The Empire District Electric Company – A Liberty Utility 2017 Annual RES Compliance Report CONFIDENTIAL 4CSR 240-2.135(2) (A) 4

ATTACHMENT 9: BASE RES MODELING
2018-2027 RRI Calculation Period 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 Baseline Revenue Req (MM\$) Annual 1% (MM\$) Actual Costs Annual Over/(Under) Plus Prior Carryover Cumulative carryover - over/(under) 2019-2028 RRI Calculation Period Baseline Revenue Req (MM\$) Annual 1% (MM\$) Actual Costs Annual Over/(Under) Plus Prior Carryover Cumulative carryover - over/(under) 2020-2029 RRI Calculation Period Baseline Revenue Req (MM\$) Annual 1% (MM\$) Actual Costs Annual Over/(Under) Plus Prior Carryover Cumulative carryover - over/(under) 2021-2030 RRI Calculation Period Baseline Revenue Req (MM\$) Annual 1% (MM\$) Actual Costs Annual Over/(Under) Plus Prior Carryover Cumulative carryover - over/(under) 2022-2031 RRI Calculation Period Baseline Revenue Req (MM\$) Annual 1% (MM\$) Actual Costs Annual Over/(Under) Plus Prior Carryover Cumulative carryover - over/(under) 2023-2032 RRI Calculation Period Baseline Revenue Req (MM\$) Annual 1% (MM\$) Actual Costs Annual Over/(Under) Plus Prior Carryover Cumulative carryover - over/(under) 2024-2033 RRI Calculation Period Baseline Revenue Req (MM\$) Annual 1% (MM\$) Actual Costs

		2018		2019		2020		2021		2022		2023		2024	ı	2025	,	2026		2027		Total
Actual Spend - 2018-2027			0		0		0		0		0		0		0		0		0		0 \$	-
Budget - 2018-2027	\$	-	\$	-	\$	-	\$	-	\$							\$ -					\$	-
Revenue Requirements 2018-2027	\$	-	\$	-	\$	-	\$	-	\$	\$ -	5	-	\$		- :	\$ -		-	\$	-	\$	-
Budget % of Revenue Requirements																						
Actual % of Revenue Requirements																						
Rule 5D		2018		2019		2020		2021		2022		2023		2024	ı	2025		2026		2027	10-	Year Avg RR
RES																						
NO-RES																						
nec.	_																				_	
RES																						
NO-RES																						
RES	_																		_		_	
NO-RES																						
NO-RES																						



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Annual Revenue Requirements

Endpoint 1 RES

2 NO-RES

(Projected RES Exp includes avoided costs of fuel and greenhouse gas emissions compliance costs)

NO-RES (Baseline)

Add back Solar to Load Forecast (Excluded in IRP Load Forecast)

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	2018	2019	2020	2021	2022	2023
INCOME STATEMENT 1						
Retail Revenues						
+Reserve Income Capacity Sales	0	0	0	0	0	0
+Reserve Capacity Sales	0	0	0	0	0	0
+Reserve Capacity Purchases	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Commercial	0	0	0	0	0	0
Industrial	0	0	0	0	0	0
Lighting	0	0	0	0	0	0
Government	0	0	0	0	0	0
Other	0	0	0	0	0	0
Interruptible	0	0	0	0	0	0
Unbilled Revenues	0	0	0	0	0	0
TIER Return Adjustment	0	0	0	0	0	0

Prior Years Method Adjustment

Prior level Method Adjustment

Current Operating Method Adjustment

Total Base Revenues

- +Fuel Clause Revenues
- +PGA Revenues
- +Competitive Sales
- +Competitive Unit Sales
- +Sales to Other Utilities
- +Secondary Energy Sales
- +Market Energy Sales
- +Transferred Energy Sales
- +Other Energy Sales
- +Secondary Capacity Sales
- +ICAP Revenues
- +Reserve Capacity Sales
- +Bulk Power Revenues
- +Other Revenues
- +Gas Revenues
- +Relationship Revenues
- +Regulatory Credit
- +Total Power Derivative Revenue
- =Physical Derivative Fixed Revenues
- + Physical Derivative Variable Revenues
- + Financial Derivative Fixed Revenues
- + Financial Derivative Variable Revenue
- +Total Fuel Derivative Revenue
- =Physical Derivative Fixed Revenues

- + Physical Derivative Variable Revenues
- + Financial Derivative Fixed Revenues
- + Financial Derivative Variable Revenue

TOTAL OPERATING REVENUES

- -Special Expenses
- -Fossil Fuel Expense
- -Nuclear Fuel Expense
- -Decommissioning
- -DOE Deposal
- -Purchased Power Expense

Market Purchased Power Expense

- + Other Purchased Power Expense
- + Amortization-Purchased Power Expense
- -Deferred Fuel Expense
- -Fixed O&M Production Expense
- -Variable O&M Production Expense
- -Total Derivative Expenses

Physical Derivative Fixed Expenses

- + Physical Derivative Variable Expenses
- + Financial Derivative Fixed Expenses
- + Financial Derivative Variable Expenses
- -Total Fuel Derivative Expenses

Physical Fuel Derivative Fixed Expenses

- + Physical Fuel Derivative Variable Expenses
- + Financial Fuel Derivative Fixed Expenses
- + Financial Fuel Derivative Variable Expenses
- -Reserve Capacity Purchases
- -O&M Vacation Pay
- -O&M Pension
- -O&M Storm
- -Service Transaction Expense
- -Other O&M
- -Gas Purchases
- -Other Expenses
- -Transmission Operation
- -Transmission Maintenance
- -Distribution Operation
- -Distribution Maintenance
- -Customer Accounts
- -Customer Services
- -Sales Expense
- -A&G Operations
- -A&G Maintenance
- -Lease Expenses

Lease Amortization Expenses

- + Lease Interest Expenses
- -DSM Program Expense

- -Emissions Credit Expense
- -Retirement Medical Expense
- -Depreciation Expense
- -Amortization Expense
 - =Goodwill
 - + Regulatory Assets
 - + FASB 109
 - + FASB 133
 - + FASB 143
 - + Other Amortization
 - CIAC Amortization Expense

TOTAL OPERATING EXPENSE

- -Operating Revenue Tax
- -Other Taxes
- -Property Taxes

Property Tax Basis

Property Tax Rate

Property Tax Basis

Property Taxes Prior Level

Property Tax Addendum

- -State Income Taxes Paid
- -State Tax on Capital
- -Federal Income Taxes Paid
- -Federal Tax on Capital
- -Income Tax Deferrals (Dr)
- -Income Tax Deferrals (Cr)
- =Income Tax Deferrals (Cr)
- +Issue Expense Deferrals (Cr)
- + NF Deferred Taxes (Cr)
- -Investment Tax Credit

TOTAL EXPENSES WITH TAXES

OPERATING INCOME

- +Deferred Revenues
- +Other Income

Net of Tax Other Income

- +Interest & Investment Income
- -Expenses
- -Income Taxes
- -Income Tax Deferrals
- -Amortization
- +AFUDC Equity

INCOME BEFORE INTEREST

- -Interest on Long Term Debt
- =Booked LTD Interest
- +Interest Amort in LTD
- -Interest on Short Term Debt
- +AFUDC Borrowed

INCOME AFTER INTEREST

- +Unused Federal Tax Credits
- +Subsidiary Income
- -Extraordinary Items

Net Income

- -Preferred Dividends
- =Booked PD
- +PD Amort

Earnings Available to Common

-Common Dividends

RETAINED EARNINGS

Return on Equity (%)

Return on Ratebase (%)

Book Value Per Share

Year-end Market Price Per Share

Average Market Price Per Share

Average Shares Outstanding

BOY Shares Outstanding

Net Shares Issued

Year End Shares Outstanding

Market to Book Ratio

Earnings per Share (\$)

Dividends per Share (\$)

Dividend Payout (%)

Average Equity

Common Issued

Preferred Issued

LTD Issued

STD Issued

Common Equity (%)

Preferred Stock (%)

Long Term Debt (%)

Short Term Debt (%)

Internal Cash to Construction Expense

Embed Cost Capital with STD (%)

Embed Cost Capital without STD (%)

Net Tax Embed Cost Capital with STD (%)

Net Tax Embed Cost Capital without STD (%)

Annualized LTD Cost (\$M)

Annualized PFS Cost (\$M)

Annualized STD Cost (\$M)

Annualized Equity Cost (\$M)

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	

2034	2035	2036	2037
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

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-Common Dividends

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Return on Ratebase (%)

Book Value Per Share

Year-end Market Price Per Share

Average Market Price Per Share

Average Shares Outstanding

BOY Shares Outstanding

Net Shares Issued

Year End Shares Outstanding

Market to Book Ratio

Earnings per Share (\$)

Dividends per Share (\$)

Dividend Payout (%)

Average Equity

Common Issued

Preferred Issued

LTD Issued

STD Issued

Common Equity (%)

Preferred Stock (%)

Long Term Debt (%)

Short Term Debt (%)

Internal Cash to Construction Expense

Embed Cost Capital with STD (%)

Embed Cost Capital without STD (%)

Net Tax Embed Cost Capital with STD (%)

Net Tax Embed Cost Capital without STD (%)

Annualized LTD Cost (\$M)

Annualized PFS Cost (\$M)

Annualized STD Cost (\$M)

Annualized Equity Cost (\$M)

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

2034	2035	2036	2037
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

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Endpoint Month	Generating unit Variables/Year
1 Annual	Asbury 1 1 Unit Capacity (MW)
1 Annual	latan 1 2 Unit Capacity (MW)
1 Annual	Energy Center 1 Unit Capacity (MW)
1 Annual	Energy Center 2 Unit Capacity (MW)
1 Annual	Energy Center 3 Unit Capacity (MW)
1 Annual	Energy Center 4 Unit Capacity (MW)
1 Annual	Riverton 10 Unit Capacity (MW)
1 Annual	Riverton 11 1 Unit Capacity (MW)
1 Annual	Stateline CT1 Unit Capacity (MW)
1 Annual	Stateline CC1 Unit Capacity (MW)
1 Annual	Stateline CC2 Unit Capacity (MW)
1 Annual	latan 2 14 Unit Capacity (MW)
1 Annual	Plum Point 1 Unit Capacity (MW)
1 Annual	Riverton 12 1 Unit Capacity (MW)
1 Annual	Riv 12 CC 17 Unit Capacity (MW)
1 Annual	CC-2029 7: Unit Capacity (MW)
1 Annual	CC-2035 7' Unit Capacity (MW)
1 Annual	ELRIV PPA MI Unit Capacity (MW)
1 Annual	Merid Way N Unit Capacity (MW)
1 Annual	Ozark Beach N Unit Capacity (MW)
1 Annual	NEW S SOLAR Unit Capacity (MW)
1 Annual	Reser ved MF Unit Capacity (MW)
1 Annual	29KSA Year 1-3 Unit Capacity (MW)
1 Annual	31KSA Year 1-3 Unit Capacity (MW)
1 Annual	29KSB Year 4-40 Unit Capacity (MW)
1 Annual	31KSB Year 4-40 Unit Capacity (MW)
1 Annual	Total Resources Unit Capacity (MW)
	. ,

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028

2029 2030 2031 2032 2033 2034 2035 2036 2037

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Endpoint Month	Generating unit	Variables/Year	2018 2019		
2 Annual	Asbury 1 1	Unit Capacity (MW)			
2 Annual	latan 1 2	Unit Capacity (MW)			
2 Annual	Energy Center 1 3	Unit Capacity (MW)			
2 Annual	Energy Center 2 4	Unit Capacity (MW)			
2 Annual	Energy Center 3 5	Unit Capacity (MW)			
2 Annual	Energy Center 4 6	Unit Capacity (MW)			
2 Annual	Riverton 10 9	Unit Capacity (MW)			
2 Annual	Riverton 11 10	Unit Capacity (MW)			
2 Annual	Stateline CT1 11	Unit Capacity (MW)			
2 Annual	Stateline CC1 12	Unit Capacity (MW)			
2 Annual	Stateline CC2 13	Unit Capacity (MW)			
2 Annual	latan 2 14	Unit Capacity (MW)			
2 Annual	Plum Point 1 15	Unit Capacity (MW)			
2 Annual	Riverton 12 16	Unit Capacity (MW)			
2 Annual	Riv 12 CC 17	Unit Capacity (MW)			
2 Annual	CC-2035 77	Unit Capacity (MW)			
2 Annual	Reser ved MP	Unit Capacity (MW)			
2 Annual	Total Resources	Unit Capacity (MW)			
2 Annual	CC-2026 68	Unit Capacity (MW)			
2 Annual	CC-2033 75	Unit Capacity (MW)			

2020 2021 2022 2023 2024 2025 2026 2027 2028 2029

2030 2031 2032 2033 2034 2035 2036 2037