



June 20, 2016

Mr. Jason Chung  
Electrical Engineer/Core Systems  
Honolulu Authority for Rapid Transportation  
City and County of Honolulu  
Ali'i Place, 17<sup>th</sup> Floor  
1099 Alakea Street  
Honolulu, Hawaii 96813

**Subject: Maintenance and Storage Facility (MSF) Substation**

Dear Mr. Chung:

Thank you for working collaboratively with Hawaiian Electric Company, Inc. ("Hawaiian Electric") to ensure service can be provided to the anticipated loads within the Maintenance and Storage Facility ("MSF") area.

This letter is to provide written notification of Hawaiian Electric's determination that was verbally conveyed to you in our meeting of April 29, 2016, that a dedicated substation will be necessary to serve the anticipated loads for the MSF.

In accordance with Tariff Rule No. 13, Tariff Sheets 28d – 28j, Hawaiian Electric will be generally responsible for the cost to install a dedicated substation, subject to obtaining approval from the Hawaii Public Utilities Commission ("Commission"). In such situations, the Tariff also imposes various obligations on HART, the customer, and limitations on the extent of Hawaiian Electric's responsibility to fund such installations, as further described below.

Since originally receiving Honolulu Authority for Rapid Transportation's ("HART") service request on July 6, 2012, Hawaiian Electric has continued to assess whether we will be able to supply sufficient service to the MSF from existing facilities, whether Hawaiian Electric will need to upgrade or install a new system substation, or install a dedicated substation to meet HART's requirements.

By way of background, Hawaiian Electric initially considered installing a new system substation within the MSF area based on the information provided to us by HART. A system substation is one that serves the loads of more than a single customer.

In evaluating the system substation Hawaiian Electric and HART have had to contend with multiple issues including but not limited to: accessibility, land rights, encumbrances, and fluctuating load forecasts. As a result, Hawaiian Electric has determined that: (a) there is insufficient justification to warrant installing a new system substation; and (b) a dedicated substation to serve the load only of the MSF is necessary. For Hawaiian Electric to justify the need for a system substation, Hawaiian Electric must be able to demonstrate to the Commission

that the proposed facilities will not be in excess of probable future requirements for utility purpose.

Beginning in January 2013 and most recently, on May 24, 2016, Hawaiian Electric received fluctuating loading data, making it difficult for Hawaiian Electric to effectively plan the needed capacity and required infrastructure. Based on the loading information provided in HART's "HECO Service Dates Loading Schedule" dated May 13, 2015, and based on the load information provided by HART by email of April 1, 2016, in which HART included a reassessment of the load requirement at MSF by Lea+Elliot, a substation is needed by June 2019 to meet HART's service requirements

As indicated above, the cost for the installation of a dedicated substation for HART will be generally at Hawaiian Electric's cost in accordance with the requirements of Tariff Rule No. 13, Tariff Sheets 28d – 28j. However, please be advised that the Tariff also imposes various obligations on HART as outlined below:

1. HART must provide at no cost to Hawaiian Electric, the land required to install the dedicated substation to serve HART's normal load, including 24/7 access and easements necessary for the 46kV, 12kV, and telecommunications lines to support the substation. The land area generally required for a high profile substation is approximately 115'x70'.

Hawaiian Electric has evaluated the two sites proposed by HART for this purpose: (a) a designated plot within the MSF; and (b) a parcel owned in part by State Department of Transportation (DOT), and in part by Leeward Community College (LCC) or the University of Hawaii (UH). Based on Hawaiian Electric's research, neither of these sites is currently owned by HART. As such, we are concerned that HART may not be able to timely transfer the interest in either of these properties and/or the property may be encumbered such that Hawaiian Electric's ability to fully utilize the site may be impacted.

We are also concerned with the suitability of these sites for installing a substation due to physical limitations such as access and preexisting underground infrastructure. The selected site must be at a locale where there will be sufficient vehicular access and adequately sized to accommodate the turning radius of large vehicles for the delivery and maintenance of the substation equipment (as identified in our February 2, 2016 and February 12, 2016 emails).

Hawaiian Electric remains committed to working through these concerns with HART including reassessing the required size of the necessary site. However, the ultimate responsibility of transferring the right for Hawaiian Electric to occupy and utilize a suitable location for this purpose falls upon HART pursuant to the Tariff. Additionally, any delay in fulfilling this obligation will impact Hawaiian Electric's ability to meet HART's scheduled need for this facility.

2. HART will be responsible for installing, owning, operating, and maintaining the primary distribution system beyond the demarcation point, which is typically adjacent to the substation.
3. HART will pay in advance prior to any installation by Hawaiian Electric, the estimated costs for any facilities requested by HART which are in addition to, or in substitution for, the standard facilities which Hawaiian Electric normally would install under these types of circumstances to render electric service in accordance with the tariff.

Standard facilities in this case include one 46kV overhead line, a telecommunications line, and one 46-12.47kV 10/12.5MVA transformer substation (the Hawaiian Electric "standard installation"). Substation equipment to be installed is as follows:

- one (1) standard distribution unit sub (15kV switchgear and 10/12.5MVA transformer);
- one (1) 46kV switch with motor operator;
- one (1) set of lightning arrestors for 3-phase bus;
- one (1) standard 48VDC distribution battery cabinet; and
- one (1) standard communications cabinet

The standard facilities will not include provisions for redundant service or equipment. However given HART's need to minimize or eliminate the possibility of any power shutdowns, planned or unplanned, Hawaiian Electric recommends HART to consider incurring the cost to install additional facilities for redundant service. To that end, we suggest further discussion concerning this matter and possible additional alternatives.

Hawaiian Electric will need to obtain the approval of the Commission before we can assume the cost of a standard installation of a dedicated substation and to proceed with commencing its efforts for the design and installation. With respect to Hawaiian Electric incurring such costs, we based our determination on the provisions of Tariff Rule No. 13 and our analysis that the estimated project costs (i.e. the cost of the lines and related equipment, and Hawaiian Electric's cost for the dedicated substation) will not exceed the sixty (60) months' estimated revenue that HART will generate. Please be advised that this analysis is subject to review by the Commission, and we will be required to justify the basis for the estimated revenue and/or provide information on actual revenue once the substation is in operation. To that end, we request HART's commitment in advance that HART will cooperate and support Hawaiian Electric in this effort before the Commission.

Additionally, in accordance with Tariff Rule No. 4, we will also need to execute a separate service contract specifically for the foregoing arrangement, the terms of which must also be approved by the Commission.

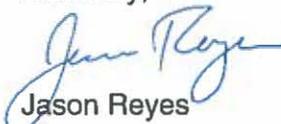
We anticipate that the Commission will take 12-18 months to issue a Decision and Order on this matter.

Enclosed for your reference is a copy of Tariff Rule No. 13 "Line Extensions and Substations." To proceed with planning for the dedicated substation, Hawaiian Electric requests that HART select a site for the substation, confirm any redundancy requirements, and verify the anticipated

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load projections prior to July 8, 2016. We will be scheduling a meeting with you based on your availability to further discuss the foregoing. In the meantime, if you have any questions, please contact Jason Reyes at 549-4933.

Sincerely,

  
Jason Reyes  
Project Manager

Enclosure

cc:

Kathy Yonamine  
Ken Aramaki  
Anthony Hong  
Susan Chow  
Mina Brinkopf  
Rachelle Pruss