7 Project Expenditures	40,324	28,500	20,400	32,000	34,000	39,250	52,650	48,850	31,250
8 Reliability Organization Assessment *	16,328	15,000	15,789	19,800	19,800	19,800	19,800	19,800	19,800
9 Debt Service	5,438	5,997	5,821	5,683	5,531	5,340	5,007	5,010	5,170
10 Repayment of CRR Borrowings	20,587	5,580	12,639	-	-	-	-	-	-
11 Increase in Cash Balance	-	-	26,188	29,741	28,657	24,392	10,820	15,104	30,885
12 Total Uses	\$ 244,929	\$ 228,012	\$ 253,985	\$ 268,311	\$ 275,157	\$ 282,279	\$ 289,056	\$ 296,330	\$ 302,363
* 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 2020-2021 Management Recommended Budget
(\$ in Thousands)

Budget Summary										
Line		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
1	System Administration Fee Rate	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550	\$ 0.5550
2	Energy Consumption (GWH)	378,163	373,739	381,374	401,153	413,107	425,665	437,595	450,426	461,025
3	System Administration Fee Revenues	\$ 209,881	\$ 207,425	\$ 211,663	\$ 222,640	\$ 229,274	\$ 236,244	\$ 242,865	\$ 249,986	\$ 255,869
4	Department Net Expenditures	\$ 156,623	\$ 168,649	\$ 166,616	\$ 175,215	\$ 181,085	\$ 187,262	\$ 194,388	\$ 201,023	\$ 208,564
5	Project Expenditures	40,324	28,500	20,400	29,000	29,000	27,250	42,650	38,850	31,250
6	Real Time Co-optimization Project	-	-	-	3,000	5,000	12,000	10,000	10,000	-
7	Total Net Expenditures	\$ 196,947	\$ 197,149	\$ 187,016	\$ 207,215	\$ 215,085	\$ 226,512	\$ 247,038	\$ 249,873	\$ 239,814
8	Net Available Before Non-Operating Sources & Uses	\$ 12,934	\$ 10,277	\$ 24,647	\$ 15,425	\$ 14,189	\$ 9,733	\$ (4,173)	\$ 114	\$ 16,055
9	Debt Service	\$ (5,438)	\$ (5,997)	\$ (5,821)	\$ (5,683)	\$ (5,531)	\$ (5,340)	\$ (5,007)	\$ (5,010)	\$ (5,170)
10	Interest Income	13,091	1,300	20,000	20,000	20,000	20,000	20,000	20,000	20,000
11	Non-Operating Sources & Uses	\$ 7,653	\$ (4,697)	\$ 14,179	\$ 14,317	\$ 14,469	\$ 14,660	\$ 14,993	\$ 14,990	\$ 14,830
12	Net Available	\$ 20,587	\$ 5,580	\$ 38,826	\$ 29,741	\$ 28,657	\$ 24,392	\$ 10,820	\$ 15,104	\$ 30,885
Year-End Balances: Notes Payable, CRR Borrowings, Cash, and Real Time Co-optimization Project Funding										
		2018 Actual	2019 Budget	2019 Forecast	2020 Request	2021 Request	2022 Projection	2023 Projection	2024 Projection	2025 Projection
13	Notes Payable Balance	\$ 55,000	\$ 51,000	\$ 51,000	\$ 47,000	\$ 43,000	\$ 39,000	\$ 35,000	\$ 31,000	\$ 27,000
14	CRR Borrowings Balance	\$ 12,639	\$ 7,059	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Cash Balance	\$ -	\$ -	\$ 26,188	\$ 55,929	\$ 84,586	\$ 108,978	\$ 119,798	\$ 134,902	\$ 165,786
16	Real Time Co-optimization Project Funding Balance	\$ 17,089	\$ -	\$ 50,335	\$ 47,335	\$ 42,335	\$ 30,335	\$ 20,335	\$ 10,335	\$ 10,335
							Schedule may not foot due to rounding			

Schedule may not foot due to rounding.