The Tool Box: Instruments to Promote Sustainable Energy

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KIUC: COOP

HECO: I.O.U.

MECO: I.O.U.

HELCO: I.O.U.
Instruments to Promote Renewable and Efficiency Resources

- Financial Incentives / Penalties
- Direct Financing
- Mandates
- Demand Side Management Programs
- Integrated Resource Planning
Financial Incentive Instruments

- Financial Incentives
  - Tax Credits
  - Special Purpose Revenue Bonds
  - Revolving Loan Programs
  - Utility Management Incentives

- Financial Penalties
  - Emissions Fees
  - Hookup Fees

- Tax Structure
Direct Financing Instruments

- Government Efficiency Programs
- Government Renewable Energy Projects
- System Benefit Charges
- Green Pricing
Mandate Instruments

- Energy Codes or Standards
- Integrated Resource Planning
- Renewable Portfolio Standards
- Competitive Bidding
- Resource Set Asides
- Regulatory Reform
Demand Side Management

What is DSM?

- “Demand Side” Refers to Customer’s Side of the Meter
- Strives to Change Customer Energy Use to Serve Public and Utility Objectives
  - Energy Efficiency – Load Reduction
  - Load Management – Load Shifting
  - Reduction in Total Energy Costs
DSM Cost and Benefit Perspectives

Who Pays for DSM?
- Utility Ratepayers
- Taxpayers

Who Benefits?
- DSM Program Participants
- Utility Ratepayers
- General Public
Demand Side Management Delivery

- Who “Delivers” DSM?
  - Energy Utility
  - Government Agency
  - Third Party “DSM Utility”
DSM Program “Delivery” Mechanisms

- Rebates
- Financing
  - Loan Programs
  - Customer Bill Rider
- Giveaways
- Direct Installation
- Audits
- Market Transformation Programs
Integrated Resource Planning

What Is IRP?

- Utility Resource Planning Process
- Evaluates All Feasible Resources
- Integrates Supply and “Demand” Resources
- Integrates Non-Monetary Factors
- Integrates Public Participation
- Integrates Utility Divisions
**Integrated Resource Planning**

IRP Process Steps

Objectives / Evaluation Criteria

Long Range Load Forecast

Supply Resource Assessment

DSM Resource Assessment

Integration Analysis

Programming
Integrated Resource Planning

- Evaluation of Diverse Resources Requires Rigorous Analysis
  - Life Cycle Costing
  - Hourly Production Simulation
  - Non-Monetary Factors
- Rigorous Analysis Is the Key to Utility Acceptance
Integrated Resource Planning

➢ Hawaii Outcomes
  ❑ DSM Accepted, Funded and Implemented
  ❑ Public Participation
    *BUT…*
  ❑ Not Effective in Supply Resource Determination
    *SO…*
  ❑ RPS – For Renewable Resources
  ❑ Competitive Bidding – For Conventional Resources
Getting to Good Outcomes

- Collaboratives
- Forums
- Studies and Analysis
- Legislative Direction
  - Policies
  - Mandates
Mahalo!
Thank You!
Gracias!