

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of )  
HAWAII ELECTRIC LIGHT COMPANY, INC.)  
For Approval to Construct an )  
Overhead 69 kV Transmission Line )  
Pursuant to HRS Section 269-27.5 )  
For Item H00000704, Kuakini )  
Highway Improvements Project. )  

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DOCKET NO. 04-0186

DECISION AND ORDER NO. 21647

Filed Feb. 11, 2005  
At 10:30 o'clock A .M.

Karen Higashi.  
Chief Clerk of the Commission

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STATE OF HAWAII

ATTEST: A True Copy  
KAREN HIGASHI  
Chief Clerk, Public Utilities  
Commission, State of Hawaii.  
Karen Higashi.

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of)  
HAWAII ELECTRIC LIGHT COMPANY, INC.)  
For Approval to Construct an Overhead 69 kV Transmission Line Pursuant to HRS Section 269-27.5 For Item H00000704, Kuakini Highway Improvements Project.)

Docket No. 04-0186  
Decision and Order No. **21647**

DECISION AND ORDER

By this Decision and Order, the commission determines that HAWAII ELECTRIC LIGHT COMPANY, INC.'s ("HELCO") proposed 69 kilovolt ("kV") transmission line should be constructed overhead, pursuant to Hawaii Revised Statutes ("HRS") § 269-27.6(a).

I.

Introduction

In this docket, HELCO requests: (1) the commission conduct a public hearing as required by HRS § 269-27.5 for the proposed overhead construction of a 69 kV transmission line through a residential area ("Proposed Project"); and (2) a commission determination that the proposed 69kV transmission line be constructed above the surface of the ground, pursuant to HRS § 269-27.6(a).<sup>1</sup>

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<sup>1</sup>HELCO's application filed on July 28, 2004, ("Application").

HELCO served copies of the Application on the DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS ("Consumer Advocate"), an *ex officio* party to this docket, pursuant to HRS § 269-51. On August 9, 2004, the Consumer Advocate filed a preliminary statement of position raising questions and concerns, and indicating that it will state its final position on this matter upon the completion of its investigation, which includes the issuance of information requests ("IRs"). On September 23, 2004, the Consumer Advocate issued IRs to HELCO. HELCO provided responses to the IRs on October 18, 2004. On November 22, 2004, the Consumer Advocate issued supplemental IRs, to which HELCO provided responses on December 13, 2004.

On October 19, 2004, a public hearing on this matter was held at Kealakehe Intermediate School on the island of Hawaii, pursuant to HRS § 269-27.5.<sup>2</sup>

On January 14, 2005, the Consumer Advocate filed its final statement of position ("Statement of Position") in this matter, in which it stated that it does not object to the commission's approval of the Application.

By letter filed on January 18, 2005, HELCO informed the commission that whereas the Consumer Advocate does not object to the commission's approval of the Application, HELCO and the Consumer Advocate agree that no additional procedural steps are

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<sup>2</sup>HRS § 269-27.5 provides that whenever a new 46 kV or greater high-voltage electric transmission system is built above the ground through any residential area, the commission shall conduct a public hearing prior to its issuance of approval thereof.

necessary, and that the instant proceeding was ready for decision-making.<sup>3</sup>

## II.

### Description of Proposed Project

The Proposed Project involves the proposed overhead and underground reconstruction of: (1) an approximately one-half mile section of HELCO's 9500 69 kV transmission line; (2) the Kailua 11 12 kV distribution line; and (3) related secondary lines in conjunction with the county of Hawaii's ("County") roadway improvement project along Kuakini Highway ("Kuakini Highway Improvement Project").<sup>4,5</sup>

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<sup>3</sup>By Order No. 21495, filed on December 17, 2004, the commission ordered HELCO and the Consumer Advocate to informally meet to formulate the issues, procedures and schedule, and submit either a stipulated prehearing order or proposed prehearing order for the commission's consideration within thirty (30) days from the date of Order No. 21495. At this juncture, however, the commission acknowledges that Order No. 21495 should be deemed moot, as HELCO's January 18, 2005 letter indicates that HELCO and the Consumer Advocate have stipulated that no other procedural steps are necessary in the instant proceeding. The commission, thus, concludes that Order No. 21495 should be vacated.

<sup>4</sup>Our review of the Proposed Project is solely to determine whether the proposed 69kV transmission line should be constructed overhead, pursuant to HRS § 269-27.6(a).

<sup>5</sup>The County's estimated construction start date is early November 2004 with an estimated duration of twenty (20) months. HELCO's construction of the pole foundations will start approximately 2-3 months after receipt of commission approval for the Proposed Project. The underground work is dependent upon the County contractor's schedule; therefore, HELCO expects that this portion of the Proposed Project will likely extend throughout the life of the Kuakini Highway Improvement Project. HELCO's Responses to the Consumer Advocate's IRs, CA-IR-12.

The County will be improving Kuakini Highway, from Palani Road to Hualalai Road, in Kailua, Kona. The Kuakini Highway Improvement Project requires HELCO to reconstruct a segment of 69 kV overhead transmission line, along a similar alignment, on eighteen (18) 80-foot tall steel transmission poles (seventy-nine (79) feet above ground).

The 12 kV overhead line work involves the: (1) installation of two (2) 60-foot tall steel distribution poles (fifty-nine (59) feet above ground); (2) the changeover of approximately five hundred (500) feet of conductors; and (3) the installation of approximately two thousand (2,000) circuit feet of new conductors onto all of the steel poles, including the transmission and distribution poles.

The secondary overhead work involves the installation of: (i) four (4) three-phase pole-mounted transformer banks; (ii) four (4) single-phase pole-mounted transformers; and (iii) approximately two thousand five hundred (2,500) circuit feet of pre-assembled secondary aerial cable, which will be installed on all of the steel poles, including the transmission and distribution poles.

The 12 kV secondary underground work involves the relocation of approximately eleven (11) primary and four (4) secondary risers to accommodate the proposed sidewalk improvements and associated pole relocations, and converting approximately four (4) 12 kV and four (4) secondary overhead highway crossings to underground crossings. The seven (7) existing 12 kV and secondary highway crossings will be replaced with

five (5) highway crossings for the 12 kV lines only. The 12 kV secondary underground work will consist of the installation of approximately two (2) manholes, fourteen (14) handholes and approximately one-thousand and one-hundred (1,100) feet of primary and four hundred and fifty (450) feet of secondary duct line. The County will build and turn over to HELCO the duct lines, manholes and handholes for the underground electrical facilities.<sup>6</sup>

The location of the new steel poles and associated overhead lines will be on the mauka side of Kuakini Highway, within the County's right-of-way. Currently, there is a wood pole line on each side of the highway which holds the 69 kV, 12 kV and secondary lines and telephone and cable television lines. All of the lines are proposed to be combined onto steel poles on the mauka side of Kuakini Highway. From an existing pole located approximately 150 feet west of Palani Road, the overhead lines will run in an easterly direction and reconnect with an existing pole located approximately 150 feet east of Hualalai Road. Once all of the above-described work has been installed and/or changed over and energized, HELCO will remove its existing facilities.

HELCO and the County have executed a Utility Agreement,<sup>7</sup> contingent upon commission approval, which describes the method of cost sharing for the Proposed Project,<sup>8</sup> as set forth in

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<sup>6</sup>Application at 6.

<sup>7</sup>See Exhibit 3 to the Application.

<sup>8</sup>Total estimated capital cost for the Proposed Project is \$1,768,367. Application at 8.

HRS § 264-33.<sup>9</sup> Pursuant to the Utility Agreement, the County and HELCO will share equally in the cost of the Proposed Project, with HELCO and the County each paying a half share.<sup>10</sup> In addition, the County's payments to HELCO include \$240,000 in in-kind contribution-in-aid-of-construction ("CIAC") for proposed duct lines, manholes and handholes, and approximately \$564,962 in cash CIAC.<sup>11</sup>

### III.

#### Consumer Advocate's Statement of Position

The Consumer Advocate does not object to the commission's approval of the Application. In reaching this determination, the Consumer Advocate considered (1) whether the 69 kV transmission line should be constructed above or below the ground, pursuant to

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<sup>9</sup>HRS § 264-33 provides that the cost sharing shall be determined by deducting: (1) the depreciation of a utility facility; (2) the salvage value of the utility facility; (3) any betterment to the utility facility resulting from, in this case, the Proposed Project; and (4) the first \$10,000 from the total project cost. The balance of the cost shall be paid one-half by the utility owner and one-half out of county funds. HRS § 264-33.

<sup>10</sup>Application at 8.

<sup>11</sup>Application at 3.

the criteria set forth in HRS § 269-27.6(a)<sup>12</sup> and (2) whether all parties involved in the Proposed Project will appropriately share in the costs of such line.

A.

Whether the 69 kV Transmission Line Should be Constructed  
Above or Below the Ground

i.

Whether a Benefit Exists that Outweighs the  
Costs of Placing the Electric Transmission  
System Underground

In response to the Consumer Advocate's IR as to whether or not HELCO has ever done a comparison study of overhead versus

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<sup>12</sup>In this regard, whenever a public utility applies to the commission for approval to place, construct, erect or otherwise build a new 46 kV or greater high-voltage electric transmission system, HRS § 269-27.6(a) requires the commission to determine whether the proposed system shall be placed overhead or underground. In making this determination, HRS § 269-27.6(a) requires the commission to consider certain factors:

1. Whether a benefit exists that outweighs the costs of placing the electric system underground;
2. Whether there is a governmental public policy requiring the electric transmission system to be placed, constructed, erected, or built underground, and the governmental agency establishing the policy commits funds for the additional costs of undergrounding;
3. Whether any governmental agency or other parties are willing to pay for the additional costs of undergrounding;
4. The recommendation of the Consumer Advocate; and
5. Any other relevant factors.

underground transmission lines,<sup>13</sup> HELCO states that it has completed comparison studies in its lifecycle study of another transmission line, the Kamoku-Pukele transmission line ("Study").<sup>14</sup> Notwithstanding the differences in the Kamoku Pukele transmission lines and those of the instant project, the Consumer Advocate determined that the results of the Study are applicable to the Proposed Project. The Consumer Advocate notes that of eleven (11) transmission line alternatives evaluated by HELCO in the Study,<sup>15</sup> the three (3) overhead alternatives had the least expensive fifty (50) -year life cycle.<sup>16</sup> The Consumer Advocate presumes that the initial savings resulting from the installation of the overhead line outweighs any potential savings in operational and maintenance costs of an underground line.<sup>17</sup>

The Consumer Advocate also considered the issue of aesthetics and how the overhead lines might affect the view plane. Since other utilities would be placing their lines on the same poles as HELCO, e.g., Verizon Hawaii Inc., unless the other utilities also placed their lines underground, the issue of overhead transmission lines disturbing the view plane would remain. Thus, the Consumer Advocate concluded that the record does not

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<sup>13</sup>CA-IR-1.

<sup>14</sup>HELCO's Response to the Consumer Advocate's IRs, CA-IR-1.

<sup>15</sup>HELCO evaluated three overhead, four underground and four combination overhead/underground transmission lines in the Study.

<sup>16</sup>Consumer Advocate's Statement of Position at 4.

<sup>17</sup>Id.

support a finding that the benefits of placing HELCO's proposed 69 kV transmission line underground outweigh the costs.

ii.

Whether a Governmental Policy Exists Requiring the Electric Transmission Lines be Placed, Constructed, Erected or Built Underground, and the Governmental Agency Establishing the Policy Commits Funds for the Additional Costs of Undergrounding.

The Consumer Advocate is unaware of any governmental policy that would require the underground placement of transmission lines for the Proposed Project. It is also unaware of any governmental agency willing to pay for the underground laying of lines. Although it was the County's decision to place the transmission lines overhead as opposed to below the ground, cost sharing for the Proposed Project will be done pursuant to HRS § 264-33. Additionally, the State Department of Transportation ("DOT") is on the record as being unable to fund the undergrounding of transmission lines for the Proposed Project. In Exhibit 6 to the Application, the DOT explains that because the laying of underground transmission lines is more of an aesthetic issue, as opposed to issues of highway safety and improvement of the transportation system, federal monies for the highway improvement project are unavailable to pay for the cost of undergrounding the electrical transmission lines.<sup>18</sup> Moreover, no other party has shown

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<sup>18</sup>Exhibit 6 to the Application, Letter from former Director of Transportation, Brian K. Minaai to Dennis K. W. Lee, Director, County of Hawaii, Department of Public Works, dated January 3, 2002.

itself willing to pay for the additional costs of undergrounding the transmission lines. The Consumer Advocate, thus, concludes that there is no governmental policy requiring that the transmission lines be placed underground, nor is there any governmental entity or other party willing to pay for the costs of undergrounding the lines.

iii.

Any Other Relevant Factors

The Consumer Advocate considered that a primary objective of the Kuakini Highway Improvement Project is to upgrade a heavily used stretch of Kuakini Highway. In that regard, the Consumer Advocate recognizes that the consolidation of all overhead lines to a single pole combined with the relocation of the road crossings to underground facilities will result in a more aesthetically pleasing configuration of the poles and overhead lines.

B.

Whether Costs for the Proposed Project are Being  
Appropriately Shared by All Parties Involved

The Consumer Advocate was concerned that costs for the Proposed Project were not being appropriately shared by all parties involved. For example, the County's request for taller poles and the installation of stronger steel poles with concrete foundations to accommodate equipment placed by other utilities on these poles

resulted in additional costs for the Proposed Project.<sup>19</sup> In addition, the County's request to relocate five road crossings underground, from overhead, resulted in further additional costs for the Proposed Project.<sup>20</sup>

The Consumer Advocate determined that it would not object to the additional cost for taller poles because it deemed the requirement for the taller poles, i.e., to provide clearance from the trees planted along the highway, to be reasonable. Also, the additional cost for the taller poles is proposed to be cost shared 50/50 between the County and HELCO. Additionally, in its response to the Consumer Advocate, HELCO asserted that it has a joint agreement with the County and Verizon Hawaii Inc. whereby each party is responsible for a share of the costs for each new pole installation in which the respective joint owner has an attachment.<sup>21</sup> HELCO asserts that once the final cost report for the Proposed Project, based upon actual costs incurred, is completed, HELCO will bill the respective joint pole owners the remaining

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<sup>19</sup>HELCO states that the County requested a twenty-five (25) feet ground clearance to ensure that the relocated utility lines are installed above the trees proposed to be planted along Kuakini Highway. HELCO estimates that this height requirement added \$31,802 to the cost for the steel poles. See HELCO's Responses to the Consumer Advocate's IRs, CA-IR-6. Likewise, the stronger steel poles resulted in an additional cost of \$170,417. See HELCO's Responses to the Consumer Advocate's IRs, CA-IR-9.

<sup>20</sup>HELCO states that the County requested that the present line crossings be relocated underground as part of a compromise to gain community acceptance of the Kuakini Highway Improvement Project. HELCO also states that this added \$115,000 to the cost of the Proposed Project. See HELCO's Responses to the Consumer Advocate's Supplemental IRs, CA-SIR-1.

<sup>21</sup>HELCO's Responses to the Consumer Advocate's IRs, CA-IR-9.

unbilled portion of their respective share for each pole to which they attach their facilities.<sup>22</sup> The Consumer Advocate is satisfied that this cost sharing plan will not impose unfair additional burdens either on HELCO or its customers.

The Consumer Advocate also does not object to HELCO's cost sharing with the County as it relates to the underground conversion of the overhead crossings. HELCO notes that the difference in costs between the overhead crossings and underground conversion is \$49,500. HELCO asserts that this is a relatively small difference, and given the fact that the underground alternative offers the benefits of improved aesthetics on Kuakini Highway and helped to secure the support of the businesses in the area and the community, it agreed to the County's request to underground the overhead crossings, pursuant to the cost sharing provision of HRS § 264-33.<sup>23</sup> The Consumer Advocate, however, states that it reserves its right to review the reasonableness of the impact of HELCO's cost sharing arrangement with the County in HELCO's next applicable rate proceeding.<sup>24</sup>

#### IV.

#### Discussion

Upon careful review of the record, the commission finds that the Proposed Project, which includes the construction of a 69 kV transmission line above ground is consistent with

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<sup>22</sup>Id.

<sup>23</sup>HELCO's Responses to the Consumer Advocate's IRs, CA-IR-8.

<sup>24</sup>Consumer Advocate's Statement of Position at 12.

HRS § 269-27.6. Specifically, the commission is not convinced that the benefits of laying HELCO's proposed 69 kV transmission line underground would outweigh the inherent cost factor involved.<sup>25</sup> The commission is also unaware of any government mandate requiring HELCO's transmission system be placed underground. The commission notes, however, that the County has agreed to share in the cost of the Proposed Project with in-kind and cash CIAC, as noted in section II, above. The in-kind CIAC represents one-half of the costs for the underground infrastructure that the County will construct and turn over to HELCO.<sup>26</sup> We also recognize that the Consumer Advocate finds the placement of the 69kV transmission line above ground to be reasonable and, thus, does not object to the commission's approval of HELCO's Application.

Accordingly, in light of the above, the commission concludes that HELCO's request to construct a 69 kV transmission line above ground, as described in detail in the instant Application, should be approved, pursuant to HRS § 269 27.6(a).

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<sup>25</sup>HELCO estimates that it would cost four (4) times more to relocate the secondary lines underground than it would to relocate the lines overhead. Application at 9.

<sup>26</sup>HELCO's Responses to the Consumer Advocate's IRs, CA-IR-7.

V.

Orders

1. Order No. 21495, filed on December 17, 2004, is vacated.

2. HELCO's request to reconstruct the 69 kV transmission line above ground, as described in detail in HELCO's July 28, 2005 Application, is approved, pursuant to HRS § 269-27.6(a).

DONE at Honolulu, Hawaii FEB 11 2005.

PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

By Carlito P. Caliboso  
Carlito P. Caliboso, Chairman

By Wayne H. Kimura  
Wayne H. Kimura, Commissioner

By Janet E. Kawelo  
Janet E. Kawelo, Commissioner

APPROVED AS TO FORM:

Benedyne S. Stone  
Benedyne S. Stone  
Commission Counsel

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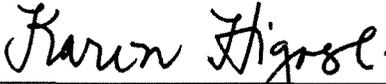
CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 21647 upon the following parties, by causing a copy hereof to be mailed, postage prepaid, and properly addressed to each such party.

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DATED: FEB 11 2005