

25

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

-----In the Matter of-----)
)
PUBLIC UTILITIES COMMISSION)
)
Instituting a Proceeding to)
Investigate Kauai Island Utility)
Cooperative's Proposed Revised)
Integrated Resource Plan and Demand)
Side Management Framework.)
_____)

DOCKET NO. 05-0075

ORDER NO. 21707

Filed March 24, 2005
At 8 o'clock A.M.

Karen Higashi.
Chief Clerk of the Commission

RECEIVED
2005 MAR 28 A 9:01
DIV. OF CONSUMER ADVOCACY
DEPT. OF COMMERCE AND
CONSUMER AFFAIRS
STATE OF HAWAII

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

K. Higashi.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

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Integrated Resource Plan and Demand)	
Side Management Framework.)	
_____)	

ORDER

By this Order, the commission opens a proceeding to investigate the proposed revised integrated resource plan ("IRP") and demand side management ("DSM") framework proposed by Kauai Island Utility Cooperative ("KIUC").

I.

Purpose of Investigation

The purpose of this investigation is to examine KIUC's proposed revised IRP and DSM framework. Pursuant to Decision and Order No. 19658, filed on September 17, 2002, as amended by Decision and Order No. 19755, filed on October 30, 2002, both in Docket No. 02-0060, which approved KIUC's purchase of the electric utility on the island of Kauai from Citizens Communications Company ("Citizens"), KIUC was required to prepare and submit to the commission and the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs ("Consumer Advocate") for their review and consideration, on or

before December 31, 2003, KIUC's proposed revisions to the IRP and DSM programs.¹

On October 17, 2003, KIUC submitted a letter to the commission requesting approval to, among other things, defer the December 31, 2003 proposed revision requirement for a one-year period. KIUC requested the deferral to allow it to undertake a study to determine how the IRP and DSM framework should be revised or replaced in light of its cooperative status and to reflect its current ownership structure.² Pursuant to Order No. 20957, filed on April 30, 2004 in Docket No. 02-0060, the commission approved KIUC's request.

On December 23, 2004, KIUC submitted for review and consideration by the commission and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, ("Consumer Advocate"), KIUC's proposed revisions to its IRP and DSM framework (Attached hereto as Exhibit "A"). Through this docket, the commission intends to examine the issues raised by KIUC's proposed revisions to its IRP and DSM framework. These issues include, but are not limited to:

¹The existing IRP and DSM programs were previously prepared by Citizens pursuant to Decision and Order No. 11523 filed on March 12, 1992, as amended by Decision and Order No. 11630 filed on May 22, 1992, both in Docket No. 6617.

²KIUC noted that the current IRP and DSM framework was developed by the commission with input from its predecessor Citizens, an investor-owned and for-profit corporation, and as such needed to be reworked in order for KIUC to better address the changing alternative energy environment on KAUAI as well as to address the fact that, as a non-profit member-owned utility, the total resource cost test may not be the most appropriate test for KIUC.

1. Examining the effect, impact, and appropriateness of the change of form of the framework, incorporating the principle of sharing authority between the KIUC Board on the one hand and the commission and Consumer Advocate on the other hand.
2. Examining the effect, impact, and appropriateness of replacing the goal of meeting energy needs "in an efficient and reliable manner at lowest reasonable cost" with: "in a manner consistent with KIUC's Mission and Goal Statements and the planning objectives established by the KIUC Board of Directors." See, Exhibit A - Section II, Subsection A (Goal of IRP).
3. Examining the effect, impact, and appropriateness of the new subsections describing the responsibilities of the KIUC Board of Directors and KIUC management. See, Exhibit A - Section II, subsection C (KIUC Board of Director's Responsibility) and subsection D (KIUC Management Responsibility).
4. Examining the effect, impact, and appropriateness of the reduction of the level of detail about how the major steps will be performed. See, Exhibit A - Section III, subsection A (Major Steps).
5. Examining the effect, impact, and appropriateness of the KIUC Board establishing criteria for determining when a new plan should be prepared and management evaluating these criteria annually and make a

recommendation to KIUC's Board whether to develop a new plan in that year. See, Exhibit - Section III, subsection B (The Planning Cycle).

6. Examining the effect, impact, and appropriateness of the reduction of the level of detail concerning the contents of the reports specified in the existing framework. See, Exhibit A - Section III, subsection D (Reports).
7. Examining the effect, impact, and appropriateness of the expanded role of the Advisory Group. See, Exhibit A - Section III, subsection E (Public Participation).
8. Examining the effect, impact, and appropriateness of the deletion of several cost recovery and incentive options that may not be relevant to a cooperative utility. See, Exhibit A - Section III, subsection F (Cost Recovery and Incentives).
9. Examining the effect, impact, and appropriateness of a new subsection requiring that Management develop and submit for the KIUC Board's approval, a Scoping document that will specify the objectives that the plan will seek to achieve, the planning horizon, and the data and analytic methods to be used. See, Exhibit A - Section IV, subsection A (Scoping Document).
10. Examining the effect, impact, and appropriateness of the reduction in the level of detail about how

the forecast will be produced. See, Exhibit A - Section IV, subsection B (Forecast).

11. Examining the effect, impact, and appropriateness of the reduction in the focus on cost and the increase in the KIUC's ability to consider non-cost attributes. See, Exhibit A - Section IV, subsections E (Resource Options), F (Data Collection), I (Analyses), and J (Resource Optimization).

12. Examining the effect, impact, and appropriateness of KIUC's proposed Scoping document.

In light of the nature and scope of this investigation and to assist the commission in the development of a sound record in this proceeding, the commission finds it necessary to make KIUC and the Consumer Advocate parties to this proceeding.³

II.

Investigative Authority

HRS §§ 269-7 and 269-15 and Hawaii Administrative Rules HAR § 6-61-71 authorize the commission to examine and institute proceedings on any matter relating to a utility's practices and services or otherwise affecting the relations and transactions between the utility and the public. Accordingly, pursuant to the

³Pursuant to Hawaii Administrative Rules ("HAR") § 6-61-62, the Consumer Advocate is an *ex officio* party to any proceeding before the commission; see also, Hawaii Revised Statutes ("HRS") § 269-51 ("As consumer advocate, the director of commerce and consumer affairs shall have full rights to participate as a party in interest in all proceedings before the public utilities commission").

above-mentioned authorities, the commission will, on its own motion, institute a proceeding to examine KIUC's proposed revised IRP and DSM framework submitted to the commission on December 23, 2004 in Docket No. 02-0060.

Any individual, entity, or organization desiring to intervene as a party or to participate without intervention in this proceeding shall file a motion to intervene or participate without intervention not later than twenty (20) days of the filing of this order. Motions to intervene or participate without intervention must comply with all applicable rules of HAR Chapter 6-61. Subsequent to determining the parties and participants in this docket, the commission will issue an order establishing, among other things, the schedule of proceedings, issues, hearing date(s), if any, and other procedures needed to govern the instant proceeding.

III.

Orders

THE COMMISSION ORDERS:

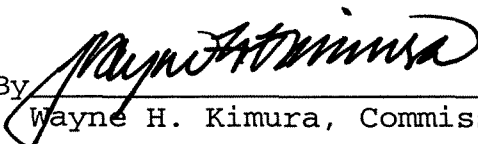
1. A proceeding is instituted to examine KIUC's proposed revised IRP and DSM framework.
2. KIUC and the Consumer Advocate shall be parties to this docket.
3. Within twenty (20) days of the date of this order, interested persons or entities shall file motions to intervene or participate without intervention, pursuant to HAR Chapter 6-61.

DONE at Honolulu, Hawaii

MAR 24 2005

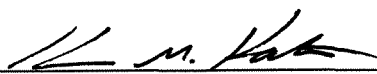
PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By 
Carlito P. Caliboso, Chairman

By 
Wayne H. Kimura, Commissioner

By 
Janet E. Kawelo, Commissioner

APPROVED AS TO FORM:


Kevin M. Katsura
Commission Counsel

KIUC IRP.eh

December 23, 2004

HAND DELIVER

Public Utilities Commission
Kekuanaoa Building
465 South King Street, Room 103
Honolulu, Hawaii 96813
Attention: Kevin Katsura, Esq.

FILED
2004 DEC 23 A 11:00
PUBLIC UTILITIES
COMMISSION

RE: Docket No. 02-0060; Kauai Island Utility Cooperative's Proposed Revised
Integrated Resource Plan and Demand Side Management Framework

Dear Commissioners and Staff:

This letter is in reference to the Commission's Order No. 20957 filed on April 30, 2004 in the above Docket No. 02-0060, which, among other things, approved the October 17, 2003 letter request of Kauai Island Utility Cooperative ("KIUC") to file its proposed revisions to its existing Integrated Resource Management ("IRP") and Demand Side Management ("DSM") framework by no later than December 31, 2004.

Background

1. As background, pursuant to Ordering Paragraph 8(h) (Part VIII, subpart 8(h)) of Decision and Order No. 19658 filed on September 17, 2002, as amended by Decision and Order No. 19755 filed on October 30, 2002, both in Docket No. 02-0060, which approved KIUC's purchase of the electric utility on the island of Kauai from Citizens Communications Company ("Citizens"), KIUC was required to prepare and submit to the Commission and the Division of Consumer Advocacy ("Consumer Advocate") for their review and consideration, on or before December 31, 2003, KIUC's proposed revisions to the IRP and DSM programs. The existing IRP and DSM programs were previously prepared by Citizens pursuant to Decision and Order No. 11523 filed on March 12, 1992, as amended by Decision and Order No. 11630 filed on May 22, 1992, both in Docket No. 6617.

2. On October 17, 2003, KIUC submitted a letter to the Commission requesting approval to, among other things, defer the December 31, 2003 proposed revision requirement for a one-year period. KIUC requested the deferral to allow it to undertake a study to determine how the IRP and DSM framework should be revised or

EXHIBIT A

replaced in light of its cooperative status and to reflect its current ownership structure. KIUC noted that the current IRP and DSM framework was developed by the Commission with input from its predecessor Citizens, an investor-owned and for-profit corporation, and as such needed to be reworked in order for KIUC to better address the changing alternative energy environment on Kauai as well as to address the fact that, as a non-profit member-owned utility, the total resource cost test may not be the most appropriate test for KIUC. Pursuant to Order No. 20957 filed on April 30, 2004 in Docket No. 02-0060, the Commission approved KIUC's request.

3. Since that time, with the assistance and input of its consultant, R.W. Beck, Inc., KIUC has finished conducting its study to determine how the IRP and DSM framework should be revised or replaced in light of its cooperative status and to reflect its current ownership structure.

In connection with the above, pursuant to Ordering Paragraph 8(h) of said Decision and Order No. 19658 as amended by Order No. 20957, KIUC hereby submits, for review and consideration by the Commission and the Consumer Advocate, KIUC's proposed revisions to its IRP and DSM framework. To facilitate this review and consideration process, KIUC hereby submits Exhibit A attached hereto. Exhibit A contains the framework package prepared by R.W. Beck, which includes a discussion of the background of the IRP and DSM framework requirement, the process conducted by KIUC to revise the existing framework, a discussion of the principles followed in revising the framework, a summary of the revisions made to the framework, the requested Commission action and KIUC's planned actions prior to receiving Commission approval. The following appendices are attached to said Exhibit A:

Appendix A: A summary of KIUC's outreach efforts to its members to solicit their comments and input on the proposed revisions to the framework.

Appendix B: KIUC Board Resolution 10-04 approving the revised IRP and DSM framework.

Appendix C: The proposed revised framework entitled "Kaua'i Island Utility Cooperative Integrated Resource Planning Principles."

Appendix D: KIUC management's Preliminary Draft Scoping Document for the 2005 IRP.

Appendix E: A "black-lined" version of the proposed framework showing the revisions made to the existing framework.

Public Utilities Commission

December 23, 2004

Page 3 of 3

Thank you for your assistance and cooperation in this matter. If you should have any questions, please do not hesitate to call myself at (808) 528-4200 or Mr. Joseph McCawley of KIUC at (808) 246-8205.

Very truly yours,

A handwritten signature in black ink, appearing to read "Kent D. Morihara", with a stylized flourish at the end.

Kent D. Morihara

cc: Consumer Advocate
Kauai Island Utility Cooperative
David Proudfoot, Esq.
County of Kauai
Department of Defense

EXHIBIT A

EXHIBIT A

KAUA'I ISLAND UTILITY COOPERATIVE

PROPOSED REVISIONS TO *A FRAMEWORK FOR INTEGRATED RESOURCE PLANNING* FOR COOPERATIVE UTILITIES

FILING TO HAWAII PUBLIC UTILITIES COMMISSION

I. BACKGROUND

In the early 1990s, the Hawaii Public Utilities Commission ("Commission") led a collaborative effort under Docket 6617 to establish the rules and principles that electric utilities in Hawaii would follow in performing Integrated Resource Planning (IRP). This effort concluded with the Commission's Decision and Order No. 11523 on March 9, 1992 that adopted *A Framework for Integrated Resource Planning* ("Framework"; amended May 22, 1992 in Decision and Order 11630).

At the time the Framework was established, all of the electric utilities in Hawaii, including the Kaua'i Electric (KE) division of Citizens Utilities Company (later, Citizens Communications Company), were investor-owned utilities (IOUs). KE prepared integrated resource plans in both 1993 and 1997 in accordance with the Framework.

Kaua'i Island Utility Cooperative (KIUC), a cooperative utility, purchased KE in November 2002. The Commission approved the sale of KE to KIUC by issuing Decision and Order No. 19755 in Docket No. 02-0060. As a condition of approval, the Commission ordered KIUC to "prepare and submit for commission and Consumer Advocate review and consideration its proposed revisions to Integrated Resource Plan and Demand Side Management programs on or before December 31, 2003." On October 17, 2003 KIUC submitted a letter requesting approval to: (1) defer the December 31, 2003 proposed revision requirement for a one-year period; (2) continue its existing DSM programs and their respective resource cost surcharge budgets; and (3) suspend all other IRP and DSM filings required by or related to the existing IRP framework until such time a revised framework can be prepared and approved by the commission. On April 30, 2004 the Commission approved this request through Decision and Order No. 20957.

II. FRAMEWORK REVISION PROCESS

KIUC conducted the following process to revise the Framework:

1. Contracted with R. W. Beck, a nationally recognized electric utility consulting firm with extensive experience performing IRP for both cooperative and other utilities, to assist KIUC in revising the Framework.
2. R. W. Beck conducted a comprehensive review of practices in the other 49 states regarding regulatory oversight of cooperative utility IRP.
3. R. W. Beck staff spent the week of August 2, 2004, on Kaua'i and Oahu. During the week, these staff met with KIUC management and staff; members of the IRP Advisory Group that

KE formed in support of the 1997 IRP, including representatives of the County of Kaua'i; KIUC outside counsel; Commission members and staff; and management and staff of the Consumer Advocacy Division of the Department of Commerce and Consumer Affairs. The purpose of these meetings was a) for R. W. Beck to develop an understanding of the Framework, b) for R. W. Beck to explain regulation of cooperative IRP in other states, and c) to identify potential "principles" that could be incorporated into a revised Framework.

4. Following these meetings, R. W. Beck prepared a "white paper" suggesting alternative sets of principles under which cooperatives could perform IRP in Hawaii in the future. This white paper was distributed to KIUC management and staff; members of the 1997 IRP Advisory Group; and the KIUC Board of Directors ("Board").
5. R. W. Beck staff spent part of the week of September 20, 2004 on Kaua'i. During the week, these staff met with KIUC management and staff; members of the 1997 IRP Advisory Group; and the Board. The purpose of these meetings was a) to discuss the white paper and b) identify and discuss potential changes to the Framework.
6. Following these meetings, R. W. Beck prepared drafts of two documents: a) *Integrated Resource Planning Principles* ("Principles document") and b) *Scoping Document for 2005 Integrated Resource Plan* ("Scoping" document). These documents were distributed to KIUC management and staff; members of the 1997 Advisory Group; and the Board.
7. R. W. Beck staff spent part of the week of October 18, 2004 on Kaua'i. During the week, these staff met with KIUC management and staff; members of the 1997 IRP Advisory Group; and the Strategic Planning Committee of the KIUC Board of Directors. The purpose of these meetings was to discuss and revise the Principles and Scoping documents. The Strategic Planning Committee approved the two documents and forwarded them, in the form of a Board Resolution, to the full Board for consideration.
8. On October 27, 2004, R. W. Beck made a teleconference presentation to the Board concerning Resolution 10-04. The Board scheduled formal consideration of the Resolution for the November 22, 2004 meeting, and directed KIUC management to publicize the nature and importance of the Resolution. KIUC posted copies of the Resolution at local libraries and on its own Web site; and sponsored newspaper and radio advertisements a) announcing the availability of the documents at these locations; and b) inviting consumers to submit written comments about the Resolution or oral comments at the November 22, 2004 meeting, and giving them instructions to do so¹. The consumer outreach efforts are summarized in Appendix A.
9. At its November 22, 2004 regular meeting, the Board adopted Resolution 10-04. The Resolution approves and adopts both the Principles and the Scoping² documents, which are attached to the Resolution as Exhibits A and B, respectively.

¹ Two persons requested hard copies of the Resolution and two persons called thinking comments were solicited for the IRP and not the IRP Framework. One person submitted a letter expressing concern about increasing fuel cost and oil dependency. Interest in providing testimony was informally expressed by two individuals prior to the November 22, 2004 regular meeting; however, no direct oral or written testimony was provided on any subject related to the Framework at the November 22, 2004 meeting.)

² The Scoping document that was approved and adopted is a *Management Preliminary Draft*, not a *Final Draft*. The Board approved and adopted the *list of issues* addressed (i.e., the outline) in the Management Preliminary Draft of the Scoping document, not the *resolution of these issues* (i.e., the substantive content) presented in the Management

III. FRAMEWORK REVISION PRINCIPLES

The Framework clearly reflects the fact that, at the time it was adopted, all of the utilities subject to it were IOUs. The resulting “IOU perspective” permeates the Framework. The goal of the Framework revision process was to replace, to the extent possible, this IOU perspective with a “cooperative perspective.” This goal led to three principles that were followed in revising the Framework:

1. **Sharing of IRP Oversight Authority** – The assignment of responsibilities in section II is a critical Framework element that reflects the IOU perspective:
 - a. **Utility** – “Each utility is responsible for developing a plan or plans for meeting the energy needs of its customers.”
 - b. **Commission** – “The Commission’s responsibility, in general, is to determine whether the utility’s plan represents a reasonable course for meeting the energy needs of the utility’s customers and is *in the public interest* and consistent with the goals and objectives of integrated resource planning,” and “the commission may approve, reject, approve in part and reject in part, or require modifications of the utility’s integrated resource plan” (*italics added for emphasis*).
 - c. **Consumer Advocate** – “The Consumer Advocate, therefore, has the duty to ensure that the utility’s integrated resource plan *promotes the interests of utility customers*” and “the Consumer Advocate shall be a party to each utility’s integrated resource planning docket and a member of any and all advisory groups” (*italics added for emphasis*).

The Framework is similar to documents adopted by the commissions of many other states to guide IRP activities of the IOUs they regulate. Generally, regulatory commissions view IOU IRP as one of several activities in which the IOU could, in the absence of commission rules and oversight, bias the IRP process to the benefit of the IOU’s shareholders and to the detriment of its consumers. Detailed rules and rigorous commission oversight are generally thought to be required to protect the utility’s consumers from this potential tendency toward bias, i.e., to ensure that IRP activities are performed for the benefit of consumers and the general public, not the merely the benefit of shareholders.

However, R. W. Beck’s review of IRP regulatory practices in the other 49 states indicated that the commission in only one state, Kentucky, regulates the IRP activities of cooperative utilities. Generally, regulatory commissions view cooperative electric utilities as being free from the bias described above, since the utility’s “shareholders” and its consumers are one and the same. As a result, commission rules and oversight are generally not required to protect consumers, because there is nobody to protect them from. Moreover, the cooperative utility’s Board of Directors, which is elected by the members (i.e., consumers), is typically deemed to represent (and therefore protect) the interests of the utility’s consumers at least as well, if not better, than either a statewide regulatory commission or consumer advocate.

KIUC recognizes that continued oversight of its IRP activities by the Commission and the Consumer Advocate is appropriate, in order to ensure that the new cooperative’s IRP activities do promote the public interest and the interest of consumers in the way the previous

paragraph indicates they should. However, KIUC also believes that it is appropriate for the KIUC Board of Directors to share oversight responsibilities with the Commission and the Consumer Advocate, to reflect the fact that the utility is now a cooperative that should be free of the bias toward benefiting shareholders to the detriment of consumers. Where appropriate, the Framework revisions have been guided by the principle of sharing oversight authority.

2. **Reduction of IRP Costs** – The IOU perspective is also reflected in the detailed rules prescribed in the Framework, for example, the reporting (section III.D) and analytic requirements (section IV), and the three-year planning cycle (section III.B). An example of such a rule is the requirement that load forecasts representing multiple scenarios be developed. Again, these rules are similar to those adopted by commissions in other states to guide the IRP activities of the IOUs they regulate. Commissions generally view such detailed rules as necessary to prevent the kinds of IRP-related bias described in point 1. Commissions generally have also recognized that such rules impose a cost on the utilities and therefore the utilities' customers, but generally have determined that the benefits of the detailed rules outweigh the costs.

In the case of KIUC and many other cooperatives, the costs of such detailed rules clearly outweigh the benefits, for several reasons:

- a. The benefits of such detailed rules are substantially less than for an IOU, because the tendency toward biasing IRP activities to the benefit of shareholders and the detriment of consumers, which such rules are intended to prevent (or at least reduce), is not present in a cooperative.
- b. The cost of complying with the detailed rules does not change much as the size of the utility changes. Therefore, for a small utility such as KIUC and most other cooperatives, the per-consumer (or per megawatt/megawatt-hour of load) costs of following the detailed rules are very high.
- c. With regard to the three-year planning cycle, as a result of its size and rate of growth, during most three-year periods KIUC's situation (i.e., loads, condition and cost of existing resources) will not change enough to cause a change in the optimal resource mix for the cooperative. Requiring a new integrated resource plan to be prepared on a fixed schedule (currently every three years) therefore is likely to result in unnecessary IRP-related costs, which must be borne, with no offsetting benefit, by the cooperative's consumers.

As a result, where appropriate, the Framework revisions have been guided by the principle of reducing the cost of IRP activities.

3. **Increased Flexibility of IRP Goals, Objectives, and Activities** – Finally, the IOU perspective is reflected in the focus of the Framework on cost minimization. This focus is expressed most clearly in section II.A, which states that "the goal of integrated resource planning is the identification of the resources or the mix of resources for meeting near and long term consumer energy needs in an efficient and reliable manner *at the lowest reasonable cost*," (italics added for emphasis) but it also appears throughout section IV.

Again, this focus is consistent with the rules and principles adopted by commissions in other states to guide the IRP activities of the IOUs they regulate. Commissions generally have taken the view that:

- a. Focusing IRP activities on cost minimization helps prevent IOUs from biasing IRP activities to the benefit of shareholders and the detriment of consumers
- b. Because of the dichotomy of interests of the two primary groups of stakeholders (i.e., shareholders and consumers), it is inappropriate for IOUs to fund programs that i) are not cost-effective from the perspective of the standard IRP cost-benefit tests, even if ii) they increase consumer well-being (and are therefore popular with consumers); as a result, it is inappropriate to use IRP to identify such programs, or to pursue criteria other than cost minimization in IRP.

Neither of these views applies to cooperative IRP activities. As a result, it is not unusual for a cooperative utility to incorporate environmental criteria beyond current law and regulation into its IRP activities, or to identify programs in their IRP activities that are not cost-effective but do increase consumer well-being. Where appropriate, the Framework revisions have been guided by the principle of allowing flexibility to consider criteria other than just cost minimization.

IV. SUMMARY OF FRAMEWORK REVISIONS

The revised Framework is provided as Appendix B. The major Framework revisions are as follows:

1. **Form** – The form of the Framework has been changed significantly. Consistent with the principle of sharing authority between the KIUC Board on the one hand and the Commission and Consumer Advocate on the other, the revised “Framework” consists of KIUC Board Resolution 10-04, which was adopted by the Board on November 22, 2004. The Resolution approves and adopts two documents, the Principles document and the Scoping document.
2. **Principles Document** – The Principles document is a revised version of the May 22, 1992 draft of the Framework document. A redline comparison of the May 22, 1992 version of the Framework and the Principles document is provided in Appendix C. The major differences between the new Principles document and the existing Framework document are as follows:
 - a. **Section I (Definitions)** – Terms no longer used in the text were dropped, and new terms were added.
 - b. **Section II (Introduction)** – This section contains two important changes:
 - i. Subsection A (Goal of IRP) – The goal of meeting energy needs “in an efficient and reliable manner at lowest reasonable cost” has been replaced by meeting energy needs “in a manner consistent with KIUC’s Mission and Goal Statements and the planning objectives established by the KIUC Board of Directors.”
 - ii. Subsections C (KIUC Board of Directors’ Responsibility) and D (KIUC Management Responsibility) – The prior section C (Utility’s Responsibility) has been deleted, and replaced with two new subsections: Subsection C, which describes the responsibilities of the KIUC Board of Directors, and Subsection D, which describes the responsibilities of KIUC Management. Generally, the Board is responsible for

establishing guidelines to be followed by Management, approving or rejecting recommendations and reports that Management submits to it, and ensuring that these reports are submitted to the Commission; Management, in turn, is responsible for preparing recommendations and various reports and submitting them to the Board.

- b. **Section III (The Planning Context)** – This section contains several important changes:
 - i. Subsection A (Major Steps) – The same steps are specified as in the existing Framework. However, the level of detail about how these steps will be performed has been reduced.
 - ii. Subsection B (The Planning Cycle) – Instead of preparing a new integrated resource plan every three years, the KIUC Board will establish criteria for determining when a new plan should be prepared. Management will evaluate these criteria annually and make a recommendation to the Board whether to develop a new plan in that year.
 - iii. Subsection D (Reports) – The same reports are specified as in the existing Framework. However, the level of detail concerning the contents of these reports has been reduced.
 - iv. Subsection E (Public Participation) – The role of the Advisory Group has been expanded considerably.
 - v. Subsection F (Cost Recovery and Incentives) – Several cost recovery/incentive options that are not relevant to a cooperative utility have been removed.
 - c. **Section IV (Planning Considerations)** – This section also contains several important changes:
 - i. Subsection A (Scoping Document) – A new Subsection A has been added. At the beginning of every planning cycle, Management will develop and submit to the Boards for approval (and at the same time to the Advisory Panel) a Scoping document that will specify the objectives that the plan will seek to achieve, the planning horizon, and the data and analytic methods to be used.
 - ii. Subsection B (Forecast) – The level of detail about how the forecast will be produced has been reduced. This detail will be provided as part of the Scoping Document.
 - iii. Subsections E (Resource Options), F (Data Collection), I (Analyses), and J (Resource Optimization) – The focus on cost has been reduced, and the ability to consider non-cost attributes increased.
 - d. **Section V (Pilot Demand-Side Management Programs)** – There are no significant changes to this section.
2. **Scoping Document** – The Scoping document that was adopted and approved by the Board on November 22, 2004 is a Management Preliminary Draft. Details presented in the draft are subject to revision prior to commencement of the 2005 planning cycle, though the general outline is not. This draft of the Scoping document is included as part of the filing to provide an example to the Commission of the contents and level of detail that a typical Scoping Document would include. The draft Scoping Document contains the following sections:
- a. **Section I (Introduction)**

- b. **Section II (Objectives to Pursue in 2005 IRP)**
- c. **Section III (Special Issues)**
- d. **Section IV (Planning Horizon for 2005 IRP)**
- e. **Section V (Data and Analytic Methods to be Used in 2005 IRP)**

V. REQUESTED ACTION

KIUC requests the Commission to approve the proposed revised Framework provided in Appendix B. Upon receipt of a Decision and Order to this effect, KIUC will immediately commence its 2005 planning cycle, and will complete its 2005 integrated resource plan within 12 months of receiving the D&O.

Prior to receiving a D&O, KIUC will perform the following activities in support of the 2005 IRP:

1. Constitute the Advisory Panel for the 2005 IRP.
2. Revise the Scoping document, and submit it to the Board for approval.
3. Execute an agreement with a consultant to assist in performing the 2005 IRP activities.
4. Review the 2004 baseline load forecasts.
5. Determine ways to incorporate the results of the Renewable Energy Study into the 2005 IRP.
6. Determine ways to incorporate the results of the Energy Efficiency Assessment in the 2005 IRP.

APPENDICES

- A. SUMMARY OF PUBLIC INVOLVEMENT IN KAUA'I ISLAND UTILITY'S PROPOSED IRP FRAMEWORK REVISIONS
- B. RESOLUTION 10-04 OF THE BOARD OF DIRECTORS OF KAUA'I ISLAND UTILITY COOPERATIVE
- C. KAUA'I ISLAND UTILITY COOPERATIVE INTEGRATED RESOURCE PLANNING PRINCIPLES (PROPOSED IRP FRAMEWORK REVISIONS)
- D. KAUA'I ISLAND UTILITY COOPERATIVE SCOPING DOCUMENT FOR 2005 INTEGRATED RESOURCE PLAN - MANAGEMENT'S PRELIMINARY DRAFT
- E. REDLINE COMPARISON OF *A FRAMEWORK FOR INTEGRATED RESOURCE PLANNING* (DATED MAY 22, 1992) AND *KAUA'I ISLAND UTILITY COOPERATIVE INTEGRATED RESOURCE PLANNING PRINCIPLES* (DATED OCTOBER 27, 2004)

APPENDIX A

Summary of Public Involvement in KIUC's Proposed IRP Framework Revisions

Summary of Public Involvement in KIUC's Proposed IRP Framework Revisions

August 3, 2004 – IRP Advisory Group meeting

Attendees representing public interest:

Douglas Haigh	County Building Division
Glenn Sato	County Economic Development
Connie Clausen	Environmental/general public
Alan Kennett	Sugar industry
Ken Ropp	Low income residents
Tad Miura, Jr.	Small business
Susan Stayton	KIUC Board of Directors

Purpose:

The purpose of this meeting was:

- To provide the IRP advisory group with information about the proposed process to revise the May 1992 IRP Framework.
- To solicit comments from the group regarding the group's role in the new IRP process.

August 4, 2004 – Meet with Public Utilities Commission and CA

August 5, 2004 – Teleconference with DBEDT's Steve Albers

September 20, 2004 – IRP Advisory Group meeting

Attendees representing public interest:

Douglas Haigh	County Building Division
Glenn Sato	County Economic Development
Connie Clausen	Environmental/general public
LaFrance Kapaka-Arboleda	Hawaiian Culture
Tom Kloss	General Public
Ken Ropp	Low income residents
Tad Miura, Jr.	Small business
Calvin Sakai	Large commercial business
JoAnn Yukimura	County Council member

Purpose:

The purpose of this meeting was to share the “white paper” presentation that had been prepared to provide the scope and details of the proposed changes to the May 1992 IRP Framework. The meeting was held prior to the white paper presentation to KIUC’s Board of Directors so that comments from the group could be included in the presentation.

October 18, 2004 – IRP Advisory Group meeting

Attendees representing public interest:

Douglas Haigh	County Building Division
Glenn Sato	County Economic Development
Connie Clausen	Environmental/general public
LaFrance Kapaka-Arboleda	Hawaiian Culture
Tom Kloss	General Public
Ken Ropp	Low income residents
Tad Miura, Jr.	Small business
Calvin Sakai	Large commercial business

Purpose:

The purpose of this meeting was to share the draft KIUC Planning Principles (IRP Framework) document and Scoping Document. Two members of the KIUC Board’s Strategic Planning Committee attended the meeting to hear, first hand, the group’s comments. These comments were considered in a KIUC staff and Board’s Strategic Planning Committee work session that followed the day after the advisory group meeting.

October 27, 2004 – KIUC Board of Directors monthly meeting

The KIUC Board of Directors voted to make the IRP Planning Principles document, Scoping Document, and Resolution 10-04 available to the general public for review and comment. In compliance with the directive, KIUC staff developed a plan to circulate the documents via Kaua’i’s six public libraries, local radio and the www.kiuc.coop website.

From November 5, 2004 to November 22, 2004 – Framework documents made available for public viewing

State Library System (Kaua’i)

KIUC mailed copies of the Framework documents to the following libraries:

- Waimea
- Hanapepe
- Koloa

- Lihue
- Kapaa
- Princeville

Calls were made to each library to verify document availability. All locations were verified with the exception of Princeville, which did not return KIUC's phone calls.

KIUC Website

In addition to the public libraries, copies of the documents were available in .pdf format on the www.kiuc.coop website as:

- Board Resolution 10-04
- Exhibit A – KIUC Integrated Resource Planning Principles
- Exhibit B – KIUC Scoping Document for 2005 Integrated Resource Plan

The following message was posted adjacent to the document links:

Kaua'i Island Utility Cooperative is seeking member/public comment on its Integrated Resource Plan (IRP) Principles Document. The document provides the guidelines by which future integrated resource plans will be developed.

Integrated resource planning is a process electric utilities use for identifying and planning for future energy requirements. The goal is to identify the short and long term member energy needs and the resources or the mix of resources necessary to meet those needs in an efficient, reliable, cost effective manner. In Hawaii, the state Public Utilities Commission (PUC) has issued an order which sets forth the guidelines that electric and gas utilities must use when developing their integrated resource plans.

KQNG Radio announcement

The following radio spot was run from November 8, 2004 to November 22, 2004:

Kaua'i Island Utility Cooperative is seeking public comment on its Integrated Resource Plan Principles Document.

The document is available online at www.kiuc.coop, at the Lihue office and in public libraries on Kauai. Written comment will be accepted through November 21, 2004. The public may also provide oral testimony at the monthly meeting of the board at 8 A.M. on November 22, 2004 in KIUC's main conference room, 4463 Pahe'e Street, Lihue.

Questions? Call The Co-op at 246-4378

November 11, 2004 – Press release

On November 11, 2004 the following public advisory was released:

KIUC Seeks Public Comment

Lihue, Kauai, HI - 11/04/04 - Kaua'i Island Utility Cooperative is seeking member/public comment on its Integrated Resource Plan (IRP) Principles Document. The document provides the guidelines by which future integrated resource plans will be developed. Integrated resource planning is a process electric utilities use for identifying and planning for future energy requirements. The goal is to identify the short and long term member energy needs and the resources or the mix of resources necessary to meet those needs in an efficient, reliable, cost effective manner. In Hawaii, the state Public Utilities Commission (PUC) has issued an order which sets forth the guidelines that electric and gas utilities must use when developing their integrated resource plans.

The document is available online at www.kiuc.coop, at the Lihue office and will be in public libraries beginning Monday, November 8, 2004. Written comment will be accepted through November 21, 2004. The public may also provide oral testimony at the monthly meeting of the board at 8 A.M. on November 22, 2004 in KIUC's main conference room, 4463 Pahe'e Street, Lihue.

If you have questions regarding the availability of the document, please contact Anne Barnes in communications at 246-4383.

November 22, 2004 – KIUC Board of Directors monthly meeting

During the November 22nd Board meeting, time was allowed for those who wanted to give oral public testimony. None was given. KIUC staff informed the Board that they had received four calls. Two calls were received from persons requesting hard copies of the documents. Two other calls were received by persons that thought comments were being solicited for the IRP, not the Framework. A letter (the only written response) arrived via email shortly after the start of the November 22nd board meeting. Its author encouraged KIUC to:

When making your decision about the mix of resources acting in an "environmentally manner" please consider the following points:

- 1. People of Kauai are very much aware of environmental issues and wish to do what they can to protect the environment.*
- 2. Scientists agree global warming is a reality, a "human influence" in global warming was first detected in 1995 and there is an acceleration of global warming and the results are increased periods of drought, floods, and violent storms across the planet. The increase in rate of change is primarily from the burning of fossil fuels.*

3. *Any objections to renewable sources of energy should be weighed against their benefits. Example: Concerns about the aesthetics of wind turbines should not automatically override their appropriateness and effectiveness in decreasing our dependence on fossil fuels.*
4. *Increasing KIUC's active participation in the mass purchase or subsidy program of solar water heating devices and/or photovoltaics (a la SMUD's program using photovoltaics) would also decrease our dependence on fossil fuels.*

The four points were followed by two citations regarding global warming and a closing comment by the letter's author: "There is a great deal of evidence that suggests we should use renewable sources of energy when ever possible." (Out of respect for the author, KIUC will not disclose the author's name)

KIUC staff carefully considered this response before deciding that the subject should be addressed in the 2005 IRP as opposed the IRP Framework.

The Board passed the resolution and directed KIUC staff to proceed with filing the proposed revisions with the Hawaii Public Utilities Commission.

APPENDIX B

**RESOLUTION 10-04 OF THE
BOARD OF DIRECTORS OF
KAUA'I ISLAND UTILITY COOPERATIVE ("KIUC")**

**RESOLUTION 10-04 OF THE
BOARD OF DIRECTORS OF
KAUA'I ISLAND UTILITY COOPERATIVE ("KIUC")**

WHEREAS, Pursuant to Hawaii Public Utilities Commission ("HPUC") Decision and Order No.11523 in Docket No. 6617, KIUC's predecessor, the Kauai Electric Division of Citizens Communications Company ("KE") was required to participate in Integrated Resource Planning pursuant to the Framework for Integrated Resource Planning adopted by the HPUC in 1992; and

WHEREAS, since the closing of the purchase of KE by KIUC it has become apparent that said Framework for Integrated Resource Planning, which was designed for use by investor owned utilities, is in need of revision for use by a cooperative organization such as KIUC; and

WHEREAS, pursuant to Decision and Order No. 20957 in Docket No. 02-0060, the HPUC directed KIUC to develop an alternative to said Framework for Integrated Resource Planning designed for use by KIUC as a cooperative;

WHEREAS, KIUC has engaged R.W. Beck, Inc. ("Beck"), to work with KIUC's Staff to develop an alternative to said Framework for Integrated Resource Planning for cooperatives ; and

WHEREAS, Beck has presented a draft Integrated Resource Planning Principles document to KIUC's Board of Directors (the "Board") for review and approval, together with a draft Scoping Document for KIUC's 2005 Integrated Resource Plan required by the new Integrated Resource Planning Principles; and

WHEREAS, the Board desires to approve for submittal to the HPUC said Integrated Resource Planning Principles document and Scoping Document for KIUC's 2005 Integrated Resource Plan.

NOW, THEREFORE, be it hereby resolved by the Board of Directors of KIUC as follows:

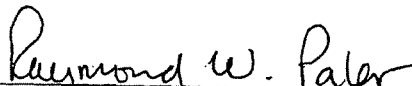
1. The Board hereby approves and adopts as the Integrated Resource Planning Principles of KIUC the document entitled "Kauai Island Utility Cooperative Integrated Resource Planning Principles" attached hereto as Exhibit "A"; and

2. The Board hereby approves and adopts as the Scoping Document for KIUC's 2005 Integrated Resource Plan the document entitled "Kaua'i Island Utility Cooperative Scoping Document for 2005 Integrated Resource Plan" attached hereto as Exhibit "B",

SECRETARY'S CERTIFICATE

The undersigned Secretary of KIUC hereby certifies that the foregoing Resolution of the Board of Directors of KIUC was duly adopted at the Meeting of the Board of Directors held on November 22, 2004, at Lihu'e, Kaua'i, Hawai'i.

Dated this 13th day of December, 2004, at Lihu'e, Kaua'i, Hawai'i.



Raymond W. Paler
Secretary

APPENDIX B

**RESOLUTION 10-04 OF THE
BOARD OF DIRECTORS OF
KAUA'I ISLAND UTILITY COOPERATIVE ("KIUC")**

**RESOLUTION 10-04 OF THE
BOARD OF DIRECTORS OF
KAUA'I ISLAND UTILITY COOPERATIVE ("KIUC")**

WHEREAS, Pursuant to Hawaii Public Utilities Commission ("HPUC") Decision and Order No. 11523 on Docket No. 6617, KIUC's predecessor, the Kauai Electric Division of Citizens Communications Company ("KE") was required to participate in Integrated Resource Planning pursuant to the Framework for Integrated Resource Planning adopted by the HPUC in 1992; and

WHEREAS, since the closing of the purchase of KE by KIUC it has become apparent that said Framework for Integrated Resource Planning, which was designed for use by investor owned utilities, is in need of revision for use by a cooperative organization such as KIUC; and

WHEREAS, pursuant to Decision and Order 20957 on Docket No. 02-0060 the HPUC directed KIUC to develop an alternative to said Framework for Integrated Resource Planning designed for use by KIUC as a cooperative;

WHEREAS, the KIUC has engaged R.W. Beck, Inc. ("Beck"), to work with KIUC's Staff to develop an alternative to said Framework for Integrated Resource Planning ; and

WHEREAS, Beck has presented a draft Integrated Resource Planning Principles document to KIUC's Board of Directors (the "Board") for review and approval, together with a draft Scoping Document for KIUC's 2005 Integrated Resource Plan required by the new Integrated Resource Planning Principles; and

WHEREAS, the Board desires to approve for submittal to the HPUC said Integrated Resource Planning Principles document and Scoping Document for KIUC's 2005 Integrated Resource Plan.

NOW, THEREFORE, be it hereby resolved by the Board of Directors of KIUC as follows:

1. The Board hereby approves and adopts as the Integrated Resource Planning Principles of KIUC the document entitled "Kauai Island Utility Cooperative Integrated Resource Planning Principles" attached hereto as Exhibit "A"; and

2. The Board hereby approves and adopts as the Scoping Document for KIUC's 2005 Integrated Resource Plan the document entitled "Kaua'i Island Utility Cooperative Scoping Document for 2005 Integrated Resource Plan" attached hereto as Exhibit "B",

SECRETARY'S CERTIFICATE

The undersigned Secretary of KIUC hereby certifies that the foregoing Resolution of the Board of Directors of KIUC was duly adopted at the Meeting of the Board of Directors held on November 22, 2004, at Lihu'e, Kaua'i, Hawai'i.

Dated this _____ day of, 200__, at Lihu'e, Kaua'i, Hawai'i.

Raymond W. Paler
Secretary

EXHIBIT A

KAUA'I ISLAND UTILITY COOPERATIVE
INTEGRATED RESOURCE PLANNING PRINCIPLES

OCTOBER 27, 2004

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I. Definitions

Unless otherwise clear from the context, as used in this framework:

“Capital investment costs” means costs associated with capital improvements, including planning, the acquisition and development of land, the design and construction of new facilities, the making of renovations or additions to existing facilities, the construction of built-in equipment, and consultant and staff services in planning, design, and construction. Capital investment costs for a program are the sum of the program’s capital improvement project costs.

“Commission” means the Hawaii Public Utilities Commission.

“Consumer Advocate” means the Division of Consumer Advocacy of the Hawaii Department of Commerce and Consumer Affairs.

“Costs” means the full and life cycle costs of a resource option.

“Cost categories” means the major types of costs and includes research and development costs, investment costs, and operating and maintenance costs.

“Demand-side management programs” means programs designed to influence utility customer uses of energy to produce desired changes in demand. It includes conservation, load management, and efficiency resource programs.

“Effectiveness measure” means the criterion for measuring the degree to which the objective sought is attained.

“Investment costs” means the one-time costs beyond the development phase to introduce a new system, program, or capability into use. It includes capital investment costs, initial equipment acquisition costs, and initial education and training costs.

“KIUC” is Kaua’i Island Utility Cooperative.

“Life cycle costs” means the total cost impact over the life of the program. Life cycle costs include research and development cost, investment cost (the one-time cost of instituting the program), and operating and maintenance (O&M) cost.

“Objective” means a statement of the end result, product, or condition desired, for the accomplishment of which a course of action is taken.

“Operating and maintenance costs” or “O&M costs” means recurring costs of operating, supporting, and maintaining authorized programs, including costs for labor, fuel, materials and supplies, and other current expenses.

“Program” means a combination of resources and activities designed to achieve an objective or objectives.

“Research and development costs” means costs associated with the development of a new system, program, or capability to the point where it is ready for introduction into operational use. It includes the costs of prototypes and the testing of the prototypes. It includes the costs of research, planning, and testing and evaluation.

“Supply-side programs” means programs designed to supply power. It includes renewable energy and distributed generation.

II. Introduction

A. Goal of Integrated Resource Planning

The goal of integrated resource planning is the identification of the resources or the mix of resources for meeting near and long-term consumer energy needs in a manner that is consistent with KIUC’s Mission and Goals Statements and the integrated resource planning objectives established by the KIUC Board of Directors.

B. Governing Principles (Statements of Policy)

1. The development of integrated resource plans is the responsibility of KIUC.
2. Integrated resource plans shall comport with state and county environmental, health, and safety laws and formally adopted state and county plans.
3. Integrated resource plans shall be developed upon consideration and analyses of the costs, effectiveness, and benefits of all appropriate supply-side and demand-side options.
4. Integrated resource plans shall give consideration to the plans’ impacts upon KIUC’s consumers, the environment, culture, community lifestyles, the state’s economy, and society.
5. Integrated resource plans shall take into consideration KIUC’s financial integrity, size, and physical capability.
6. KIUC is entitled to recover all appropriate and reasonable integrated resource planning and implementation costs.

C. KIUC Board of Directors' Responsibility

1. In general, the KIUC Board of Directors has the responsibility to represent, protect, and advance the interest of KIUC's consumers. The KIUC Board of Directors therefore is responsible for ensuring that the integrated resource plan prepared by KIUC Management represents a course for meeting the energy needs of KIUC's consumers that is in the best interest of the KIUC consumers.
2. The KIUC Board of Directors is responsible for establishing the Mission and Goals Statements that guide development of the integrated resource plan and the factors KIUC Management should consider in developing its annual recommendation whether or not to develop a new integrated resource plan in that year.
3. The KIUC Board of Directors is responsible for reviewing KIUC Management's annual recommendation whether or not to develop a new integrated resource plan in that year, and either approve or reject that recommendation.
4. The KIUC Board of Directors is responsible for reviewing KIUC Management's recommended objectives for the integrated resource plan, integrated resource plans prepared by KIUC Management, and the associated program implementation schedule, and either approve or reject, in whole or in part, these objectives, plans and schedules.
5. The KIUC Board of Directors is responsible for ensuring that KIUC's integrated resource plan and program implementation schedule is submitted to the Commission for Commission approval, as specified in this document.
6. The KIUC Board of Directors is responsible for ensuring that the Commission approved integrated resource plan is executed in accordance with the program implementation schedule.
7. The KIUC Board of Directors is responsible for ensuring that annual evaluations prepared by KIUC Management are submitted to the Commission.

D. KIUC Management's Responsibility

1. KIUC Management is responsible for annually preparing and submitting a recommendation to the KIUC Board of Directors whether or not to develop a new integrated resource plan in that

year. The recommendation will reflect the factors specified by the KIUC Board of Directors.

2. KIUC Management is responsible for preparing and submitting to the KIUC Board of Directors recommended integrated resource planning objectives, an integrated resource plan for meeting the energy needs of KIUC's consumers, in a manner consistent with KIUC's Mission and Goals Statements and the Board of Directors-approved integrated resource planning objectives; and an associated program implementation schedule.
3. KIUC Management is responsible for executing the integrated resource plan approved by the KIUC Board of Directors and the Commission in accordance with the program implementation schedule.
4. KIUC Management shall annually examine and evaluate KIUC's achievements in attaining its objectives, and submit these evaluations to the KIUC Board of Directors.

E. Commission's Responsibility

1. The Commission's responsibility, in general, is to determine whether KIUC's integrated resource plan represents a reasonable course for meeting the energy needs of KIUC's customers and is in the public interest and consistent with the goals and objectives of integrated resource planning.
2. Specifically, the Commission will review KIUC's integrated resource plan, its program implementation schedule, and its evaluations, and generally monitor KIUC's implementation of its integrated resource plan. Upon review, the Commission may approve, reject, approve in part and reject in part, or require modifications of KIUC's integrated resource plan and program implementation schedule.
3. The parties shall cooperate in expediting Commission hearings on KIUC's integrated resource plan and program implementation schedule. To the extent possible, the Commission will hear KIUC's application for approval of its integrated resource plan within three months of the integrated resource plan's filing, and the Commission will render its decision shortly thereafter.

F. Consumer Advocate's Responsibility

1. The Director of Commerce and Consumer Affairs, as the Consumer Advocate and through the Division of Consumer Advocacy, has the statutory responsibility to represent, protect, and advance the interest of consumers of utility services. The Consumer Advocate, therefore, has the duty to ensure that KIUC's integrated resource plan promotes the interest of KIUC's consumers.
2. The Consumer Advocate shall be a party to KIUC's integrated resource planning docket and a member of any and all advisory groups established by KIUC in the development of its integrated resource plan. The Consumer Advocate shall also participate in all public hearings and other sessions held in furtherance of KIUC's efforts in integrated resource planning.

III. The Integrated Resource Planning Context

A. Major Steps

There are four major steps in the integrated resource planning process: planning, programming, implementation, and evaluation.

1. Planning is the process in which KIUC's needs are identified; its objectives are formulated; the alternatives by which the objectives may be attained are identified; and the alternatives that best achieve the objectives are identified. The product of this process is the integrated resource plan.
2. Programming is that process by which KIUC's long-range resource program plans are scheduled for implementation over a five-year period. In this process, a determination is made as to the order in which the selected program options are to be implemented; the phases or steps in which each program is to be implemented; and the annual expenditures, by cost categories, required to be made to support implementation of the programs. The result of this process is a program implementation schedule or action plan. The schedule represents an implementation strategy or timetable for program implementation.

3. Implementation is that process by which the resource program options to be implemented are acquired and instituted in accordance with KIUC's program implementation schedule.
4. Evaluation is that process by which the results of the resource program options are measured in light of KIUC's objectives. In this process the actual attainment of KIUC's objectives are measured against those that were projected in the planning and programming stages of the planning cycle.

B. The Planning Cycle

1. The planning cycle is a multi-year period. A new cycle begins when the KIUC Board of Directors decides that KIUC will prepare a new integrated resource plan. During a cycle, the integrated resource plan and an initial program implementation schedule are prepared and approved, program implementation schedules are revised and approved annually, program implementation schedules are implemented, evaluations are conducted annually, and a determination is made annually whether or not to begin a new planning cycle (i.e., whether or not to prepare a new integrated resource plan).
2. The KIUC Board of Directors shall specify the factors that KIUC Management will consider in developing a recommendation each year whether to develop a new integrated resource plan in that year. KIUC Management will develop the recommendation taking these factors into account, and submit the recommendation to the KIUC Board of Directors, which will either approve or reject the recommendation.
3. KIUC shall annually update its program implementation schedule.
4. KIUC shall conduct annually an evaluation of its integrated resource plan and program implementation schedule. As a result of such evaluation, the integrated resource plan or the program implementation schedule may be amended as necessary with the Commission's approval.

C. The Docket

1. Each planning cycle for KIUC will commence with KIUC informing the Commission that KIUC will develop a new integrated resource plan in that year and a schedule that it intends to follow in the development of its integrated resource plan. The schedule may be amended as appropriate.

2. The Commission will respond to this notification with issuance of an order opening a docket for integrated resource planning.
3. The docket will be maintained throughout the planning cycle for the filing of documents, the resolution of procedural disputes, and other purposes related to KIUC's integrated resource plan.

D. Reports

1. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, an integrated resource plan report that contains chapters describing a) Background and Objectives, b) Methodology, c) Data and Assumptions, and d) Results. The report will include an executive summary of the integrated resource plan and of the analyses. Appendices providing supporting information may be included. The report will be prepared in conformance with standard practice for electric cooperative integrated resource planning reports. The report will be simply and clearly written and, to the extent possible, in non-technical language. Charts, graphs, and other visual devices may be utilized to aid in understanding.
2. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, a program implementation schedule that includes, by year: the programs or phases of programs to be implemented in the year; the expected level of achievement of objectives; and the expenditures, by cost categories, required to be made by KIUC to support implementation of each program or phase of a program.
3. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, an annual evaluation report that includes, for each program or program phase: a) a comparison of the actual and anticipated expenditures by cost category, and b) a comparison of the actual and anticipated achievement of program objectives. The report shall also include a revised program implementation schedule for the next five years. The report will also include documentation of the KIUC Board of Directors' decision whether or not to prepare a new integrated resource plan in the coming year. As part of this report, KIUC may update the avoided cost estimates that it uses to evaluate the cost-effectiveness of supply-side proposals and demand-side management activities.
4. The integrated resource plan and program implementation schedule approved by the KIUC Board of Directors and

Commission shall govern all KIUC expenditures for capital projects, purchased power, and demand-side management programs. Notwithstanding approval of an integrated resource plan, no expenditure for any specific capital project in excess of \$2,500,000, under any purchased power contract, and for any specific demand-side management program included in an integrated resource plan or a program implementation schedule shall be made without prior Commission approval. Requests for approval of expenditures for capital projects in excess of \$2,500,000 and all power purchases from qualifying facilities and independent power producers shall be subject to statute and Commission rules.

E. Public Participation

To maximize public participation in KIUC's integrated resource planning process, opportunities for such participation shall be provided through an advisory panel, public forums, and interventions in formal proceedings before the Commission.

1. Advisory Panel

- a. KIUC will establish an Advisory Panel to advise the KIUC Management in the development of the integrated resource plan and the Board of Directors in its consideration of the integrated resource plan submitted by Management.
- b. The Advisory Panel will comprise 13 voting members, who shall be KIUC members. To support fulfillment of its responsibilities in KIUC's integrated resource planning docket, the Consumer Advocate will participate on the Advisory Panel as a non-voting member. At its discretion, the Advisory Panel may invite other entities or persons to participate in panel activities as non-voting members.
- c. At the beginning of each planning cycle (i.e., as soon as possible after the Board of Directors' decision to develop a new integrated resource plan in a particular year), a nominating committee will be formed, consisting of three members of the prior Advisory Panel, to be selected by the prior Advisory Panel; one member of the Board of Directors, to be selected by the Board of Directors; and one member of the KIUC Management, selected by the KIUC Chief Executive Officer. The nominating committee will identify 13 KIUC members to comprise the next Advisory Panel. To the extent possible, the nominating committee

will attempt to include a broad cross-section of member interests; however, the only criterion for nomination established herein is a willingness to devote the time and energy expected of Advisory Panel members. The nominating committee will present its slate of 13 candidates to the Board of Directors, which will approve or reject the slate as a whole.

- d. The Advisory Panel will elect its own chair, who will run Advisory Panel meetings. Between the time the KIUC Board or Directors decides 1) to develop a new integrated resource plan and 2) to adopt an integrated resource plan submitted by KIUC Management, the Panel will meet as often as it deems appropriate. At the Panel's request, KIUC Management will meet with the Panel, in order to discuss integrated resource planning objectives, methods, assumptions, intermediate results, final results, or other topics of interest to the Panel. KIUC Management shall provide all information reasonably necessary for the Panel to participate in the integrated resource planning process, subject to the need to protect the confidentiality of customer-specific and proprietary information. During this period, at the request of either the Panel or the KIUC Board of Directors, the Panel may present status reports to the KIUC Board of Directors.
- e. At the same time that KIUC Management submits an integrated resource plan to the KIUC Board of Directors for the latter's consideration, the integrated resource plan will be submitted to the Advisory Panel. The Panel will review the submitted integrated resource plan, and develop a recommendation on whether the integrated resource plan should be approved or rejected (in whole or in part). The Panel will present this recommendation, together with the rationale for its recommendation, at a Board of Directors meeting prior to Board of Directors approval or rejection of the integrated resource plan. The Board of Directors shall consider but is not bound by the Advisory Panel's recommendation.
- f. Following the Board of Directors' approval of an integrated resource plan, the Panel will meet at least annually until the next planning cycle begins. At the first meeting of each calendar year, KIUC Management will present 1) its recommendation on whether or not to develop a new integrated resource plan in that year, 2) the updated

program implementation schedule, and 3) the annual evaluation report. The Panel will develop recommendations on whether these three items should be approved or rejected. The Panel will present these recommendations at a Board of Directors meeting prior to Board of Directors approval or rejection of the three items. The Board of Directors shall consider but is not bound by the Advisory Panel's recommendations.

- g. KIUC will pay all reasonable costs incurred by Advisory Panel members. KIUC Staff will provide a reasonable level of administrative support to the Panel, if so requested.

2. Public Forums

- a. KIUC members elect the nine-member Board of Directors to represent their interests. Members are encouraged to provide input at monthly Board meetings on subjects of their choice, and routinely do so. In addition, Board members routinely solicit the views of members in other forums.
- b. Between the time the KIUC Board of Directors decides 1) to develop a new integrated resource plan and 2) to adopt an integrated resource plan submitted by KIUC Management, KIUC Board of Directors and/or Management will conduct public forums to discuss the integrated resource plan development. The public will be invited to these forums through bill inserts or other forms of media (e.g., via public notice on radio and in the local newspaper). Forums will be held at various public facilities around Kaua'i.
- c. As appropriate, KIUC will conduct surveys of members regarding integrated resource planning issues.

3. Intervention

- a. Upon the filing of its integrated resource plan with the Commission, KIUC shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that it has filed its proposed integrated resource plan with the Commission for the Commission's approval.

- b. To encourage public awareness of the filing of a proposed integrated resource plan, a copy of the proposed integrated resource plan and the supporting analysis shall be available for public review at the Commission's office and at the office of the Commission's representative in Kaua'i. KIUC shall note the availability of the documents for public review at these locations in its published notice. KIUC shall make copies of the executive summary of the integrated resource plan and the analysis available to the general public at no cost, except the cost of duplication.
 - c. Applications to intervene or to participate without intervention in any proceeding in which KIUC seeks Commission approval of its integrated resource plan are subject to the rules prescribed in part IV of the Commission's General Order No. 1 (Practice and Procedure before the Public Utilities Commission); except that such applications may be filed with the Commission not later than 20 days after the publication by KIUC of a notice informing the general public of the filing of its application for Commission approval of its integrated resource plan, notwithstanding the opening of the docket before such publication.
 - d. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the Commission for cause.
4. Intervenor funding
- a. Upon the issuance of the Commission's final order on KIUC's integrated resource plan or any amendment to the integrated resource plan, the Commission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of for-profit entities) recovery of all or part of the intervenor's or participant's direct out-of-pocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the Commission.
 - b. To be eligible for such recovery:
 - (1) The intervenor or participant must show a need for financial assistance;

- (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;
 - (3) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
 - (4) The Commission must find that the intervenor or participant made a substantial contribution in assisting the Commission in arriving at its decision.
- c. The intervenor's or participant's books of account are subject to audit, and the Commission may impose other requirements in any specific case.
 - d. Such allowance may be made only upon the application of the intervenor or participant within 20 days after the issuance of the Commission's final order, together with justification and documented proof of the costs incurred.
 - e. The costs of intervenor funding shall be paid for by KIUC, subject to recovery as part of its costs of integrated resource planning.

F. Cost Recovery and Incentives

- 1. KIUC is entitled to recover its integrated resource planning and implementation costs that are reasonably incurred, including the costs of planning and implementing pilot and full-scale demand-side management programs.
 - a. The cost recovery may be had through the following mechanisms:
 - (1) Base rate recovery--the inclusion of costs in KIUC's base rate during each rate case. A balancing account may be appropriate in this instance to reconcile, with interest, KIUC's recovered expenditures with its actual expenditures. It may also be appropriate to consider KIUC's under-expenditure of authorized cost to limit recovery, unless program objectives are met or exceeded.

- (2) Adjustment clause--the recovery of costs incurred between rate cases in excess of the baseline integrated resource planning-related costs that are included in KIUC's base rates.
- b. The Commission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for Commission approval. Cost recovery for other integrated resource programs generally will be addressed in KIUC's rate case.
- 2. Under appropriate circumstances, KIUC may recover the net loss in revenues sustained by KIUC as a result of successful implementation of full-scale demand-side management programs sponsored or instituted by KIUC.
 - a. The net revenue loss is the revenue lost less the variable fuel and operating expenses saved by KIUC as a result of not having to generate the unsold energy.
 - b. The Commission will determine whether KIUC will be permitted to recover the net revenues lost as a result of successful implementation of a full-scale demand-side management program and the form of the recovery mechanism. The determination will be made when an application is filed for approval of the demand-side management program.

IV. Planning Considerations

A. Scoping Document

- 1. Following a KIUC Board of Directors decision to develop a new integrated resource plan in a particular year, KIUC Management will develop and submit to the Board of Directors a scoping document for preparing the new integrated resource plan.
- 2. The scoping document will specify the objectives that the integrated resource plan will seek to achieve, the planning horizon, and the data and analytic methods that will be utilized.
- 3. KIUC Management will submit the scoping document to the Advisory Panel at the same time as it is submitted to the Board of Directors. The Advisory Panel will recommend to the Board of

Directors whether to approve or reject the scoping document, either in whole or in part.

4. The Board of Directors will approve or reject the scoping document, either in whole or in part. KIUC Management will conduct the integrated resource planning activities in accordance with the Board of Directors-approved scoping document.
5. In preparing the scoping document, KIUC Management will consider the elements addressed in paragraphs B – K below.

B. Forecast

1. KIUC will develop a forecast (or forecasts) of the amount of energy consumers will need over the planning horizon. In developing this (these) forecast(s), KIUC Management will use data and methods that are standard in the electric utility industry for cooperative utilities of KIUC's size and circumstances.

C. Objectives

1. The ultimate objective of KIUC's integrated resource plan is meeting the energy needs of KIUC's customers over the planning horizon.
2. The KIUC Board of Directors will specify any other KIUC-specific objective that it seeks to achieve through its integrated resource plan.
3. The Commission may suggest other objectives for KIUC. Such specifications, if any, shall be included in the order opening a docket for integrated resource planning at the commencement of each planning cycle.

D. Effectiveness Measures

1. KIUC shall specify the measures by which attainment of the objective or objectives is to be determined.
2. Where direct, quantifiable measures are not available, KIUC may utilize proxy measures.

E. Resource Options

1. In the development of its integrated resource plan, KIUC shall consider all supply-side and demand-side resource options appropriate to the KIUC service territory and available within the

years encompassed by the planning horizon to meet the stated objectives.

2. KIUC shall include among the options the supply-side and demand-side resources or mixes of options currently in use, promoted, planned, or programmed for implementation by KIUC. Supply-side and demand-side resource options include those resources that are or may be supplied by persons other than KIUC.
3. KIUC shall initially identify all supply-side and demand-side resource options appropriate to the KIUC service territory. KIUC may, upon review, screen out those options that are clearly infeasible. KIUC may establish such other criteria for determining the feasibility of options.

F. Data Collection

1. For each feasible resource option, KIUC shall determine its potential level of achievement of objectives.

G. Assumptions; Risks; Uncertainties

1. KIUC shall identify the assumptions underlying any resource option or the cost or benefit of any option or any analysis performed.
2. KIUC shall also identify the risks and uncertainties associated with each resource option.
3. KIUC shall further identify any technological limitations, infrastructural constraints, legal and governmental policy requirements, and other constraints that impact on any option or KIUC's analysis.

H. Models

1. KIUC may utilize any reasonable model or models in comparing resource options and otherwise in analyzing the relative values of the various options or combinations of options.
2. Each model used must be described and documented.

I. Analyses

1. KIUC shall conduct analyses to compare the extent to which the various options and various alternative mixes of options achieve the integrated resource planning objectives. Alternative mixes of options include variously integrated supply-side and demand-side management programs. Such analyses shall be performed in a manner consistent with practices employed by other electric cooperative utilities of KIUC's size and circumstances.

J. Resource Optimization

1. Based on its analyses, KIUC shall select those resource options or mix of resource options that best achieve the integrated resource planning objectives.
2. KIUC may develop a number of alternative plans, each representing optimization from a differing perspective, i.e., using alternative planning objectives.
3. If it prepares alternative plans, KIUC Management shall rank the various plans, based on such criterion as it may establish. KIUC Management shall designate one of these plans as its preferred plan and submit to the KIUC Board of Directors the preferred plan as its integrated resource plan.

K. Sensitivity Analysis

KIUC shall subject its selection of resource options to sensitivity analysis by altering assumptions and other parameters.

V. Pilot Demand-Side Management Programs

A. Purposes

1. The purpose of piloting demand-side management programs is to ascertain whether a given program, not yet proven in Hawaii, is cost-effective--whether it will have the penetration and will achieve accomplishment of KIUC's objectives as originally believed.
2. A second purpose of piloting demand-side management programs is to determine whether the program design and configuration (including how it is managed and promoted) are such as to permit implementation of the program as efficiently and effectively as desired.

B. Pilot Programs

1. KIUC may implement on a full-scale basis (without pilot testing) any demand-side management program that has been proven cost effective as a result of a full-scale or pilot implementation of the program in another comparable utility service territory or as a result of pilot testing by a utility in Hawaii. In all other cases, KIUC shall pilot test a demand-side management program before implementing it on a full-scale basis.
2. KIUC shall develop appropriate pilot demand-side management programs for implementation without awaiting Commission approval of its integrated resource plan. For each program, KIUC shall clearly articulate the parameters of the program, the expected level of achievement of the objectives, the measures by which the attainment of the objectives is to be assessed, the data to be gathered to assist in the evaluation of the pilot program, and the expenditure it proposes to make by appropriate cost components.

KAUA'I ISLAND UTILITY COOPERATIVE
SCOPING DOCUMENT FOR
2005 INTEGRATED RESOURCE PLAN

MANAGEMENT PRELIMINARY DRAFT

OCTOBER 27, 2004

I. Introduction

In 1997 Kaua'i Electric (KE), a division of Citizens Communications Company, prepared an integrated resource plan (IRP). Kaua'i Island Utility Cooperative (KIUC) purchased KE in 2002. Neither KIUC nor KE have prepared an IRP since 1997.

KIUC Management recommends to the KIUC Board of Directors that KIUC prepare an IRP in 2005. Generally, the plan will be prepared in accordance with KIUC Board of Directors Resolution 2004-xxx, *KIUC Integrated Resource Planning Principles*. Resolution 2004-xxx specifies that the goal KIUC's integrated resource planning activities is to identify:

“the resources or the mix of resources for meeting near and long-term consumer energy needs in a manner that is consistent with KIUC's Mission and Goals Statements and the planning objectives established by the KIUC Board of Directors.”

Furthermore, the Resolution states that at the beginning of each planning cycle (i.e., as soon as the Board decides to develop a new resource plan), KIUC Management will prepare and submit to the Board of Directors a Scoping Document, that specifies

“the objectives that the plan will seek to achieve, the planning horizon, and the data and analytic methods that will be utilized”

This document constitutes the Scoping Document for development of the 2005 integrated resource plan.

II. Objectives to Pursue in 2005 IRP

According to the *2004 Planning Report*, KIUC's Mission Statement is:

“To provide high quality, reliably and competitively valued electric service in a safe and environmentally responsible manner consistent with sound business practices and the seven cooperative principles, and to improve the quality of life for our members and for Kaua'i.”

KIUC's 2004 Goal Statements that are relevant to integrated resource planning include:

1. Infrastructure Integrity (Goal A) – Increase member satisfaction through enhancements to system reliability and integrity.
2. Supply and Demand Side Energy Resource Management (Goal A) – Identify and implement effective means to meet Kaua'i's current and

future generation needs, with an emphasis on renewable supply sources, conservation, and demand side management programs.

3. Rates and Prices (Goal A) – Implement programs to lower the effective rates to our members.

Given the Mission and Goal Statements, KIUC Management recommends that the objective for the 2005 IRP be to satisfy Kaua'i's future electric energy requirements in a manner that addresses the following KIUC goals:

- Minimizes effective rates to KIUC members
- Maintain KIUC's financial integrity, as specified in its Equity Management Plan (EMP)
- Protects the environment, by promoting renewable supply sources, conservation, and demand side management programs
- Improves system reliability

In addition, the recent dramatic increases in world oil prices highlight the lack of diversity of in KIUC's generation resource base, and the uncertainty about future electric rates that results from this lack of diversity. For this reason, KIUC Management recommends that an additional element of the objective for the 2005 IRP be to minimize uncertainty about future effective rates.

III. Special Issues

The 2005 IRP will also address the following "special" issues:

- Due to the age and condition of the GT1 unit, KIUC faces a decision about whether or not to replace the unit.
- KIUC members have expressed an interest in a solar water heater loan program.

IV. Planning Horizon for 2005 IRP

The planning horizon for the 2005 IRP will be 20 years, i.e., 2006 – 2025. This horizon is frequently used in the electric utility industry, because it allows consideration of the impacts of any major long-lived (e.g., 30 years) investments that will be identified in this IRP and brought on-line within the next five years over approximately half of the useful life of the investment. Shorter planning horizons allow consideration of a shorter period of operation of such investments, and thus tend to provide less accurate estimates of the long-term impacts of the investments; while longer planning horizons are more expensive to implement.

V. Data and Analytic Methods to be Used in 2005 IRP

KIUC Management recommends the technical approach summarized in the following paragraphs be used to perform the 2005 IRP:

1. Forecast loads – KIUC will collect historical load, economic, and demographic data, as well as forecasts of future economic and demographic conditions; and will also hold discussions with government economic development officials and developers about their future plans. KIUC will analyze these data using standard econometric methods to develop probabilistic forecasts of future electric energy requirements.
2. Forecast fuel prices – KIUC will collect historical Hawaii-specific and world fuel price data, as well as forecasts of future world fuel prices, and analyze these data using standard econometric methods to develop probabilistic forecasts of future Hawaii-specific fuel prices.
3. Develop characteristics of potential demand- and supply-side resources – KIUC will assemble comprehensive information about the characteristics, including capital and operating costs and available capacity, of all renewable supply- and demand-side resources appropriate to Kaua'i. In addition, characteristics data for potential non-renewable supply-side resources will be developed. These data will be collected from standard industry publications as well as surveys of renewable and demand-side management potential in Kauai.
4. Specify penalties/premiums and risk aversion levels – Standard practice in electric industry integrated resource planning is to encourage use of specific types of resources through premiums, which are subtracted from the operations costs of these resources (e.g., renewable resources may have \$x / MWh subtracted from their operating cost to encourage their use); and to discourage use of other specific types of resources through penalties, which are added to the operations costs of these resources (e.g., greenhouse gas-producing resources may have \$x / MWh added to their operating cost to discourage their use). KIUC Management recommends that a range of premiums be applied to renewable and demand-side resources, ranging from \$0 – 40 / MWh, and that different plans be developed for each different setting.

Because uncertainty about future rates is a component of the objective, it will be necessary to specify the degree (or degrees) of risk aversion to be used in the analysis. Typically, risk aversion is expressed as the percentile of the probability distribution that will be protected against, e.g., select resources to protect against the 10 percent worst possible outcome. KIUC Management recommends that a range of risk aversion levels, ranging from 50 percent (i.e., no risk aversion) to 5 percent, be applied.

5. Develop IRP model of KIUC system – KIUC will develop a model of the KIUC system that addresses the following three factors:

- a. Reliability – For specified loads and resources, the module will calculate the reliability of the system.
 - b. Power Supply Costs – For specified loads, fuel prices, and resources, the module will calculate the annual power supply costs, which consist of capital, fuel, and operations and maintenance (O&M) expenses at the generating stations; capital and operations costs of demand-side management programs; and penalties and premiums discussed above.
 - c. Investment Module – For a specified level of reliability, penalties/premiums, and risk aversion level, the module will select the portfolio of resources that minimizes rates at the specified risk aversion level.
6. Execute IRP model and develop alternative resource plans – The model developed in step 5 will be executed a number of times, with varying settings of reliability, premiums/penalties, and risk aversion levels. For each such setting, a different resource plan will be developed.

Following development, each plan will be characterized in terms of the objectives listed above, i.e., expected effective rates, uncertainty about effective rates, expected outage levels, financial integrity as specified in the EMP (e.g., equity / capital ratio), environmental quality (e.g., emissions), and other key metrics.

7. Rank alternative plans and select preferred plan – Of the alternative plans developed in step 6, no single plan will best achieve all six of the objectives. A decision analysis approach will be used to rank the alternative plans in terms of the metrics calculated in step 6 and select the preferred plan.

APPENDIX C

KAUA'I ISLAND UTILITY COOPERATIVE INTEGRATED RESOURCE PLANNING PRINCIPLES

OCTOBER 27, 2004

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I. Definitions

Unless otherwise clear from the context, as used in this framework:

“Capital investment costs” means costs associated with capital improvements, including planning, the acquisition and development of land, the design and construction of new facilities, the making of renovations or additions to existing facilities, the construction of built-in equipment, and consultant and staff services in planning, design, and construction. Capital investment costs for a program are the sum of the program’s capital improvement project costs.

“Commission” means the Hawaii Public Utilities Commission.

“Consumer Advocate” means the Division of Consumer Advocacy of the Hawaii Department of Commerce and Consumer Affairs.

“Costs” means the full and life cycle costs of a resource option.

“Cost categories” means the major types of costs and includes research and development costs, investment costs, and operating and maintenance costs.

“Demand-side management programs” means programs designed to influence utility customer uses of energy to produce desired changes in demand. It includes conservation, load management, and efficiency resource programs.

“Effectiveness measure” means the criterion for measuring the degree to which the objective sought is attained.

“Investment costs” means the one-time costs beyond the development phase to introduce a new system, program, or capability into use. It includes capital investment costs, initial equipment acquisition costs, and initial education and training costs.

“KIUC” is Kaua’i Island Utility Cooperative.

“Life cycle costs” means the total cost impact over the life of the program. Life cycle costs include research and development cost, investment cost (the one-time cost of instituting the program), and operating and maintenance (O&M) cost.

“Objective” means a statement of the end result, product, or condition desired, for the accomplishment of which a course of action is taken.

“Operating and maintenance costs” or “O&M costs” means recurring costs of operating, supporting, and maintaining authorized programs, including costs for labor, fuel, materials and supplies, and other current expenses.

“Program” means a combination of resources and activities designed to achieve an objective or objectives.

“Research and development costs” means costs associated with the development of a new system, program, or capability to the point where it is ready for introduction into operational use. It includes the costs of prototypes and the testing of the prototypes. It includes the costs of research, planning, and testing and evaluation.

“Supply-side programs” means programs designed to supply power. It includes renewable energy and distributed generation.

II. Introduction

A. Goal of Integrated Resource Planning

The goal of integrated resource planning is the identification of the resources or the mix of resources for meeting near and long-term consumer energy needs in a manner that is consistent with KIUC’s Mission and Goals Statements and the integrated resource planning objectives established by the KIUC Board of Directors.

B. Governing Principles (Statements of Policy)

1. The development of integrated resource plans is the responsibility of KIUC.
2. Integrated resource plans shall comport with state and county environmental, health, and safety laws and formally adopted state and county plans.
3. Integrated resource plans shall be developed upon consideration and analyses of the costs, effectiveness, and benefits of all appropriate supply-side and demand-side options.
4. Integrated resource plans shall give consideration to the plans’ impacts upon KIUC’s consumers, the environment, culture, community lifestyles, the state’s economy, and society.
5. Integrated resource plans shall take into consideration KIUC’s financial integrity, size, and physical capability.
6. KIUC is entitled to recover all appropriate and reasonable integrated resource planning and implementation costs.

C. KIUC Board of Directors’ Responsibility

1. In general, the KIUC Board of Directors has the responsibility to represent, protect, and advance the interest of KIUC’s consumers. The KIUC Board of Directors therefore is responsible for ensuring that the integrated resource plan prepared by KIUC Management

represents a course for meeting the energy needs of KIUC's consumers that is in the best interest of the KIUC consumers.

2. The KIUC Board of Directors is responsible for establishing the Mission and Goals Statements that guide development of the integrated resource plan and the factors KIUC Management should consider in developing its annual recommendation whether or not to develop a new integrated resource plan in that year.
3. The KIUC Board of Directors is responsible for reviewing KIUC Management's annual recommendation whether or not to develop a new integrated resource plan in that year, and either approve or reject that recommendation.
4. The KIUC Board of Directors is responsible for reviewing KIUC Management's recommended objectives for the integrated resource plan, integrated resource plans prepared by KIUC Management, and the associated program implementation schedule, and either approve or reject, in whole or in part, these objectives, plans and schedules.
5. The KIUC Board of Directors is responsible for ensuring that KIUC's integrated resource plan and program implementation schedule is submitted to the Commission for Commission approval, as specified in this document.
6. The KIUC Board of Directors is responsible for ensuring that the Commission approved integrated resource plan is executed in accordance with the program implementation schedule.
7. The KIUC Board of Directors is responsible for ensuring that annual evaluations prepared by KIUC Management are submitted to the Commission.

D. KIUC Management's Responsibility

1. KIUC Management is responsible for annually preparing and submitting a recommendation to the KIUC Board of Directors whether or not to develop a new integrated resource plan in that year. The recommendation will reflect the factors specified by the KIUC Board of Directors.
2. KIUC Management is responsible for preparing and submitting to the KIUC Board of Directors recommended integrated resource planning objectives, an integrated resource plan for meeting the energy needs of KIUC's consumers, in a manner consistent with KIUC's Mission and Goals Statements and the Board of Directors-

approved integrated resource planning objectives; and an associated program implementation schedule.

3. KIUC Management is responsible for executing the integrated resource plan approved by the KIUC Board of Directors and the Commission in accordance with the program implementation schedule.
4. KIUC Management shall annually examine and evaluate KIUC's achievements in attaining its objectives, and submit these evaluations to the KIUC Board of Directors.

E. Commission's Responsibility

1. The Commission's responsibility, in general, is to determine whether KIUC's integrated resource plan represents a reasonable course for meeting the energy needs of KIUC's customers and is in the public interest and consistent with the goals and objectives of integrated resource planning.
2. Specifically, the Commission will review KIUC's integrated resource plan, its program implementation schedule, and its evaluations, and generally monitor KIUC's implementation of its integrated resource plan. Upon review, the Commission may approve, reject, approve in part and reject in part, or require modifications of KIUC's integrated resource plan and program implementation schedule.
3. The parties shall cooperate in expediting Commission hearings on KIUC's integrated resource plan and program implementation schedule. To the extent possible, the Commission will hear KIUC's application for approval of its integrated resource plan within three months of the integrated resource plan's filing, and the Commission will render its decision shortly thereafter.

F. Consumer Advocate's Responsibility

1. The Director of Commerce and Consumer Affairs, as the Consumer Advocate and through the Division of Consumer Advocacy, has the statutory responsibility to represent, protect, and advance the interest of consumers of utility services. The Consumer Advocate, therefore, has the duty to ensure that KIUC's integrated resource plan promotes the interest of KIUC's consumers.
2. The Consumer Advocate shall be a party to KIUC's integrated resource planning docket and a member of any and all advisory groups established by KIUC in the development of its integrated

resource plan. The Consumer Advocate shall also participate in all public hearings and other sessions held in furtherance of KIUC's efforts in integrated resource planning.

III. The Integrated Resource Planning Context

A. Major Steps

There are four major steps in the integrated resource planning process: planning, programming, implementation, and evaluation.

1. Planning is the process in which KIUC's needs are identified; its objectives are formulated; the alternatives by which the objectives may be attained are identified; and the alternatives that best achieve the objectives are identified. The product of this process is the integrated resource plan.
2. Programming is that process by which KIUC's long-range resource program plans are scheduled for implementation over a five-year period. In this process, a determination is made as to the order in which the selected program options are to be implemented; the phases or steps in which each program is to be implemented; and the annual expenditures, by cost categories, required to be made to support implementation of the programs. The result of this process is a program implementation schedule or action plan. The schedule represents an implementation strategy or timetable for program implementation.
3. Implementation is that process by which the resource program options to be implemented are acquired and instituted in accordance with KIUC's program implementation schedule.
4. Evaluation is that process by which the results of the resource program options are measured in light of KIUC's objectives. In this process the actual attainment of KIUC's objectives are measured against those that were projected in the planning and programming stages of the planning cycle.

B. The Planning Cycle

1. The planning cycle is a multi-year period. A new cycle begins when the KIUC Board of Directors decides that KIUC will prepare a new integrated resource plan. During a cycle, the integrated resource plan and an initial program implementation schedule are prepared and approved, program implementation schedules are revised and approved annually, program implementation schedules are implemented, evaluations are conducted annually, and a determination is made annually whether or not to begin a new

planning cycle (i.e., whether or not to prepare a new integrated resource plan).

2. The KIUC Board of Directors shall specify the factors that KIUC Management will consider in developing a recommendation each year whether to develop a new integrated resource plan in that year. KIUC Management will develop the recommendation taking these factors into account, and submit the recommendation to the KIUC Board of Directors, which will either approve or reject the recommendation.
3. KIUC shall annually update its program implementation schedule.
4. KIUC shall conduct annually an evaluation of its integrated resource plan and program implementation schedule. As a result of such evaluation, the integrated resource plan or the program implementation schedule may be amended as necessary with the Commission's approval.

C. The Docket

1. Each planning cycle for KIUC will commence with KIUC informing the Commission that KIUC will develop a new integrated resource plan in that year and a schedule that it intends to follow in the development of its integrated resource plan. The schedule may be amended as appropriate.
2. The Commission will respond to this notification with issuance of an order opening a docket for integrated resource planning.
3. The docket will be maintained throughout the planning cycle for the filing of documents, the resolution of procedural disputes, and other purposes related to KIUC's integrated resource plan.

D. Reports

1. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, an integrated resource plan report that contains chapters describing a) Background and Objectives, b) Methodology, c) Data and Assumptions, and d) Results. The report will include an executive summary of the integrated resource plan and of the analyses. Appendices providing supporting information may be included. The report will be prepared in conformance with standard practice for electric cooperative integrated resource planning reports. The report will be simply and clearly written and, to the extent possible, in non-technical language. Charts, graphs, and other visual devices may be utilized to aid in understanding.

2. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, a program implementation schedule that includes, by year: the programs or phases of programs to be implemented in the year; the expected level of achievement of objectives; and the expenditures, by cost categories, required to be made by KIUC to support implementation of each program or phase of a program.
3. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, an annual evaluation report that includes, for each program or program phase: a) a comparison of the actual and anticipated expenditures by cost category, and b) a comparison of the actual and anticipated achievement of program objectives. The report shall also include a revised program implementation schedule for the next five years. The report will also include documentation of the KIUC Board of Directors' decision whether or not to prepare a new integrated resource plan in the coming year. As part of this report, KIUC may update the avoided cost estimates that it uses to evaluate the cost-effectiveness of supply-side proposals and demand-side management activities.
4. The integrated resource plan and program implementation schedule approved by the KIUC Board of Directors and Commission shall govern all KIUC expenditures for capital projects, purchased power, and demand-side management programs. Notwithstanding approval of an integrated resource plan, no expenditure for any specific capital project in excess of \$2,500,000, under any purchased power contract, and for any specific demand-side management program included in an integrated resource plan or a program implementation schedule shall be made without prior Commission approval. Requests for approval of expenditures for capital projects in excess of \$2,500,000 and all power purchases from qualifying facilities and independent power producers shall be subject to statute and Commission rules.

E. Public Participation

To maximize public participation in KIUC's integrated resource planning process, opportunities for such participation shall be provided through an advisory panel, public forums, and interventions in formal proceedings before the Commission.

1. Advisory Panel

- a. KIUC will establish an Advisory Panel to advise the KIUC Management in the development of the integrated resource plan and the Board of Directors in its consideration of the integrated resource plan submitted by Management.
- b. The Advisory Panel will comprise 13 voting members, who shall be KIUC members. To support fulfillment of its responsibilities in KIUC's integrated resource planning docket, the Consumer Advocate will participate on the Advisory Panel as a non-voting member. At its discretion, the Advisory Panel may invite other entities or persons to participate in panel activities as non-voting members.
- c. At the beginning of each planning cycle (i.e., as soon as possible after the Board of Directors' decision to develop a new integrated resource plan in a particular year), a nominating committee will be formed, consisting of three members of the prior Advisory Panel, to be selected by the prior Advisory Panel; one member of the Board of Directors, to be selected by the Board of Directors; and one member of the KIUC Management, selected by the KIUC Chief Executive Officer. The nominating committee will identify 13 KIUC members to comprise the next Advisory Panel. To the extent possible, the nominating committee will attempt to include a broad cross-section of member interests; however, the only criterion for nomination established herein is a willingness to devote the time and energy expected of Advisory Panel members. The nominating committee will present its slate of 13 candidates to the Board of Directors, which will approve or reject the slate as a whole.
- d. The Advisory Panel will elect its own chair, who will run Advisory Panel meetings. Between the time the KIUC Board or Directors decides 1) to develop a new integrated resource plan and 2) to adopt an integrated resource plan submitted by KIUC Management, the Panel will meet as often as it deems appropriate. At the Panel's request, KIUC Management will meet with the Panel, in order to discuss integrated resource planning objectives, methods, assumptions, intermediate results, final results, or other topics of interest to the Panel. KIUC Management shall provide all information reasonably necessary for the Panel to participate in the integrated resource planning process, subject to the need to protect the confidentiality of

customer-specific and proprietary information. During this period, at the request of either the Panel or the KIUC Board of Directors, the Panel may present status reports to the KIUC Board of Directors.

- e. At the same time that KIUC Management submits an integrated resource plan to the KIUC Board of Directors for the latter's consideration, the integrated resource plan will be submitted to the Advisory Panel. The Panel will review the submitted integrated resource plan, and develop a recommendation on whether the integrated resource plan should be approved or rejected (in whole or in part). The Panel will present this recommendation, together with the rationale for its recommendation, at a Board of Directors meeting prior to Board of Directors approval or rejection of the integrated resource plan. The Board of Directors shall consider but is not bound by the Advisory Panel's recommendation.
- f. Following the Board of Directors' approval of an integrated resource plan, the Panel will meet at least annually until the next planning cycle begins. At the first meeting of each calendar year, KIUC Management will present 1) its recommendation on whether or not to develop a new integrated resource plan in that year, 2) the updated program implementation schedule, and 3) the annual evaluation report. The Panel will develop recommendations on whether these three items should be approved or rejected. The Panel will present these recommendations at a Board of Directors meeting prior to Board of Directors approval or rejection of the three items. The Board of Directors shall consider but is not bound by the Advisory Panel's recommendations.
- g. KIUC will pay all reasonable costs incurred by Advisory Panel members. KIUC Staff will provide a reasonable level of administrative support to the Panel, if so requested.

2. Public Forums

- a. KIUC members elect the nine-member Board of Directors to represent their interests. Members are encouraged to provide input at monthly Board meetings on subjects of their choice, and routinely do so. In addition, Board members routinely solicit the views of members in other forums.

- b. Between the time the KIUC Board of Directors decides 1) to develop a new integrated resource plan and 2) to adopt an integrated resource plan submitted by KIUC Management, KIUC Board of Directors and/or Management will conduct public forums to discuss the integrated resource plan development. The public will be invited to these forums through bill inserts or other forms of media (e.g., via public notice on radio and in the local newspaper). Forums will be held at various public facilities around Kaua'i.
- c. As appropriate, KIUC will conduct surveys of members regarding integrated resource planning issues.

3. Intervention

- a. Upon the filing of its integrated resource plan with the Commission, KIUC shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that it has filed its proposed integrated resource plan with the Commission for the Commission's approval.
- b. To encourage public awareness of the filing of a proposed integrated resource plan, a copy of the proposed integrated resource plan and the supporting analysis shall be available for public review at the Commission's office and at the office of the Commission's representative in Kaua'i. KIUC shall note the availability of the documents for public review at these locations in its published notice. KIUC shall make copies of the executive summary of the integrated resource plan and the analysis available to the general public at no cost, except the cost of duplication.
- c. Applications to intervene or to participate without intervention in any proceeding in which KIUC seeks Commission approval of its integrated resource plan are subject to the rules prescribed in part IV of the Commission's General Order No. 1 (Practice and Procedure before the Public Utilities Commission); except that such applications may be filed with the Commission not later than 20 days after the publication by KIUC of a notice informing the general public of the filing of its application for Commission approval of its integrated resource plan, notwithstanding the opening of the docket before such publication.

- d. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the Commission for cause.
4. Intervenor funding
- a. Upon the issuance of the Commission's final order on KIUC's integrated resource plan or any amendment to the integrated resource plan, the Commission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of for-profit entities) recovery of all or part of the intervenor's or participant's direct out-of-pocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the Commission.
 - b. To be eligible for such recovery:
 - (1) The intervenor or participant must show a need for financial assistance;
 - (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;
 - (3) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
 - (4) The Commission must find that the intervenor or participant made a substantial contribution in assisting the Commission in arriving at its decision.
 - c. The intervenor's or participant's books of account are subject to audit, and the Commission may impose other requirements in any specific case.
 - d. Such allowance may be made only upon the application of the intervenor or participant within 20 days after the issuance of the Commission's final order, together with justification and documented proof of the costs incurred.
 - e. The costs of intervenor funding shall be paid for by KIUC, subject to recovery as part of its costs of integrated resource planning.

F. Cost Recovery and Incentives

1. KIUC is entitled to recover its integrated resource planning and implementation costs that are reasonably incurred, including the costs of planning and implementing pilot and full-scale demand-side management programs.
 - a. The cost recovery may be had through the following mechanisms:
 - (1) Base rate recovery--the inclusion of costs in KIUC's base rate during each rate case. A balancing account may be appropriate in this instance to reconcile, with interest, KIUC's recovered expenditures with its actual expenditures. It may also be appropriate to consider KIUC's under-expenditure of authorized cost to limit recovery, unless program objectives are met or exceeded.
 - (2) Adjustment clause--the recovery of costs incurred between rate cases in excess of the baseline integrated resource planning-related costs that are included in KIUC's base rates.
 - b. The Commission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for Commission approval. Cost recovery for other integrated resource programs generally will be addressed in KIUC's rate case.
2. Under appropriate circumstances, KIUC may recover the net loss in revenues sustained by KIUC as a result of successful implementation of full-scale demand-side management programs sponsored or instituted by KIUC.
 - a. The net revenue loss is the revenue lost less the variable fuel and operating expenses saved by KIUC as a result of not having to generate the unsold energy.
 - b. The Commission will determine whether KIUC will be permitted to recover the net revenues lost as a result of successful implementation of a full-scale demand-side management program and the form of the recovery mechanism. The determination will be made when an application is filed for approval of the demand-side management program.

IV. Planning Considerations

A. Scoping Document

1. Following a KIUC Board of Directors decision to develop a new integrated resource plan in a particular year, KIUC Management will develop and submit to the Board of Directors a scoping document for preparing the new integrated resource plan.
2. The scoping document will specify the objectives that the integrated resource plan will seek to achieve, the planning horizon, and the data and analytic methods that will be utilized.
3. KIUC Management will submit the scoping document to the Advisory Panel at the same time as it is submitted to the Board of Directors. The Advisory Panel will recommend to the Board of Directors whether to approve or reject the scoping document, either in whole or in part.
4. The Board of Directors will approve or reject the scoping document, either in whole or in part. KIUC Management will conduct the integrated resource planning activities in accordance with the Board of Directors-approved scoping document.
5. In preparing the scoping document, KIUC Management will consider the elements addressed in paragraphs B – K below.

B. Forecast

1. KIUC will develop a forecast (or forecasts) of the amount of energy consumers will need over the planning horizon. In developing this (these) forecast(s), KIUC Management will use data and methods that are standard in the electric utility industry for cooperative utilities of KIUC's size and circumstances.

C. Objectives

1. The ultimate objective of KIUC's integrated resource plan is meeting the energy needs of KIUC's customers over the planning horizon.
2. The KIUC Board of Directors will specify any other KIUC-specific objective that it seeks to achieve through its integrated resource plan.
3. The Commission may suggest other objectives for KIUC. Such specifications, if any, shall be included in the order opening a

docket for integrated resource planning at the commencement of each planning cycle.

D. Effectiveness Measures

1. KIUC shall specify the measures by which attainment of the objective or objectives is to be determined.
2. Where direct, quantifiable measures are not available, KIUC may utilize proxy measures.

E. Resource Options

1. In the development of its integrated resource plan, KIUC shall consider all supply-side and demand-side resource options appropriate to the KIUC service territory and available within the years encompassed by the planning horizon to meet the stated objectives.
2. KIUC shall include among the options the supply-side and demand-side resources or mixes of options currently in use, promoted, planned, or programmed for implementation by KIUC. Supply-side and demand-side resource options include those resources that are or may be supplied by persons other than KIUC.
3. KIUC shall initially identify all supply-side and demand-side resource options appropriate to the KIUC service territory. KIUC may, upon review, screen out those options that are clearly infeasible. KIUC may establish such other criteria for determining the feasibility of options.

F. Data Collection

1. For each feasible resource option, KIUC shall determine its potential level of achievement of objectives.

G. Assumptions; Risks; Uncertainties

1. KIUC shall identify the assumptions underlying any resource option or the cost or benefit of any option or any analysis performed.
2. KIUC shall also identify the risks and uncertainties associated with each resource option.
3. KIUC shall further identify any technological limitations, infrastructural constraints, legal and governmental policy

requirements, and other constraints that impact on any option or KIUC's analysis.

H. Models

1. KIUC may utilize any reasonable model or models in comparing resource options and otherwise in analyzing the relative values of the various options or combinations of options.
2. Each model used must be described and documented.

I. Analyses

1. KIUC shall conduct analyses to compare the extent to which the various options and various alternative mixes of options achieve the integrated resource planning objectives. Alternative mixes of options include variously integrated supply-side and demand-side management programs. Such analyses shall be performed in a manner consistent with practices employed by other electric cooperative utilities of KIUC's size and circumstances.

J. Resource Optimization

1. Based on its analyses, KIUC shall select those resource options or mix of resource options that best achieve the integrated resource planning objectives.
2. KIUC may develop a number of alternative plans, each representing optimization from a differing perspective, i.e., using alternative planning objectives.
3. If it prepares alternative plans, KIUC Management shall rank the various plans, based on such criterion as it may establish. KIUC Management shall designate one of these plans as its preferred plan and submit to the KIUC Board of Directors the preferred plan as its integrated resource plan.

K. Sensitivity Analysis

KIUC shall subject its selection of resource options to sensitivity analysis by altering assumptions and other parameters.

V. Pilot Demand-Side Management Programs

A. Purposes

1. The purpose of piloting demand-side management programs is to ascertain whether a given program, not yet proven in Hawaii, is cost-effective--whether it will have the penetration and will achieve accomplishment of KIUC's objectives as originally believed.
2. A second purpose of piloting demand-side management programs is to determine whether the program design and configuration (including how it is managed and promoted) are such as to permit implementation of the program as efficiently and effectively as desired.

B. Pilot Programs

1. KIUC may implement on a full-scale basis (without pilot testing) any demand-side management program that has been proven cost effective as a result of a full-scale or pilot implementation of the program in another comparable utility service territory or as a result of pilot testing by a utility in Hawaii. In all other cases, KIUC shall pilot test a demand-side management program before implementing it on a full-scale basis.
2. KIUC shall develop appropriate pilot demand-side management programs for implementation without awaiting Commission approval of its integrated resource plan. For each program, KIUC shall clearly articulate the parameters of the program, the expected level of achievement of the objectives, the measures by which the attainment of the objectives is to be assessed, the data to be gathered to assist in the evaluation of the pilot program, and the expenditure it proposes to make by appropriate cost components.

APPENDIX D

KAUA'I ISLAND UTILITY COOPERATIVE SCOPING DOCUMENT FOR 2005 INTEGRATED RESOURCE PLAN

MANAGEMENT PRELIMINARY DRAFT

OCTOBER 27, 2004

I. Introduction

In 1997 Kaua'i Electric (KE), a division of Citizens Communications Company, prepared an integrated resource plan (IRP). Kaua'i Island Utility Cooperative (KIUC) purchased KE in 2002. Neither KIUC nor KE have prepared an IRP since 1997.

KIUC Management recommends to the KIUC Board of Directors that KIUC prepare an IRP in 2005. Generally, the plan will be prepared in accordance with KIUC Board of Directors Resolution 2004-xxx, *KIUC Integrated Resource Planning Principles*. Resolution 2004-xxx specifies that the goal KIUC's integrated resource planning activities is to identify:

“the resources or the mix of resources for meeting near and long-term consumer energy needs in a manner that is consistent with KIUC's Mission and Goals Statements and the planning objectives established by the KIUC Board of Directors.”

Furthermore, the Resolution states that at the beginning of each planning cycle (i.e., as soon as the Board decides to develop a new resource plan), KIUC Management will prepare and submit to the Board of Directors a Scoping Document, that specifies

“the objectives that the plan will seek to achieve, the planning horizon, and the data and analytic methods that will be utilized”

This document constitutes the Scoping Document for development of the 2005 integrated resource plan.

II. Objectives to Pursue in 2005 IRP

According to the *2004 Planning Report*, KIUC's Mission Statement is:

“To provide high quality, reliably and competitively valued electric service in a safe and environmentally responsible manner consistent with sound business practices and the seven cooperative principles, and to improve the quality of life for our members and for Kaua'i.”

KIUC's 2004 Goal Statements that are relevant to integrated resource planning include:

1. Infrastructure Integrity (Goal A) – Increase member satisfaction through enhancements to system reliability and integrity.

2. Supply and Demand Side Energy Resource Management (Goal A) – Identify and implement effective means to meet Kaua'i's current and future generation needs, with an emphasis on renewable supply sources, conservation, and demand side management programs.
3. Rates and Prices (Goal A) – Implement programs to lower the effective rates to our members.

Given the Mission and Goal Statements, KIUC Management recommends that the objective for the 2005 IRP be to satisfy Kaua'i's future electric energy requirements in a manner that addresses the following KIUC goals:

- Minimizes effective rates to KIUC members
- Maintain KIUC's financial integrity, as specified in its Equity Management Plan (EMP)
- Protects the environment, by promoting renewable supply sources, conservation, and demand side management programs
- Improves system reliability

In addition, the recent dramatic increases in world oil prices highlight the lack of diversity of in KIUC's generation resource base, and the uncertainty about future electric rates that results from this lack of diversity. For this reason, KIUC Management recommends that an additional element of the objective for the 2005 IRP be to minimize uncertainty about future effective rates.

III. Special Issues

The 2005 IRP will also address the following "special" issues:

- Due to the age and condition of the GT1 unit, KIUC faces a decision about whether or not to replace the unit.
- KIUC members have expressed an interest in a solar water heater loan program.

IV. Planning Horizon for 2005 IRP

The planning horizon for the 2005 IRP will be 20 years, i.e., 2006 – 2025. This horizon is frequently used in the electric utility industry, because it allows consideration of the impacts of any major long-lived (e.g., 30 years) investments

that will be identified in this IRP and brought on-line within the next five years over approximately half of the useful life of the investment. Shorter planning horizons allow consideration of a shorter period of operation of such investments, and thus tend to provide less accurate estimates of the long-term impacts of the investments; while longer planning horizons are more expensive to implement.

V. Data and Analytic Methods to be Used in 2005 IRP

KIUC Management recommends the technical approach summarized in the following paragraphs be used to perform the 2005 IRP:

1. Forecast loads – KIUC will collect historical load, economic, and demographic data, as well as forecasts of future economic and demographic conditions; and will also hold discussions with government economic development officials and developers about their future plans. KIUC will analyze these data using standard econometric methods to develop probabilistic forecasts of future electric energy requirements.
2. Forecast fuel prices – KIUC will collect historical Hawaii-specific and world fuel price data, as well as forecasts of future world fuel prices, and analyze these data using standard econometric methods to develop probabilistic forecasts of future Hawaii-specific fuel prices.
3. Develop characteristics of potential demand- and supply-side resources – KIUC will assemble comprehensive information about the characteristics, including capital and operating costs and available capacity, of all renewable supply- and demand-side resources appropriate to Kaua'i. In addition, characteristics data for potential non-renewable supply-side resources will be developed. These data will be collected from standard industry publications as well as surveys of renewable and demand-side management potential in Kauai.
4. Specify penalties/premiums and risk aversion levels – Standard practice in electric industry integrated resource planning is to encourage use of specific types of resources through premiums, which are subtracted from the operations costs of these resources (e.g., renewable resources may have \$x / MWh subtracted from their operating cost to encourage their use); and to discourage use of other specific types of resources through penalties, which are added to the operations costs of these resources (e.g., greenhouse gas-producing resources may have \$x / MWh added to their operating cost to discourage their use). KIUC Management recommends that a range of premiums be applied to renewable and demand-side resources, ranging from \$0 – 40 / MWh, and that different plans be developed for each different setting.

Because uncertainty about future rates is a component of the objective, it will be necessary to specify the degree (or degrees) of risk aversion to be

used in the analysis. Typically, risk aversion is expressed as the percentile of the probability distribution that will be protected against, e.g., select resources to protect against the 10 percent worst possible outcome. KIUC Management recommends that a range of risk aversion levels, ranging from 50 percent (i.e., no risk aversion) to 5 percent, be applied.

5. Develop IRP model of KIUC system – KIUC will develop a model of the KIUC system that addresses the following three factors:
 - a. Reliability – For specified loads and resources, the module will calculate the reliability of the system.
 - b. Power Supply Costs – For specified loads, fuel prices, and resources, the module will calculate the annual power supply costs, which consist of capital, fuel, and operations and maintenance (O&M) expenses at the generating stations; capital and operations costs of demand-side management programs; and penalties and premiums discussed above.
 - c. Investment Module – For a specified level of reliability, penalties/premiums, and risk aversion level, the module will select the portfolio of resources that minimizes rates at the specified risk aversion level.
6. Execute IRP model and develop alternative resource plans – The model developed in step 5 will be executed a number of times, with varying settings of reliability, premiums/penalties, and risk aversion levels. For each such setting, a different resource plan will be developed.

Following development, each plan will be characterized in terms of the objectives listed above, i.e., expected effective rates, uncertainty about effective rates, expected outage levels, financial integrity as specified in the EMP (e.g., equity / capital ratio), environmental quality (e.g., missions), and other key metrics.

7. Rank alternative plans and select preferred plan – Of the alternative plans developed in step 6, no single plan will best achieve all six of the objectives. A decision analysis approach will be used to rank the alternative plans in terms of the metrics calculated in step 6 and select the preferred plan.

APPENDIX E

~~A FRAMEWORK FOR INTEGRATED RESOURCE PLANNING~~

~~Revised May 22, 1992~~

KAUA'I ISLAND UTILITY COOPERATIVE
INTEGRATED RESOURCE PLANNING PRINCIPLES

OCTOBER 27, 2004

~~— PUBLIC UTILITIES COMMISSION~~

~~STATE OF HAWAII~~

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I. Definitions

Unless otherwise clear from the context, as used in this framework:

“Capital investment costs” means costs associated with capital improvements, including planning, the acquisition and development of land, the design and construction of new facilities, the making of renovations or additions to existing facilities, the construction of built-in equipment, and consultant and staff services in planning, design, and construction. Capital investment costs for a program are the sum of the program’s capital improvement project costs.

“Commission” means the Hawaii Public Utilities Commission.

“Consumer Advocate” means the Division of Consumer Advocacy of the Hawaii Department of Commerce and Consumer Affairs.

“Costs” means the full and life cycle costs of a resource option.

“Cost categories” means the major types of costs and includes research and development costs, investment costs, and operating and maintenance costs.

~~“Cost elements” means the major subdivisions of a cost category. For the category “investment costs,” it includes capital investment costs, initial equipment and furnishing costs, and initial education and training costs. For the categories “research and development costs” and “operating and maintenance costs,” it includes labor costs, fuel costs, materials and supplies costs, and other current expenses.~~

“Demand-side management programs” means programs designed to influence utility customer uses of energy to produce desired changes in demand. It includes conservation, load management, and efficiency resource programs.

~~“Design costs” means the costs related to the preparation of architectural drawings for capital improvements, from schematics to final construction drawings.~~

“Effectiveness measure” means the criterion for measuring the degree to which the objective sought is attained.

~~“External benefits” means external economies; benefits to or positive impacts on the activities of entities outside the utility and its ratepayers. External benefits include environmental, cultural, and general economic benefits.~~

~~“External costs” means external diseconomies; costs to or negative impacts on the activities of entities outside the utility and its ratepayers. External costs include environmental, cultural, and general economic costs.~~

~~“Full cost” means the total cost of a program, system, or capability, including research and development costs, capital investment costs, and operating and maintenance costs.~~

“Investment costs” means the one-time costs beyond the development phase to introduce a new system, program, or capability into use. It includes capital investment costs, initial equipment acquisition costs, and initial education and training costs.

“KIUC” is Kaua’i Island Utility Cooperative.

“Life cycle costs” means the total cost impact over the life of the program. Life cycle costs include research and development cost, investment cost (the one-time cost of instituting the program), and operating and maintenance (O&M) cost.

“Objective” means a statement of the end result, product, or condition desired, for the accomplishment of which a course of action is taken.

“Operating and maintenance costs” or “O&M costs” means recurring costs of operating, supporting, and maintaining authorized programs, including costs for labor, fuel, materials and supplies, and other current expenses.

~~“Participant impact” means the impact on participants in a demand-side management program in terms of the costs borne and the direct, economic benefits received by the participants.~~

“Program” means a combination of resources and activities designed to achieve an objective or objectives.

~~“Program size” means the magnitude of a program, such as the number of persons serviced by the program, the amount of a commodity, the time delays, the volume of service in relation to population or area, etc.~~

~~“Program size indicator” means a measure to indicate the magnitude of a program.~~

~~“Ratepayer impact” means the impact on ratepayers in terms of the utility rates that ratepayers must pay.~~

“Research and development costs” means costs associated with the development of a new system, program, or capability to the point where it is ready for introduction into operational use. It includes the costs of prototypes and the testing of the prototypes. It includes the costs of research, planning, and testing and evaluation.

~~“Societal cost” means the total direct and indirect costs to society as a whole. Society includes the utility and, in a demand-side management program, the participants.~~

~~“Societal cost-benefit assessment” means an assessment of the costs and benefits to society as a whole.~~

"Supply-side programs" means programs designed to supply power. It includes renewable energy and distributed generation.

~~"Total resource cost" means the total cost of a demand side management program, including both the utility and participants' costs.~~

~~"Utility cost" means the cost to the utility (including ratepayers), excluding costs incurred by participants in a demand side management program.~~

~~"Utility cost benefit assessment" means an assessment of the costs and benefits to the utility.~~

II. Introduction

A. Goal of Integrated Resource Planning

The goal of integrated resource planning is the identification of the resources or the mix of resources for meeting near and long-term consumer energy needs in an ~~efficient and reliable~~ manner ~~at that is~~ consistent with KIUC's Mission and Goals Statements and the lowest reasonable cost integrated resource planning objectives established by the KIUC Board of Directors.

B. Governing Principles (Statements of Policy)

1. The development of integrated resource plans is the responsibility of ~~each utility~~ KIUC.
2. Integrated resource plans shall comport with state and county environmental, health, and safety laws and formally adopted state and county plans.
3. Integrated resource plans shall be developed upon consideration and analyses of the costs, effectiveness, and benefits of all appropriate, ~~available, and feasible~~ supply-side and demand-side options.
4. Integrated resource plans shall give consideration to the plans' impacts upon ~~the utility's~~ KIUC's consumers, the environment, culture, community lifestyles, the state's economy, and society.
5. Integrated resource plans shall take into consideration ~~the utility's~~ KIUC's financial integrity, size, and physical capability.
- ~~6. Integrated resource planning shall be an open public process. Opportunities shall be provided for participation by the public and governmental agencies in the development and in commission review of integrated resource plans.~~

~~7.6. The utility KIUC is entitled to recover all appropriate and reasonable integrated resource planning and implementation costs. In addition, existing disincentives should be removed and, as appropriate, incentives should be established to encourage and reward aggressive utility pursuit of demand side management programs. Incentive mechanisms should be structured so that investments in suitable and effective demand side management programs are at least as attractive to the utility as investments in supply side options.~~

C. KIUC Board of Directors' Responsibility

1. In general, the KIUC Board of Directors has the responsibility to represent, protect, and advance the interest of KIUC's consumers. The KIUC Board of Directors therefore is responsible for ensuring that the integrated resource plan prepared by KIUC Management represents a course for meeting the energy needs of KIUC's consumers that is in the best interest of the KIUC consumers.
2. The KIUC Board of Directors is responsible for establishing the Mission and Goals Statements that guide development of the integrated resource plan and the factors KIUC Management should consider in developing its annual recommendation whether or not to develop a new integrated resource plan in that year.
3. The KIUC Board of Directors is responsible for reviewing KIUC Management's annual recommendation whether or not to develop a new integrated resource plan in that year, and either approve or reject that recommendation.
4. The KIUC Board of Directors is responsible for reviewing KIUC Management's recommended objectives for the integrated resource plan, integrated resource plans prepared by KIUC Management, and the associated program implementation schedule, and either approve or reject, in whole or in part, these objectives, plans and schedules.
5. The KIUC Board of Directors is responsible for ensuring that KIUC's integrated resource plan and program implementation schedule is submitted to the Commission for Commission approval, as specified in this document.
6. The KIUC Board of Directors is responsible for ensuring that the Commission approved integrated resource plan is executed in accordance with the program implementation schedule.

7. The KIUC Board of Directors is responsible for ensuring that annual evaluations prepared by KIUC Management are submitted to the Commission.

~~C.D.~~ Utility's KIUC Management's Responsibility

- ~~1. Each utility is responsible for developing a plan or plans for meeting the energy needs of its customers.~~
- ~~2. The utility shall prepare and submit to the commission for commission approval at the time or times specified in this framework the utility's integrated resource plan and program implementation schedule.~~
- ~~3. The utility shall execute the commission approved plan in accordance with the program implementation schedule.~~
1. KIUC Management is responsible for annually preparing and submitting a recommendation to the KIUC Board of Directors whether or not to develop a new integrated resource plan in that year. The recommendation will reflect the factors specified by the KIUC Board of Directors.
2. KIUC Management is responsible for preparing and submitting to the KIUC Board of Directors recommended integrated resource planning objectives, an integrated resource plan for meeting the energy needs of KIUC's consumers, in a manner consistent with KIUC's Mission and Goals Statements and the Board of Directors-approved integrated resource planning objectives; and an associated program implementation schedule.
3. KIUC Management is responsible for executing the integrated resource plan approved by the KIUC Board of Directors and the Commission in accordance with the program implementation schedule.
4. KIUC Management shall annually examine and evaluate its KIUC's achievements in attaining its objectives, and submit these evaluations to the KIUC Board of Directors.

~~D.E.~~ Commission's Responsibility

1. The eCommission's responsibility, in general, is to determine whether the utility's KIUC's integrated resource plan represents a reasonable course for meeting the energy needs of the utility's KIUC's customers and is in the public interest and consistent with the goals and objectives of integrated resource planning.

2. Specifically, the eCommission will review ~~the utility's~~ KIUC's integrated resource plan, its program implementation schedule, and its evaluations, and generally monitor ~~the utility's~~ KIUC's implementation of its integrated resource plan. Upon review, the eCommission may approve, reject, approve in part and reject in part, or require modifications of ~~the utility's~~ KIUC's integrated resource plan and program implementation schedule.
3. The parties shall cooperate in expediting eCommission hearings on ~~the utility's~~ KIUC's integrated resource plan and program implementation schedule. To the extent possible, the eCommission will hear ~~the utility's~~ KIUC's application for approval of its integrated resource plan within ~~six~~ three months of the integrated resource plan's filing, and the eCommission will render its decision shortly thereafter.

E.F. Consumer Advocate's Responsibility

1. The ~~d~~Director of eCommerce and eConsumer ~~a~~Affairs, as the eConsumer ~~a~~Advocate and through the ~~d~~Division of eConsumer ~~a~~Advocacy, has the statutory responsibility to represent, protect, and advance the interest of consumers of utility services. The eConsumer ~~a~~Advocate, therefore, has the duty to ensure that ~~the utility's~~ KIUC's integrated resource plan promotes the interest of ~~utility~~ KIUC's consumers.
2. The eConsumer ~~a~~Advocate shall be a party to ~~each utility's~~ KIUC's integrated resource planning docket and a member of any and all advisory groups established by ~~the utility~~ KIUC in the development of its integrated resource plan. The eConsumer ~~a~~Advocate shall also participate in all public hearings and other sessions held in furtherance of ~~the utility's~~ KIUC's efforts in integrated resource planning.

III. The Integrated Resource Planning Context

A. Major Steps

There are four major steps in the integrated resource planning process: planning, programming, implementation, and evaluation.

1. Planning is the process in which ~~the utility's need~~ KIUC's needs are identified; ~~the utility's~~ sits objectives are formulated; ~~measures by which effectiveness in attaining objectives are specified;~~ the alternatives by which the objectives may be attained are identified; ~~the full cost, effectiveness, and benefit implications of each alternative are determined;~~ the assumptions, risks, and

~~uncertainties are clarified; the cost, effectiveness, and benefit tradeoffs of the alternatives are made; the resource options are chosen; and program choices are subjected to sensitivity analyses that best achieve the objectives are identified.~~ The product of this process is the utility's integrated resource plan. ~~The planning horizon for utility integrated resource plans is 20 years. Unless otherwise ordered by the commission, the 20 year period begins on January 1 following the completion of the plan.~~

2. Programming is that process by which ~~the utility's~~KIUC's long-range resource program plans are scheduled for implementation over a five-year period. In this process, a determination is made as to the order in which the selected program options are to be implemented; the phases or steps in which each program is to be implemented; ~~the expected target group and the annual size of the target group or annual level of penetration of demand side management programs; the expected annual supply side capacity additions; the expected annual levels of effectiveness in achieving integrated resource planning objectives; and the annual expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of the programs.~~ The result of this process is a program implementation schedule or action plan. The schedule represents an implementation strategy or timetable for program implementation.
3. Implementation is that process by which the resource program options to be implemented are acquired and instituted in accordance with ~~the utility's~~KIUC's program implementation schedule.
4. Evaluation is that process by which the results of the resource program options are measured in light of ~~the utility's~~KIUC's objectives. In this process the actual costs, effectiveness, and benefits of the resource options and the attainment of the ~~utility's~~KIUC's objectives are measured against those that were projected in the planning and programming stages of the planning cycle.

B. The Planning Cycle

1. ~~1. Each utility shall complete its initial integrated resource plan and implementation schedule and submit them for commission approval by the following dates:~~
 - a. ~~a. Kauai Electric Division of Citizens Utilities Company: May 1, 1993~~

b. ~~b.~~ Gasco, Inc.: May 1, 1993

e. ~~c.~~ Hawaiian Electric Company, Inc.: July 1, 1993

d. ~~d.~~ Hawaii Electric Light Company, Inc.: September 1, 1993

e. ~~e.~~ Maui Electric Company, Limited: November 1, 1993

2. ~~2.~~ Each utility shall conduct a major review of its integrated resource plan every three years. In such a review, a new 20 year time horizon shall be adopted, the planning process repeated, and the utility's resource programs re-analyzed fully. The first major review, following the submission of each utility's initial integrated resource plan to the commission in 1993, shall commence in 1995 so as to result in the submission to the commission of a new (second) integrated resource plan and implementation schedule in 1996 as follows:

a. ~~a.~~ Hawaiian Electric Company, Inc.: January 1, 1996

b. ~~b.~~ Kauai Electric Division of Citizens Utilities Company: April 1, 1996

e. ~~c.~~ Gasco, Inc.: April 1, 1996

d. ~~d.~~ Hawaii Electric Light Company, Inc.: June 1, 1996

e. ~~e.~~ Maui Electric Company, Limited: October 1, 1996

Thereafter, each utility shall conduct a major review, resulting in the submission to the commission of a new integrated resource plan and implementation schedule on the same day every three years.

1. The planning cycle is a multi-year period. A new cycle begins when the KIUC Board of Directors decides that KIUC will prepare a new integrated resource plan. During a cycle, the integrated resource plan and an initial program implementation schedule are prepared and approved, program implementation schedules are revised and approved annually, program implementation schedules are implemented, evaluations are conducted annually, and a determination is made annually whether or not to begin a new planning cycle (i.e., whether or not to prepare a new integrated resource plan).

2. The KIUC Board of Directors shall specify the factors that KIUC Management will consider in developing a recommendation each year whether to develop a new integrated resource plan in that year. KIUC Management will develop the recommendation taking these factors into account, and submit the recommendation to the KIUC Board of Directors, which will either approve or reject the recommendation.
3. KIUC shall annually update its program implementation schedule.
4. KIUC shall conduct annually an evaluation of its integrated resource plan and program implementation schedule. As a result of such evaluation, the integrated resource plan or the program implementation schedule may be amended as necessary with the Commission's approval.

C. The Docket

1. Each planning cycle for a utility KIUC will commence with KIUC informing the Commission that KIUC will develop a new integrated resource plan in that year and a schedule that it intends to follow in the development of its integrated resource plan. The schedule may be amended as appropriate.
- ~~1.2.~~ The Commission will respond to this notification with issuance of an order by the commission opening a docket for integrated resource planning.
- ~~2.3.~~ The docket will be maintained throughout the planning cycle for the filing of documents, the resolution of procedural disputes, and other purposes related to the utility's KIUC's integrated resource plan.
- ~~4.~~ ~~3.~~ Within 30 days after the opening of the docket, the utility shall prepare, in consultation with the consumer advocate, and file with the commission a schedule that it intends to follow in the development of its integrated resource plan. The schedule may be amended upon the formation of an advisory group or groups and thereafter as appropriate.
- ~~5.~~ ~~4.~~ The utility shall complete its integrated resource plan and program implementation schedule within one year of the commencement of the planning cycle.

D. Submissions to the Commission Reports

- ~~1.~~ The utility shall submit its integrated resource plan as follows:

- a. ~~The utility shall include in its integrated resource plan a full and detailed description of (1) the needs identified; (2) the forecasts made; (3) the assumptions underlying the forecasts; (4) the objectives to be attained by the plan; (5) the measures by which achievement of the objectives is to be assessed; (6) the resource options or mix of options included in the plan; (7) the assumptions and the basis of the assumptions underlying the plan; (8) the risks and uncertainties associated with the plan; (9) the revenue requirements on a present value basis and on an annual basis; (10) the expected impact of the plan on demand; (11) the expected achievement of objectives; (12) the potential impact of the plan on rates, consumer bills, and consumer energy use; (13) the plan's external costs and benefits; and (14) the relative sensitivity of the plan to changes in assumptions and other conditions. The items enumerated should, where appropriate, be described for the plan as a whole and for each of the resources or mix of resources included in the plan.~~
- b. ~~b. The utility shall file with the integrated resource plan a full and detailed description of the analysis or analyses upon which the plan is based. The utility shall fully describe, among other things, (1) the data (and the source of the data) upon which needs were identified and forecasts made; (2) the methodologies used in forecasting; (3) the various objectives and measures of assessing attainment of objectives that were considered, but rejected, and the reasons for rejecting any objective or measure; (4) the resource options that were identified, but screened out and not considered and the reasons for the rejection of any resource option; (5) the assumptions and the basis of the assumptions, the risks and uncertainties, the costs, effectiveness, and benefits (including external costs and benefits), and the impacts on demand, rates, consumer bills, and consumer energy uses associated with each resource option or mix of options that was considered; (6) the comparisons and the cost, effectiveness, and benefit tradeoffs and optimization made of the options and mixes of options; (7) the models used in the comparisons, tradeoffs, and optimization; (8) the criteria used in any ranking of options and mixes of options; and (9) the sensitivity analyses conducted for the options and mixes of options.~~
- c. ~~c. The utility shall also file with the integrated resource plan a description of all alternate plans that the~~

utility developed, the ranking it accorded the various plans, the criteria used in such ranking, and a full and detailed explanation of the analysis upon which it decided its preferred integrated resource plan.

d. ~~d.~~ The submissions should be simply and clearly written and, to the extent possible, in non-technical language. Charts, graphs, and other visual devices may be utilized to aid in understanding its plan and the analyses made by the utility. The utility shall provide an executive summary of the plan and of the analyses and appropriately index its submissions.

~~6.~~ 2. The utility shall submit its program implementation schedule as follows.

a. ~~a.~~ The utility shall include in the schedule by year: the programs or phases of programs to be implemented in the year; the expected level of achievement of objectives; the expected size of the target group or level of penetration of any demand-side management program; the expected supply-side capacity addition; the expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of each program or phase of a program.

b. ~~b.~~ The utility shall file with its program implementation schedule a full and detailed description of the analysis upon which the schedule is based. The utility shall fully describe, among other things:

(1) ~~(1)~~ The steps required to realize and implement the supply side and demand-side resource programs included in the schedule.

(2) ~~(2)~~ How the target groups were selected and how program penetration for demand-side management programs and the expected levels of effectiveness in achieving integrated resource planning objectives were derived.

(3) ~~(3)~~ The expected annual effects of program implementation on the utility and its system, the ratepayers, the environment, public health and safety, cultural interests, the state economy, and society in general.

- ~~e. e. The program implementation schedule shall also be accompanied by the utility's proposals on cost and revenue loss recovery and incentives, as appropriate.~~
- ~~7. 3. The utility shall submit its annual evaluation as follows.~~
 - ~~a. a. The utility shall include in its annual evaluation, an assessment of the continuing validity of the forecasts and assumptions upon which its integrated resource plan and its program implementation schedule were fashioned.~~
 - ~~b. b. The utility shall also include for each program or phase of program included in the program implementation schedule for the immediately preceding year a comparison of:~~
 - ~~(1) (1) The expenditures anticipated to be made and the expenditures actually made, by cost categories and cost elements.~~
 - ~~(2) (2) The level of achievement of objectives anticipated and the level actually attained.~~
 - ~~(3) (3) The target group size or level of penetration anticipated for each demand-side management program and the size or level actually realized.~~
 - ~~(4) (4) The effects of program implementation anticipated and the effects actually experienced.~~
 - ~~c. c. The utility shall provide an assessment of all substantial differences between original estimates and actual experience and of what the actual experience portends for the future.~~
 - ~~d. d. Together with its annual evaluation, the utility shall submit a revised program implementation plan that drops the immediately preceding year from the schedule and includes a new year. The program implementation plan must always reflect a five year time span.~~
- ~~8. 4. The utility may at any time, as a result of its annual evaluation or change in conditions, circumstances, or assumptions, revise or amend its integrated resource plan or its program implementation schedule. All revisions and amendments must conform to the appropriate requirements of this part D.~~

1. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, an integrated resource plan report that contains chapters describing a) Background and Objectives, b) Methodology, c) Data and Assumptions, and d) Results. The report will include an executive summary of the integrated resource plan and of the analyses. Appendices providing supporting information may be included. The report will be prepared in conformance with standard practice for electric cooperative integrated resource planning reports. The report will be simply and clearly written and, to the extent possible, in non-technical language. Charts, graphs, and other visual devices may be utilized to aid in understanding.
2. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, a program implementation schedule that includes, by year: the programs or phases of programs to be implemented in the year; the expected level of achievement of objectives; and the expenditures, by cost categories, required to be made by KIUC to support implementation of each program or phase of a program.
3. KIUC Management shall submit to the KIUC Board of Directors, and upon its approval KIUC shall submit to the Commission, an annual evaluation report that includes, for each program or program phase: a) a comparison of the actual and anticipated expenditures by cost category, and b) a comparison of the actual and anticipated achievement of program objectives. The report shall also include a revised program implementation schedule for the next five years. The report will also include documentation of the KIUC Board of Directors' decision whether or not to prepare a new integrated resource plan in the coming year. As part of this report, KIUC may update the avoided cost estimates that it uses to evaluate the cost-effectiveness of supply-side proposals and demand-side management activities.
- 5.4. The integrated resource plan and program implementation schedule approved by the KIUC Board of Directors and eCommission shall govern all KIUC utility expenditures for capital projects, purchased power, and demand-side manage programs. Notwithstanding approval of an integrated resource plan: (a) an expenditure for any capital project in excess of \$2,500,000 shall be submitted to the eCommission for review as provided in paragraph 2.3.g.2 of General Order No. 7; and (b) no obligation under any purchased power contract shall be undertaken and no expenditure for any specific demand-side management program included in an integrated resource plan or a program implementation schedule shall be made without prior eCommission approval. All power

purchases from qualifying facilities and independent power producers shall be subject to statute and eCommission rules.

E. Public Participation

To maximize public participation in ~~each utility's~~KIUC's integrated resource planning process, opportunities for such participation shall be provided through ~~an advisory groups to the utility~~panel, ~~public hearings~~forums, and interventions in formal proceedings before the eCommission.

1. Advisory groups~~Panel~~

- ~~a. a. The utility shall organize in each county in which the utility provides service or conducts utility business a group or groups of representatives of public and private entities to advise the utility in the development of its integrated resource plan. A separate advisory group may be formed for each stage of the planning process, as appropriate. The utility shall chair each advisory group.~~
- ~~b. b. The public and private entities includable in an advisory group are those that represent interests that are affected by the utility's integrated resource plan and that can provide significant perspective or useful expertise in the development of the plan. These entities include state and county agencies and environmental, cultural, business, and community interest groups. An advisory group should be representative of as broad a spectrum of interests as possible, subject to the limitation that the interests represented should not be so numerous as to make deliberations as a group unwieldy.~~
- ~~c. c. The utility shall consider the input of each advisory group; but the utility is not bound to follow the advice of any advisory group.~~
- ~~d. d. All data reasonably necessary for an advisory group to participate in the utility's integrated resource planning process shall be provided by the utility, subject to the need to protect the confidentiality of customer specific and proprietary information.~~
- ~~e. e. The use by the advisory groups of the collaborative process is encouraged to arrive at a consensus on issues.~~
- ~~f. f. All reasonable out of pocket costs incurred by participants in advisory groups (other than governmental~~

agencies) shall be paid for by the utility, subject to recovery as part of the utility's costs of integrated resource planning.

- a. KIUC will establish an Advisory Panel to advise the KIUC Management in the development of the integrated resource plan and the Board of Directors in its consideration of the integrated resource plan submitted by Management.
- b. The Advisory Panel will comprise 13 voting members, who shall be KIUC members. To support fulfillment of its responsibilities in KIUC's integrated resource planning docket, the Consumer Advocate will participate on the Advisory Panel as a non-voting member. At its discretion, the Advisory Panel may invite other entities or persons to participate in panel activities as non-voting members.
- c. At the beginning of each planning cycle (i.e., as soon as possible after the Board of Directors' decision to develop a new integrated resource plan in a particular year), a nominating committee will be formed, consisting of three members of the prior Advisory Panel, to be selected by the prior Advisory Panel; one member of the Board of Directors, to be selected by the Board of Directors; and one member of the KIUC Management, selected by the KIUC Chief Executive Officer. The nominating committee will identify 13 KIUC members to comprise the next Advisory Panel. To the extent possible, the nominating committee will attempt to include a broad cross-section of member interests; however, the only criterion for nomination established herein is a willingness to devote the time and energy expected of Advisory Panel members. The nominating committee will present its slate of 13 candidates to the Board of Directors, which will approve or reject the slate as a whole.
- d. The Advisory Panel will elect its own chair, who will run Advisory Panel meetings. Between the time the KIUC Board or Directors decides 1) to develop a new integrated resource plan and 2) to adopt an integrated resource plan submitted by KIUC Management, the Panel will meet as often as it deems appropriate. At the Panel's request, KIUC Management will meet with the Panel, in order to discuss integrated resource planning objectives, methods, assumptions, intermediate results, final results, or other topics of interest to the Panel. KIUC Management shall provide all information reasonably necessary for the Panel to participate in the integrated resource planning process.

subject to the need to protect the confidentiality of customer-specific and proprietary information. During this period, at the request of either the Panel or the KIUC Board of Directors, the Panel may present status reports to the KIUC Board of Directors.

- e. At the same time that KIUC Management submits an integrated resource plan to the KIUC Board of Directors for the latter's consideration, the integrated resource plan will be submitted to the Advisory Panel. The Panel will review the submitted integrated resource plan, and develop a recommendation on whether the integrated resource plan should be approved or rejected (in whole or in part). The Panel will present this recommendation, together with the rationale for its recommendation, at a Board of Directors meeting prior to Board of Directors approval or rejection of the integrated resource plan. The Board of Directors shall consider but is not bound by the Advisory Panel's recommendation.
- f. Following the Board of Directors' approval of an integrated resource plan, the Panel will meet at least annually until the next planning cycle begins. At the first meeting of each calendar year, KIUC Management will present 1) its recommendation on whether or not to develop a new integrated resource plan in that year, 2) the updated program implementation schedule, and 3) the annual evaluation report. The Panel will develop recommendations on whether these three items should be approved or rejected. The Panel will present these recommendations at a Board of Directors meeting prior to Board of Directors approval or rejection of the three items. The Board of Directors shall consider but is not bound by the Advisory Panel's recommendations.
- g. KIUC will pay all reasonable out-of-pocket costs incurred by Advisory Panel members (other than governmental agencies). KIUC Staff will provide a reasonable level of administrative support to the Panel, if so requested.

3.——2. Public Hearings Forums

- a. ~~The utility is encouraged to conduct public hearings or provide public forums at the various, discrete phases of the planning process for the purpose of securing the input of those members of the public who are not represented by entities constituting advisory groups.~~

- ~~a. b. Upon the filing filling of requests for approval of an integrated resource plan or projects, the commission may, and it shall where required by statute, conduct public hearings for the purpose of securing public input on the utility's proposal. The commission may also conduct such informal public meetings as it deems advisable.~~
- a. KIUC members elect the nine-member Board of Directors to represent their interests. Members are encouraged to provide input at monthly Board meetings on subjects of their choice, and routinely do so. In addition, Board members routinely solicit the views of members in other forums.
- b. Between the time the KIUC Board of Directors decides 1) to develop a new integrated resource plan and 2) to adopt an integrated resource plan submitted by KIUC Management, KIUC Board of Directors and/or Management will conduct public forums to discuss the integrated resource plan development. The public will be invited to these forums through bill inserts or other forms of media (e.g., via public notice on radio and in the local newspaper). Forums will be held at various public facilities around Kaua'i.
- c. As appropriate, KIUC will conduct surveys of members regarding integrated resource planning issues.

3. Intervention

- a. Upon the filing of its integrated resource plan, with the utilityCommission, KIUC shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that the utilityit has filed its proposed integrated resource plan with the eCommission for the eCommission's approval.
- b. To encourage public awareness of the filing of a proposed utilityintegrated resource plan, a copy of the proposed integrated resource plan and the supporting analysis shall be available for public review at the eCommission's office and at the office of the eCommission's representative in the county serviced by the utility. In the case of Maui Electric Company, Limited, the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library on each of the islands of Molokai and Lanai. In the case of Hawaii Electric Light Company, Inc., the

~~utility shall also make a copy of its proposed plan and the supporting analysis available at the public library in Kona. Each utility~~Kaua'i. KIUC shall note the availability of the documents for public review at these locations in its published notice. ~~The utility~~KIUC shall make copies of the executive summary of the integrated resource plan and the analysis available to the general public at no cost, except the cost of duplication.

- c. Applications to intervene or to participate without intervention in any proceeding in which ~~a utility~~KIUC seeks eCommission approval of its integrated resource plan are subject to the rules prescribed in part IV of the eCommission's General Order No. 1 (Practice and Procedure before the Public Utilities Commission); except that such applications may be filed with the eCommission not later than 20 days after the publication by ~~the utility~~KIUC of a notice informing the general public of the filing of ~~the utility's~~its application for eCommission approval of its integrated resource plan, notwithstanding the opening of the docket before such publication.
- d. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the eCommission for cause.

4. Intervenor funding

- a. Upon the issuance of the eCommission's final order on a ~~utility's~~KIUC's integrated resource plan or any amendment to the integrated resource plan, the eCommission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of for-profit entities) recovery of all or part of the intervenor's or participant's direct out-of-pocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the eCommission.
- b. To be eligible for such recovery:
 - (1) The intervenor or participant must show a need for financial assistance;

- (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;
 - (3) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
 - (4) The eCommission must find that the intervenor or participant made a substantial contribution in assisting the eCommission in arriving at its decision.
- c. The intervenor's or participant's books of account are subject to audit, and the eCommission may impose other requirements in any specific case.
 - d. Such allowance may be made only upon the application of the intervenor or participant within 20 days after the issuance of the eCommission's final order, together with justification and documented proof of the costs incurred.
 - e. The costs of intervenor funding shall be paid for by the ~~utility~~KIUC, subject to recovery as part of its costs of integrated resource planning.

F. Cost Recovery and Incentives

- 1. ~~The utility~~KIUC is entitled to recover its integrated resource planning and implementation costs that are reasonably incurred, including the costs of planning and implementing pilot and full-scale demand-side management programs.
 - a. The cost recovery may be had through the following mechanisms:
 - (1) Base rate recovery--the inclusion of costs in ~~the utility's~~KIUC's base rate during each rate case. A balancing account may be appropriate in this instance to reconcile, with interest, ~~the utility's~~KIUC's recovered expenditures with its actual expenditures. It may also be appropriate to consider ~~the utility's~~KIUC's under-expenditure of authorized cost to limit recovery, unless program objectives are met or exceeded.
 - (2) Adjustment clause--the recovery of costs incurred between rate cases in excess of the baseline

integrated resource planning-related costs that are included in the utility's KIUC's base rates.

~~(1) (3) Ratebasing the inclusion of costs that are capital in character (i.e., expenditures considered to produce long term savings or benefits, such as appliance rebates, loans, etc.), with accumulated AFUDC, in the utility's rate base at its next rate case. The costs are to be amortized over a period set by the commission.~~

~~(2) (4) Escrow accounting the accumulation, with interest, of costs, not capital in character, incurred between rate cases and not otherwise recovered through the utility's base rates, adjustment clause, or rate base, in a deferred account, to be amortized over a period set by the commission.~~

b. The eCommission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for eCommission approval. Cost recovery for other integrated resource programs generally will be addressed in each utility's KIUC's rate case.

2. Under appropriate circumstances, the utility KIUC may recover the net loss in revenues sustained by the utility KIUC as a result of successful implementation of full-scale demand-side management programs sponsored or instituted by the utility KIUC.

a. The net revenue loss is the revenue lost less the variable fuel and operating expenses saved by the utility KIUC as a result of not having to generate the unsold energy.

b. The eCommission will determine whether the utility KIUC will be permitted to recover the net revenues lost as a result of successful implementation of a full-scale demand-side management program and the form of the recovery mechanism. The determination will be made when an application is filed for approval of the demand-side management program.

~~2. 3. Under appropriate circumstances, the commission may provide the utility with incentives to encourage participation in and promotion of full-scale demand-side management programs.~~

- ~~a. a. The incentives may take any form approved by the commission. Among the possible forms are:~~
- ~~(1) (1) Granting the utility a percentage share of the gross or net benefits attributable to demand-side management programs (shared savings).~~
 - ~~(2) (2) Granting the utility a percentage of certain specific expenditures it makes in demand-side management programs (mark-up).~~
 - ~~(3) (3) Allowing the utility to earn a greater than normal return on equity for ratebased and demand-side management expenditures (rate base bonus).~~
 - ~~(4) (4) Adjusting the utility's overall return on equity in response to quantitative or qualitative evaluation of demand-side management program performance (e.g., adjusting the return upward for achieving a certain level of kilowatt or kilowatt-hour savings) (ROE adjustment).~~
- ~~b. b. The commission will determine whether the utility will be provided with incentives and the form of such incentives, if any, when specific demand-side management programs are submitted for approval. The utility may propose incentive forms for a particular program, based on the particular attributes of the program and the results to be attained.~~
- ~~c. c. The commission may terminate any and all incentives whenever circumstances or conditions warrant such termination.~~

IV. Planning Considerations

A. Scoping Document

1. Following a KIUC Board of Directors decision to develop a new integrated resource plan in a particular year, KIUC Management will develop and submit to the Board of Directors a scoping document for preparing the new integrated resource plan.
2. The scoping document will specify the objectives that the integrated resource plan will seek to achieve, the planning horizon, and the data and analytic methods that will be utilized.

3. KIUC Management will submit the scoping document to the Advisory Panel at the same time as it is submitted to the Board of Directors. The Advisory Panel will recommend to the Board of Directors whether to approve or reject the scoping document, either in whole or in part.
4. The Board of Directors will approve or reject the scoping document, either in whole or in part. KIUC Management will conduct the integrated resource planning activities in accordance with the Board of Directors-approved scoping document.
5. In preparing the scoping document, KIUC Management will consider the elements addressed in paragraphs B – K below.

A.B. Forecast

1. ~~The utility shall~~ KIUC will develop a ~~range of forecast (or forecasts)~~ of the amount of energy consumers will need over the planning horizon. ~~It shall develop forecasts for multiple scenarios that are necessary or appropriate in the development of its integrated resource plan. Among the scenarios are the base case scenario (a scenario based on the most likely assumptions), a high-growth scenario, and a low growth scenario.~~ In developing this (these) forecast(s), KIUC Management will use data and methods that are standard in the electric utility industry for cooperative utilities of KIUC's size and circumstances.
- ~~1.~~ ~~2.~~ Each forecast shall identify the significant demand and use determinants; describe the data, the sources of the data, the assumptions (including assumptions about fuel prices, energy prices, economic conditions, demographics, population growth, technological improvements, and end-use), and the analysis upon which the forecast is based; indicate the relative sensitivity of the forecast result to changes in assumptions and varying conditions; and describe the procedures, methodologies, and models used in the forecast, together with the rationale underlying the use of such procedures, methodologies, and models.
- ~~2.~~ ~~3.~~ Among the data to be considered are historical data on energy sales, peak demand, system load factor, system peaks, and such other data of sufficient duration to provide a reasonable basis for the utility's estimates of future demand.
- ~~3.~~ ~~4.~~ As feasible and appropriate, the forecast shall be by the system as a whole and by customer classes.

- ~~4. 5. The utility shall use all reasonable methodologies in forecasting, including, as practicable and economically feasible, the disaggregated end-use methodology.~~

B.C. Objectives

1. The ultimate objective of a ~~utility's~~KIUC's integrated resource plan is meeting the energy needs of ~~the utility's~~KIUC's customers over the ~~ensuing 20 years~~planning horizon.
2. The ~~utility may~~KIUC Board of Directors will specify any other ~~utility~~KIUC-specific objective that it seeks to achieve through its integrated resource plan. ~~For example, given the parameter of the State goal of less dependence on imported oil, the utility may set as an objective the achievement of lowering to a specified level the use of imported oil.~~
3. The ~~commission may specify~~Commission may suggest other objectives for ~~the utility~~KIUC. Such specifications, if any, shall be included in the order opening a docket for integrated resource planning at the commencement of each planning cycle.

C.D. Effectiveness Measures

1. ~~The utility~~KIUC shall specify the measures by which attainment of the objective or objectives is to be determined.
2. Where direct, quantifiable measures are not available, ~~the utility~~KIUC may utilize proxy measures.

D.E. Resource Options

1. In the development of its integrated resource plan, ~~the utility~~KIUC shall consider all ~~feasible~~supply-side and demand-side resource options appropriate to Hawaiithe KIUC service territory and available within the years encompassed by the ~~integrated resource~~planning horizon to meet the stated objectives.
2. ~~The utility~~KIUC shall include among the options the supply-side and demand-side resources or mixes of options currently ~~is in~~in use, promoted, planned, or programmed for implementation by ~~the utility~~KIUC. Supply-side and demand-side resource options include those resources that are or may be supplied by persons other than ~~the utility~~KIUC.
3. ~~The utility~~KIUC shall initially identify all ~~possible~~supply-side and demand-side resource options. ~~The utility~~appropriate to the KIUC service territory. KIUC may, upon review, screen out those

options that are clearly infeasible. ~~An option may be deemed infeasible where the option's life cycle costs clearly outweigh its benefits or effectiveness under both societal cost benefit and utility cost benefit assessments. The utility, with the advice of the advisory groups, KIUC may establish such other criteria for screening out clearly infeasible determining the feasibility of options.~~

E.F. Data Collection

1. For each feasible resource option, ~~the utility~~ KIUC shall determine its life cycle costs and benefits and its potential level of achievement of objectives. ~~The utility shall identify the option's total costs and benefits the costs to the utility and its ratepayers and the indirect, including external (spillover), costs and benefits. External costs and benefits include the cost and benefit impact on the environment, people's lifestyle and culture, and the State's economy.~~
- ~~1.~~ ~~2.~~ To the extent helpful in analysis, the utility shall distinguish between fixed costs and variable costs and between sunk costs and incremental costs; and the utility shall identify any opportunity costs.
- ~~2.~~ ~~3.~~ The costs and benefits shall, to the extent possible and feasible, be (a) quantified and (b) expressed in dollar terms. When it is neither possible nor feasible to quantify any cost or benefit, such cost or benefit shall be qualitatively measured. The methodology used in quantifying or in qualitatively stating costs and benefits shall be detailed.

F.G. Assumptions; Risks; Uncertainties

1. ~~The utility~~ KIUC shall identify the assumptions underlying any resource option or the cost or benefit of any option or any analysis performed.
2. ~~The utility~~ KIUC shall also identify the risks and uncertainties associated with each resource option.
3. ~~The utility~~ KIUC shall further identify any technological limitations, infrastructural constraints, legal and governmental policy requirements, and other constraints that impact on any option or ~~the utility's~~ KIUC's analysis.

G.H. Models

1. ~~The utility~~KIUC may utilize any reasonable model or models in comparing resource options and otherwise in analyzing the relative values of the various options or combinations of options.
2. Each model used must be ~~fully~~-described and documented.

H.I. Analyses

1. ~~The utility~~KIUC shall conduct ~~cost benefit and cost effectiveness~~ analyses to compare and ~~weigh~~the extent to which the various options and various alternative mixes of options achieve the integrated resource planning objectives. Alternative mixes of options include variously integrated supply-side and demand-side management programs. Such analyses shall be performed in a manner consistent with practices employed by other electric cooperative utilities of KIUC's size and circumstances.
- ~~1.~~ ~~2.~~ ~~The utility shall conduct such analyses from varying perspectives, including the utility cost perspective, the ratepayer impact perspective, the participant impact perspective, the total resource cost perspective, and the societal cost perspective.~~
- ~~2.~~ ~~3.~~ ~~The utility shall analyze all options on a consistent and comparable basis. It shall give the costs, effectiveness, and benefits and demand-side management options consideration equal to that given to the costs, effectiveness, and benefits of supply-side options. The utility may use any reasonable and appropriate means to assure that such equal consideration is given.~~
- ~~3.~~ ~~4.~~ ~~The utility shall compare the options on the present value basis. For this purpose, the utility shall discount the estimated annual costs (and benefits, as appropriate) at an appropriate rate. The utility shall fully explain the rationale for its choice of the discount rate.~~
- ~~4.~~ ~~5.~~ ~~The utility may rank, as appropriate, the various options and mixes of options upon such reasonable criterion as it may establish with the advice of its advisory groups.~~

I.J. Resource Optimization

1. Based on its analyses, ~~the utility~~KIUC shall select those resource options or mix of resource options that best achieve that level of effectiveness or that level of benefits specified in the integrated resource planning objectives at the least cost. The utility shall also identify those resource options or mix of resource options that achieve the highest level of effectiveness or level of benefits at various levels of cost.

- ~~a. a. The options or mix of options shall be selected in a fashion as to achieve an integration of supply side and demand side options.~~
 - ~~b. b. The selection of options or mix of options constitutes the utility's integrated resource plan.~~
2. ~~The utility shall~~ KIUC may develop a number of alternative plans, each representing optimization from a differing perspective, i.e., using alternative planning objectives including the perspective of the utility, the ratepayers, the non-participant, and society. ~~It shall also develop alternate~~
- ~~3. For each plan, the utility shall identify the revenue requirements on a present value and annual basis. It shall note the risks and uncertainties associated with the plan. It shall also describe the plan's impact on rates, customer energy use, customer bills, and the utility system. It shall also describe the plan's impact on external elements the environment, people's lifestyle and culture, the State's economy, and society in general.~~
- 4.3. If it prepares alternative plans, The utility KIUC Management shall rank the various plans, based on such criterion as it may establish ~~with the advice of its advisory groups.~~ The utility. KIUC Management shall designate one of these plans as its preferred plan and submit to the ~~commission~~ KIUC Board of Directors the preferred plan as its integrated resource plan.

J.K. Sensitivity Analysis

~~The utility~~ KIUC shall subject its selection of resource options to sensitivity analysis by altering assumptions and other parameters.

V. Pilot Demand-Side Management Programs

A. Purposes

1. ~~A~~ The purpose of piloting demand-side management programs is to ascertain whether a given program, not yet proven in Hawaii, is cost-effective--whether it will have the penetration and will achieve accomplishment of ~~the utility's~~ KIUC's objectives as originally believed.
2. A second purpose of piloting demand-side management programs is to determine whether the program design and configuration (including how it is managed and promoted) are such as to permit implementation of the program as efficiently and effectively as desired.

B. ~~Utility~~ Pilot Programs

1. ~~A utility~~KIUC may implement on a full-scale basis (without pilot testing) any demand-side management program that has been proven cost effective as a result of a full-scale or pilot implementation of the program in another comparable utility service territory or as a result of pilot testing by a utility in Hawaii. In all other cases, ~~the utility~~KIUC shall pilot test a demand-side management program before implementing it on a full-scale basis.
2. ~~Each utility~~KIUC shall develop appropriate pilot demand-side management programs for implementation without awaiting ~~e~~Commission approval of its ~~initial~~ integrated resource plan. For each program, ~~the utility~~KIUC shall clearly articulate the parameters of the program, the expected level of achievement of the objectives, the measures by which the attainment of the objectives is to be assessed, the data to be gathered to assist in the evaluation of the pilot program, and the expenditure it proposes to make by appropriate cost
3. ~~All proposed pilot demand-side management programs are subject to commission approval.~~

CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Order No. 21707 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: MAR 24 2005