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17-06-ESC

March 16, 2017

Joshua Sperry, Senior Union Representative
Engineers and Scientists of California, Local 20
IFPTE (AFL-CIO & CLC)
810 Clay Street
Oakland, CA 94607

Dear Mr. Sperry:

In Letter of Agreement 15-07-ESC, the parties established the newly represented employees in the SmartMeter™ Operations Center and moved the existing SmartMeter™ Engineers into the ESC classification of Meter Engineer. The Company and Union agreed to meet to negotiate job descriptions for the Associate Electric Metering Engineer, Electric Metering Engineer (Journey), Senior Electric Metering Engineer, and Senior Consulting/Advising Electric Metering Engineer classifications. The agreed upon job descriptions are included as Attachment 1 to this agreement. In addition, the attached job description (Attachment 1) will also apply to the newly established ESC Gas Metering Engineer classifications.

1. Implementation Date

These employees will be included in the general ESC-PG&E contract effective April 1, 2017.

2. Recognition Clause

The Gas Metering Engineers were included in the general ESC-PGE contract under Title 3, Item 27, Letter of Recognition dated October 28, 2014.

3. ESC Metering Engineer Classifications - Gas

The Company will establish Gas Metering Engineers within Meter Engineering. The following classifications will make up the Line of Progression group:

Pay Scale Code	Job Codes	Classification
3910	51975240	Gas Metering Engineer, Associate - ESC
3911	51975241	Gas Metering Engineer - ESC
3912	51975242	Gas Metering Engineer, Senior - ESC
3913	51975243	Gas Metering Engineer, Senior Consulting - ESC
3913	51975244	Gas Metering Engineer, Senior Advising - ESC

4. Placement & GWI/PWI

Gas Metering Engineer, Maz Y. Bijan, will be placed into the Gas Metering Engineer – ESC classification effective April 1, 2017. Mr. Bijan will receive a salary adjustment equal to the 2017 ESC GWI and PWI, inclusive of his management merit increase of March 1, 2017, and not less than the minimum 2017 monthly wage in accordance with the standard unified monthly engineering salary ranges as outlined in the contract.

Gas Metering R&D Engineer, Senior, Olufela Odeyemi, will be placed into the Gas Metering Engineer, Senior - ESC classification effective April 1, 2017. Mr. Odeyemi will receive a salary adjustment equal to the 2017 ESC GWI and PWI, inclusive of his management merit increase of March 1, 2017.

Both employees will receive a one-time lump sum payment equal to the ESC 2017 GWI from January 1, 2017, through March 31, 2017. Also included in this lump sum will be any merit adjustment necessary to equal the ESC 5% PWI for March 1, 2017, through March 31, 2017.

5. Exhibit A and Appendix 1

The Gas Metering Engineer classifications will be added to Exhibit A. Bid codes will be established for all positions. The job descriptions will be added to Appendix 1 – Monthly Job Descriptions.

6. Exhibit D

The following shall be added to Exhibit D. IV. 26 Working Conditions:

Metering Engineers and Cross Commodity Assignments

The Gas Metering Engineer and the Electric Metering Engineer are separate Lines of Progression and separate classifications at every career stage. The Company may assign work to a Metering Engineer in the opposite commodity if the employee is qualified to perform the work.

7. DOT Applicability

The Company is currently reviewing the applicability of the DOT PHMSA regulations as they may apply to the Metering Engineer classification and will make a determination at a later date.

If you agree, please so indicate in the space provided below and return one executed copy of this letter to the Company.

Very truly yours,

PACIFIC GAS & ELECTRIC COMPANY

By: Robin Wix
Robin Wix
Principal Negotiator

The Union is in agreement.

ENGINEERS AND SCIENTISTS OF CALIFORNIA
LOCAL 20, IFPTE, AFL-CIO and CLC

3/17, 2017

By: Joshua Sperry
Joshua Sperry
Senior Union Representative

Job Descriptions for Metering Engineers

Associate Metering Engineer	
Summary	The Associate level engineer job works under the general technical direction of more experienced engineers. This position is responsible for providing technical standards and implementation support for the electric and gas meters (including SmartMeter™) and endpoint meter equipment. The position is also responsible for providing input and executing strategic plans for the electric and gas meters. An "endpoint" as discussed in this document is defined as a meter, including the advanced metering infrastructure/AMI communication module hardware (i.e. Network Interface Card (NIC)/Meter Transmission Unit (MTU)); the communication to the metrology; and associated meter equipment (i.e. socket, wire, bypass test switch; elbow, nipple, coupling, tee, plug).
Job Duties:	As assigned, for electric or gas commodity including endpoints, meters, and associated equipment: <ol style="list-style-type: none"> 1. Develop and update equipment specifications, approve vendors and products 2. Develop design, engineering, maintenance and construction standards, and work procedures within the delegation of authority. 3. Perform, document and publish equipment ratings. 4. <ol style="list-style-type: none"> a. Provide support for training to field metering personnel. b. Provide support and communication to field metering personnel, operations, planning, law, regulatory departments, and customer service departments. 5. Assist other engineers, team members, and supervision by developing, compiling, and providing technical data. 6. Update and manage databases as required. 7. Prepare or support incident investigations, equipment failure analyses and reliability studies. 8. Support emergency material strategy and implementation 9. Perform meter plant specific job duties which may include QA review, financial reports, and process improvements. 10. Develop and maintain documentation, standards and procedures for SmartMeter™ endpoints including engineering specifications, policies, and bulletins, using the company standard templates 11. Perform analysis and design necessary for SmartMeter™ endpoint performance, maintenance and remediation. 12. Perform engineering analysis and investigation of meter and endpoint problems and develop solutions for hardware and firmware issues. Specify advanced metering infrastructure (AMI) module (NIC, MTU) software/configuration files for new meters and form factors. Conduct special and engineering studies and root cause analyses on escalated issues from operations that lead to developing and recommending gas module issue resolutions for approval and implementation.
Scope	Resolves problems of limited scope and complexity. Assignments are regularly reviewed. As experience increases, greater independence of judgment is expected with respect to standard solution problems.
Interaction	Work typically requires direction from more senior engineers and the supervisor. Works primarily with internal personnel. External contact is limited to those assigned by supervisor. Attends selected trade and association meetings.
Knowledge / Abilities	Able to apply basic engineering principles and theory. Assess and recommend solutions for routine projects. Effective written and oral communications. Prioritize, plan and perform assigned work in an organized manner. Demonstrates good judgment. Shows initiative and is proactive.
Job Qualifications:	
Education	Associate Electric Meter Engineer: A 4-year BS Degree in Electrical Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from outside the US. Associate Gas Meter Engineer: A 4-year BS Degree in Mechanical, Civil Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from

	outside the US.
Licenses / Certifications	
Experience	One year of experience in engineering, planning and/or operations.

Metering Engineer (Journey)	
Summary	The Journey level engineer job requires mastery of an Associate Engineer skills and duties. This position is responsible for providing technical standards, and implementation support for the electric and gas meters (including SmartMeter™) and endpoint meter equipment. The position is also responsible for providing input and executing strategic plans for the electric and gas meters. An "endpoint" as discussed in this document is defined as a meter, including the advanced metering infrastructure/AMI communication module hardware (i.e. Network Interface Card (NIC)/Meter Transmission Unit (MTU)); the communication to the metrology; and associated meter equipment (i.e. socket, wire, bypass test switch; elbow, nipple, coupling, tee, plug).
Job Duties:	<p>Able to perform the job duties of the Associate Level engineer As assigned, additional job duties in either gas or electric commodity include endpoints, meters, and associated equipment:</p> <ol style="list-style-type: none"> 1. Conduct engineering analyses, studies and review project scope for standards compliance. 2. Develop and incorporate equipment arrangement strategies into standards. 3. Provide guidance to peers and lower level engineers. 4. Interprets and applies applicable codes and regulations. 5. Approve deviations from standards and specifications. 6. For maintenance projects/programs (i.e. meter testing, inspections, replacement, and compliance), the following duties describe what the meter engineers perform: <ul style="list-style-type: none"> • Initiate and prepare metering project/program justification and budgetary cost estimates and route for approval • Provide engineering or subject matter expert support for existing or new projects/programs • Develop and maintain standards, work procedures, job aids, bulletins, etc. related to existing or new projects/programs • Receive project/program results and perform analysis that may lead to additional engineering recommendations and project/program justification (i.e. R-test, etc. for an electric journey engineer, and SMC, PMC, GMPCP, etc. for a gas journey engineer) 7. For substation/station, and special metering projects, may perform the following tasks as assigned: <ol style="list-style-type: none"> a. Provide engineering review and requirements. b. Participate as necessary in walk downs to establish scope and schedule. c. Provide financial information and support. 8. Understand circuit board designs and layout of all endpoints, meter, and AMI module. Provide design input and support architecture to compare and verify changes in endpoint circuit board designs. Document the circuit board designs and layout of approved and purchased endpoints. 9. Develop and improve endpoint removal and return process and related procedures for field personnel and GEMS personnel to perform root cause analysis. 10. Review firmware (FW) and specify configuration of software (SW) for new AMI meter and module. 11. Prior to hand-off to field implementation and operations, work with operations, field personnel, shop personnel (i.e. GEMS), IT, IT Business/Applications/Operation Analysts, gas meter engineers, gas operations personnel, and others to <ol style="list-style-type: none"> a. Test, verify, and certify new software/configuration files for modules b. Test, certify, and approve AMI modules c. Assess and recommend issue resolutions for AMI modules 12. Work with operations to develop and update endpoint and SW standards and procedures and provide training to field personnel as requested. 13. Work with support teams to certify and distribute module software/configuration files to field lap tops.

Scope	Resolves problems of moderate scope. Assignments typically require standard solutions. Generally works independently with limited feedback from other engineers and supervisor. Demonstrates increasing technical and communication skills.
Interaction	Work sometimes requires direction from more senior engineers and the supervisor. Works primarily with internal personnel. Some external contact with vendors, PG&E contractors and customers. Governmental contacts only as assigned by supervisor. Attends selected trade and association meetings.
Knowledge / Abilities	Demonstrates knowledge and abilities required for the Associate level engineer and also: Works with limited supervision and guidance to meet project commitments. Able to understand and implement the technical requirements of interfacing engineering disciplines. Demonstrates informed judgment when making decisions and recommendations. Uses judgment in applying engineering principles and techniques to determine cost effective and practical solutions. Ability to interpret applicable codes, industry standards and regulations. Can provide thorough analysis of issues and justification of recommendations.
Job Qualifications:	
Education	Electric Journey Engineer: A 4-year BS Degree in Electrical Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from outside the US. Gas journey Engineer: A 4-year BS Degree in Mechanical, Civil Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from outside the US.
Licenses / Certifications	Current and active California PE license desired.
Experience	Mastery of the Associate level Engineer job duties or equivalent and demonstrated knowledge and ability to perform the basic duties of the Journey level Engineer. Meets specific technical requirements gained through a minimum of three years of cumulative experience in engineering, planning and/or operations.

Senior Metering Engineer	
Summary	The Senior level engineer job requires mastery of the Journey level engineer skills and duties. This position is responsible for providing and approving technical standards, and implementation support for the gas or electric meters (including SmartMeter™), endpoint meter equipment. The position is also responsible for providing input and executing strategic plans for the electric and gas meters. An "endpoint" as discussed in this document is defined as a meter, including the advanced metering infrastructure/AMI communication module hardware (i.e. Network Interface Card (NIC)/Meter Transmission Unit (MTU)); the communication to the metrology; and associated meter equipment (i.e. socket, wire, bypass test switch; elbow, nipple, coupling, tee, plug). Additionally, the position will perform consultative activities supporting meter reading equipment. Meter reading equipment is defined as (AP's) Access Points and DCU's (Data Collector Units).
Job Duties:	Able to perform the job duties of a Journey level engineer. As assigned, additional job duties include, endpoints, meters, and associated equipment: <ol style="list-style-type: none"> 1. Support, perform or lead the development and management of Life Cycle Plans. 2. Support the development of equipment installation, maintenance, testing, replacement, and compliance programs. 3. Provide support on regulatory, governmental and other third party issues. 4. Address and manage emergency issues associated with assigned standards and equipment. Troubleshoot escalated issues and perform/support root cause analysis on endpoint alarms and error flags. 5. Support, perform or lead, as assigned, root cause analyses. 6. Address other internal and external requests that may impact metering assets. 7. Assist with or initiate the investigation and implementation of new technologies. Plan for, certify, evaluate and implement, new endpoint design and technology. Keep abreast of industry best practices that can be turned into improvement opportunities and help drive efficiency in PG&E. 8. Provide guidance to peers and lower level engineers. Represent PG&E at selected trade and association meetings.

Scope	Resolves problems of complex scope. Assignments may require complex solutions. Works independently with limited feedback from other engineers and supervisor.
Interaction	Work sometimes requires direction from more senior engineers and the supervisor. Works with internal and external personnel. External contacts include vendors, PG&E contractors, customers and regulatory agencies. May include other governmental contacts as assigned by supervisor.
Knowledge / Abilities	Demonstrate knowledge and abilities required for the Associate and Journey level Engineer and also: Demonstrate ability to handle multiple large and complex projects without supervision. Demonstrate good presentation skills including knowledge transfer presentations. Ability to serve as the leader for guiding the project team. Complete assignments of broad scope and complexity. Ability to integrate information from a variety of sources.
Job Qualifications:	
Education	Electric Senior Engineer: A 4-year BS Degree in Electrical Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from outside the US. Gas Senior Engineer: A 4-year BS Degree in Mechanical or Civil Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from outside the US.
Licenses / Certifications	Current and active California PE license desired.
Experience	Mastery of the Associate and Journey level Engineer job duties and demonstrated knowledge and ability to perform the basic duties of the Senior level Engineer. Meets specific technical requirements gained through a minimum of eight years of cumulative experience in engineering, planning and/or operations.

Senior Consulting/Advising Metering Engineer	
Summary	The Senior Consulting level engineer job requires mastery of the Senior level engineer skills and duties. This position is responsible for providing and approving technical standards and implementation support for the gas or electric meters (including SmartMeter™) endpoint meter. The position is also responsible for providing input and executing strategic plans for the electric and gas meters. An "endpoint" as discussed in this document is defined as a meter, including the advanced metering infrastructure/AMI communication module hardware (i.e. Network Interface Card (NIC)/Meter Transmission Unit (MTU)); the communication to the metrology; and associated meter equipment (i.e. socket, wire, bypass test switch; elbow, nipple, coupling, tee, plug). Additionally, the position will perform consultative activities supporting meter reading equipment. Meter reading equipment is defined as (AP's) Access Points and DCU's (Data Collector Units). The Senior Consulting Engineer is a recognized expert within their area of responsibility, identifies opportunities and brings in ideas to help improve company performance and applies extensive knowledge of concepts, principles, and practices to resolve complex problems with only general direction.
Job Duties:	Able to perform the job duties of a Senior level engineer. As assigned, additional job duties include, endpoint, meters and associated equipment: <ol style="list-style-type: none"> 1. Develop, manage and approve equipment standards and strategies. 2. Jointly work with operations to analyze and develop the criteria for and support implementation of endpoint installation, maintenance, testing, replacement, and compliance programs. 3. Provide guidance to peers and lower level engineers. 4. Recognized as industry expert internally and externally.
Scope	Resolves problems of complex scope. Assignments may require complex solutions. Works independently with limited feedback from supervisor. Expected to apply creative solutions, techniques and approaches to work assignments. Customarily and regularly uses discretion and independent judgment in fulfilling these job functions.
Interaction	Assists lower classification engineers and works with the supervisor. Externally, establishes and maintains good relations with counterparts and higher level representatives in third party organizations, e.g., governmental, regulatory, business partner or community entities, using skilled negotiation, tact and diplomacy. Internal contacts include project team members and company management across

	various departments. May have specialized technical expertise and provides information and training as appropriate in the assigned specialized area.
Knowledge / Abilities	Demonstrates knowledge and abilities required for the Associate, Journey and Senior level Engineer and also: Able to handle multiple large and complex projects without supervision and serve as team leader. Provide leadership, direction, and assistance to project team. Successfully negotiate cost effective solutions beneficial to our customers and PG&E. Complete complex assignments with few or no precedents or standards. Apply extensive knowledge of concepts, principles and practices in a specific field or area of expertise to resolve complex problems. Demonstrates strong technical and communications skills.
Job Qualifications:	
Education	Electric Senior Consulting Engineer :A 4-year BS Degree in Electrical Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from outside the US. Gas Senior Consulting Engineer: A 4-year BS Degree in Mechanical, Civil Engineering or other related Engineering degree as appropriate from an accredited curriculum in the US or the equivalent from outside the US.
Licenses / Certifications	Current California PE license required for Senior Consulting Engineer.
Experience	Mastery of the Associate, Journey, and Senior level engineer job duties and demonstrated knowledge and ability to perform the basic duties of the Senior Consulting/Advising Level Engineer. Meets specific technical requirements gained through a minimum of thirteen years of cumulative experience in engineering, planning and/or operations.