COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

OWEN ELECTRIC COOPERATIVE, INC.

ALLEGED FAILURE TO COMPLY WITH KRS 278.042

CASE NO. 2013-00230

ORDER

By Order dated June 28, 2013, the Commission initiated this proceeding to determine whether Owen Electric Cooperative, Inc. ("Owen Electric") should be subject to the penalties prescribed in KRS 278.990 for multiple possible violations arising under KRS 278.042, which requires an electric utility to construct and maintain its plant and facilities in accordance with the most recent edition of the National Electrical Safety Code ("NESC"), and 807 KAR 5:006, Section 25, which requires each utility to adopt and execute a safety program, and to establish a safety manual with written guidelines for safe working practices and procedures to be followed by utility employees.

ALLEGED SAFETY VIOLATIONS

The 14 alleged violations of the NESC and Owen Electric's safety manual, as cited by the Commission's June 28, 2013 Order, are set forth in detail in that Order and in the Stipulation of Facts and Settlement Agreement ("Stipulation"), which is attached hereto as an Appendix and incorporated herein by reference. The alleged violations can be summarized and structured into four areas:

- 1. Failure to observe proper vehicle operation and chassis grounding requirements.
 - a. OEC Safety Manual, Section 3, 311 (Cranes, Derricks), 311-L
 - b. OEC Safety Manual, Section 3, 311 (Cranes, Derricks), 311-S
 - c. OEC Safety Manual, Section 6, 617 (Grounding-General), 617-M
 - d. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-B
 - e. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-H
- 2. Failure to observe clearance requirements for aerial lifts and derricks.
 - a. NESC Section 44, Rule 441.A.1.a-c Energized Conductors or Parts – A. Minimum Approach Distance to Energized Lines or Parts 1. General
 - b. OEC Safety Manual, Section 3, 313 (Aerial Devices), 313-U Clearances
 - c. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-C
- 3. Failure to utilize protective devices on vehicle.
 - a. NESC Section 42, Rule 420.H General Rules for Employees
 - b. NESC Section 44, Rule 446.B.3 Live Work Equipment
 - c. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-G
- 4. Failure of utility staff to observe proper safeguarding procedures on job site.
 - a. NESC Section 42, Rule 420.C.4 General Rules for Employees – Safeguarding Oneself and Others
 - b. NESC Section 42, Rule 421.A.1 & 2 General Rules for Employees – General Operating Routines – Duties of a First-Level Supervisor or Person in Charge
 - c. NESC Section 42, Rule 422.A.2 Overhead Line Operating Procedures

PROCEDURAL HISTORY

The violations cited in the Commission's June 28, 2013 Order arise from a

September 6, 2012, incident in which Mr. James Juett, an Owen Electric employee,

sustained injuries after a track machine's steel boom made contact with an energized 7,200-volt conductor on a job site in Richwood, Kentucky. Through the joint grounding system, this caused a digger derrick truck to become energized. Mr. Juett was in contact with the digger derrick at the time contact was made and he consequently sustained burns. On July 18, 2013, Owen Electric filed a response to the Commission's June 28, 2013 Show Cause Order. Two informal conferences were held at the Commission's offices on August 2, 2013, and November 20, 2013. Those discussions led to the filing of the Stipulation on December 27, 2013. The Stipulation sets forth an agreed-upon summary of the facts, discusses the remedial actions to be taken, and provides for the payment of \$10,000.00 in full settlement of this proceeding.

<u>STIPULATION</u>

In determining whether the terms of the Stipulation are in the public interest and are reasonable, the Commission has taken into consideration the comprehensive nature of the Stipulation and Owen Electric's actions taken after the incident, as well as the agreed upon remedial actions, including:

1. Engaging Caterpillar Safety Services to conduct a Safety Perception Survey, Safety Interviews, and Supervisor Training in Accident Reduction Techniques workshops.

2. Creating one or more continuous improvement teams that will autonomously operate to explore areas of concern relating to safety. The teams will operate indefinitely and address one issue per calendar quarter. The National Consulting Group will be engaged to initially assist the teams.

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3. Revising numerous sections of its safety manual addressing procedures for removing an injured employee from a job site, requiring employees to notify the employee in charge before entering a job site, instituting an obligation to inform employees of potential job-site hazards, as well as procedures for grounding vehicles and barricading job sites to protect the public.

Based on this evidence of record and being otherwise being sufficiently advised, the Commission finds that the Stipulation is in accordance with the law and does not violate any regulatory principal. The Stipulation is a product of arm's-length negotiations among capable, knowledgeable parties, is in the public interest, and results in a reasonable resolution of all issues in this case.

IT IS THEREFORE ORDERED THAT:

1. The Stipulation is adopted and approved in its entirety as a complete resolution of all issues in this case.

2. Owen Electric is assessed a civil penalty of \$10,000.00.

3. Owen Electric shall pay the amount of \$10,000.00 within 30 days of the date of this Order by cashier's check or money order made payable to the Kentucky State Treasurer, and mailed to be delivered to the Office of General Counsel, Public Service Commission, 211 Sower Boulevard, P. O. Box 615, Frankfort, KY 40602.

4. Owen Electric shall file status reports, within 45 days of the end of each calendar quarter throughout 2014, describing the efforts and changes instituted through the continuous improvement teams.

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5. Upon the payment of \$10,000.00 by Owen Electric, this case shall be closed and removed from the Commission's docket without further Order of the Commission.

6. Any documents filed pursuant to ordering paragraph 4 shall reference this case number and shall be retained in the utility's general correspondence file.

By the Commission ENTERED FEB 03 2014 KENTUCKY PUBLIC SERVICE COMMISSION

ATTES Executive Director

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APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2013-00230 DATED FEB 0 3 2014

Steven L. Beshear Governor

Leonard K. Peters Secretary Energy and Environment Cabinet Commonwealth of Kentucky Public Service Commission 211 Sower Blvd. P.O. Box 615 Frankfort, Kentucky 40602-0615 Telephone: (502) 564-3940 Fax: (502) 564-3460 psc.ky.gov

December 23, 2013

David L. Armstrong Chairman

James W. Gardner Vice Chairman

> Linda Breathitt Commissioner

Jeff Derouen Executive Director Public Service Commission P.O. Box 615 Frankfort, KY 40602

> Re: Case No. 2013-00230 Owen Electric Cooperative, Inc. Alleged Failure to Comply with KRS 278.042

Dear Mr. Derouen:

Enclosed for filing is the Stipulation of Facts and Settlement Agreement entered into between Commission Staff and Owen Electric Cooperative, Inc. Please bring this document to the Commission's attention for its review and consideration

Sincerely,

Janton Buyer

Jonathan Beyer Staff Attorney

Enclosure

cc: Parties of Record

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COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

OWEN ELECTRIC COOPERATIVE, INC.

ALLEGED FAILURE TO COMPLY WITH KRS 278.042

CASE NO. 2013-00230

STIPULATION OF FACTS AND SETTLEMENT AGREEMENT

By Order dated June 28, 2013, the Commission initiated this proceeding to determine whether Owen Electric Cooperative, Inc. ("Owen Electric") should be subject to the penalties prescribed in KRS 278.990 for alleged violations of KRS 278.042, which requires an electric utility to construct and maintain its plant and facilities in accordance with accepted engineering practices as set forth in the Commission's administrative regulations and orders and in the most recent edition of the National Electrical Safety Code ("NESC"), and for alleged violations of Owen Electric's safety manual.

The fourteen alleged violations of the NESC and Owen Electric's safety manual, as cited by the Commission's June 28, 2013 Order, can be structured into four areas:

1. Failure to observe proper vehicle operation and chassis grounding requirements.

a. OEC Safety Manual, Section 3, 311 (Cranes, Derricks), 311-L – When utilizing chassis grounding with two or more vehicles at the same job site (within 50'), all vehicles shall be bonded together with only one (1) cable attached to the main grounding point (system neutral). This procedure applies regardless of boom and/or pedestal insulation. (*** NOTE *** vehicle grounding cables shall not be raised or

lowered: in the basket of an aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand-line or winch-line) shall be used when raising or lowering a grounded conductor on any pole or tower.

b. OEC Safety Manual, Section 3, 311 (Cranes, Derricks), 311-S – Operators of cranes, derricks, hoists, and other hoisting equipment shall exercise extreme caution when in close proximity to energized lines or equipment.

c. OEC Safety Manual, Section 6, 617 (Grounding-General), 617-M – When utilizing chassis grounding with two or more vehicles at the same job site (within 50'), all vehicles shall be bonded together with only one (1) cable attached to the main grounding point (system neutral). This procedure applies regardless of boom and/or pedestal insulation. (***NOTE*** vehicle grounding cables shall not be raised or lowered: in the basket of an aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand-line or winch-line) shall be used when raising or lowering a grounded conductor on any pole or tower.

d. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-B – All derricks, aerial devise, cranes, and lifting equipment in work or load hoisting near energized lines or equipment shall utilize chassis grounding (See footnote (a). When utilizing chassis grounding with two or more vehicles at the same job site (within 50'), all vehicles shall be bonded together with only one (1) cable attached to the main grounding point. This procedure applies regardless of boom and/or pedestal insulation. (*** NOTE *** vehicle grounding cables shall not be raised or lowered: in the basket of an aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand-line or winch-line) shall be used when raising or lowering a grounded conductor on any pole or tower.

e. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-H – When a derrick truck is used as an aerial platform in the vicinity of lines and equipment considered to be energized or that could become energized, the boom winch line must be removed from the boom tip and stored on the winch drum.

2. Failure to observe clearance requirements for aerial lifts and derricks.

NESC Section 44, Rule 441.A.1.a-c - Energized a. Conductors or Parts - Employees shall not approach (within the reach or extended reach), or knowingly permit others to approach, any exposed ungrounded part normally energized except as permitted by this rule. A. Minimum Approach Distance to Energized Lines or Parts 1. General -Employees shall not approach or bring any conductive object within the minimum approach distance listed in Table 441-1 or Table 441-4 or distances as determined by an engineering analysis to exposed parts unless one of the following is met: a. The line or part is de-energized and grounded per Rule 444D. b. The employee is insulated from the energized line or part. Electrical protective equipment insulated for the voltage involved, such as tools, gloves, rubber gloves, or rubber gloves with sleeves, shall be considered effective insulation for the employee from the energized line or part being worked on. c. The energized line or part is insulated from the employee and from any other line or part at a different voltage.

b. OEC Safety Manual, Section 3, 313 (Aerial Devices), 313-U – Clearances: The aerial lift, together with the employee in the bucket and all tools and equipment shall maintain proper clearances from unprotected energized conductors. If it is difficult for the operator to determine the distance between the equipment and the energized parts accurately, another person shall observe the clearance and give timely warnings when minimum clearance distance is approaching. (Exception: Direct contact may be made when performing "live-line bare-hand" work). Refer to Table 6-1 and 6-2 for clearance requirements.

c. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-C – When any part of a derrick or lifting device or any part of the load being hoisted is at or inside of the minimum approach distance for the voltage being worked (refer to OEC Safety Manual table 6.1) of energized lines or equipment, the operator shall remain on the vehicle. Employees working on the ground shall not contact the vehicle or vehicles (unless using rubber protective equipment insulated for the voltage being worked). ***NOTE*** at this time the vehicle(s) should be considered as energized. The crew chief or designated employee in charge should be responsible for alerting crew members

when this equipment is to be considered energized and also given the "ALL CLEAR" when equipment is clear of the minimum approach distance (refer to OEC Safety Manual table 6.1) and is safe to enter, exit and/or contact. Crews may also wish to barricade vehicle with traffic cones.

3. Failure to utilize protective devices on vehicle.

a. NESC Section 42, Rule 420.H – General Rules for Employees – Tools and Protective Equipment – Employees shall use the personal protective equipment, the protective devices, and the special tools provided for their work. Before starting work, these devices and tools shall be carefully inspected to make sure that they are in good condition.

b. NESC Section 44, Rule 446.B.3 — Live Work — Equipment — Tools and equipment shall not be used in a manner that will reduce the overall insulating strength of the insulated aerial device.

c. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-G – When a derrick truck is used as an aerial platform in the vicinity of lines and equipment considered to be energized or that become energized, the fiberglass insulated section of the boom SHALL BE fully extended at all times the platform is in use.

4. Failure of utility staff to observe proper safeguarding procedures on job

site.

a. NESC Section 42, Rule 420.C.4 – General Rules for Employees – Safeguarding Oneself and Others – Employees who work on or in the vicinity of energized lines shall consider all of the effects of their actions, taking into account their own safety as well as the safety of other employees on the job site, or on some other part of the affected electric system, the property of others, and the public in general.

b. NESC Section 42, Rule 421.A.1 & 2 - General Rules for Employees – General Operating Routines – Duties of a First-Level Supervisor or Person in Charge – This individual shall: 1. Adopt such precautions as are within the individual's authority to prevent accidents. 2. See that the safety rules and operating procedures are observed by the employees under the direction of this individual.

c. NESC Section 42, Rule 422.A.2 – Overhead Line Operating Procedures – Employees working on or with overhead lines shall observe the following rules in addition to applicable rules contained elsewhere in Section 43 and 44. – A. Setting, moving, or removing poles in or near energized electric supply lines – 2. Contact with trucks, or other equipment that is being used to set, move, or remove poles in or in the vicinity of energized lines shall be avoided by employees standing on the ground or in contact with grounded objects unless employees are wearing suitable protective equipment.

The Commission's Order arose out of an incident which occurred on September 6, 2012. On that date, James Juett, an Owen Electric employee, sustained injuries in the course of installing a pole on an energized circuit on Shorland Drive in Richwood, Boone County, Kentucky. A work crew, comprised of Mr. Juett, Albert "Andy" Mullins, Charlie Colligan, Chris Dempsey, Simon Peters, Alan Brann, and crew leader Danny Clemons ("the crew"), all Owen Electric employees, was working at the incident site. The crew's job on the day of the incident was to set two poles going down a hill from a substation. Prior to the incident, the crew moved a digger derrick and a track machine into position. Both vehicles were grounded to a common grounding point, a screw inground rod that was approximately 7.5 feet behind the digger derrick.

The incident occurred when a crew member was ascending in the bucket on the track machine. While Mr. Peters was in the raised aerial bucket, the track machine's steel boom made contact with the energized conductor. This contact energized both vehicles through the joint grounding system. Mr. Juett was apparently in contact with the digger derrick when it became energized. As a result of the incident Mr. Juett

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sustained burns on his right wrist and left foot. However, he was able to return to work the day after the incident.

On July 18, 2013, Owen Electric filed a response to the Commission's June 28, 2013 Order. Owen Electric's response admitted to the violations as set forth in the Commission's June 28, 2013 Order. Owen Electric explicated certain remedial measures it undertook prior to the issuance of the Commission's Order, including a company-wide safety stand down to discuss the incident and the engagement of a consultant, Caterpillar Safety Services ("Caterpillar"), to conduct a Safety Perception Survey, Safety Interviews and Supervisor Training in Accident Reduction Techniques workshops. Owen Electric requested the Commission consider the safety measures undertaken in rendering its decision on this matter.

At an informal conference held on August 2, 2013, Commission Staff asked Owen Electric to supply a detailed list of safety, supervisory and policy changes stemming from the incident. Staff further requested Owen Electric to provide the results of the Caterpillar report and the changes adopted consequent to the report. Commission Staff subsequently filed in the record a memorandum summarizing the discussions at the informal conference, and by Order issued on August 20, 2013, the Commission directed Owen Electric to file the information discussed at the informal conference. On November 1, 2013 Owen Electric filed its Response to the Commission's August 20, 2013 Order ("Response").

In its Response, Owen Electric stated that its Board of Directors and management is committed to maintaining a culture of safety. Owen Electric outlined the results of the Caterpillar report, which recommended establishment of continuous

improvement teams. Owen Electric's safety and management teams recommended the Board of Directors engage an outside consultant to assist in developing and implementing the continuous improvement team concept beginning in 2014.

Owen Electric further detailed the revisions to its safety manual. Notable changes include the removal of injured employees from the job site for the remainder of the work day after an injury, a duty for employees to notify the employee in charge of a work zone of his presence when entering a jobsite, the head employee's duty to inform the entering employee of known site hazards, grounding procedure changes, a revised track machine use policy and a new policy to provide for the use of barricades in work areas accessible to the public. Owen Electric also provided several PowerPoint presentations given to employees regarding the minimum approach distance, use of the track machine and the results of the Caterpillar report. Owen Electric stated that the total costs from Caterpillar's services and expenses are \$32,343.61.

A second informal conference was held on November 20, 2013. During the conference, Owen Electric stated that the continuous improvement teams will operate fully autonomously, rather than a top-down approach from management, in order for the teams to take ownership of its decisions and allow the culture of safety to permeate throughout Owen Electric from the bottom up. The teams will address one safety area each calendar quarter. The areas to be addressed will be chosen by the continuous improvement teams and will not be influenced by the utility's executive staff. The teams will initially be assisted by a consultant, the National Consulting Group, whose fee will be approximately \$15,000.

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Owen Electric further stated that it has chosen a new track machine to replace its existing unit. The new machine, with a unit cost of \$225,000, will be purchased in 2014. The new model possesses a four foot fiberglass boom section with a fixed bucket. The existing track machine will be sold. Owen Electric stated that it has not itemized hours or tracked other expenses including employee hours dedicated to related meetings, the Caterpillar survey, or the safety teams.

As a result of discussions held during the informal conferences and the information filed by Owen Electric, Owen Electric and the Commission Staff submit the following Stipulation of Facts and Settlement Agreement ("Stipulation") for the Commission's consideration in rendering its decision in this proceeding:

1. Owen Electric agrees that the Staff's Incident Investigation Report ("Report"), Exhibit A to the Commission's June 28, 2013 Order in this case, accurately describes and sets forth facts and circumstances surrounding the incident, giving rise to the Order.

2. Following the incident, Owen Electric contracted with Caterpillar to conduct a safety perception survey to assess employee perceptions related to Owen Electric's safety regime. As a result of the survey, Owen Electric has instituted changes to its safety manual sections: 105- Reporting of Employee Injuries was modified to require removal of an employee from a safety sensitive function consequent to involvement in any incident, for the remainder of the workday; 112- Taking Chances was modified to require an employee entering a jobsite to notify the employee in charge of his presence and the employee in charge must inform the entering employee of potential hazards at the jobsite; 311- Cranes, Derricks, Hoisting Equipment was

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modified to address the appropriate grounding methods of digger derrick line trucks, to prohibit screw type grounding and to provide for the usage of barricades in areas in which they are necessary to protect the public; 317- Track Machine Operation was modified to address operation of the track machine; 617- Grounding-General, 621-Derrick Trucks, Cranes, etc. and 812- Grounding were modified to conform with Section 311; and 810- General was modified to address the usage of barricades in underground areas to protect the public when needed.

3. Owen Electric will engage the services of the National Consulting Group to assist its continuous improvement teams. One or more continuous improvement teams will begin to operate in 2014. The teams will focus on one area of concern relating to safety per calendar quarter. There is not a predefined end date for the dissolution of the continuous improvement teams.

4. Owen Electric incurred costs of \$32,343.61 for Caterpillar's services. It will expend approximately \$15,000 for the National Consulting Group's services and will purchase a new track machine for the approximate amount of \$225,000. Owen Electric has not tracked man hours or labor costs incurred resultant from the injury. Owen Electric will incur future costs stemming from the continuous improvement teams operations.

5. Owen Electric will submit to the Commission quarterly reports for the year 2014, within 45 days of the end of each calendar quarter, detailing the continuous improvement teams' area of focus for the quarter and any changes instituted as a result of the teams' efforts.

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6. Owen Electric agrees to pay the amount of \$10,000 in full settlement of the proceeding. The scope of this proceeding is limited by the Commission's June 28, 2013 Order to whether Owen Electric should be assessed penalties under KRS 278.990 for multiple alleged violations of the NESC rules as made applicable under KRS 278.042, and for multiple violations of its safety manual, with each violation having a potential penalty of \$2,500. Neither the payment of \$10,000, nor any agreement contained in this Stipulation, shall be construed as an admission by Owen Electric of any liability in any legal proceeding or lawsuit arising out of the facts set forth in the Report, nor shall the Commission's acceptance of this Stipulation be construed as a finding of a willful violation of any Commission regulation, NESC rule, or rules within Owen Electric's safety manual.

7. In the event that the Commission does not accept this Stipulation in its entirety, Owen Electric reserves its right to withdraw therefrom and require that a hearing be held on any and all issues herein, and that none of the provisions contained herein shall be binding upon the parties hereto, used as an admission by Owen Electric of any liability in any legal proceeding or lawsuit arising out of the facts set forth in the Report, or otherwise used as an admission by either party.

8. This Stipulation is for use in Commission Case No. 2013-00230. None of the provisions in this Stipulation establishes any precedent for any other case and neither Owen Electric nor Staff shall be bound by any part of this Stipulation In any other proceeding, except that this Stipulation may be used in any proceeding by the Commission to enforce the terms of this Stipulation or to conduct a further investigation of Owen Electric's service, and Owen Electric shall not be precluded or estopped from

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raising any issue, claim, or defense, therein by reason of the execution of this Stipulation.

9. Owen Electric and Staff agree that the foregoing Stipulation is reasonable, is in the public interest, and should be adopted in its entirety by the Commission. If so adopted by the Commission, Owen Electric agrees to waive its right to a hearing and will not file any petition for rehearing or seek judicial appeal.

Owen Electric Cooperative, Inc.

By Martin By	
Title President & CEO	
Date December 19	2013

Staff of the Kentucky Public Service Commission

By Josepher Beyer Title Staff Attorney IL

Date_12/23/13

Honorable James M Crawford Crawford & Baxter, P.S.C. Attorneys at Law 523 Highland Avenue P. O. Box 353 Carrollton, KENTUCKY 41008

Mark Stallons President & CEO Owen Electric Cooperative, Inc. 8205 Highway 127 North P. O. Box 400 Owenton, KY 40359