June 3, 2022

MS. TAMARA PALTIN

COUNTY COUNCIL COUNTY OF MAUI 200 S. HIGH STREET WAILUKU, MAUI, HAWAII 96793 www.MauiCounty.us

Re: UNDERGROUND UTILITIES AND POWER BY POLE

Dear Councilmember Paltin:

This letter is submitted on behalf of Hawaiian Electric in response to your correspondence dated May 31, 2022 regarding the differences between delivering electricity via underground and overhead utilities. Per your questions:

Please explain the difference between undergrounding utilities and power by pole?

There are various differences between underground and overhead utilities. Underground utilities require a trench or some other ground disturbance to install conduits, associated boxes, and insulated conductors (wires.) Overhead utilities install non-insulated conductors on utility poles above the ground which makes them easier to install and results in less disruption to the surrounding area during installation. When damages occur, because overhead utilities are visible, it is typically easier to detect the issue and make repairs. By contrast, because underground utilities are mostly concealed beneath the ground surface, it may be more difficult to locate and costly to repair damaged portions.

Is there a difference in reliability? If yes, please explain the differences.

Generally speaking, underground facilities typically experience less frequent outages.

Is there a difference in cost? If yes, what is that amount?

Undergrounding utilities typically cost approximately 5 to 10 times more than an equivalent overhead route.

Is the use of underground utilities a necessary decision or is it optional?

Although there are some cases that necessitate underground utilities (such as engineering and operating reasons or other requirements), it is not standard for Hawaiian Electric to install underground utilities because the associated cost increase to customers is not justified by any additional reliability benefits. Customers do have the option to have the utilities installed underground but would pay for the difference between overhead and underground utilities should they choose to do so.

Is the Hoku'ula residential workforce housing project, located at TMK 2-5-003:029, an area that will experience high winds that will cause outages or safety hazard risks? There are others more knowledgeable in meteorology who would be better suited to answering questions regarding weather forecasting and potential weather impacts in specific areas.

Hawaiian Electric would be pleased to answer any questions that you may have in regard to our comments. We appreciate the opportunity to provide input into the Council's proceedings.

Sincerely,

Mathew McNeff

Mathew McNeff

IT Committee

| From: | Martin, Mahina <mahina.martin@hawaiianelectric.com></mahina.martin@hawaiianelectric.com> |
|--------------|--|
| Sent: | Friday, June 3, 2022 5:12 PM |
| То: | Christian K. Balagso |
| Cc: | Tamara A. Paltin; Angela R. Lucero; IT Committee; Laksmi M. Abraham; McNeff, Mathew |
| Subject: | RE: Transmittal about underground utilities |
| Attachments: | Response to Councilmember Paltin_Underground Utilities and Power By Pole_ 6-03-22.pdf |

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Aloha, Christian -

Thank you for your email. Please find attached Hawaiian Electric's response by Mat McNeff, director of HECO's Maui County operations, to correspondence dated May 31, 2022 from Councilmember Paltin containing questions regarding undergrounding of power lines.

Best regards, Mahina

Mahina Martin Director, Government and Community Affairs

Hawaiian Electric

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From: Christian K. Balagso <Christian.Balagso@mauicounty.us>
Sent: Tuesday, May 31, 2022 11:25 AM
To: Martin, Mahina <mahina.martin@hawaiianelectric.com>
Cc: Tamara A. Paltin <Tamara.Paltin@mauicounty.us>; Angela R. Lucero <Angela.Lucero@mauicounty.us>; IT Committee
<IT.Committee@mauicounty.us>
Subject: Transmittal about underground utilities

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Aloha e Mahina,

I hope you're well. On behalf of Councilmember Paltin, I would like to submit the attached document for questions regarding underground utilities.

Please let me know if you have any questions.

Mahalo, Christian K. Balagso, District Office Aide Office of Councilmember Tamara Paltin West Maui Residency Office: (808) 856-0123

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