Cost Benefit Analysis – 815-RICR 00-00-05

Concise Summary -Introduction to CBA

The Division of Public Utilities and Carriers has conducted a Regulatory Analysis of this proposed regulation as directed by RI General Laws 42-35-2.9. The Regulation, proposed in response to a statutory requirement that electric and gas utilities file annual Emergency Response Plans with the Division is necessary for the Division to review and enforce terms of this statutory requirement. There is no additional cost to the Division in administering provisions of the rule, and care was taken to avoid any additional utility costs beyond what is required by statute. The regulation only applies to regulated gas and electric utilities with virtually all of the requirements exclusively applying to the state's lone dominant gas and electric utility.

Analysis of the benefits and costs of a reasonable range of regulatory alternatives reflecting the scope of discretion provided by the statute authorizing the proposed rule

The regulation is proposed in light of statutory requirements of utilities to comply with R.I. Gen. Laws § 39-2-26 and § 39-2-27. In the process of developing the draft rule, the Division engaged utilities and incorporated several suggestions that were useful in clarifying and streamlining the proposal. The regulation is designed not to exceed the spirit of the statute and in most instances reflects statutory requirements and current practices.

Demonstration that there is no alternative approach among the alternatives considered during the rulemaking proceeding which would be as effective and less burdensome to affected private persons as another regulation. This standard requires that an agency proposing to write any new regulation must identify any other state regulation which is overlapped or duplicated by the proposed regulation and justify any overlap or duplication.

This is the first iteration of a regulation specifically related to the filing and content of gas and electric utility emergency response plans. The Division believes the regulation serves as a guide to utilities in complying with the statute to file annual emergency response plans and as such, is not burdensome. The regulation does not overlap with the authority or responsibilities, but it does reference and acknowledge the regulatory role of the Public Utilities Commission.

Additional considerations:

The benefits of the proposed rule justify the costs of the proposed rule

The provision of safe and reliable service is a major goal of this agency as well as a statutory requirement that the utilities file annual emergency response plans. Delayed service restoration is a concern for public safety as well as causing significant negative economic impact for businesses and residents. While we do not anticipate that the rule would have any cost impact on the Division, we have also worked with the utilities to not include any provisions that would incur additional utility costs beyond the underlying statutory requirement.

The proposed rule will achieve the objectives of the authorizing statute in a more cost-effective manner, or with greater net benefits, than other regulatory alternatives.

As noted, the Division engaged utilities, and particularly the state's dominant gas and electric utility in developing the draft regulation. The shared goal was to be a cost-effective as possible while supporting the regulatory framework for the Division to review the annually filed emergency response plans, as required by statute.

General Discussion – Cost of Outages

The goal of the statutory provision and this proposed rule is to minimize the overall impact, and cost to all utility customers. This clearly is the benefit. While it is impossible to quantify how each provision may shorten an outage, we can discuss the broad impact of outage costs. As noted above, we have developed the proposed rule with an eye toward avoiding any additional regulatory costs for utilities and their ratepayers. As such, we contend that if there are any modest cost issues for the state's dominant gas and electric utility, it has to be considered in light of the massive benefit to residents and businesses in the state.

Electrical Outages Are inherently costly to all customers. To broadly illustrate the current Electric Infrastructure and Reliability Plan filed with the Division and Commission[1] addresses numerous areas of cst benefit discussions including a reference to power system distribution system and customer reliability / resilience impacts as: $17,671,928 Reliability benefits were calculated using the USDOE ICE Calculator for this project. The project is estimated to provide an approximate customer benefit of $1.5M per year with a 20-year net present value benefit of approximately $18M. It should be noted that this cost is calculated in terms of the cost related to reliability programming. While emergency response and restoration is a separate entity, this cost is offered for illustrative purposes.

To further illustrate the cost of outages using the Federal Department of Energy's calculation tool, a catastrophic outage would present catastrophic costs issues. A more modest, common outage scenario can have impacts in the tens of millions of dollars.

The next page illustrates a catastrophic outage scenario and the subsequent page a much smaller scenario.

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[1] The Narragansett Electric Company d/b/a Rhode Island Energy RIPUC Docket No. 23-48-EL Proposed FY 2025 Electric Infrastructure, Safety, and Reliability Plan

Estimate Interruption Costs

This module provides estimates of cost per interruption event, per average kW, per unserved kWh and the total cost of sustained electric power interruptions.

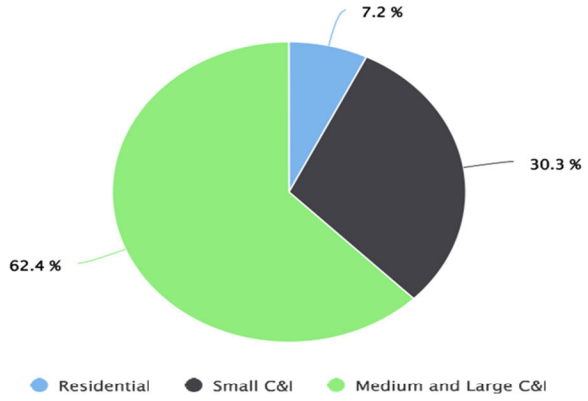
Model #1

SAIFI	SAIDI	CAIDI	#Residential	#Non-Residential	
50.000	1,000.0	20.0	450,000	20,000	Rhode Island

Interruption Cost Estimates

Sector	# of Customers	Cost Per Event (2016$)	Cost Per Average kW (2016$)	Cost Per Unserved kWh (2016$)	Total Cost (2016$)
Residentia	450,000	$4.33	$5.35	$16.04	$97,482,541.6
Small C&I	16,737	$489.60	$285.92	$857.77	$409,718,020.
Medium and Large C&I	3,263	$5,167.79	$102.19	$306.57	$843,124,725.
All Customers	470,000	$57.46	$48.36	$145.09	$1,350,325,28

Total Cost of Sustained Interruptions by Sector



Estimate Interruption Costs

This module provides estimates of cost per interruption event, per average kW, per unserved kWh and the total cost of sustained electric power interruptions.

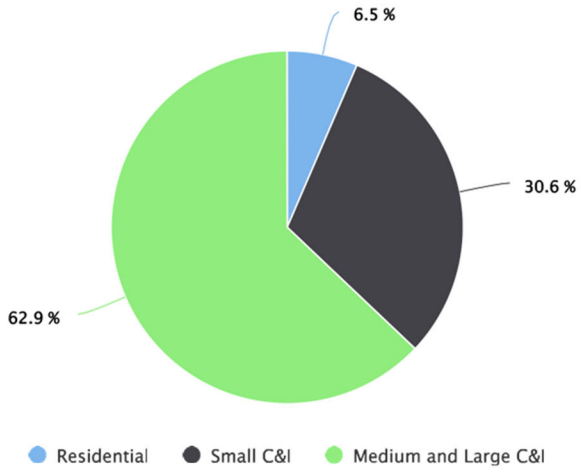
Model #1 Model #2

SAIFI	SAIDI	CAIDI	#Residential	#Non-Residential	
50.000	1,000.0	20.0	20,000	1,000	Rhode Island

Interruption Cost Estimates

Sector	# of Customers	Cost Per Event (2016$)	Cost Per Average kW (2016$)	Cost Per Unserved kWh (2016$)	Total Cost (2016$)
Residentia	20,000	$4.33	$5.35	$16.04	$4,332,557.40
Small C&I	837	$489.60	$285.92	$857.77	$20,489,573.0
Medium and Large C&I	163	$5,167.79	$102.19	$306.57	$42,117,477.8
All Customers	21,000	$63.75	$51.72	$155.15	$66,939,608.2

Total Cost of Sustained Interruptions by Sector



In terms of gas outages, the cost factors can also be significant. In the Division Report on the Natural Gas Service Outage on Aquidneck Island of January 21, 2019, the Division found that the cost to the utility alone – not counting residents, businesses, and the municipalities was in excess of $25 million. This was an outage impacting some 7,000 customers[2].

In response to the Aquidneck Island gas outage report, then Lt. Governor Danial McKee noted in a news Release," The report underscores the inadequacy of Rhode Island's current law on utility accountability. Our State regulators lack the authority to issue meaningful fines to hold utilities to a high standard as allowed by law in neighboring states. In the last two legislative sessions, my office introduced a bill modeled after a successful Massachusetts law that will give Rhode Island the tools necessary to demand accountability from National Grid and issue fines when they fail to meet emergency preparedness and response standards. The legislation ensures that all fines paid by the utility company's shareholders are credited back to local ratepayers. We hope the Division's report strengthens our case when we reintroduce our legislation next year." The news release concluded, "The Lt. Governor's legislation requires National Grid to file comprehensive emergency preparedness plans each year and enables the State to levy fines if a utility fails to comply with performance standards."

The legislation was eventually adopted. This rule is in response to that statutory language.

By sections:

5.1, 5.2, 5.3 and 5.4 are Purpose, Authority, Incorporated Materials, and Definitions.

5.5 Performance Standards for Emergency Preparation and Restoration of Service

The vast majority of the requirements of this section memorialize existing procedures and practices, directs the gas utility to coordinate response to federal and state rule standards, and references post-event reporting requirements that are currently directed by Division and Commission Dockets.

A. Emergency Preparation. Each Public Utility shall ensure that it is adequately and sufficiently prepared to restore service to its customers in a safe and reasonably prompt manner during and after an Emergency Event.

1. For electric distribution companies, this shall include at a minimum, but not be limited to:

a. implementing all applicable components of the Public Utility's ERP related to planning and preparation for Emergency Events;

This reinforces the requirement that the utility implements planning and preparation components of their plan.

[2] Report on the Natural Gas Service Outage on Aquidneck Island of January 21, 2019

b. conducting the following on at least an annual basis:

(1) meetings with state and local officials to ensure an effective and efficient flow of information and substantial and frequent coordination between the Public Utility and local public safety officials, including coordination with local officials with respect to vegetation management; and

Rhode Island Energy currently employs a system of community liaison staff who interact with local communities.

(2) training and/or drills/exercises to ensure effective and efficient performance of personnel during Emergency Events, and to ensure that each Public Utility has the ability to restore service to its customers in a safe and reasonably prompt manner.

Rhode Island Energy and its' predecessor corporation maintained a robust raining program.

c. maintaining updated lists of local elected and appointed officials, state and local public safety officials, Life Support Customers, and all internal personnel and external entities involved in the Public Utility's restoration efforts.

The Division understands this to be current practice.

2. For gas distribution companies, this shall include at a minimum preparing and following written procedures consistent with those required by 49 U.S.C. §§ 60101 through 60125; and pursuant to Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards incorporated above at § 5.3 of this Part; and the Division Rules and Regulations Prescribing Standards for Gas Utilities, Master Meter Systems and Jurisdictional Propane Systems, 815-RICR-20-00-1.

Incorporates by reference Federal and other existing state regulatory requirements.

B. Restoration of Service. Each Public Utility shall restore service to its customers in a safe and reasonably prompt manner during all Service Interruptions and outages. During an Emergency Event, this shall include at a minimum, but not be limited to, implementing all applicable components of the Public Utility's ERP related to restoration of service

Essentially stating the regulatory requirement that the utility implements its plan in an

emergency event.

C. Reporting. Each Public Utility shall comply with the following reporting requirements:

1. Each electric distribution company shall submit an annual report with supporting documentation to the Division on its preparation for Emergency Events that details each meeting, training, and drill/exercise held pursuant to § 5.5(A)(1)(2) of this Part.

While this is a somewhat new requirement, the Division believes this can simply be data collected by the utility director of training and/or the liaison program.

2. Each electric distribution company shall continue to comply with the applicable reporting requirements pursuant to Commission docket No. 2509 and Division Docket No. D-11-94. If requested by the Division, each public utility shall submit a detailed report with supporting documentation on its restoration performance, including lessons learned within 90 days following an Emergency Event for which there is not an existing reporting requirement under Docket 2509 or D-11-94.

References existing reporting requirements under existing Commission Dockets and affirms the Division's authority to request documentation of other emergency events. **§ 39-2-26. Emergency response plans at H supports this reporting requirement.**

3. Within 90 days following an Emergency Event, each Public Utility shall submit a detailed report with supporting documentation to the Division on its restoration performance, including lessons learned; and

Same as above

4. Before and during an Emergency Event, electric distribution companies are required to track and maintain all required storm-related data. After an Emergency Event, electric distribution companies are required to maintain storm-related data to support any post-event reporting requests in accordance with any applicable record retention schedules.

This is aligned with the cost recovery functions in place.

5.6 Emergency Response Plans

This section outlines what is needed in an emergency response plan. It includes provisions that reflect current practices, such as identification of key personnel, communication with customers, mutual assistance, contacting critical care customers and the utility's responsibility to respond to the Rhode Island Emergency Management Agency. Based on current practices, the regulation does not induce additional cost. To illustrate that point, 5.5 D, which requires the assignment of community liaison representatives is an existing program that was initiated by Rhode Island Energy's predecessor corporation (National Grid) in the wake of Tropical Storm Irene in 2011.

By sections:

A. Each Public Utility shall submit to the Division an ERP that shall be designed to achieve safe and reasonably prompt restoration of service associated with an Emergency Event. The ERP shall include, but not be limited to, the following:

1. Identification of management staff responsible for Public Utility operations, including a description of their specific duties and identification of the number of workers;

This is a component of existing planning.

2. A communications process with customers that provides access to information regarding active outages, customers affected and estimated restoration times available on a website. Such information shall be prominently displayed and updated. A Public Utility shall also provide estimated times of restoration at least three times per day through at least one other form of media outreach, and when requested by customers via telephone;

RI Energy current has a web function showing outages and estimated restoration times.The utility has text and email data for customer outreach.

3. For electric distribution companies, procedures for maintaining an updated list of Life Support Customers, including a process to update a Public Utility's Life Support Customer list when a customer notifies the Public Utility of a medical need for electric service, communicating with Life Support Customers before, during and after an Emergency Event, and procedures for prioritizing power restoration to Life Support Customers;

This is current practice.

4. Designation of staff to communicate with local officials, including public safety officials, relevant regulatory agencies, and designated Municipal Liaisons and designation of staff to be posted at the Rhode Island Emergency Management Agency's emergency operations center;

Current practice – see 5.5 A.

5. Provisions regarding how the Public Utility will ensure the safety of its employees, contractors, and the public;

6. Procedures for deploying Public Utility and contractor crews, and crews acquired through Mutual Assistance Agreements to work assignment areas;

7. Identification of additional supplies and equipment needed during an emergency and the means of obtaining additional supplies and equipment; and

5,6 and 7 are components of existing plans.

8. Maintenance of a customer call center in the State of Rhode Island that is sufficiently staffed to handle all customer request for service assistance for the duration of an Emergency Event or until full service is restored, whichever occurs first.

Rhode Island Energy is required to located customer service facilities in the state as a term of the Settlement Agreement related to the transfer of the corporate ownership from National Grid. C.A. No. PC-2022-01 095

B. The ERP shall set forth the content, format and timeline for each report that the Public Utility shall submit to the Division pursuant to § 5.5(C) of this Part.

This is established by prior Division and Commission Orders.

C. Each electric distribution or natural gas distribution company, when implementing its ERP, shall designate an employee or employees to support the Rhode Island Emergency Management Agency's emergency operations center for the length of the Emergency Event. The employee or employees shall coordinate communication efforts with emergency management officials.

It is the Division's understanding that this is a separate statutory requirement of major public utilities to respond to requests from the Rhode Island Emergency Management agency.

D. Each electric distribution or natural gas distribution company, when implementing its ERP, shall designate an employee or employees to serve as Municipal Liaisons for each affected municipality within its service territory. The electric distribution or natural gas distribution company shall provide each Municipal Liaison with the necessary feeder map or maps outlining municipal substations and distribution networks and up-to-date customer outage reports at the time of the designation as Municipal Liaisons. The Public Utility shall provide each Municipal Liaison with regular customer outage report updates for the Municipal Liaison's respective municipality. The Municipal Liaisons shall use the maps and outage reports to respond to inquiries from state and local officials and relevant regulatory agencies.

As noted above, current practice.

E. Each Public Utility shall file an ERP, which the Public Utility has reviewed and updated within the previous 12 months, with the Division on or before May 15 of each year. The filing shall include a copy of all written Mutual Assistance Agreements into which the Public Utility has entered and identify and describe any modifications to the previous ERP and Mutual Assistance Agreements. An electric distribution or natural gas distribution company that fails to timely file its ERP may be fined $500 for each day during which such failure continues.

§ 39-2-26. Emergency response plans - c) Any investor-owned electric distribution or natural gas distribution company that fails to file its emergency response plan may be fined five hundred dollars ($500) for each day during which the failure continues.

F. A Public Utility's ERP shall go into effect when filed with the Division, pending Division review and approval, and shall remain in effect until a new ERP is filed or the Division directs otherwise. After review of a Public Utility's ERP, the Division may request that the Public Utility

amend the ERP. Any ERP provisions filed with the Division, in response to a Division-requested change, or on the Company's initiative, shall be approved by the Division within 60 days. If there is no action by the Division to reject a filing, in whole or in part, within that specified period of time, the ERP provisions shall be deemed to be approved. The Division may open an investigation of the Public Utility's ERP. If, after hearings, the Division finds a material deficiency in the ERP, the Division may order the Public Utility to make such modifications to the ERP that it deems reasonably necessary to remedy the deficiency.

This is language designed to maintain continuity of planning.

G. If a Public Utility makes any updates or changes to its ERP between annual filings, it shall submit such changes to the Division as soon as possible. Such changes shall go into effect when filed with the Division, pending Division review and approval.

This is language designed to maintain continuity of planning.

5.7 Division Investigation into Public Utility Performance; Remedies

This section largely amplifies and clarifies the directives of the underlying statute.

5.8 Miscellaneous simply states - The Division may grant, for good cause shown and not contrary to statute, an exception from any provision of 815-RICR-00-00-5.

Conclusion

The economic impact of gas and electric utility outages is demonstrable significant, not counting the direct impacts on health and safety. The Division has proposed these rules to support a statutory enactment that requires the filing of Utility Emergency Response Plans, along with prescribed components and functionalities. In the drafting process, utilities were consulted extensively, and the Division readily incorporated changes to streamline the regulation, avoid unnecessary costs and respond to the history of Massachusetts utilities in the enactment of similar statutory language and corresponding regulations prior to the adoption of a similar law in Rhode Island.