

BEFORE THE NOVA SCOTIA ENERGY BOARD

In the Matter of the *Public Utilities Act*, R.S.N.S. 1989, c.380, as amended, and
an application by the Town of Lunenburg, on Behalf of its Electric Utility, for Approval
of Amendments to its Schedule of Rates and Charges for the Provision of Electric Supply
and Services to its Customers and its Schedule of Rules and Regulations

(NSEB M12179)

**EVIDENCE OF
BEN HAVUMAKI**

**ON BEHALF OF
COUNSEL TO NOVA SCOTIA ENERGY BOARD**

MAY 29, 2025

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1 **1. INTRODUCTION AND PURPOSE OF TESTIMONY**

2 **Q Please state your name, title, and employer.**

3 A My name is Ben Havumaki. I am a Principal Associate at Synapse Energy Economics
4 ("Synapse"), located at 485 Massachusetts Avenue, Cambridge, MA 02139, USA.

5 **Q Please describe Synapse Energy Economics.**

6 A Synapse is a research and consulting firm specializing in energy and environmental
7 issues, including electric generation, transmission and distribution system reliability,
8 ratemaking and rate design, electric industry restructuring and market power, electricity
9 market prices, stranded costs, efficiency, renewable energy, environmental quality, and
10 nuclear power. Synapse's clients include state consumer advocates, public utilities
11 commission staff, attorneys general, environmental organizations, federal government
12 agencies, and utilities.

13 **Q Please summarize your work experience and educational background.**

14 A I have seven years of experience in economic research and consulting, focused on electric
15 and gas utility regulatory issues, primarily in the context of litigated proceedings. I
16 provide technical analysis, and consulting. I also provide expert witness services in
17 general rate cases, where I focus on rate design, cost allocation, and other ratemaking
18 topics such as performance-based regulation and grid modernization. I have provided
19 testimony in Nova Scotia, New Brunswick, Georgia, Illinois, Minnesota, Rhode Island,
20 New Hampshire, New York, Pennsylvania, and West Virginia. I have also drafted
21 comments and contributed to formal reports in numerous other jurisdictions in the United
22 States and Canada. I hold a Bachelor of Arts degree in History from McGill University
23 and a Master of Arts degree in Applied Economics from the University of Massachusetts.
24 My resume is attached as Appendix 1.

1 Q **On whose behalf are you testifying in this case?**

2 A I am providing evidence on behalf of Counsel to the Nova Scotia Energy Board (“Board”
3 or “NSEB”).

4 Q **Have you testified previously before the Board?**

5 A Yes. I testified in the last General Rate Application (GRA) of Berwick Electric
6 Commission in Matter M11199.

7 **2. OVERVIEW OF TOLEU’S APPLICATION AND SCOPE OF THIS EVIDENCE**

8 Q **Why has TOLEU filed this application?**

9 A The Town of Lunenburg Electric Utility (TOLEU) has filed this application to address an
10 anticipated operating loss that is the result of budgeted escalations in administrative,
11 general, and customer service costs, along with planned capital spending.¹

12 Q **What requests does TOLEU make in its application?**

13 A TOLEU seeks Board approval for several requests, including the Board’s approval of its
14 proposed revenue requirements, class cost allocation, and phase-in of revenue increases
15 for certain classes, as well as the specific rate increases to be applied to recover the
16 revenue requirement.

17 Q **Which portions of the application does your evidence address?**

18 A This evidence focuses on certain aspects of TOLEU’s class cost allocation methodology
19 and related issues. The evidence covers the estimation of class coincident and non-
20 coincident peak demands, along with TOLEU’s proposal to phase in revenue increases
21 for certain classes and TOLEU’s proposal to eliminate the declining block rate structure
22 for the Domestic class.

¹ TOLEU Application Rate Study (“Rate Study”), p. 6.

1 Q **How is your evidence structured?**

2 A In Section 3, I summarize my overall findings and recommendations. In Section 4, I
3 address TOLEU's approach to cost allocation. In Section 5, I address TOLEU's proposed
4 class revenue increases. Finally, in Section 6, I respond to certain elements of TOLEU's
5 proposed rate design.

6 **3. SUMMARY OF FINDINGS AND RECOMMENDATIONS**

7 Q **Please summarize your findings.**

8 A My primary findings are:

- 9 1. TOLEU's overall approach to cost allocation is reasonable and is generally
10 consistent with the practices of other peer utilities and established Board
11 precedent.
- 12 2. TOLEU has not adequately supported the use of a different diversity adjustment
13 factor for the Large General Service class than the factor used for the General
14 Service class.
- 15 3. TOLEU's proposal for class revenue increases results in a revenue-to-cost ratio
16 exceeding 100 percent for the Domestic class, which should be avoided if
17 possible.
- 18 4. TOLEU's proposed class revenue increases are constrained by caps on class
19 revenue increases in the interest of gradualism that may be unduly restrictive.
- 20 5. TOLEU's proposal to phase out the declining block rate for the Domestic class is
21 in the public interest.

22 Q **Please summarize your recommendations.**

23 A Based on my findings, I offer the following recommendations:

- 24 1. TOLEU should use an 85 percent diversity adjustment factor in estimating the
25 coincident peak for Large General Service class, consistent with its assumed
26 diversity factor for the General Service class, unless there is compelling evidence
27 supporting different diversity adjustment factors.

2. The Board should consider requiring TOLEU to install meters with hourly metering capability for the customers in the Large General Service class to improve class load shape estimation.
3. The Board should consider establishing a consolidated process to estimate class-level coincident peaks (CP) and non-coincident peaks (NCP) for municipal utilities without hourly metered data.
4. The Board should consider further investigation of distribution system classification in conjunction with Nova Scotia Power's next General Rate Application, and it should consider establishing a standardized methodology for distribution system classification.
5. The Board should grant my alternative proposal for class revenue increases, which includes the following specific steps for a first-year revenue increase and a deferred, second-year revenue increase:
 - i. For the first-year revenue increase, the Board should direct TOLEU to:
 1. Increase revenues for the Small General Service class, General Service class, and Large General Service class by 20 percent, consistent with Board precedent in other recent GRAs.
 2. Increase revenues for the Domestic class to yield a revenue-to-cost ratio of 100 percent.
 3. Increase revenues for the Unmetered class to yield a revenue-to-cost ratio of 100 percent.
 - ii. For the second-year revenue increase, the Board should direct TOLEU to:
 1. Increase revenues for the Small General Service class to yield a revenue-to-cost ratio of 95 percent, which is within the Board's range of reasonableness.
 2. Increase revenues for the Domestic class, General Service class, Large General Service class, and Unmetered class to achieve an equal revenue-to-cost ratio across these classes and cover any remaining deficit in recovery of the test year revenue requirement.
6. The Board should grant TOLEU's proposal to phase out the declining block rate for the Domestic class.

1 7. The Board should direct TOLEU to evaluate phasing out the declining block rate
2 for the General Service and Large General Service classes in its next GRA.

3 **4. CLASS COST ALLOCATION**

4 **Q How does TOLEU approach cost allocation?**

5 A TOLEU's Rate Study follows a three-step process to allocate test year revenue
6 requirements across rate classes. First, it *functionalizes* costs, separating costs into
7 groupings according to the associated system function. Second, the study *classifies*
8 functionalized costs by cost driver. Third, it *allocates* the resulting categories of
9 functionalized, classified costs to the rate classes using allocation factors.²

10 **Q What is your overall evaluation of TOLEU's approach to cost allocation?**

11 A TOLEU's cost allocation methods are sound overall. The cost allocation approach is both
12 thorough and well documented, and TOLEU appears to support methodological decisions
13 reasonably. However, I have one concern about TOLEU's approach to estimating certain
14 allocators, which though not compromising the overall reliability of TOLEU's cost
15 allocation results, warrants attention.

16 **Q What is your concern with TOLEU's allocation factors?**

17 A I am concerned about TOLEU's approach to estimating the coincident peak factor for the
18 Large General Service class, which TOLEU uses to allocate certain demand-related costs
19 including the demand-classified portion of purchased power costs. Specifically, TOLEU
20 has not adequately justified its assumption that the Large General Service class's load is
21 more coincident with the system peak than is the General Service class's load.

² Rate Study, p. 19.

1 **Q How did TOLEU estimate each class’s non-coincident and coincident peak demand?**

2 A While TOLEU has the documented date, time, and magnitude of the system coincident
3 peak,³ it does not have hourly data on its customers’ usage.⁴ Instead, it has monthly sales
4 data for all customers along with the individual customer monthly peak demand for each
5 customer in the General Service and Large General Service classes, which may occur at
6 different times than the class and system peaks.⁵

7 Because TOLEU does not have detailed customer load data, the utility uses a mixed
8 approach with multiple data sources to estimate the coincident peak (CP) and non-
9 coincident peak (NCP) contributions for each class. For the General Service classes,
10 TOLEU combines limited metering data with known load characteristics of analogous
11 customer classes from similar utilities and assumptions about the relationships between
12 total billed demand, NCP, and CP. TOLEU estimates the unmetered class’s NCP and CP
13 using known characteristics of these loads in consideration of the time of system peak.
14 The Domestic class CP is a residual difference from the system CP and the other classes’
15 CP. TOLEU then derives the Domestic class NCP from this residual CP.⁶

16 **Q Please explain in more detail how TOLEU estimates the General Service and Large**
17 **General Service CP and NCP.**

18 A TOLEU estimates the CP for the General Service and Large General Service classes
19 through two making “diversity adjustments.” The first adjustment provides the
20 percentage of total class billed demand which occurs coincidently within the class during
21 the month of system peak, and the second adjustment provides the coincidence of this
22 class peak with the system peak. The NCP is estimated by applying the first adjustment to
23 the highest billed demand in the year while the CP is estimated by applying the first and
24 second adjustment to the billed demand in February, the month of the system peak.

³ Rate Study, pp. 22-23.

⁴ Rate Study, p. 22.

⁵ Rate Study, pp. 22-27.

⁶ Rate Study, pp. 22-27.

1 Q **Please explain your concern with TOLEU's CP estimate for the Large General**
2 **Service class.**

3 A I am concerned that for the Large General class, TOLEU's second diversity adjustment
4 factor, which estimates the class coincidence to the system peak, is larger than the same
5 factor utilized for the General class without adequate justification. The effect of this
6 *larger* diversity adjustment factor for the Large General Service class is to inflate this
7 class's apparent revenue responsibility and reduce the responsibility of the Domestic
8 class since the Domestic CP is calculated as the residual of all other classes' summed
9 CPs.

10 Q **What are the diversity adjustments used by TOLEU for the General Service and**
11 **Large General Service classes?**

12 A For the General Service class, TOLEU assumes a first diversity adjustment of 95 percent
13 and a second adjustment of 85 percent.⁷ Meanwhile, for the Large General Service class,
14 the first diversity adjustment is 99 percent while the second diversity adjustment is 95
15 percent.⁸

16 Q **Is there reasonable justification for the different assumed *first* diversity**
17 **adjustments?**

18 A Yes. For the General Service class, TOLEU determined the first diversity adjustment to
19 be 95 percent by assuming that most customers in this class would meet their maximum
20 demand, which is flat throughout business operating hours, at the same time. For the
21 Large General Service class, TOLEU assumed that the largest customer drives the class-
22 coincident peak, and thus has a 100-percent adjustment, while the remaining two
23 customers are 95 percent coincident with the largest customer. The result is a first
24 adjustment of 99 percent.⁹

⁷ Rate Study, pp. 24-25.

⁸ Rate Study, p. 25.

⁹ Response to Board IR 31

1 Q **Has TOLEU offered justification for the differences in the assumptions of the value**
2 **of the *second* diversity adjustments?**

3 A Only partially. TOLEU did not explain why the respective second diversity adjustment
4 values differ even though it assumes both classes have flat demand during business
5 operating hours.

6 Q **What change do you recommend to the CP second adjustment of the Large General**
7 **Service class?**

8 A I recommend that TOLEU lower the Large General Service class second adjustment to 85
9 percent, which is consistent with the value used for the General Service class. This would
10 cause the CP-to-NCP ratio of the Large General Service class to be 79.4 percent in
11 2022/23 and 79.5 percent in 2023/24, which is comparable to the 79 percent ratio from
12 Berwick's Industrial class.¹⁰ I consider Berwick as a relevant reference since BEC is a
13 similar sized utility and since Berwick's industrial class represents a broadly similar share
14 of the utility's total customers (BEC had two industrial customers at the time of filing its
15 last GRA), peak, and energy.¹¹ Further, the ratio from Berwick's Industrial class was
16 calculated using actual hourly meter data and thus provides a strong baseline for a
17 comparable class.¹² See Table 1 for recommended updated CP values for the Large
18 General Service class. I recommend that TOLEU implement this update and all
19 flowthroughs as part of its Compliance Filing.¹³

¹⁰ TOBEU Rate Study, p. 13

¹¹ BEC Rate Study, Exhibit 4-1

¹² TOLEU Rate Study, p. 15, TOBEU Rate Study, p. 12.

¹³ It is noted that TOLEU will necessarily make updates to the allocation factors as part of this Compliance Filing to correct errors in Exhibit 4-1 of the Rate Study. See response to Board IR-45.

Table 1. Proposed Alternative Coincident Peak Result for Large General Service

	TOLEU Proposal	Alternative Proposal
CP Second Adjustment	95%	85%
FY 2022/23 Large General Service CP (kW)	2061 kW	1844 kW
FY 2023/24 Large General Service CP (kW)	1889 kW	1691kW
FY 2022/23 Large General Service NCP (kW)	2323 kW	2323 kW
FY 2023/24 Large General Service NCP (kW)	2126 kW	2126 kW
FY 2022/23 CP to NCP Ratio [Diversity] (%)	88.7%	79.4%
FY 2023/24 CP to NCP Ratio [Diversity] (%)	88.9%	79.5%

Q Do you have any additional recommendations relating to TOLEU's load shape analysis and estimation of NCP and CP?

A Yes, I offer two additional recommendations. The first concerns metering and the second relates to the estimation of load shapes.

1. I recommend that the Board consider requiring that TOLEU install new meters with hourly metering capabilities for the Large General Service class customers at least one year in advance of the next General Rate Application to enable collection of detailed usage data.¹⁴ If such metering is not available or feasible, TOLEU should work with the customers using the customers' data to estimate the timing of each billed monthly peak in 2025 and 2026. Even if such an estimate is imprecise, it would be an improvement compared to the current methodology that relies solely on expert assumption.

¹⁴ Response to Board IR 5, lines 21 -22.

1 2. I also recommend the Board standardize the approach to estimating class-level CPs
2 and NCPs for municipal utilities that do not have hourly metered data. The Board
3 could facilitate a consolidated effort, at a regular but not overly frequent cadence, to
4 establish these factors.

5 The towns of Antigonish, Berwick, and Lunenburg each rely on the other's estimates
6 of relevant class CPs. However, the municipal utilities often rely on different methods
7 for deriving these estimates: sometimes they rely on data from NS Power, while other
8 times they rely on municipal hourly meter data or expert assumptions. I believe a
9 better outcome for all municipal utilities would be achieved if this exercise was
10 consolidated across all municipal utilities to gather the best available hourly load data
11 for each comparable class across the municipal utilities. This hourly metering data
12 would be used to determine the load shape for comparable utility classes. Then, for
13 utility-class pairings without hourly meter data, each class's load shape could be
14 determined using the available hourly metered data from the other utilities. These
15 load shapes could then be applied in future municipal GRAs.

16 This consolidated approach would help ensure that the load shapes used to estimate
17 class CPs are derived from hourly meter data where possible, as this is the most
18 concrete source when estimating class-level coincident peak contributions. It would
19 also simplify the rate case review process for CPs and NCPs which currently requires
20 cross-referencing several municipal GRAs to determine the ultimate source of
21 information for each class load shape.

22 **Q Are there any other cost allocation issues that you would like to address?**

23 **A**Yes. I would like to briefly address TOLEU's approach to classifying some of its
24 distribution system upstream of the customer service drop on a mixed demand and energy
25 basis. TOLEU classifies conductors, poles, and fixtures on a mixed demand and customer
26 basis, with 70 percent classified as demand-related and 30 percent classified as customer-
27 related.¹⁵

¹⁵ Rate Study, Exhibit 4.2.

1 Q **Has the Board addressed this cost allocation issue in any recent case?**

2 A Yes. The Board has addressed the classification of upstream distribution costs in several
3 recent proceedings, including in its decision in the Town of Mahone Bay GRA, where it
4 noted that “the issue may be one that is more thoroughly considered in this jurisdiction
5 when NS Power completes its next cost-of-service study.”¹⁶

6 Q **What do you recommend concerning distribution system classification?**

7 A The Board should consider further investigation of this issue in the next Nova Scotia
8 Power (NS Power) GRA. Should the Board be inclined, it could then prescribe a uniform
9 methodology for classifying shared distribution system costs to be used by the province’s
10 utilities in future cases. While this classification issue has relatively limited impact on
11 TOLEU’s customers in the present matter, the choice of methodology could have a much
12 larger impact, and prove to be a greater sensitivity, in the future as TOLEU pursues its
13 intended capital investment program.

14 **5. CLASS REVENUE ALLOCATION**

15 Q **How do TOLEU’s cost allocation study results relate to its proposed class revenue**
16 **increases?**

17 A The cost allocation study results inform but do not mechanically determine the revenue
18 increases proposed for each class. Per TOLEU’s cost allocation study results, each of its
19 classes except the Domestic Time-of-Use (Domestic TOU) class is under-contributing
20 relative to its cost of service in the test year and each class but Domestic TOU is
21 projected to produce a revenue-to-cost ratio for the test year that is below the Board’s
22 range-of-reasonableness that is defined as a revenue-to-cost ratio between 95 percent and
23 105 percent.¹⁷

¹⁶ NSUARB Decision, Matter M10832 (Town of Mahone Bay), p. 35

¹⁷ Rate Study, Exhibit 5,6.

1 **Q Please summarize TOLEU’s proposal for allocating its revenue requirement across**
2 **the customer classes.**

3 A TOLEU proposes a multi-step process governed by several constraints. First, TOLEU
4 estimates the revenue increases to be applied to each class. Second, TOLEU determines
5 the revenue increase to apply in the first year and the increase to be deferred to a future
6 date in the interest of gradualism. TOLEU indicates that it aims to balance recovery of its
7 full revenue requirement with the need to mitigate impacts on customers from rate
8 increases.¹⁸ I provide a summary of TOLEU’s proposal below:

9 1) TOLEU proposes to increase the revenues for the Unmetered class to yield a
10 revenue-to-cost ratio of 105 percent.¹⁹

11 2) TOLEU proposes to increase the revenues for the Small General Service, General
12 Service, and Large General Service classes by 21 percent each, with resulting
13 revenue-to-cost ratios of 87.00 percent, 99.20 percent, and 96.97 percent,
14 respectively.²⁰

15 3) TOLEU proposes to recover the residual outstanding revenue requirement
16 through increasing the Domestic class rates by 11.30 percent. Since the Domestic
17 TOU rates are mechanically set according to the Domestic rates, but not in a one-
18 to-one fashion, the Domestic TOU rates are increased by 9.60 percent under
19 TOLEU’s proposal. The resulting revenue-to-cost ratios for the Domestic rate and
20 the Domestic TOU rate are 102.30 percent and 110.37 percent, respectively.²¹

21 **Q How does TOLEU propose to phase in the revenue increase?**

22 A While TOLEU caps the increase in revenues applied to any class at 21 percent overall, it
23 also proposes to limit the maximum first-year revenue increase applied to any class

¹⁸ Response to Synapse IR-9.

¹⁹ Rate Study, Exhibit 5,6

²⁰ Rate Study, Exhibit 5,6.

²¹ Rate Study, Exhibit 5,6.

1 except for Unmetered to 15 percent.²² As a result of these constraints, TOLEU's proposal
2 does not recover its full test year revenue requirement after the first increase.

3 **Q What is the basis for TOLEU's proposed constraints on class revenue increases?**

4 A TOLEU proposes a cap of 15 percent on year one revenue increases and 21 percent on
5 total revenue increases for any class in the interest of gradualism. However, these caps
6 appear to be based on judgement rather than on any specific criteria or precedents.²³

7 **Q How will TOLEU recover any outstanding revenues associated with its test year**
8 **revenue requirement?**

9 A TOLEU states that it will file for a subsequent rate increase in the future.²⁴ It does not
10 specify when it will make this next filing, though TOLEU acknowledges the need to
11 coordinate any future requests for revenue increases with its plan to file another GRA in
12 about two years.²⁵

13 **Q Do you support TOLEU's revenue allocation proposal?**

14 A While TOLEU's proposal is generally reasonable, I do have some concerns with certain
15 aspects and have prepared an alternative proposal to address these issues.

16 **Q What are your concerns with TOLEU's revenue allocation?**

17 A I have two main concerns. First, TOLEU has not offered sufficient justification for a rate
18 increase that would raise the Domestic class revenue-to-cost ratio above 100 percent,
19 which would result in an apparent subsidy to General Service customers.²⁶ Second, and
20 relatedly, TOLEU's approach to gradualism, while well-intentioned, appears to be more

²² Rate Study, Exhibit 5,6.

²³ Rate Study, p. 30.

²⁴ Response to Synapse IR-9.

²⁵ Response to Synapse IR-9.

²⁶ This evidence does not address impacts to Domestic TOU customers or the revenue-to-cost ratio for this class that would result from TOLEU's proposal, since the rates and revenue-to-cost ratio for the Domestic TOU class cannot be directly modified but instead are mechanically connected to the rates for the Domestic class. See response to Synapse IR-20.

conservative than precedents from Board decisions in other recent GRAs in the province would support, resulting in a revenue deferral with uncertain implications.

Q Please describe your concerns about revenue allocation in more detail.

A Because TOLEU has determined to limit the overall revenue increase applied to the General Service classes to 21 percent, and because TOLEU determines the rate increase to be applied to the Domestic class as a residual, the Domestic class revenue-to-cost ratio would exceed 100 percent if the Board were to approve TOLEU's proposed adjustments. I do not believe that intentionally overshooting the cost mark for the Domestic class is warranted, especially given TOLEU's willingness to defer recovery of a portion of its revenue requirement.

Q Why do you oppose TOLEU's proposal for a Domestic class revenue increase if the resulting revenue-to-cost ratio will still be within the range of reasonableness?

A While I recognize that the Board has determined revenue-to-cost ratios between 95 percent and 105 percent to be reasonable, I do not interpret this to mean that it is desirable to deliberately increase a given class's revenue-to-cost ratio above parity, especially if this is a choice rather than a mathematical or financial necessity. I further understand that it is preferable for class revenue-to-cost ratios to be equilibrated or at least reduced to the maximum extent possible, to avoid any interclass subsidization.

Q How is TOLEU's willingness to defer recovery of a portion of its revenue requirement relevant to the Domestic class revenue increase?

A It is relevant for two reasons. First, it demonstrates that there is a willingness to defer recovery of some of TOLEU's revenue requirement to mitigate rate impacts; thus, it is reasonable to surmise that it might be feasible to increase the balance of the deferred revenues to avoid raising the Domestic class revenue-to-cost ratio above 100 percent. The second reason why the deferral is relevant is because it means that the full rate increases that have been proposed for Small General Service, General Service, and Large General Service will not be implemented in a single year. Thus, as I discuss further below,

1 adhering to a 21-percent cap on the cumulative revenue increase that will be applied *over*
2 *multiple years* may be unduly conservative. In other words, it may be reasonable to
3 increase rates by more than 21 percent on the General Service classes over two increases
4 in order to avoid having to increase the Domestic revenue allocation to an extent that its
5 revenue-to-cost ratio exceeds parity.

6 **Q Is it desirable to reduce the amount of revenue deferral?**

7 A Yes. All else equal, deferrals increase long-term costs and shift costs to future ratepayers,
8 creating inequities between ratepayers today and ratepayers in the future.²⁷ At the same
9 time, some limited deferrals may be warranted for the sake of gradualism and to avoid
10 rate shock. The Board explicitly discussed this tension in recent decisions, including in
11 the Town of Mahone Bay GRA, in which it stated, “there are trade-offs involved with
12 using deferrals to phase in rate increases, as they often result in higher costs in the longer
13 term. This must be balanced against the rate-setting principle that rates should be stable,
14 and experience minimal unexpected changes that are seriously adverse to existing
15 customers.”²⁸

16 **Q What level of rate increase has the Board determined reasonable in other GRAs?**

17 A: In both the Town of Mahone Bay and Riverport GRAs, the Board determined that a 20-
18 percent single-year increase was acceptable.”^{29,30}

19 **Q Please describe your alternative proposal for revenue increases.**

20 A I propose that TOLEU phase in the revenue increase over two years. For the first year, I
21 propose a cap on revenue increases of 20 percent, consistent with recent Board decisions.
22 I also propose that TOLEU increase the Domestic and Unmetered class revenues to yield
23 a 100 percent revenue-to-cost ratio for each class, rather than implementing revenue
24 increases for these classes that would produce revenue-to-costs ratios exceeding 100

²⁷ NSUARB Decision, Matter M10832 (Town of Mahone Bay), p. 49.

²⁸ NSUARB Decision, Matter M10832 (Town of Mahone Bay), p. 49.

²⁹ NSUARB Decision, Matter M10832 (Town of Mahone Bay), p. 50.

³⁰ NSUARB Decision, Matter M10810 (Town of Riverport), p. 49.

percent. My proposal results in a total revenue deficiency of \$178,800, which is about 18 percent smaller than TOLEU's proposed revenue requirement deferral.

Q What is your proposal for the second-year revenue increase?

A In the interest of gradualism, I propose that the Small General Service class revenues be increased to yield a revenue-to-cost ratio of 95 percent. This would position the class within the range of reasonableness, while limiting the magnitude of the total two-year revenue increase to 30.8 percent for the Small General Service class. I propose that the residual test year revenue requirement be recovered through increasing the revenues of the Domestic class, General Service class, and Large General Service classes in such a fashion that the resulting revenue-to-cost ratios would be uniform (100.1 percent) across these classes and very close to parity.

Q Please present your proposal for revenue allocation.

A My proposal for the first-year revenue increase appears below in Table 2. For comparison purposes, I also include TOLEU's proposal in this table.

Table 2. First-Year Revenue Increases – TOLEU and Synapse Proposal³¹

	RCR at existing rates	First increase (TOLEU)	RCR after first increase (TOLEU)	First increase (Synapse)	RCR after first increase (Synapse)
Total	86.0%	13.7%	97.5%	14.9%	98.4%
Domestic	92.1%	11.3%	102.5%	8.7%	100.0%
Domestic TOU	100.8%	9.6%	110.4%	7.5%	108.2%
Small GS	72.3%	15.0%	82.8%	20.0%	86.3%
GS	82.3%	15.0%	94.4%	20.0%	98.4%
Large GS	80.4%	15.0%	92.2%	20.0%	96.2%
Unmetered	76.4%	38.7%	105.0%	32.0%	100.0%

My second-year rate increase proposal is below in Table 3. It was not possible to include TOLEU's proposal in this table given the limited detail included in the Rate Study.

³¹ Since it is not possible to separately modify Domestic TOU rates and revenues, the flow-through effects of increasing Domestic class rates are estimated.

Table 3. Second-Year Revenue Increases – Synapse Proposal

	RCR after first increase (Synapse)	Second increase (Synapse)	Cumulative increase (Synapse)	RCR after second increase (Synapse)
Total	98.4%	2.09%	16.7%	100.0%
Domestic	100.0%	0.08%	8.6%	100.1%
Domestic TOU	108.2%	0.07%	7.3%	108.3%
Small GS	86.3%	9.0%	30.8%	95.0%
GS	98.4%	1.51%	21.8%	100.1%
Large GS	96.2%	7.32%	28.8%	100.1%
Unmetered	100.0%	0.08%	9.9%	100.1%

6. RATE DESIGN

Q Please summarize TOLEU's major rate design proposals included in this filing.

A TOLEU proposes limited adjustments to rate design. For the Domestic class, TOLEU proposes to eliminate the existing declining block structure and instead apply a uniform energy rate to all kilowatt-hours consumed. For the Small General Service, General Service, and Large General Service classes, TOLEU has not proposed any structural rate design changes.

Q Do you support the proposed phase-out of the declining block rate structure?

A Yes. In the absence of specific evidence that higher-use customers in the Domestic class are proportionately less costly to service –i.e., that the marginal cost of service *decreases* with consumption– I see no reason to conclude that the declining block rate is cost based. Furthermore, the declining block rate structure may disincentivize conservation or at least conflict with extant incentives to conserve energy. I recommend that the Board direct TOLEU to phase out the declining block rate structure for the Domestic class.

Q Should TOLEU consider phasing out the declining block rate structure for the General Service and Large General Service classes?

A Yes. TOLEU does not appear to have evaluated the cost basis for maintaining the declining block rate structure for these other classes. I recommend that the Board direct

1 TOLEU to evaluate whether there is any cost-based reason for retaining the declining
2 block rate structure in its next rate study. If TOLEU produces no evidence supporting its
3 cost basis, then TOLEU should phase out the declining block rate structures for these
4 other classes.

5 Q **Does this conclude your evidence?**

6 A Yes.

7