Town of Ashland NH Electric Rate Study Preliminary Findings

Ashland Municipal Electric Department
August 3, 2026

PLM Electric Power Engineering

Introduction – Principles of Cost of Service and Rate Design

A. Objectives of rate design
B. Cost allocation
C. Rate design process

A. Objectives of Rate Design

- Adequacy
- Fairness
- Competitiveness
- Stability
- Clarity

Objectives of Rate Design **Adequacy**

- Rate (and other) revenues should cover the utility's operating expenses and fund the renewal and expansion of the plant to provide reliable service
- Measure: overall rate of return within the statutory guidelines of 5% to 8%

Objectives of Rate Design **Fairness**

- The rate paid by each type (class) of customer should reflect as accurately as possible the cost of providing service to that class of customer
- Measure: customer class rate of return

Objectives of Rate Design **Competitiveness**

- The cost of energy to each customer should be competitive with the cost of energy paid by comparable customers to other energy providers in the immediate vicinity
- Measure: typical bill comparisons

Objectives of Rate Design **Stability**

The average cost of energy paid by any customer should not fluctuate excessively from month to month or year to year

Measure:

- Monthly fluctuations caused by changes in PCA (not an issue for WED)
- Year-to-year fluctuations caused by base rate changes

Objectives of Rate Design **Clarity**

- The rate and its individual components should be easily understood by the customer and the amount of the bill should be verifiable with a minimum of effort
- Measure: you know it when you see it

B. Cost Allocation

- Assigns the utility's revenue requirements to each customer class
- Plant and expenses allocated on the basis of three factors:
  - Customer
  - Demand
  - Energy

Allocation Factors
Customer

- Costs which are related to the number of customers rather than the amount of energy consumed
- Examples: metering and billing expenses, customer accounts, services

Allocation Factors
Demand - Distribution

- Costs which are related to the maximum rate at which the customer uses energy, reflecting the size of facilities required to serve the customer
- Examples: transformers, lines

Allocation Factors
Demand – Capacity and Transmission

- Costs which are related to the customer's contribution to the system demand during the hour of the monthly or annual billing period
- Examples: Forward Capacity and network transmission costs

Allocation Factors
Energy

Costs which are related solely to the amount of energy consumed by the customer

Examples: purchased energy charges

C. Rate Design Process

- Historic test year cost of service study
- Proforma test year cost of service study
- Develop rate designs

Historic Test Year Cost of Service Study

- Uses full historic year's data
- Allocates costs to each rate class (Residential, Commercial, etc.)
- Compares actual revenues from each class to allocated costs to determine rate of return.

Rate of Return by Customer Class 2025

DESCRIPTION	Units	2025 Test Year Total	Residential *Rate 3*	GS 3-Phase *Rate 4*	Space Heat *Rate 5*	General Service *Rate 2&7*	Industrial Primary *Rate 1&8*	Lighting Municipal Street
TEST PERIOD								
TOTAL ANNUAL REVENUES (2)	$	3,884,223	1,640,748	879,027	671,515	475,146	205,554	12,233
TOTAL ANNUAL EXPENSES (1)	$	3,979,653	2,027,661	781,589	592,121	379,962	183,579	14,498
RETURN (NET INCOME) (2)	$	(95,430)	(386,913)	97,438	79,395	95,185	21,975	(2,265)
TOTAL GROSS PLANT, DEC 31 (2)	$	5,388,444	3,063,364	720,371	773,747	433,841	147,124	248,872
RATE OF RETURN	%	-1.8	-12.6	13.5	10.3	21.9	14.9	-0.9

Summary: Rate of Return by Customer Class

- Total revenues minus total expenses equals net income, or return on rate base
- The calculated rate of return on gross (undepreciated) plant is negative 1.8%
  - Net income was negative $95 thousand
- Individual class rates of return vary from minus 12.6% for Residential to 21.9% for General Service
  - These rates of return are toward the wide end of the normal range for municipal electric utility rates
  - Residential rates are ordinarily designed to break even (0% return)

Develop Rate Designs

- Produce adequate revenue to cover operating expenses plus fund capital improvements
- Send clear and correct price signals to customers

Town of Ashland
Adequacy of Present Rates ($000)

	2024 Actual	2025 Actual
Revenue	$2,999	$3,884
Expense	3,095	3,979
Net Income	($97)	($95)

Rates have not covered expenses for the last two years despite a significant increase in February, 2025. Power costs are the chief driver of expenses and are not expected to decrease in the future.

Town of Ashland
Assessment of Present Rates

- **Adequacy**: Present rates are not adequate to fund current and forecast levels of expenses
- **Fairness**: Present rates subsidize residential customers more than is standard in municipal utility practice
- **Competitiveness**: Present rates are competitive with rates of neighboring utilities, although increases could erode this
- **Stability**: Ashland rates need to be adjusted to meet forecast revenue requirements, should be stable thereafter
- **Clarity**: Present rate schedules should be simplified – eliminating the electric heat rate and eliminating block rates

Town of Ashland
Rate Design Objectives

- Increase net income to approximately $215 thousand
- Simplify rate structure
  - Eliminate block rates that provide an incentive for increased usage
  - Eliminate Rate 5 Electric Heat and move existing customers to Rate 3 Residential
  - Create a rate for large Municipal customers, specifically the Water and Sewer department
- Reduce the amount of the subsidy to residential customers