

Filed Session of October 22, 1997  
Approved as Recommended  
and so Ordered  
By the Commission

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JOHN C. CRARY  
Secretary

Issued & Effective October 29, 1997

STATE OF NEW YORK  
DEPARTMENT OF PUBLIC SERVICE

October 8, 1997

TO: THE COMMISSION

FROM: ELECTRIC DIVISION  
OFFICE OF ACCOUNTING AND FINANCE

SUBJECT: 97-E-1387 - Minor Rate Filing of Massena Electric  
Department to Decrease its Annual Revenues by  
Approximately \$250,000 or 3.5 Percent

SUMMARY OF

RECOMMENDATION: Staff recommends that the filing be approved  
with modification as discussed herein

SUMMARY

By letter dated August 1, 1997 Massena Electric Department (Massena) filed revised tariff leaves and supporting documentation to voluntarily reduce its 1998 revenues by approximately \$250,000, or 3.5 percent. The \$250,000 reduction consists of approximately \$84,000 resulting from a proposed modification in Massena's purchase power adjustment (PPA) calculation and \$166,000 resulting from a proposed reduction in base rates. Massena is also proposing to change its factor of adjustment for distribution system efficiency from approximately 12 percent to 6 percent.

Massena indicated that the revenue reduction could be greater than the proposed \$250,000. However, the Massena Town Board, which governs the municipal electric department, is taking a cautious approach in order to avoid lowering rates one year and then raising rates in the next. Thus, Massena proposes a

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3.5 percent decrease at this time in anticipation that this will be the first of several rate decreases expected to occur over the next decade, barring any unforeseen expense increases. Because Massena is a municipal electric system and plans future distribution improvements, current excess revenues (approximately \$394,000) are being channeled into a capital reserve fund instead of being passed on to shareholders as would be the case with an investor-owned utility.

Staff has reviewed the filing and has determined that the modified PPA calculation, the change in the factor of adjustment, and the rate reduction are reasonable. Therefore, Staff recommends that the Commission allow the filing, including a modification to correct the traffic signal charge, to become effective.

#### BACKGROUND

In 1981 the Town of Massena purchased the electric distribution system that serves the town from Niagara Mohawk Power Corporation (Niagara Mohawk) and began operation as a full-requirements customer of the New York Power Authority (NYPA). The lower cost of power purchased from NYPA allowed Massena to reduce revenues at that time by 25 percent. In anticipation of signing a power supply contract with the New York State Electric & Gas Corporation (NYSEG), Massena reduced its revenues by another 16 percent in 1991. In 1992 Massena signed a 10-year contract with NYSEG for incremental power at which time it came under the New York Public Service Commission's (PSC) jurisdiction.

Massena, located on the St. Lawrence River, serves approximately 9,000 customers and has a peak load of 33 MW. Each month Massena utilizes its full NYPA hydro allocation of 22 MW and purchases incremental power from NYSEG, all of which is wheeled on NYPA lines. Massena does not have any industrial load and its largest customer's peak demand is approximately 760 kW.

The Massena Town Board, which governs the electric department, is now proposing to reduce its 1998 revenues by

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approximately 3.5 percent. The decrease is made possible by a reduction in Massena's long-term debt balance and cost, which will continue to decrease for the next eight years. Massena has indicated that it will file additional rate decreases to follow the reductions in debt expenses. In this filing, and those expected to follow, the Massena Town Board wishes to proceed in a cautious manner, thereby, guarding against the need to increase rates in the near future (10 years).

#### TARIFF FILING

By letter dated August 1, 1997, Massena proposes to modify its purchased power adjustment calculation, change its factor of adjustment, and reduce base rates. The revised tariff leaves that effectuate these changes are listed in the Appendix.

Purchased Power Adjustment (PPA)

Massena currently calculates its Purchased Power Adjustment (PPA) using the previous month's total power costs and the total energy delivered during that month. Because Massena's power costs are directly related to the amount of incremental power purchased, Massena's power bills are larger in the heavy-use winter months than during summer months. The seasonal effects on usage cause high variances in the PPA from winter to summer, which cause customer bills to vary in the same manner. To smooth out the monthly variance in customer bills resulting from the PPA, Massena is proposing to modify its PPA calculation to use a twelve-month rolling average of power costs and energy delivered instead of only the previous month's.

#### Factor of Adjustment

Massena's current factor of adjustment for distribution system efficiency is 0.120108, or about a 12 percent loss factor. In late 1981, Massena began a 20-year program of incrementally rebuilding its entire distribution system to improve system efficiency. Massena estimates that losses on the distribution system will be reduced by about 50 percent when completed. Massena is proposing to use a 0.060000 factor of adjustment (a 6

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percent loss factor) instead of 0.120108 to reflect the improved system efficiencies.

Rate Reduction

The cumulative 1998 revenue reduction resulting from changes to the PPA calculation and the factor of adjustment is approximately \$84,000. In addition, Massena is proposing to reduce base rates by approximately \$166,000 for a total revenue reduction of \$250,000. Massena derived the base rate reduction by applying a \$0.001 reduction to each service classification's energy rate. Massena then compared the resulting revenue reduction with its forecasted expenses to determine if its cash flow was still positive. Since its cash flow was indeed positive, Massena filed revised tariff leaves that effectuated the \$0.001 per kWh reduction and the above mentioned changes to reduce 1998 revenues by approximately \$250,000, or 3.5 percent.

DISCUSSION

Staff has reviewed the filing and believes that the proposed revenue reduction is reasonable and that Massena's cautious approach is appropriate in light of the already existing low rates in effect for Massena's customers<sup>1/</sup>. Staff agrees that it would be undesirable if an unforeseen expense or planned investment caused Massena to seek a rate increase so soon after a rate reduction. However, Staff also believes that, barring any unforeseen expenditure increases, Massena should appear before this Commission within three years to reduce revenues even further. The additional reductions, as indicated by Massena, would be the direct result of further decreases in long-term debt expenses as Massena's existing bonds are retired.

Even though Staff believes the reduction is reasonable, Staff's method of calculating the revenue decreases differs from the one used by Massena. The following discussion explains Staff's analysis of the filing.

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<sup>1/</sup> Present and proposed rates are shown in Attachment IV.

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Purchase Power Adjustment

Staff does not oppose Massena's proposed modification to its PPA calculation to use a 12-month rolling average. As shown in Attachment I, the monthly variance in PPA revenues using a rolling average is much less than the variances using the current calculation. Staff recommends that the method proposed by Massena to calculate its PPA be approved.

Factor of Adjustment

Because of Massena's efforts to rebuild its distribution system, Staff agrees that the resulting efficiency gains cause the current factor of adjustment to be overstated. No data currently exists, however, to accurately determine the actual factor of adjustment, and Staff therefore accepts Massena's estimate of six percent. Staff believes that this issue should be revisited in the next Massena rate filing provided that data is available.

Changing the factor of adjustment has a direct impact on base rates. Present base rates are derived using the existing factor of adjustment. Reducing the factor of adjustment, in fact, necessitates recalculating base rates to capture this change. Massena's filing did not capture this rate-making adjustment. As shown in Attachment II, the base rate revenue reduction precipitated by changing the factor of adjustment is \$163,624.

Rate Reduction

To determine a utility's revenue requirement, Staff calculates the utility's net income by applying an appropriate rate of return to the utility's rate base. The net income is then added to the utility's forecasted expenses to determine the level of revenues needed. The difference between the revenues needed and the revenues that would be collected, absent a rate change, is the utility's revenue requirement. Massena applied a rate reduction to each service class to calculate expected revenues. Massena then compared its expenses with its forecasted revenues to determine if it still maintained a positive cash flow.

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The revenue requirement schedules supporting this case are shown as Attachment III. Schedule A of Attachment III is Massena's "Forecasted Statement of Operations for the Year Ending December 31, 1998." Because this schedule represents a cash income statement used by the municipality, Staff restated it into traditional revenue requirement schedules that were used to analyze the filing (Attachment III, Schedule B). The five pages of Schedule B that calculate Massena's proposed \$166,000 base rate decrease are:

1. Revenue Requirement Summary
2. Other Operating Expenses
3. Rate Base
4. Balance Sheets
5. Cost of Capital and Revenue Requirement Calculation.

Staff's adjustments to Massena's forecasts are included in "Staff's Revenue Requirement" (Attachment III, Schedule C). The five pages of Schedule C that calculate Staff's proposed \$166,000 base rate decrease are:

1. Revenue Requirement Summary
2. Other Operating Expenses
3. Rate Base
4. Cost of Capital and Revenue Requirement Calculation
5. Staff Adjustments & Reconciliation.

Staff's proposed \$166,000 base rate decrease consists of the \$163,624 base rate revenue adjustment caused by changing the factor of adjustment and a \$2,331 adjustment to Massena's capital reserve fund, in order to develop an overall revenue reduction equal to that initially proposed by Massena (see Attachment II).

Financing

Massena has adopted a conservative approach to financing future construction that limits its current revenue reduction. Staff believes that Massena's approach is reasonable

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when considered in context with the company's voluntary request to reduce its revenues and its pledge to further reduce revenues in the future.

Return on Surplus

Massena seeks a return on surplus of about \$1.35 million, as shown on page 4 of Attachment III, Schedule C, to recover certain non-expense cash payments and transfers. These include deposits of \$450,000 into a depreciation reserve fund, \$50,000 into the company's self-insurance fund and \$96,000 into a miscellaneous investment account as "increase in unrestricted surplus."

Normally, when calculating a municipal's rate of return, the return on surplus (akin to return on equity for investor-owned utilities) is set at the "incremental borrowing rate." This rate is simply the utility's current cost of issuing debt in the capital markets. Commission policy for using the incremental borrowing rate for a return on surplus for municipals has been established for some time. The rationale for using the incremental borrowing rate is to be indifferent to a municipal's use of either debt or surplus in meeting its capital requirements. By setting the return on surplus equal to the cost of issuing new debt, the municipality is afforded no advantage of using one form of capital over another.

Rating

Massena's latest bonds, issued in October 1994, were rated "BAA" by Moody's. Massena Electric's bonds are rated as part of the Town of Massena, which was downgraded from "A" to "BAA" by Moody's in June 1994 to reflect Moody's concern over the town's dependency on heavy manufacturing<sup>1/</sup> and relatively high unemployment rates. According to Fiscal Advisor's Inc., a financial advisory service located in Cicero, New York, Massena's current incremental borrowing rate is 6.0 percent. This compares to a rate of 5.6 percent for long term medium grade general

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<sup>1/</sup> Industrial customers in the Town of Massena are served by NYPA.

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obligation bonds as reported in the September 5, 1997 issue of Salomon Brothers Bond Market Roundup.

By comparison, as shown on page 4, Attachment III, Schedule C, Massena's \$1.35 million return on surplus request equates to a rate of about 8.0 percent. Massena requests the additional return to build up its various cash funds, primarily its depreciation reserve fund, to finance future planned construction. Massena's goal is to eventually eliminate its debt and to finance all construction and capital needs through net surplus and internally generated funds.

Need for Funds

Massena projects it will require a new substation within the next five to ten years; Staff estimates that the substation will cost approximately \$8 million. As of August 29, 1997, Massena had slightly more than \$2.75 million in its depreciation reserve fund. Monies in this account are restricted by municipal law in their use, disbursement, deposit and investment. With anticipated contributions and interest, the depreciation reserve fund is expected to total just under \$3.9 million by the year 2001. The August 29, 1997 balance in the miscellaneous investment account of \$1.345 million is expected to grow to about \$3 million by 2001, giving Massena just under \$7 million in the two accounts to finance the planned substation. Unlike the depreciation reserve fund, however, monies in the miscellaneous investment account are not restricted as to use.

Under traditional ratemaking, Massena would be given a return on surplus of only 6.0 percent, equal to its incremental borrowing rate, and would thus be limited in the amount it could deposit into its various funds. The company would most likely have to issue at least some debt in the future to finance its substation. By approving a higher return on surplus than we would normally allow, we are enabling Massena to pre-finance future construction and capital needs with surplus rather than with new debt. This strategy is not unreasonable, given Massena's voluntary revenue reduction and pledge to further

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reduce revenues in the future, coupled with the need for and estimated cost of the new substation.

Acquisition Adjustment

In 1981, the Town of Massena purchased the electrical distribution system from Niagara Mohawk at \$4.5 million above the net book value of the plant. Consistent with Section 168.5 of the Public Service Law, Massena Electric Department recorded this premium in Account 114, Electric Plant Acquisition Adjustments. Massena has been amortizing this acquisition adjustment over 23 years. The amortization in the 1998 rate year is projected to be \$193,404 (1/23 of total). The remaining unamortized balance in the 1998 rate year is expected to be \$1.1 million (6/23 of total).

Normally, acquisition adjustment costs are not allowed in the calculation of rates. The exception is when the utility can demonstrate that the ratepayers of the utility are receiving benefits in excess of these costs. Massena did not provide an explicit calculation of these costs and benefits. However, a clear benefit to Massena's ratepayers is the lower electricity rates they enjoy with Massena than those they would be paying if served by Niagara Mohawk. For example, Massena's 1996 average residential price was 4.2 cents per kWh and Niagara Mohawk's 1996 average residential price was 12.4 cents per kWh. Because Niagara Mohawk's rates are almost triple those of Massena, Massena residential customers saved approximately \$6.7 million in 1996. Massena's commercial and industrial customers also enjoy significant electricity price savings; Massena's 1996 price was 3.6 cents per kWh, compared with Niagara Mohawk's price of 7.9 cents per kWh. The commercial and industrial price savings were 54 percent or \$3.2 million in 1996. Massena incurred the acquisition adjustment in order to give its ratepayers electricity price savings. Clearly, the ratepayers enjoy savings in excess of acquisition adjustment costs. Therefore, Massena should be allowed to recover the acquisition costs in rates.

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Revenue Allocation

Staff's calculation of the \$163,624 revenue adjustment is shown in Attachment II. The loss adjustment (.000986) is multiplied by the total energy sales (165,955,587 kWh) to derive the revenue adjustment (\$163,624). Because this adjustment is derived using total energy sales, and because it makes up about 99 percent of the total base rate revenue decrease, Staff recommends that the total base rate revenue decrease (\$166,000) be allocated to each service class on an energy basis. The result, as shown in Attachment II, is the same as Massena's \$.001 per kWh energy rate reduction.

Rate Design

Because the revenue reduction is caused by the change in the factor of adjustment, which is energy related, Staff's rate design applies the decrease in each service class to the energy rates. The resulting rates, shown in Appendix IV, are equal to those proposed by Massena, even though the rates were derived differently.

Staff is concerned with one aspect of the proposed rate design. If approved, the S.C. No. 4 - Large General Service proposed base energy rate would be lower than the base purchased power cost. The base purchased power cost is designed, in theory, to collect all costs associated with power supplied to Massena and is included in the base energy rates of each service classification. If the base energy rate is set lower than the base purchased power cost, Massena will not recover the costs associated with purchasing power through the base energy rate. This assumes that existing base rates are designed correctly and are collecting the appropriate costs. Unfortunately, without a cost-of-service study, no evidence exists proving or disproving this assumption. Even so, the base energy rate proposed by Massena would under-recover approximately \$16,000 in revenues because it would be approximately \$0.00025 lower than the base purchased power cost.

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To rectify this situation, the revenue reduction allocated to S.C. No. 4 could be split between the base energy rate and the demand charge. The base energy rate could be lowered to equal the base purchased power cost, which would allow full recovery of power supply expenses, and the demand charge could be lowered to capture the total revenue decrease allocated to that class. However, Massena is opposed to this approach. Massena contends that the base energy rate for customers with demand charges should be as low as the energy component of the purchased power costs, which is \$0.010967. Massena believes that the demand charge should collect the demand components of the purchased power costs. Therefore, in the long term Massena would rather decrease the base energy rate even further and raise the demand charge to recover the demand components of the purchased power. Massena is not proposing to do this at this time. To define the true cost components included in rates, a cost-of-service study and additional analysis is needed. Further, Staff believes that the potential under-recovery of \$16,000 does not warrant a delay of this filing, especially in light of the fact that Massena plans to decrease rates again.

Staff recommends that the Commission approve the rates proposed by Massena. However, Staff additionally recommends that Massena be directed to work with Staff to develop a cost-of-service study prior to its next rate filing. In that filing, the components of the energy and demand charges for all service classes should be identified to insure the proper recovery of costs.

Staff, through discussions with Massena, discovered that the calculation of the charge for traffic signal lights was erroneous. Staff and Massena agree that the correct charge should be \$1.30 instead of the proposed \$1.35. Staff recommends that the Commission direct Massena to file a revised tariff leaf incorporating this change.

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BILL IMPACTS

Bill impacts for the service classes No. 1 through No. 4 are shown in Attachment V.

NEWSPAPER PUBLICATION

The newspaper notification was published in the Massena Courier Observer, on the following four consecutive Wednesdays: August 6, 1997, August 13, 1997, August 20, 1997, and August 27, 1997.

COMMENTS RECEIVED

The Notice of Proposed Agency Action was published in the State Register on September 3, 1997. As of this writing, no comments have been received.

WAIVER OF 150-DAY RULE

Massena requested a waiver of the 150-day provision contained in the Commission's Statement of Policy on Test Periods in Major Rate Proceedings (issued December 12, 1979, Case 26821). The Policy Statement requires that a major rate case filing made on a forecast-year basis consists of the operating results for a 12-month period expiring at the end of a calendar year quarter no earlier than 150 days before the filing date. Massena requests the waiver in order to use historic data for the calendar year 1996. In Massena's situation, where there is little change in expenses or sales from year-to-year, Staff believes that the slightly older data is sufficiently reliable. Consequently, Staff recommends that the waiver be granted.

CONCLUSION AND RECOMMENDATIONS

Staff has reviewed Massena's voluntary rate reduction filing. Even though the methods used by Staff and Massena to derive the proposed rates differ substantially, Staff finds that the net effect of the filing is reasonable. Staff expects Massena to file another rate reduction within three years. Staff

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recommends that the revised leaves be allowed to become effective, Massena be directed to change the traffic signal light charge to \$1.30, and a waiver of the 150-day provision be granted.

The Office of Regulatory Economics, the Consumer Services Division, and Elizabeth Liebschutz, Office of General Counsel, have reviewed this memorandum.

It is recommended that:

1. the amendments listed in the Appendix be allowed to become effective, provided that Massena files further amendments to become effective on not less than one day's notice, on November 1, 1997, to change the traffic signal light charge to \$1.30 from \$1.35;
2. the requirement of Section 66 (12) of the Public Service Law as to newspaper publication of the changes proposed by the further amendments described in ordering clause 1 be waived;
3. a waiver of the 150-day provision of the Commission's Statement of Policy on Test Periods in Rate Proceedings be granted; and

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4. Massena be directed to work with Staff to develop a cost-of-service study prior to its next rate filing as discussed herein.

Respectfully submitted,

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APPENDIX

SUBJECT: Filing by MASSENA ELECTRIC DEPARTMENT

Amendment to Schedule P.S.C. No. 1 - Electricity

First Revised Leaves Nos. 86, 104, 106, 108, 113, 114,  
116, and 117

Second Revised Leaves Nos. 87 and 102

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