

The Tool Box: Instruments to Promote Sustainable Energy

Carl Freedman

Chair

Regulatory Reform Working Group
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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!