

Status report on Act 199 investigation of manufacturing competitiveness and electricity costs

Vermont Public Service Department

December 15, 2014

This report provides the General Assembly with a status report regarding the findings to date of the Public Service Department and the Agency of Commerce and Community Development with regard to the topics identified for study by Section 13 of Act 199 of 2014. A final report will be submitted to the General Assembly by December 15, 2015.

Act 199 required the Public Service Department and the Agency of Commerce and Community Development to investigate “of how best to advance the public good through consideration of the competitiveness of Vermont’s industrial or manufacturing businesses with regard to electricity costs.”

The two agencies are required to consider eight items as a part of their investigation:

- (1) how best to incorporate into rate design proceedings the impact of electricity costs on business competitiveness and the identification of the costs of service incurred by businesses;
- (2) with regard to the energy efficiency programs established under 30 V.S.A. § 209, potential changes to their delivery, funding, financing, and participation requirements;
- (3) the history and outcome of any evaluations of the Energy Savings Account or Customer Credit programs, as well as best practices for customer self-directed energy efficiency programs;
- (4) the history and outcome of any evaluations of retail choice programs or policies, as related to business competitiveness, that have been undertaken in Vermont and in other jurisdictions;
- (5) any other programs or policies the Commissioner and the Secretary deem relevant;
- (6) whether and to what extent any programs or policies considered by the Commissioner and the Secretary under this section would impose cost shifts onto other customers, result in stranded costs (costs that cannot be recovered by a regulated utility due to a change in regulatory structure or policy), or conflict with renewable energy requirements in Vermont and, if so, whether such programs or policies would nonetheless promote the public good;

(7) whether and to what extent costs have shifted to residential and business ratepayers following the loss of large utility users, and potential scenarios for additional cost shifts of this type; and

(8) the potential benefits and potential cost shift to residential and business ratepayers if a large utility user undertakes efficiency measures and thereby reduces its share of fixed utility costs.

This status report is generally structured along these eight items.

Consultation and Comments:

This investigation is being conducted in consultation with the Public Service Board, a private organization that represents the interests of manufacturers, a cooperative electric company, an efficiency utility, a shareholder-owned utility, the Vermont Public Power Supply Authority (VPPSA), a municipal utility that is not a member of VPPSA, and the Vermont Electric Power Company (VELCO).

The following persons and entities will be provided an opportunity to provide input (written and or oral comments) into this investigation:

- (1) Consumer and business advocacy groups;
- (2) Regional development corporations and regional planning commissions; and
- (3) Any other person or entity as determined by the Commissioner and Secretary.

Rate design and competitiveness (item 1)

Long standing industry practice and Vermont's statutes and legal precedents set the stage for rate design in Vermont. Rate design involves setting and approving fair and reasonable rates that are essentially based on "costs" that are structured around several rate design attributes. Normally, a sound rate structure or rate design consists of revenue related attributes, cost related attributes and practical related attributes that include:

Revenue Related:

1. Effectiveness in providing revenues under a fair-return standard without undesirable social consequences
2. Revenue stability and predictability with a minimum of unexpected changes
3. Rate stability and predictability with a minimum of unexpected changes

Cost Related:

4. Efficiency in discouraging wasteful use
5. Reflection of all costs and benefits
6. Fairness of the specific rates in the apportionment of total cost service that avoids arbitrariness and capriciousness and attains equity
7. Avoidance of undue discrimination
8. Efficiency in promoting innovation and responding to changing demand and supply

Practical Related:

9. Simplicity, certainty, understandability and public acceptability
10. Freedom from controversies as to proper interpretation

Since cost is a primary driver in rate design, these attributes are fortified with such well known terms as “least cost”; “undue discrimination”; and the cost causer pays—costs are assigned based on the “cost causation” principle.

With these attributes and principles, statutes, and legal precedents “costs” are as “costs” are defined so within this costing and rate design framework there is a reasonable range of various outcomes that are possible in a regulated environment and they have an impact on each class of rate payer and on the competitiveness of Vermont businesses.

Our investigation will be examining various rate design options and alternatives on how to incorporate the impact of electricity costs on business competitiveness in rate design proceedings before the Public Service Board that include the costs of service incurred by businesses.

Status of the investigation

We are in the ‘data gathering phase’ of our investigation and are gathering specific residential, commercial and industrial rates and rate design policy information from most of the states with a focus on New England. This information will be used to assess viable options and alternatives that may result in innovative rate designs that will enhance Vermont’s business competitiveness.

Some of the initial information that we have gathered includes the table below of the retail price of electricity that shows Vermont has the second lowest overall and industrial rates in New England behind Maine as of September 2014. Vermont residential rates 5th highest out of 6 and surpassed only by Connecticut.

Average Retail Price of Electricity to Ultimate Customers by End-Use Sector

by State, September 2014 and 2013 (Cents per Kilowatt hour)

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	Sept 2014	Sept 2013	Sept 2014	Sept 2013	Sept 2014	Sept 2013	Sept 2014	Sept 2013	Sept 2014	Sept 2013
New England	17.67	16.18	14.33	13.84	11.20	12.37	8.90	NM	15.12	14.35
Connecticut	19.74	17.94	15.16	14.50	12.55	12.66	10.74	10.67	16.75	15.71
Maine	15.82	14.45	11.82	11.37	7.44	7.49	--	--	11.96	11.46

Census Division and State	Residential		Commercial		Industrial		Transportation		All Sectors	
	Sept 2014	Sept 2013	Sept 2014	Sept 2013	Sept 2014	Sept 2013	Sept 2014	Sept 2013	Sept 2014	Sept 2013
Massachusetts	16.87	15.41	14.46	14.21	12.57	13.48	NM	NM	15.07	14.36
New Hampshire	17.37	16.12	13.59	13.12	11.10	11.13	--	--	14.61	13.94
Rhode Island	17.23	15.30	13.92	12.90	12.40	11.97	15.67	13.66	15.12	13.62
Vermont	17.79	17.29	14.55	14.64	9.42	10.24	--	--	14.30	14.41

Source: EIA's "Electric Power Monthly with Data for September 2014-Table 5.6.A.."

We will be gathering more detailed rate information from each of the states.

Additionally, and most importantly, the PSD, in association with ACCD and the Regional Development Corporations, plans a series of focus groups around the state in the coming months in order to receive input on rate design and retail choice. These focus group sessions will also include input on how to best facilitate increased energy efficiency in manufacturing facilities through efficiency programs (see also items 2 and 3 below). This "Energy Listening Tour" will listen and gather feedback from firms regarding the impact electric rates have on their competitiveness and views on how retail choice may impact their future competitiveness. The PSD has prepared a framing document for participants in the focus group. Selected sections of electric supply and rates portion of the framing document is reproduced here:

"Energy Listening Tour" framing text regarding rates and retail choice:

Electric supply and rates

With some initial introduction that covers the fundamentals of rate design as background, we would like to learn from you what you think about "discrimination," "costs," "supply," "rates," and "fair and reasonable" and the impact these attributes have on your business and your competitiveness in your respective markets—local, regional, national or international.

The background information is not intended to limit our discussion but is simply to provide a starting point for our discussion. We are interested in learning how the state can best design and implement fair and reasonable rate designs and programs that support the competitiveness of Vermont's manufacturing enterprises.

Here are some framing questions that may help get our discussion started:

- In examining your competitiveness, what role does the price of electricity play?
 - How sensitive are your margins to changes in electricity rates?

- Current rate designs tend to smooth rates for the quarter or over some other longer time period.
 - Does this help or hinder your competitive position? How?
- How important are stable and predictable electric rates to your operations?
 - Do you prefer stability over predictability or predictability over stability?
- How much lead time would you like to have before electricity rates are changed up or down?
- How do you think electricity should be priced? Cost? Value of Service? Over what time period?
- Would you support discrimination in rates—i.e. cross subsidies?
 - And, if so, under what conditions would you find cross subsidies to be acceptable?
- Would you like to have more options in the way you buy energy?
 - If so, what options would you like that would support your competitive situation?
- Do you have market expertise sufficient enough to feel comfortable buying power in the open market on a daily basis or for the longer term?
- Are near and/or longer term energy price risk compatible with your competitive situation?
- Do you find your current electric rates to be fair, reasonable, stable and predictable with most of the day to day market risk absorbed/managed by the electric utility?
 - Do you think that managing that risk yourself would support your competitive situation?

Energy efficiency programs, including self-directed programs (items 2 and 3)

Efficiency program options for manufacturers

Manufacturers in Vermont may be served by any one of four electric energy efficiency program structures. The first, and by far the most common, is participation in programs offered by their Energy Efficiency Utility (EEU): Efficiency Vermont or Burlington Electric Department. These EEUs maintain account managers who facilitate the identification of cost-effective energy efficiency opportunities for each firm and identify either prescriptive or custom incentives for energy efficiency opportunities in order to encourage these firms to undertake improvements in energy efficiency. The EEUs provide incentives or assistance for improved:

- Processes, such as through “lean” improvements;
- Motors, drives and pumps;
- Compressed air systems;
- Lighting equipment, controls, and design;
- Heating, ventilation, and air conditioning (HVAC);
- Refrigeration and controls;
- Commissioning existing buildings;
- New construction and major renovation; and
- Insulation and air sealing.

Efficiency Vermont has also recently launched an Industrial Peak Initiative¹ aimed at helping the state's largest electric customers reduce their peak energy use, resulting in customer savings as well as system-wide benefits in avoided infrastructure costs. The funds for EEU assistance and incentives come from the pool of funds collected from all ratepayers through the Energy Efficiency Charge (EEC). On a life-cycle basis, energy efficiency resources acquired through these programs (or through the self-administered programs described below) are less expensive than electric energy supply resources that would provide the same energy service.

The three other programmatic structures for manufacturer electric efficiency programs are varieties of "self-administered" programs. The second programmatic structure for manufacturer energy efficiency is the Energy Savings Accounts (ESA) program. The ESA program allows participating firms to receive a rebate of up to 70% of their EEC expenditure over the course of 2 or more years for use in self-directed energy efficiency investments in their own facilities. The firm forfeits unused funds to be used by the rest of the EEU's programs. The EEU provides some technical assistance and administers the program. Firms must pay at least \$5,000 per year in EEC in order to be eligible for the ESA program. To date, there have been two participants in the ESA program. On December 20, 2013, PSD filed with the Public Service Board an evaluation of the Energy Savings Accounts program conducted by Cx Associates.² The PSD subsequently proposed, and the Public Service Board (Board) approved, several changes to the design of the ESA program resulting from that evaluation. The ESA program is described here:

<https://www.encyvermont.com/About-Us/Energy-Efficiency-Initiatives/Energy-Savings-Account-Program>.

The third and fourth programmatic structures are the Customer Credit Program (CCP) and Self-Managed Energy Efficiency Program (SMEEP). These programs are designed for firms that have never received any assistance from their EEU and have demonstrated expertise in implementation of energy efficiency. The Customer Credit Program was created during the process of the creation of the 3rd party EEU structure. IBM's Essex facility was a CCP participant until the creation of the SMEEP program. Omya, Inc., is now a CCP participant. The CCP is similar to the ESA program in that it allows participating firms to receive a portion of their EEC payments back in order to cover the costs of energy efficiency investments. It differs in that the range of possible energy efficiency expenditures is wider in some respects, up to 90% of the EEC may be returned, the firm may hold its portion of the EEC directly rather than asking for payments after the fact, and the EEU is not engaged in administration or assistance with the firm's efficiency implementation. The SMEEP program, of which IBM is the only eligible customer, completely separates the participant's energy efficiency program from the EEU and EEC structure, while requiring a minimum investment in cost-effective energy efficiency. The PSD is preparing an RFP for an evaluation of the SMEEP program.

¹ <https://www.encyvermont.com/blog/blog/2014/09/29/helping-vermont-s-largest-energy-users-save-money-and-stay-competitive>

² <http://psb.vermont.gov/sites/psb/files/projects/EEU/ESAprogram/DPS-ESAProcessEvalFinalReport2013-12-20.pdf>

Status of the investigation

The PSD, in association with ACCD and the Regional Development Corporations, plans a series of focus groups around the state in the coming months in order to receive input on how to best facilitate increased energy efficiency in manufacturing facilities through efficiency programs. This includes feedback from firms regarding “potential changes to their delivery, funding, financing, and participation requirements,” as required for this investigation. The first pair of these focus groups is scheduled for December 19, 2014, in Newport and St. Albans. The discussions at each of these meetings is not expected to focus solely, or even primarily, on the details of current EEU program implementation and funding, but rather on best identifying the characteristics of programs that would be most effective from the perspective of the focus group participants. These characteristics will then be compared with existing and possible program designs, funding, and financing models. The PSD has prepared a framing document for participants in the focus group, the energy efficiency portion of which is reproduced here:

“Energy Listening Tour” framing text regarding energy efficiency

Energy efficiency

Vermont’s energy laws establish a goal of achieving all reasonably available cost-effective energy efficiency. Meeting this goal should also be good for Vermont’s economy and for firms that become more productive as it is achieved. The Public Service Department is interested in learning how the state can best design and implement programs that achieve this goal while also working with, appreciating, and harnessing the diverse operating regimes, capital and financial structures, and fiscal constraints of Vermont’s manufacturers.

To that end, we are interested in learning how firms make decisions to change their processes, buildings, or operations in ways that would increase energy productivity. Once we understand how these decisions are made (or why they are not made), we would like to design policies and programs that build from that knowledge. Note that this discussion is broader than electricity; we are also interested in thermal and process fuels including natural gas, oil, and propane.

Here are some framing questions to get the conversation going:

- What criteria do you use when deciding whether to make a change in your process or building that would reduce energy use?
 - Payback period? ROI? NPV? What discount rate do you use? What payback period is required?
- How does this decision-making process differ between:
 - *Building* changes and *manufacturing process* changes?
 - Changes primarily driven by *energy savings* and changes undertaken for *other* reasons?
- Have you experienced positive returns from energy productivity investments you’ve made in the past? How does your experience with those upgrades influence your willingness to make more improvements?
- Do you experience conflict or constraint between capital and operating budgets?

- How does your corporate structure impact your firm’s energy efficiency investment decisions? Are decisions made locally (at the facility level) or by a corporate office overseeing multiple facilities?
- To what extent is the energy efficiency of your facilities a factor in whether you are able to increase production or win new work?
- Do you have the expertise in-house to understand what would be the most cost-effective energy productivity investments you could make? Where else would you look for that expertise?
- If you rent the building where you manufacture, do you have the ability to make energy-related upgrades to the building in ways that would be cost-effective for your firm? Would you want to do that? What do you think would incent your landlord to allow such upgrades, or make the upgrades themselves?

The PSD and ACCD also anticipate meeting with Efficiency Vermont and Burlington Electric Department (the two electric EEs), as well as representatives of trade associations and others, such as the Vermont Manufacturing Extension Center, with expertise and insight regarding how to best enhance Vermont manufacturing competitiveness through efficiency program design, funding, and financing.

With respect to self-directed energy efficiency programs, the PSD and ACCD anticipate relying upon the recent evaluation of the ESA program, any results of the upcoming SMEEP evaluation available prior to completion of the investigation, and other publications regarding best practices for self-directed programs, in addition to feedback from firms and other stakeholders. Of particular interest may be a recent summary of best practices published by the American Council for an Energy Efficient Economy (ACEEE), available at <http://www.aceee.org/sector/state-policy/toolkit/industrial-self-direct>. The list of best practices identified there includes:

- “Develop a program structure that allows facility managers to treat their energy efficiency fee payments as dedicated funds for energy efficiency, either through dedicated escrow accounts, rebates earned only upon project completion, or rate credits earned concurrently with measurable energy efficiency investments and/or energy savings,
- Include a mechanism to recoup paid funds from self-direct customers if it is determined that savings were claimed erroneously or if planned savings did not actually occur.
- Collect and establish self-direct customers’ baseline energy use data.
- Focus on energy savings rather than funds expended towards energy efficiency, so that each self-direct customer is held accountable to a certain level of energy savings rather than a level of spending.
- Measure and verify all claimed savings, using the same standards for data collection as industrial energy efficiency fee-funded energy efficiency programs.
- Retain a portion of a customer’s energy efficiency fees to ensure self-direct customers contribute to funding a program’s administrative costs and other prioritized program costs (such as low-income programming or market transformation) that all other customer classes pay for via their energy efficiency fees.
- Generally do not allow credit for efficiency investments made prior to the commencement of a self-direct program.
- Offer self-direct customers multi-year time frames (e.g., 4 years) in which to expend aggregated energy efficiency fees.

- Make any unused fees available to other customers for cost-effective projects.
- Employ the same cost-effectiveness tests for self-direct projects as are used for other fee-supported programs, and develop a reliable account of the cost of saved energy within the program.”

The ACEEE also maintains a database of the self-direct or opt-out programs available in each state; this may be found at <http://database.aceee.org/state/self-direct>.

Retail choice evaluations (item 4)

We are planning to examine the history and outcome of evaluations of (a) retail choice and (b) incentive programs and policies, as related to business competitiveness, that have been undertaken in Vermont and in other jurisdictions.

Our investigation will involve a literature search and an analysis of the information gathered to assess the overall effectiveness of retail choice and incentive programs on industrial rates and business competitiveness while giving consideration to potential impacts on other rate classes and on the utilities.

Status of the investigation

Regarding retail choice our examination of the information gathered so far is incomplete and no definitive findings or conclusions are available for this status report. From a very preliminary review, we can report that perceptions of retail choice are mixed as to its impact on rates.

Relative to incentive programs, again our examination of the information gathered so far is incomplete and no definitive findings or conclusions are available for this status report. We have shown below key attributes of economic development programs in New York and Maine that we are continuing to review regarding their effectiveness as to competitiveness and business development aids.

New York State UTILITY ECONOMIC DEVELOPMENT PROGRAMS

Purpose--The New York Department of Public Service oversees utility rate payer funded Economic Development Programs in the following utility service territories: Central Hudson Gas and Electric Corporation, National Grid, National Fuel Gas Distribution Company, New York State Electric and Gas Corporation, and Rochester Gas and Electric Corporation. These programs provide utility incentives and/or rate reductions to help attract new business and new businesses to New York, retain certain commercial and industrial customers or help this customer group expand their businesses.

Central Hudson Gas and Electric Corporation

Central Hudson has several Economic Development Programs to help Commercial (non-retail) and Industrial customers relocate or expand in the Hudson Valley including:

- Job creation utility credit based on the number of new jobs created
- Energy rebate on targeted substations and gas mains extensions, which are significantly under utilized

- Revitalization rate discounts, which can provide up to a 10% rate discount on qualified vacant buildings of 25,000 square feet or more
- Provision for up to 50% of the cost of a NYSERDA audit and up to 50% of the cost of recommended audit improvements
- Eligibility: Non-residential customers of Central Hudson.

National Grid

The National Grid Economic Development program focuses on site development, urban revitalization, strategic marketing, and facilitating customer growth through infrastructure assistance, energy efficiency and productivity improvement. The Plan also reflects an increasing emphasis on sustainable development, the efficient use (and re-use) of existing energy infrastructure, and the strategic deployment of renewable generation technologies.

- The Business Attraction program offers discounts to prospective customers who are evaluating locations both inside and outside National Grid's service territory. It is also open to new businesses considering a start-up of operations in the National Grid service territory. There are two levels of attraction discounts, the deeper of which is available to more energy intensive manufacturers.
- Business Expansion program is available to current National Grid customers (25 kW or larger) who are evaluating an expansion of their existing usage—either through physical expansion (i.e., increase in kW) or increased utilization (i.e., higher kWh usage). The customer's existing usage is "baselined," and discounts are applied above those historical levels of usage. Certain growth thresholds must be hit in order to qualify for discounts.
- The Revitalization program is designed to retain large manufacturing facilities in danger of closure due to financial distress. In order to qualify for discounts, customers must provide detailed financial information that demonstrates financial distress, identify and implement non-energy cost savings, and develop a comprehensive revitalization plan that will return the company to profitability within the five-year discount period.
- The Relocation program offers larger industrial customers discounts to prevent the relocation of manufacturing facilities to areas outside the National Grid service territory. In order to qualify, customers must demonstrate that they have an economically viable relocation alternative. And in recognition of the fact that electricity cost by itself is seldom the only factor driving a relocation challenge, the discount must be part of a comprehensive competitiveness plan that includes public involvement in the form of state and/or local incentives or concessions.
- The Capital Investment Incentive program provides grants to fund electric and natural gas improvements on National Grid owned or required natural gas and electric infrastructure for certain businesses projects that involve major capital investment in plant and equipment. Specifically this program supports business attraction or expansion projects located in the service territory of National Grid. The projects must demonstrate that they have not been able to secure sufficient funding through federal, state or local economic development programs.
- The Industrial Building Assistance program provides grants of up to \$250,000 to building owners undertaking efforts to retrofit the interior electric and gas infrastructure required to convert these buildings to multi-tenant industrial use. The grants will be made through local industrial development agencies or other quasi-public development corporations.
- The Brownfield Redevelopment program provides grants to fund utility related infrastructure improvements and other costs that are necessary to progress the redevelopment of a brownfield site or vacant building.

- Eligibility: Non-residential customers in National Grid’s upstate territory.

National Fuel Gas Distribution Company (NFG) Area Development Program

NFG offers a grant program designed to help address the poor economic conditions upstate. ADP provides NFG with tools to help make its service territory a more attractive place for business, thereby protecting and expanding employment opportunities and new investments.

- Eligibility: Commercial and industrial gas companies in the NFG service territory

New York State Electric and Gas Corporation (NYSEG)

NYSEG provides rate discounts and funding assistance as economic development incentives .

- Incremental Load Incentive (ILI) program provides a reduction from the standard tariff rate, on a per kilowatt-hour basis, for non-retail businesses locating or expanding in NYSEG's service area.
- Empire Zone Incentive (also known as the “Economic Development Zone Incentive” or EDZI) provides a reduction from the standard tariff rate, on a per kilowatt-hour basis, for businesses locating or expanding in a designated Empire Zone.
- Competitive Pricing: Electricity and Natural Gas- Under special tariffs, NYSEG can provide negotiated prices to new customers or for qualified expansions by existing customers. Eligibility is contingent upon the applicant having: A competitive alternative to NYSEG services; A minimum connected load; and, consideration of appropriate energy efficiency measures
- Brownfield/Building Redevelopment program provides funding assistance, on a per project basis, to encourage the redevelopment of a "brownfield" site or vacant building within NYSEG's electric service area.
- Utility Infrastructure Investment program supplements funding from other sources, on a per project basis, of new electric delivery related facilities involving existing or prospective manufacturing or large non-retail commercial customers with electric demand of 100 kilowatts or more, if a minimum of \$1 million is invested in a new or expanded facility.
- Capital Investment Incentive program provides financial assistance, on a per project basis, for electric delivery related infrastructure to encourage additional capital investment to an eligible facility. In addition to manufacturing and non-retail customers, other eligible businesses include colleges, universities, medical hospitals and laboratories.
- Agriculture Capital Investment program provides funding assistance, on a per project basis, for electric delivery related infrastructure for smaller farms having incremental electric demand of at least 25 kilowatts after new capital investment of at least \$50,000.
- Business Energy Efficiency Assistance is a program which NYSEG partners with the New York State Energy Research and Development Authority (NYSERDA) on several programs to encourage energy efficiency.
- Economic Development Outreach program allows NYSEG to supplement other economic development funding, on a per-initiative basis, for strategic outreach projects that will primarily focus on attracting new business investment into the NYSEG service area.
- Gas Infrastructure Investment program provides funding assistance for new gas delivery related facilities to manufacturing or non-retail commercial customers making a minimum capital investment of at least \$250,000 and increasing gas usage by at least 50 Therms per hour.
- Power Quality/Reliability program allows NYSEG, in consultation with the customer and/or its representatives, to pay up to 50% of equipment costs required for power reliability or quality improvements to be installed behind the meter.

- Eligibility: Participants vary by program but can include: gas and electric manufacturing and non-retail customers, farms, colleges, universities, medical hospitals and laboratories in NYSEG's service territory of upstate New York.

Rochester Gas and Electric Corporation (RG&E) Economic Development Programs and Incentives

Rate discounts and funding assistance for gas and electric customers in the RG&E Service territory including:

- Capital Investment Incentive Program provides grants to fund improvements for electric-related infrastructure for certain business projects that involve major capital investment. This funding may be on equipment either owned by RG&E or the customer (as directed by RG&E). This program supports both business attraction and expansion projects that involve an existing or prospective customer with a monthly incremental electric demand after capital investment of at least 100 kilowatts (kW). To be eligible, total project cost must also involve capital investment of at least \$1 million.
- Utility Infrastructure Investment Program provides funding for new electric-related infrastructure to assist in the development of certain sites or buildings. These sites represent the service area's best potential for development opportunities. Primary focus is on sites which are: state-designated as Shovel Ready, located in an Empire Zone, part of the City of Rochester Renewal Community, or included in RG&E's own Prime Sites Program. Other sites are considered based on economic impact to the community. This program supports both business attraction and expansion projects that involve an existing or prospective customer with a monthly incremental electric demand after capital investment of at least 100 kilowatts (kW). To be eligible, total project cost must also involve capital investment of at least \$1 million.
- Brownfield/Building Redevelopment Program provides on a per project basis, grants to fund electric-related infrastructure improvements and other costs necessary for the redevelopment of brownfields or vacant buildings. The program targets Empire Zones or qualified areas in the City of Rochester designated as a Renewal Community. Funds may only be utilized for up to 10% of the redevelopment costs and cannot exceed the estimated cost of the electric delivery-related infrastructure improvements.
- Business Energy Efficiency Assistance Program is a joint venture with RG&E and the New York State Energy Research & Development Authority (NYSERDA) on several programs to encourage energy efficiency. Under these NYSEDA programs, the applicant will be required to make their own financial contribution of at least 33 1/3% to the total investment made. Through NYSEDA's Energy Audit Program, RG&E will provide up to 50% matching funds, with a \$10,000 maximum contribution against the total investment made as a result of an energy audit.
- Through either NYSEDA's Flexible Technical Assistance Program (Flex Tech) or New Construction Program, RG&E will pay up to 33 1/3% of the cost of a feasibility study or analysis, not to exceed \$20,000 per study/analysis. If the applicant decides to make investments as a result of a study or analysis, RG&E will provide up to \$50,000 toward total investment made.
- Empire Zone Incentive Program - Businesses that are Empire Zone certified by New York State are eligible for a discounted electricity and natural gas delivery rate on new load for up to 10 years, providing that the customer's certificate remains valid. A new Empire Zone customer is eligible for the reduced delivery rate on 100% of their demand and energy consumption. An existing RG&E customer located in or moving into a Zone is eligible for the discounted rate on qualified load. Qualified load is electric demand (kW) or natural gas usage (therms) that exceed a predetermined baseline (historical) usage by 25%. For more information on the NYS Empire Zone program, visit their Web site.

- Incremental Load Rate Incentive - Businesses that add a minimum of 25 kilowatts (kW) of electric load may be eligible for a discounted electricity delivery rate for a four-year term. The rate is limited to businesses in the following industries: Agriculture, Forestry, Fishing, Mining, Manufacturing, Wholesale trade-durable goods, Wholesale trade non-durable goods, Finance, Insurance, and Real Estate or Business Services.
- Under special tariffs, RG&E can provide negotiated prices to new customers or for qualified expansions by existing customers. Eligibility is contingent upon the applicant having a competitive alternative to RG&E and minimum connected load.
- Eligibility: Participants vary by program but can include: gas and electric non-residential customers in RG&E's service territory of upstate New York.

Maine Economic Development Programs

CENTRAL MAINE POWER COMPANY

OPTIONAL TARGETED SERVICE: PINE TREE DEVELOPMENT ZONE (PTZ)
 GENERAL SERVICE - ECONOMIC DEVELOPMENT RIDER

AVAILABILITY

Customers must meet all applicable eligibility requirements described below. The rider is only available to those customers providing proof that the Department of Economic and Community Development has certified them as a qualified Pine Tree Development Zone business, pursuant to applicable statutes and regulations. This rider is available to customers taking service under the following general service delivery rate schedules.

Electric delivery service must be taken on a continuous year-round basis by any one customer at a single service location and does not apply to customers taking short-term delivery service.

ELIGIBILITY CRITERIA FOR EXISTING CUSTOMERS

The rider is available for an existing customer's incremental electrical usage at a certified Pine Tree Development Zone facility where the customer takes delivery service from the Company. In addition, at the facility, the customer must increase its annual electrical usage (as measured in kilowatt-hours) by at least 10%.

ELIGIBILITY CRITERIA FOR NEW CUSTOMERS

The rider is also available for the entire load of a new customer within a Pine Tree Development Zone. A customer purchasing an existing, fully operational facility will not be considered a new customer.

BASIC RATE PER MONTH

EXISTING CUSTOMERS

For existing customers expanding total operations, the Company and the customer will contract for a fixed annual baseline level of energy delivery using the customer's electric energy delivery history for the twelve months immediately preceding the effective date of the Customer Service Agreement

between the Customer and the Company.

The customer will take service at the applicable general service delivery rate. At the end of each twelve-month period, the customer's usage will be compared to the baseline levels. If an existing Manufacturing customer qualifies under the eligibility criteria, the customer will receive a credit on its next monthly bill. For customers who begin taking service under the Rider before August 15, 2013, the amount of the credit will be the customer's total incremental kilowatt-hour usage for the preceding twelve-month billing period multiplied by the appropriate amount from the following credit schedule. For customers who begin taking service under this Rider on or after August 15, 2013, the amount of the credit will be the lesser of (1) the customer's stranded cost contribution for the preceding twelve-month billing period or (2) the customer's total incremental kilowatt-hour usage for the preceding twelve-month billing period multiplied by the appropriate amount from the following credit schedule. Eligible non-Manufacturing customers will receive a discount based on the incremental CMP revenue. For purposes of this Rider, "Manufacturing" shall have the meaning set forth in 30-A M.R.S.A. § 5250-I or any successor provision.

Year 1	\$0.015
Year 2	\$0.010
Year 3	\$0.005
Year 4	\$0.005

For customers who begin taking service under the Rider before August 15, 2013, the amount of the credit for non-Manufacturing businesses will be the amount determined using the following credit schedule. For customers who begin taking service under the Rider on or after August 15, 2013, the amount of the credit for non-Manufacturing businesses will be the lesser of (1) the customer's stranded cost contribution for the preceding twelve-month billing period or (2) the amount determined using the following credit schedule:

Year 1	5.0% revenue reduction
Year 2	2.5% revenue reduction

NEW CUSTOMERS

At the end of each twelve-month period, new customers qualifying under the total load criteria of the rider will receive a credit on their next monthly bill for delivery services. For customers who begin taking service under the Rider before August 15, 2013, the amount of the credit will be the customer's total incremental kilowatt-hour usage for the preceding six-month billing period multiplied by the appropriate amount from the following credit schedule. For customers who begin taking service under the Rider on or after August 15, 2013, the amount of the credit will be the lesser of (1) the customer's stranded cost contribution for the preceding six-month billing period or (2) the customer's total incremental kilowatt-hour usage for the preceding six-month billing period multiplied by the appropriate amount from the following credit schedule. The amount of the credit will follow this methodology for businesses deemed to be Manufacturing:

Months 6 and 12	\$0.015
Months 18 and 24	\$0.010
Months 30 and 36	\$0.005
Months 42 and 48	\$0.005

For customers who begin taking service under the Rider before August 15, 2013, the amount of the credit for non-Manufacturing businesses will be the amount determined using the following credit schedule. For customers who begin taking service under the Rider on or after August 15, 2013, the amount of the credit for non-Manufacturing businesses will be the lesser of (1) the customer's stranded cost contribution for the preceding six-month billing period or (2) the amount determined using the following credit schedule:

Months 6 and 12	5.0% revenue reduction
Months 18 and 24	2.5% revenue reduction

CONTRACT

The customer and the Company will enter into a Customer Service Agreement specifying, among other things, that the customer will take service under the rider for a period not to exceed four (4) years for Manufacturing customers and two (2) years for non-Manufacturing customers.

SPECIAL CONDITIONS

Customers taking service under the rider are not eligible for service under any other Optional Targeted Service rate offered by the Company.

To remain eligible for the rider, the Customer must remain a certified Pine Tree Development Zone business.

Notwithstanding the core delivery rate schedule under which the customer receives service, after six months of taking service under the rider, if a change in usage would require the Company to place the customer on a different delivery rate schedule, the customer can elect to remain on the core delivery rate schedule, as it may vary from time-to-time, under which it had been receiving service at the time of change in usage, for the term of the agreement.

METERING

If service under this rider requires metering facilities in addition to, or in substitution of, the standard facilities that the Company would normally install to provide firm delivery service, the Company may provide the additional or substitute metering, and the customer may be subject to an additional monthly charge in accordance with Section 13 of the Company's Terms and Conditions.

OTHER FACILITIES

Any other facilities required for service under the rider in excess of those needed for service under the applicable general service rate schedule shall either be furnished, owned, and maintained by the customer or shall be furnished, owned, and maintained by the Company, and the customer may be required to pay an additional monthly charge in accordance with Section 13 of the Company's Terms and Conditions.

TERMINATION DATE

This rate schedule will automatically terminate on the earlier of (a) December 31, 2014 or (b) the

termination date of the Pine Tree Development Zone program established by the State of Maine, unless otherwise renewed or modified by the Company.

Cost Shifts (items 6, 7, and 8)

These items essentially examine cost shifts that have occurred or which may occur. We plan to examine any potential cost shifts that may arise from new rate designs, programs and policies that are aimed at improving business competitiveness. Additionally, we plan to examine cost shifts that have occurred in the past with large customers acquiring significant levels of energy efficiency and from large energy users leaving the state.

Under item 6, we will assess and determine whether and to what extent any programs or policies considered by the Commissioner and the Secretary would impose cost shifts onto other customers, result in stranded costs (costs that cannot be recovered by a regulated utility due to a change in regulatory structure or policy), or conflict with renewable energy requirements in Vermont and, if so, whether such programs or policies would nonetheless promote the public good;

Under item 7, we will assess and determine whether and to what extent costs have shifted to residential and business ratepayers following the loss of large utility users, and potential scenarios for additional cost shifts of this type; and

Under item 8, we will assess and determine the potential benefits and potential cost shift to residential and business ratepayers if a large utility user undertakes efficiency measures and thereby reduces its share of fixed utility costs.

Status of the investigation for cost shifts

There are no preliminary findings or conclusions for this status report on these three items. Data gathering and preliminary assessments from the data gathered have begun.

The status of item 6 will be addressed when programs and policies are identified for consideration which will occur later in 2015. Our data gathering and analysis has begun that will inform whether and to what extent potential new programs may result in cost shifts to other customers, result in stranded costs or conflict with renewable energy programs and policies and if so, would the new programs promote the public good.

The status of item 7 is that we have begun to gather historical information related to the loss of large utility users (such as the former Ethan Allen facility in Beecher Falls, VT). Additionally we have begun to gather information that will be used to estimate the impact of the possible loss of other large users and the cost shift that would occur to other residential and business ratepayers.

The status of item 8 is that we have begun to gather historical information related to the benefits and the cost shifts to residential and business ratepayers when a large utility user achieved significant energy efficiency results that reduced its share of fixed utility costs.