

Resolution No. 04-92

**A RESOLUTION AUTHORIZING THE CREATION OF A
VILLAGE OF CHATHAM PUBLIC WORKS POLICY AND PROCEDURE MANUAL**

WHEREAS, pursuant to various ordinances the Village of Chatham has established certain regulations for the governance of the Village of Chatham electric, water and sewer systems, the street department and other public works;

WHEREAS, in addition to the regulations contained in said ordinance, the various public works departments need from time to time to establish additional policies and procedures regarding bidding, equipment specifications, and the like;

WHEREAS, the various public works departments have requested the Village Board for authority to create a policy and procedure manual, into which will be placed policies and procedures approved from time to time by the Board of Trustees.

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF CHATHAM, SANGAMON COUNTY, ILLINOIS, AS FOLLOWS:

SECTION 1: There is hereby created a Public Works Policy and Procedure Manual. The materials to be placed in the manual shall in every case be approved by resolution of the Board of Trustees.

SECTION 2: The initial contents of the Public Works Policy and Procedure Manual shall consist of a policy entitled "Transformer Loss Evaluation -- Village of Chatham", a copy of which is attached hereto as Exhibit A; and "Village of Chatham -- Electric Meter Testing Program", a copy of which is attached hereto as Exhibit B. These two policies are hereby approved.

SECTION 3: This resolution is effective immediately.

Carl Oblinger

PRESIDENT

ATTEST:

Pat Schul

CLERK

AYES: 6

NAYS: 0

PASSED: 2-25-92

APPROVED: 2-25-92

ABSENT: 0

TRANSFORMER LOSS EVALUATION - VILLAGE OF CHATHAM

I. PURPOSE

The purpose of applying a transformer loss evaluation to new transformers purchased by the Village of Chatham is to ensure that the Village receives the highest quality equipment at a reasonable price.

II. PROCEDURE

When requests for quotes are sent to transformer vendors, the Village will notify the vendor that a transformer loss penalty will be applied to the bid price and that the Village will select the lowest evaluated bid for transformers. The Village will provide all vendors with the transformer loss penalty factors to be applied for both no load losses and full load losses. The vendor will be required to quote both losses for the transformer and indicate whether the full load loss includes no load losses.

When the bids for transformers are received, the Village will multiply the no load losses of the quoted transformers times the no load loss penalty factor and add the resultant to the bid price. The full load loss as quoted by the vendor will be multiplied times the full load loss penalty factor and added to the sum of the bid price and the no load loss penalty. The resultant is the evaluated price of the transformers quoted.

III. CALCULATION OF LOSS PENALTY FACTORS

A. ASSUMPTIONS

| | |
|-------------------------------|-------------------------|
| Present Demand Charge | \$6.10 per KW per month |
| Demand Charge end of contract | \$6.70 per KW per month |
| Energy Charge | \$0.02275 per KWH |
| Load Factor For Chatham | 0.3 |



B. NO LOAD LOSS FACTOR

Cost of no load losses per year = (No load loss in KW)x
(($\$6.70/\text{KW}/\text{mo.} \times 12\text{mo}$) + ($\$0.02275/\text{KWH} \times 8760 \text{ Hrs}/\text{Yr}$)

Cost of no load losses = (No load loss) x $\$279.69/\text{Yr.}$

Present Valued for 30 years @ 10% cost of capital.

Present value factor = 9.5

$\$279.69 \times 9.5 = \underline{\$2657/\text{Kw}}$ No Load Loss Penalty Factor
or $\$2.657$ per watt loss

C. FULL LOAD LOSS FACTOR

Loss at Full Load - Loss at No Load = Load Loss

Cost of load losses per year = (Load loss in KW)x
(($\$6.70/\text{KW}/\text{mo} \times 12\text{mo}$) + ($\$0.02275/\text{KWH} \times 8760\text{Hrs} \times 0.3$))

Cost of load losses = (Load loss) x $\$140.19/\text{yr}$

Present Valued for 30 years @ 10% cost of capital.

Present value factor = 9.5

$\$140.19 \times 9.5 = \underline{\$1332/\text{Kw}}$ Load Loss Penalty Factor
or $\$1.332$ per watt loss

VILLAGE OF CHATHAM - ELECTRIC METER TESTING PROGRAM

I. PURPOSE

The purpose of this program is to routinely test all electric watt-hour and demand meters in the Village of Chatham to ensure the accuracy of their readings. In addition, standards of accuracy for new watt-hour meters is established.

II. PROCEDURE

- A. Annually, the Electric Department of the Village of Chatham is to remove ten percent (10%) of all electric watt-hour and demand meters which are in service in the Village of Chatham for the purpose of routine meter accuracy testing. The meters are to be removed and replaced with either a new meter or a meter whose accuracy has been verified but which has not been placed in service since it was tested.
- B. The Village Administrator will maintain records of all meters within the Village of Chatham. These records will show the meter serial number and date since last test along with the usual customer and location information. Meters to be tested will be removed based on length of time since the last accuracy test. The meters which have been in service the longest period of time since the last accuracy test will be removed from service and tested first.
- C. The meters to be tested will be removed routinely on a monthly basis and returned to a suitable meter testing contractor. The contractor should be selected on an annual basis to perform the tests and will be required to maintain such meter standards suitable for testing the accuracy of electric watt-hour and demand meters.
- D. All test of electric watt-hour and demand meters will be conducted by the accuracy testing contractor on industry accepted watt-hour meter testing equipment. The contractor will provide the Village of Chatham documents necessary to verify the accuracy of the meter standard upon which the tests are conducted.



III. ACCURACY REQUIREMENTS

- A. The upper and lower limits for new watthour meters delivered to the Village of Chatham shall be:

| | %Registration |
|--------------------------------------|---|
| Full Load (100% rated capacity) | 100.6% Upper Limit 99.4% Lower Limit |
| Light Load (5-10% rated capacity) | 101.0% Upper Limit 99.0% Lower Limit |

- B. The Upper and lower limits for in service watthour meters tested by the Village of Chatham will be:

| | %Registration |
|--------------------------------------|-------------------------------------|
| Full Load (100% rated capacity) | 102% Upper Limit 98% Lower Limit |
| Light Load (5-10% rated capacity) | 102% Upper Limit 98% Lower limit |

- C. Tests on watthour meters will run for the duration of a minimum of 30 seconds for each test performed.
- D. The watthour meter to be tested will be removed from the customers premises, tagged for identification and transferred to the contractor for testing. A watthour meter found to be tampered with or damaged will not be returned for testing and may be held as evidence. These meters may be tested and returned to service only after a settlement with the customer has been reached.

IV. Testing Contractor Requirements

- A. The contractor to perform the tests on watthour meters for the Village of Chatham will be selected annually by sealed bids.
- B. The contractor will maintain test equipment which contains a watthour meter standard whose accuracy has been certified to the National Bureau of Standards and will provide the Village of Chatham proof of such accuracy.

- C. Watthour Meters whose percent registration falls outside of the limits specified above, will be repaired to meet the limits above and returned to the Village of Chatham for use. Those meters whose percent registration cannot be returned to within the limits specified above, will be tagged as "junk - do not reuse" and returned to the Village to be disposed of.

V. Test requested by the customer

- A. Tests requested by customers of the Village of Chatham to verify the accuracy of their meters will be performed and counted as part of the overall meter testing program. Any customer who requests that the accuracy of an in-service meter be verified may have their meter replaced with a meter whose percent registration has been verified. Any subsequent tests of replaced metering equipment will be at the customers expense if such test is requested within a two year period.