

File
FirstEnergy

8
76 South Main St.
Akron, Ohio 44308

330-384-5151

January 14, 1999

The Public Utilities Commission
of Ohio
Attention: Docketing Division
180 East Broad Street
Columbus, Ohio 43215-3793

RECEIVED - PUBLIC UTILITIES DIV
99 JAN 15 11 53
PUCO

SUBJECT: Case No. 99-*33* -EL-ATA
Application Not for an Increase in Rates for The Cleveland Electric
Illuminating Company

Dear Sirs:

Enclosed please find an original and twelve (12) copies of an Application Not for
an Increase in Rates pursuant to Section 4909.18 Revised Code for The
Cleveland Electric Illuminating Company.

Please date stamp two (2) copies and return in the enclosed envelope.

Please forward any questions concerning this filing to me at 330-384-5454.

Sincerely,

Thomas A. Flower

Thomas A. Flower
Senior Rate Consultant

TAF:nac
Enclosures

This is to certify that the images appearing are an
accurate and complete reproduction of a case file
document delivered in the regular course of business.
Technician SW Date Processed 1-19-99

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

Application Not for an Increase in Rates,
pursuant to Section 4909.18 Revised Code

RECEIVED-REGULATING DIV
90 JAN 15 AM 9:53
PUCO

In the Matter of the Application of The Cleveland)
Illuminating Electric Company for Authority to) Case No. 99-33-EL-ATA
Amend its General Rules and Regulations)

1. APPLICANT RESPECTFULLY PROPOSES: (Check applicable proposals)

☐ New Service ☒ Change in Rule or Regulation
☐ New Classification ☐ Reduction Rates
☐ Change in Classification ☐ Correction of Error
☐ Other, not involving increase in rates
☐ Various related and unrelated textual revision, without change in intent

2. DESCRIPTION OF PROPOSAL: This application is made pursuant to Section 4909.18, Ohio Revised Code. The Cleveland Electric Illuminating Company seeking approval to amend language in its General rules and Regulations to cease offering new 240 and 480 volt service.

3. TARIFFS AFFECTED: (If more than 2, use additional sheets)

Electric Service P.U.C.O. No. 12

Modification

Tariff Title
Electric Service

Tariff Title
Electric Service

Service Title
General Rules and Regulations

Service Title
General Rules and Regulations

Section Title
Company Facilities
Furnished at Company Cost

Section Title
Company Facilities
Furnished at Company Cost

4. Attached hereto and made a part hereof are: (Check applicable Exhibits)

 X Exhibit A - existing schedule sheets (to be superseded) if applicable

 X Exhibit B - proposed schedule sheets

 Exhibit C-1

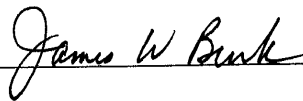
- a) if new service is proposed, describe;
Description included on attached Exhibit C-1.
- b) if new equipment is involved, describe (preferably with a picture, brochure, etc.)
and where appropriate, a statement distinguishing proposed service from existing
services;
- c) if proposed service results from customer requests, so state, giving if available,
the number and type of customers requesting proposed service.

 X Exhibit C-2 - if a change of classification, rule or regulation is proposed, a statement
explaining reason for change.

 Exhibit C-3 - statement explaining reason for any proposal not covered in Exhibits
C-1 or C-2.

5. This application will not result in an increase in any rate, joint rate, toll, classification, charge
or rental.

6. Applicant respectfully requests the Commission to approve the change in the General Rules
and Regulations and authorize The Cleveland Electric Illuminating Company to file same in
final form, to become effective on the date, subsequent to filing, to be shown on the proposed
schedule which will be filed with the Commission; and to be in the form and content shown in
Exhibit B.



Attorney

TITLE

76 South Main Street
Akron, Ohio 44308

ADDRESS

330/384-5861

TELEPHONE NUMBER

VERIFICATION

State of Ohio, Summit County, ss:

R. H. M. Vice President, (and)
Name of Officer (President) (Vice President)

J. H. M. Treasurer, of
Name of Officer (Secretary) (Treasurer)

The Cleveland Electric Illuminating Company, being first duly sworn
Name of Applicant

hereby verify this application.

Sworn and subscribed before me this 11th day of January, 1999

Susan L. Ferguson
Notary Public

SUSAN L. FERGUSON
Notary Public, State of Ohio
Resident of Medina County
My Commission Expires Aug. 24, 2003

P.U.C.O. NO. 12
ELECTRIC SERVICE

GENERAL RULES AND REGULATIONS (Cont'd)

8. COMPANY FACILITIES (Cont'd)

b. SERVICE FACILITIES (Cont'd)

(1) Furnished at Company Cost (Cont'd)

- (c) Standard transformers and appurtenances for one transformation from a supply voltage as determined by the Company to a standard secondary voltage at one or more points of transformation as determined by the Company.

The nominal values of the Company's standard secondary voltages are 120/240, 208/120, 240, 480/277 and 480, while the nominal values of the Company's standard primary voltages are 4340, 4800 and 13,200/7620. Some of these voltages are only available at specific locations.

Service will also be provided at the standard subtransmission and transmission voltages available.

- (d) Standard metering apparatus.

(2) Furnished at Consumer Cost

- (a) When construction, reconstruction or relocation work is to be performed by the Company for a customer at the request of the customer and it is expected that the customer shall bear the cost of the work, the Company will furnish to the customer before work is commenced an estimate of the cost of performing the requested work. The customer may elect

Filed under authority of Order No. 82-976-EL-ATA of
The Public Utilities Commission of Ohio, dated August 25, 1982

Issued August 25, 1982 by Robert M. Ginn, President
Effective for service rendered on or after August 25, 1982

The Cleveland Electric Illuminating Company
Cleveland, Ohio

Sheet No. 43

P.U.C.O. NO. 12
ELECTRIC SERVICE

GENERAL RULES AND REGULATIONS (Cont'd)

8. COMPANY FACILITIES (Cont'd)

b. SERVICE FACILITIES (Cont'd)

(1) Furnished at Company Cost (Cont'd)

- (c) Standard transformers and appurtenances for one transformation from a supply voltage as determined by the Company to a standard secondary voltage at one or more points of transformation as determined by the Company.

The nominal values of the Company's standard secondary voltages are 120/240, 208/120, and 480/277, while the nominal values of the Company's standard primary voltages are 4340, 4800 and 13,200/7620. Some of these voltages are only available at specific locations.

Service will also be provided at the standard subtransmission and transmission voltages available.

- (d) Standard metering apparatus.

(2) Furnished at Consumer Cost

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Filed under authority of Order No. . . . of
The Public Utilities Commission of Ohio, dated . . .

Issued . . . by . . . President
Effective for service rendered on or after . . .

Exhibit C-2

The Cleveland Electric Illuminating Company hereby requests permission to amend language in its General Rules and Regulations of its electric tariffs - P.U.C.O. No. 12 Electric Service. The proposed change will allow the Company to improve safety, extend equipment service life, and reduce costs. The change is to cease offering new 240 and 480-volt service. The Company will continue to maintain and support 240 and 480 volt service installed prior to this change.

Improved Safety

There are safety concerns with a three-phase delta configuration used in both overhead and underground systems for existing 240 and 480 volt service. There is no intentional connection to ground any current carrying conductor. Such systems are not immune to line-to-ground faults and when they occur these faults often go undetected. The faults cause elevated voltage levels which in turn work to degrade the insulation on those phase conductors and often precipitate the occurrence of a second line-to-ground fault. Intermittent ground faulting conditions are also possible. These are often caused by machine vibrations that create random contact between the conductor and ground. Successive breakdown and seal off of the separating space between the conductor and ground may cause an increasing breakdown voltage to occur across this gap, leading to the buildup of severe overvoltage conditions due to the capacitance of the system. Voltage two or three times normal have been measured. They pose hazardous conditions to line workers operating cutouts at transformer banks. In addition, lightning, switching, and accidental contacts on the primary side may cause surges that pass through transformers and overvoltage the customer's equipment. The lack of grounded neutral means system voltages above ground potential are not controlled.

The customer will still have the alternative of having service at the standard voltages of 208/120 wye and 480/277 wye. This configuration is highly versatile and popular with the manufacturers of electric motors and equipment. It is less susceptible to overvoltages since the neutral is grounded. This stabilizes circuit potentials with respect to ground and provides a path for lightning, switching and other accidental surges. It provides increased safety to the linemen and the other individuals operating the utilization equipment. For customers with existing 240-volt or 480 volt equipment that are increasing their load beyond their present transformer capacity, an autotransformer can be offered (at the Company's expense) to serve the existing equipment while the new equipment would be compatible to and served from a grounded wye source.

The National Electrical Code does not prohibit the use of delta systems. Many engineering publications recommend that these systems only be used in industrial applications with ground detection equipment and trained personnel. Trained maintenance personnel should locate and eliminate the ground faults. Experience has shown however, that most customers utilizing the delta system do not understand the operation of the delta system and do not employ proper trouble locating techniques.

Exhibit C-2 (con't)

Investigation of customer complaints and claims has shown customer equipment damage, misoperation and even fires that resulted from the use of delta systems. Had a grounded wye system been installed, the damage would not have occurred.

Improved Equipment Service Life

Conditions can occur in delta systems that can cause diminished service life of equipment. Overvoltages that are possible on delta systems can stress cable insulation and diminish its integrity. While this may gradually occur over time, it will shorten the useful life of equipment or increase maintenance costs. Delta service configurations can lose a phase and maintain service. The loss of a phase may occur without detection and create overvoltage conditions that will degrade insulation. This will damage the utility and the customer's equipment. With a grounded wye system, the neutrals are grounded on both sides of the transformer. Surges on the primary side of the transformer can be captured and directed to ground before they interrupt service or damage the customer's equipment. A grounded wye system has been proven more reliable and the service life of equipment can be improved using this configuration.

Improved Economy

Cost savings will occur due to the elimination of 240 and 480 volt service. The Company will be enabled to offer more uniform service to customers in the Company's service territory. With the exception of maintenance stock, the inventory of the Company can be reduced thus reducing operation, maintenance and capital costs.

Standardization

The majority of the electric systems in the United States are grounded wye systems. Equipment manufactures usually produce equipment for wye systems. With the increased emphasis on electronic controls, the neutral and ground are important to control overvoltages that are detrimental to the equipment. Although equipment can be designed to operate on delta systems, this type of equipment is not always supplied or designed. Investigations of customer complaints of failed equipment supplied from delta systems showed more failure of internal surge protection and these systems were more susceptible to electronic failure and misoperation.