

A collection of historical artifacts is displayed on a light-colored surface. On the left, a blue and brown checkered board holds several small, round, gold-colored tokens. A red ribbon with a circular emblem is attached to a gold medal with a crown. Below it is a blue ribbon with a circular emblem and a gold medal with a star. A pair of gold-rimmed glasses with a thin wire bridge and a small red-tipped pen are also visible. In the bottom left corner, a circular compass with a white face and black markings is shown. The text 'Introduction to Integrated Resource Planning' is overlaid on the right side of the image in a black, serif font.

Introduction to Integrated Resource Planning



IRP = Integrated Resource Planning

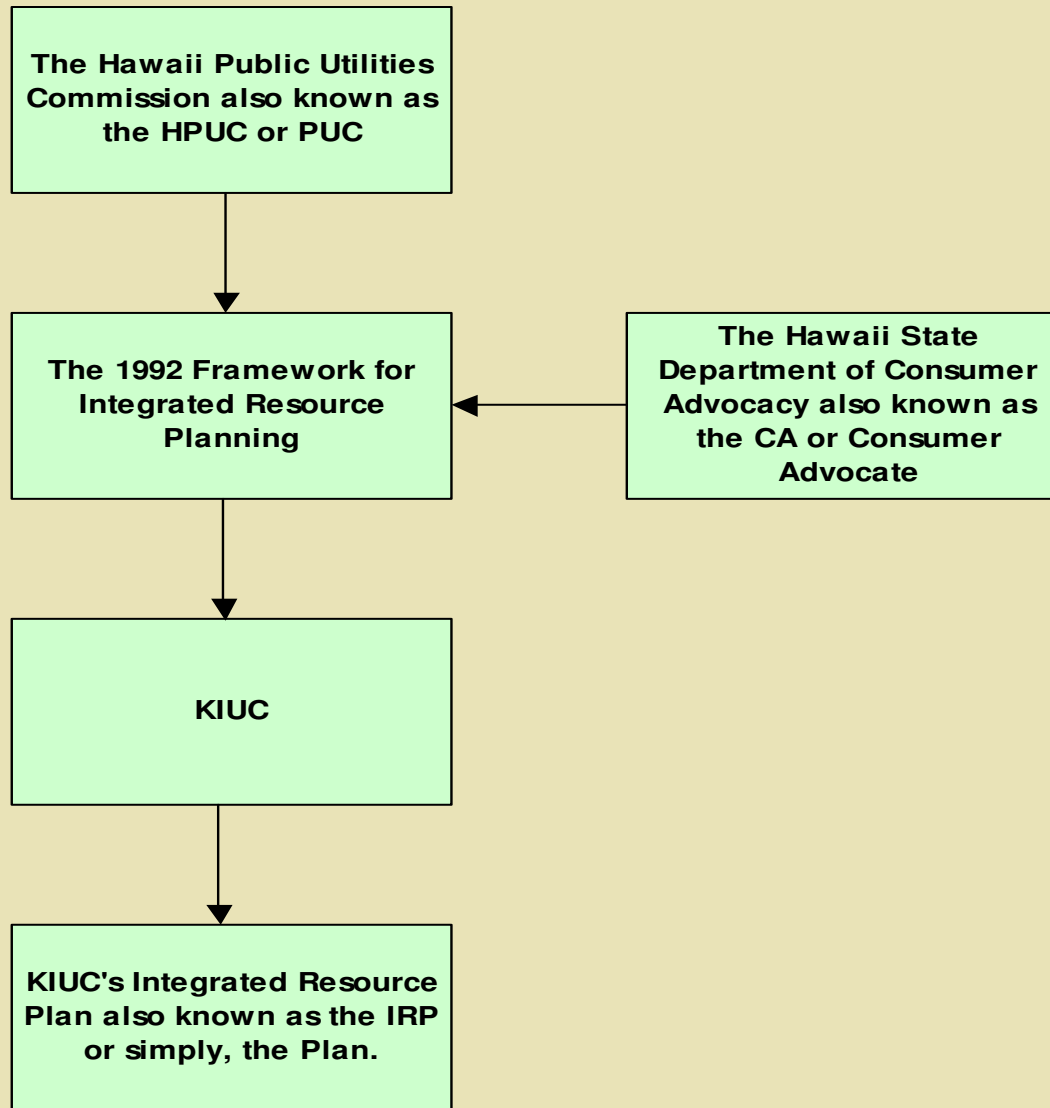
- ◆ Definition: IRP is the process electric and gas utilities use to estimate short and long-term load growth and decide on the best mix of resource to address that growth.



IRP = Integrated Resource Planning

- ◆ Integrated Resource Planning is the entire process, not just the plan itself.
- ◆ Also includes programming, implementation, and evaluation.

Relationship of PUC, CA, and KIUC to IRP Process and Process Guidelines





IRP = Integrated Resource Planning

- ◆ Mandated by HPUC order.
- ◆ IRP is conducted pursuant to Framework.
- ◆ Is done by all Hawaii Electric and Gas utilities.
- ◆ Under current guidelines, a new plan every 3 years that covers a 20 year period.
- ◆ Updates are filed on non-new plan years



IRP Goal

- ◆ “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.”



Governing Principles

- ◆ Each utility responsible for its own IRP.
- ◆ Comply with all environmental, health, and safety laws and all state and county plans.
- ◆ Cost, effectiveness, and benefits of all “appropriate, available, and feasible” options must be analyzed and considered.



Governing Principles

- ◆ Impacts on consumers, environment, culture, lifestyles, economy, and society must be considered.
- ◆ Utility's financial integrity, size, and physical capability must be considered.
- ◆ Must be an open, public process.
- ◆ Utility is allowed to recover all planning and implementation cost.



Responsibilities

- ◆ The Utility – KIUC
- ◆ The Hawaii Public Utilities Commission
- ◆ The Hawaii State Consumer Advocate



Utility's Responsibility

- ◆ Develop a plan
- ◆ Prepare and submit plan to PUC
- ◆ Execute plan pursuant to specified schedule
- ◆ Annual examine and evaluation achievement of objectives



HPUC Responsibilities

- ◆ Determine if plan is reasonable.
- ◆ Approve, reject, or require modifications of the plan.
- ◆ Hear the application for approval within 6 months of filing and render decision.



CA's Responsibilities

- ◆ Insure that the plan promotes the interest of utility consumers.
- ◆ Participate in IRP docket.



4 Major Steps

- ◆ Planning
- ◆ Programming
- ◆ Implementation
- ◆ Evaluation



Planning

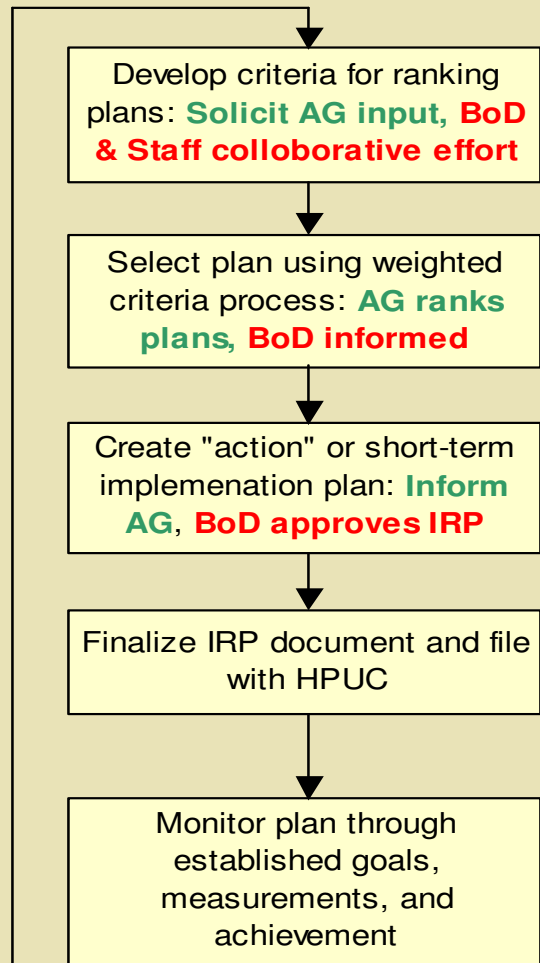
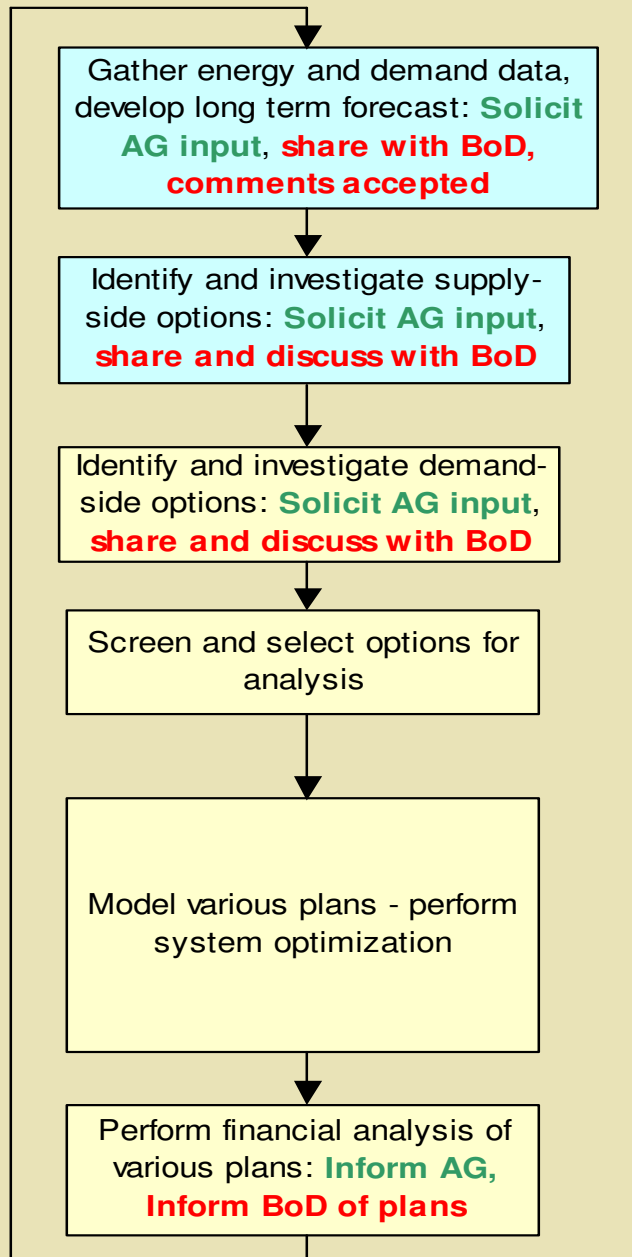
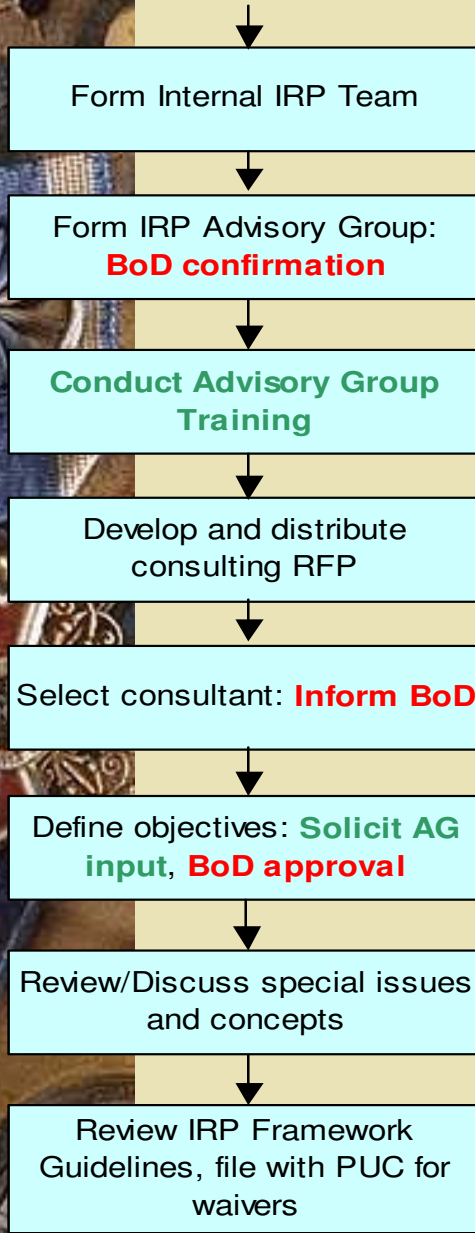
- ◆ Planning is the process for producing an Integrated Resource Plan.
- ◆ Advisory Panel's greatest involvement
- ◆ Identifies utility's objectives.
- ◆ Measures of objective attainment.
- ◆ Alternatives for attaining objectives.



Planning

- ◆ Cost, effectiveness, and benefits of alternatives.
- ◆ Assumptions, risks, and uncertainties are clarified.
- ◆ Resource options chosen.
- ◆ Sensitivity analysis for program choices.

IRP Process





Programming

- ◆ Programming is the process by which the utility's long-range resource program plans are scheduled for implementation over a five-year period.
- ◆ Also known as the program schedule or “Action Plan”.



Implementation

- ◆ Implementation is that process by which the resource program options to be implemented are acquired and instituted in accordance with the utility's program implementation schedule.

Evaluation

- ◆ Evaluation is the process by which the results of the resource program options are measured in light of the utility's objectives.

