

# Energy Cost Adjustment Clause (ECAC)

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January 15, 2009

**Alan Hee**

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Hawaiian Electric Company, Inc.



# What is the ECAC?

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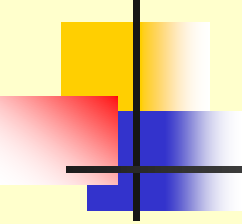
- Adjusts customers' bills for difference between current energy costs and costs in base rates (¢/kWh)
- Utility makes no profit on changes in cost
- Has existed at HECO since 1925
- In effect at HECO, HELCO, & MECO



# Automatic Adjustment Clause

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- Adjusts for cost changes without rate proceeding
  - Costs vary significantly
  - Make up a large portion of expenses
  - Outside of utilities' control
- Reduces the cost of administering frequent changes in base rates

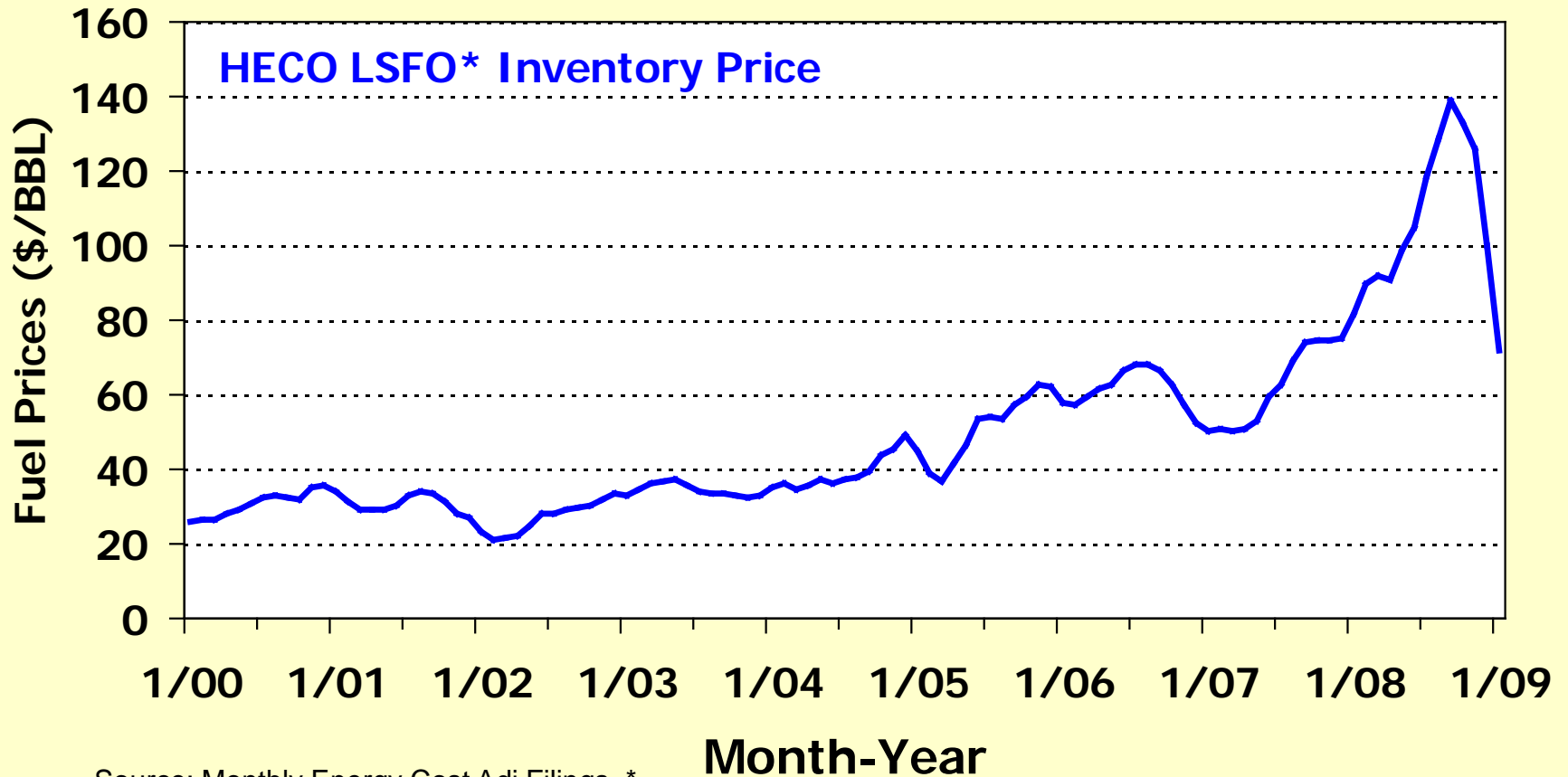


# What Costs Pass Through the ECAC?

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- PUC-approved contract energy costs
- Negotiated contracts
  - Utilities strive to get competitive prices
  - Fuel burned in utility-owned generating units purchased from local refineries
  - Purchased energy from Independent Power Producers (including renewable energy)
- Utility generated renewable energy (at zero energy cost)

# Fuel Prices Vary Significantly

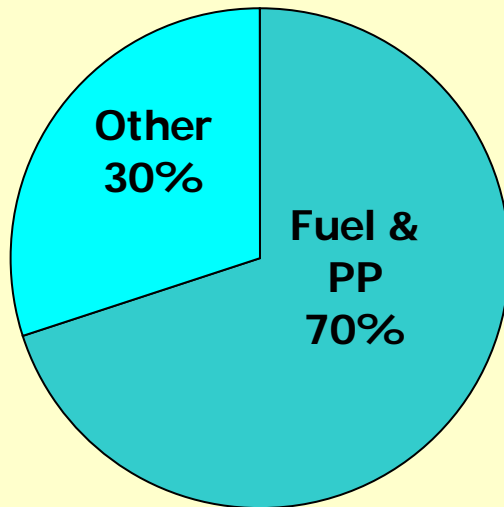


Source: Monthly Energy Cost Adj Filings \*  
Low Sulfur Fuel Oil

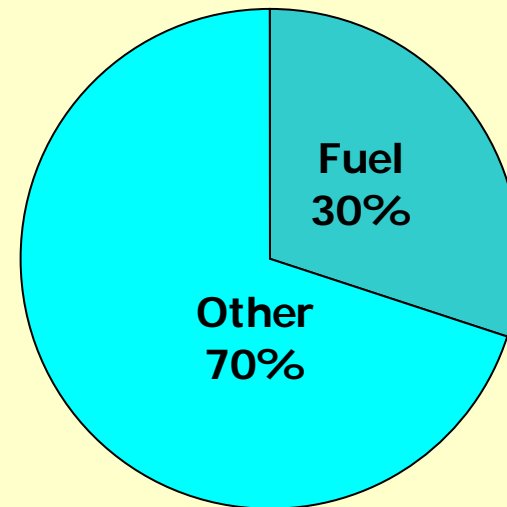
# Fuel/Purchase Energy – Large Portion of Operating Expense

## Fuel/Purchase Energy As % of Total O&M Expense (2007)

HECO Consolidated\*



Hawaiian Air



\*HECO Consolidated: Fuel & PP Includes Only Expenses That Pass Through the ECAC



# Why Is ECAC Necessary?

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- ECAC reduces financial risk
  - Cost that varies significantly
  - Large portion of expenses
  - Out of utilities' control
- Reduces the cost of capital needed to invest in infrastructure
- Reduces the cost to run the utility
- Leads to a financially secure off-taker for purchases of renewable energy
- Allows utilities to accept energy from renewable energy developers and recover the cost without rate proceedings



# How Are Customers Affected?

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- Resulting lower payment rates for capital and borrowings are passed on to customers through lower base rates
- Customers see the true cost of energy
- When fuel prices are low, customers participate in savings
- Encourages renewable energy development



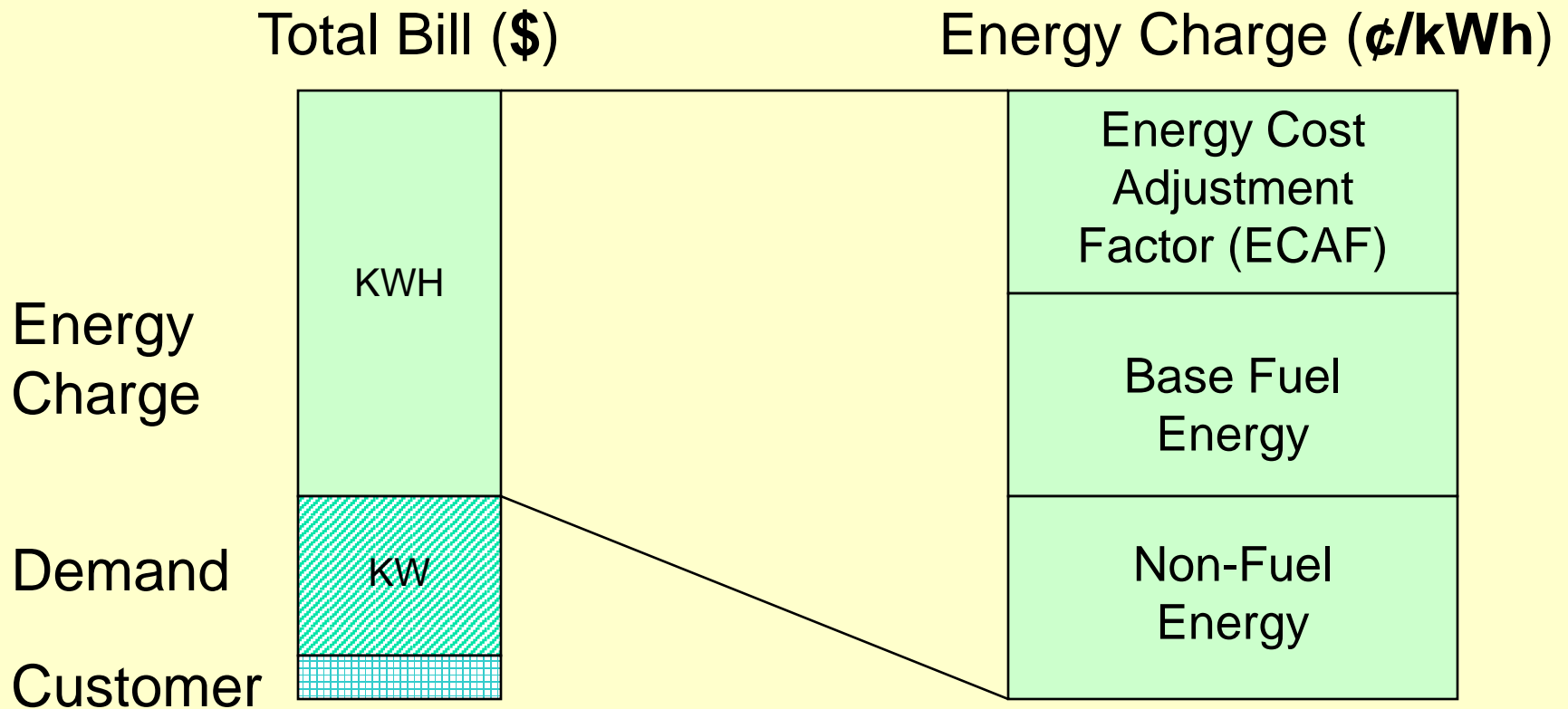


# Commission Oversight

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- Reviews of the ECA Clause in each rate case
- Reviews and approves fuel contracts and purchased power agreements
- Receives monthly notification of energy cost changes in ECA Clause

# Components of An Electric Bill



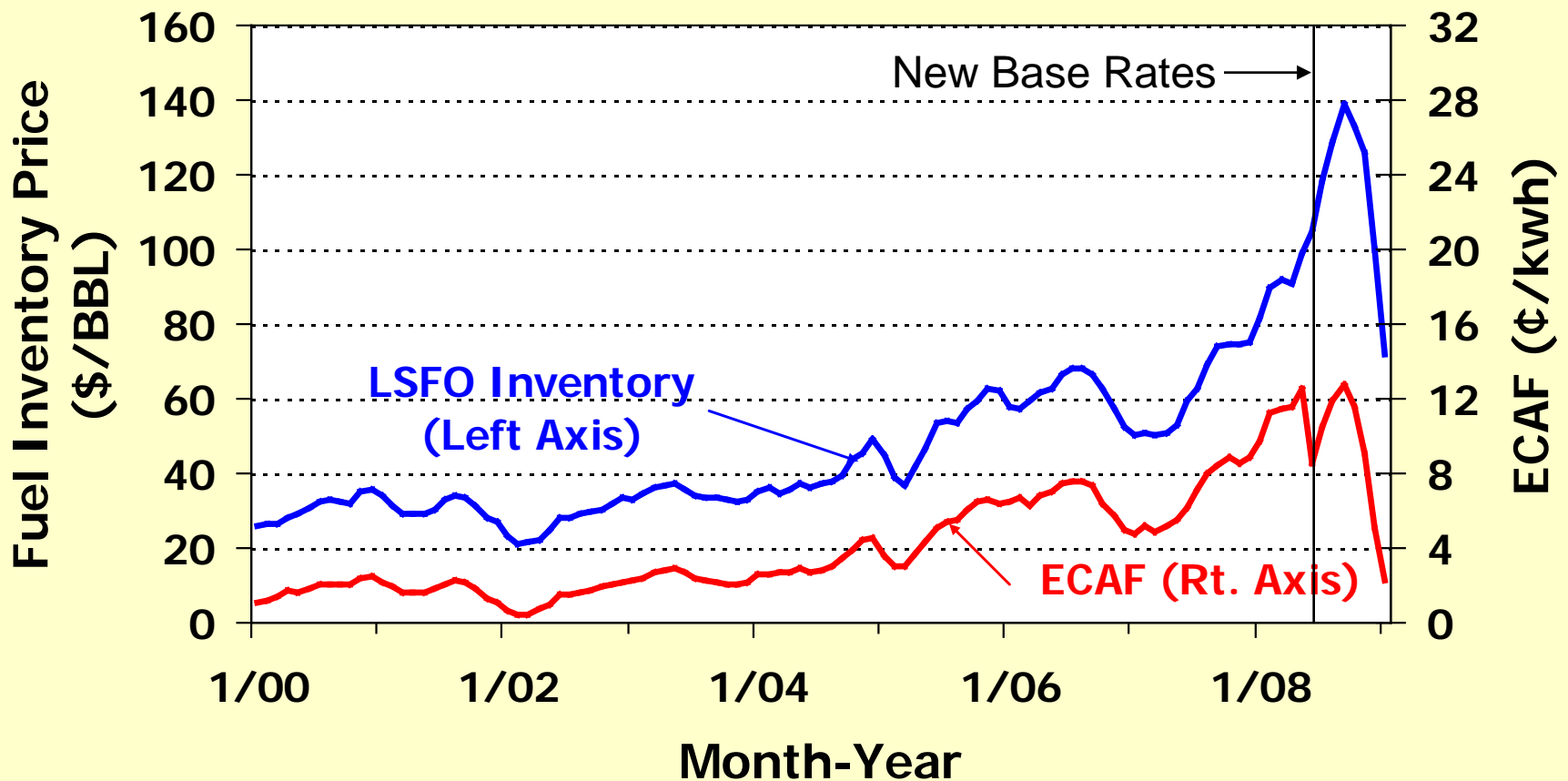


# Energy Costs in Base Rates

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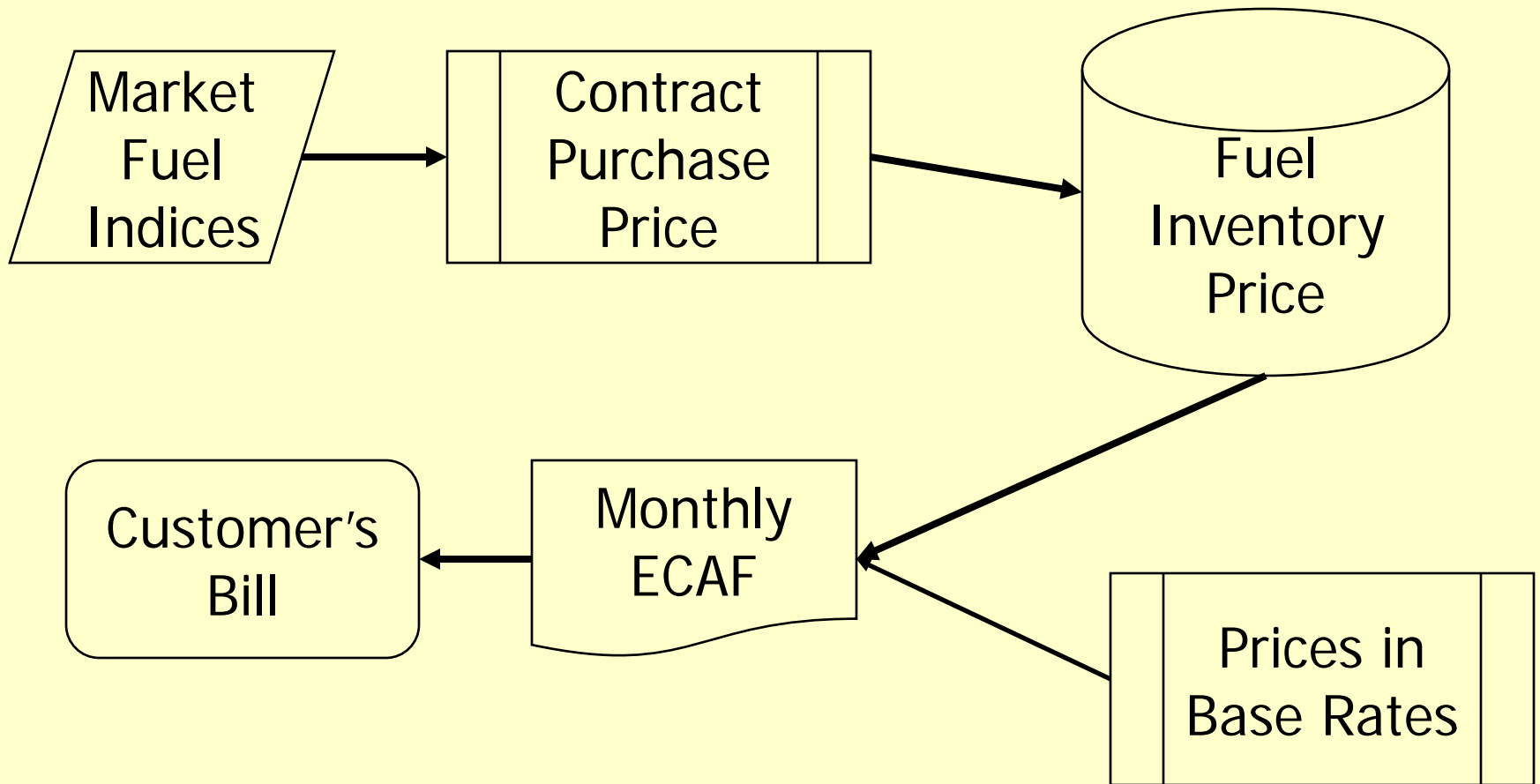
	<u>HECO</u>	<u>Maui</u>	<u>HELCO</u>
Base Fuel Energy (¢/kWh)	8.8903	4.5937	7.6132
Effective Date	Jun 08	Apr 99	Feb 01
<b>Fuel Price (\$/bbl)</b>			
<b>Low Sulfur Fuel Oil (LSFO)</b>	<b>54</b>	<b>---</b>	<b>---</b>
<b>Industrial</b>	<b>---</b>	<b>14</b>	<b>30</b>
<b>Diesel</b>	<b>79</b>	<b>26</b>	<b>41</b>

# HECO ECAF and Fuel Prices



Source: Monthly Energy Cost Adj Filings

# Fuel Price (Market to Customer's Bill)





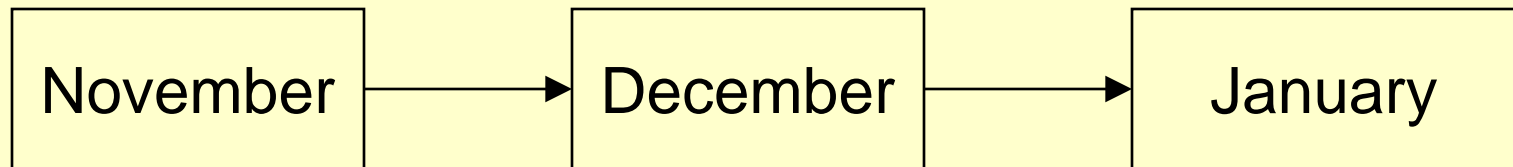
# Illustration of Fuel Price Timing

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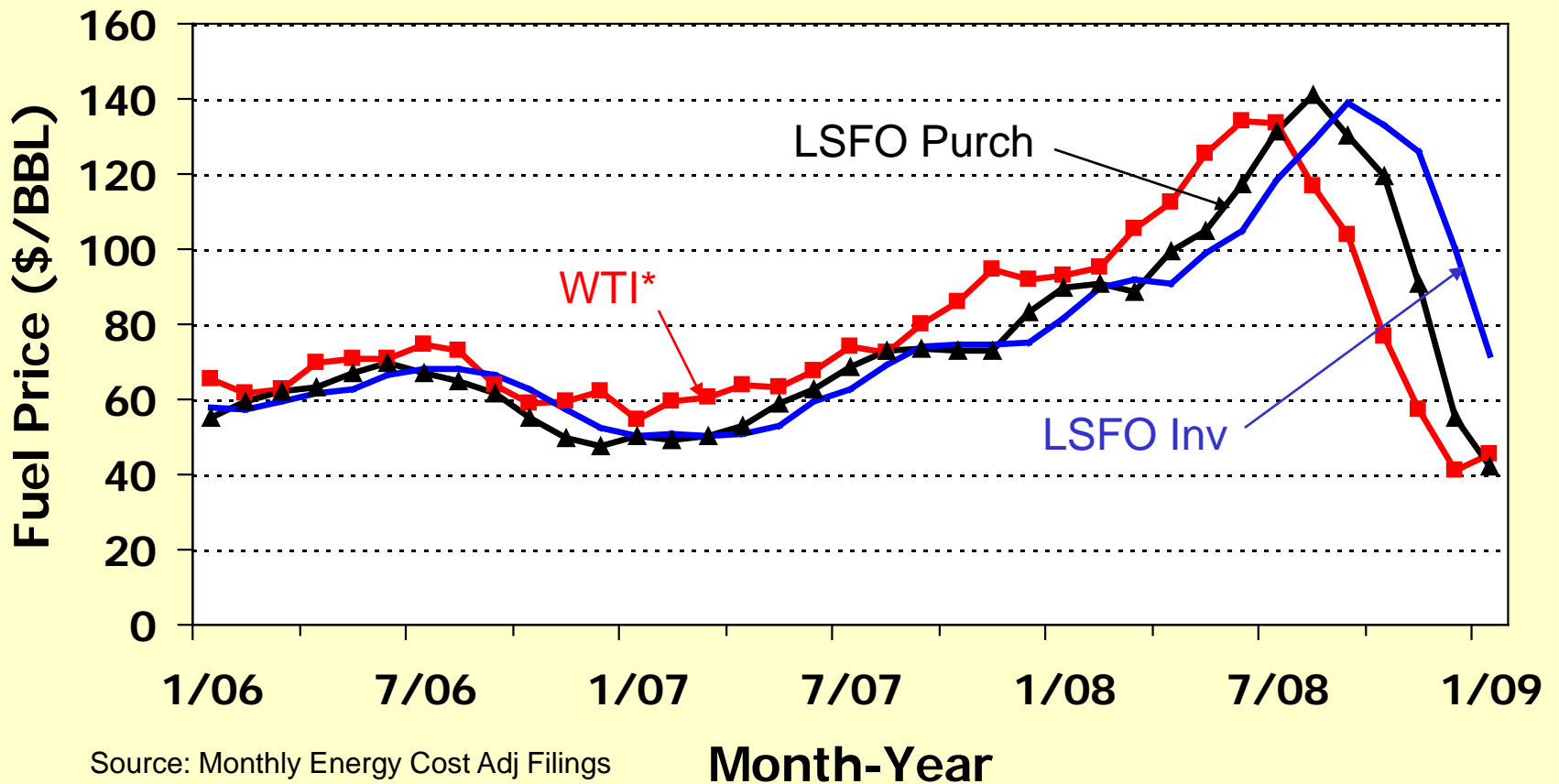
Market  
Indices Set  
Purchase  
Price

Oil Purchased  
and Placed in  
30-Day  
Inventory

Oil Burned To  
Generate  
Electricity,  
Change In  
Price Included  
in Bill



# HECO Fuel Prices

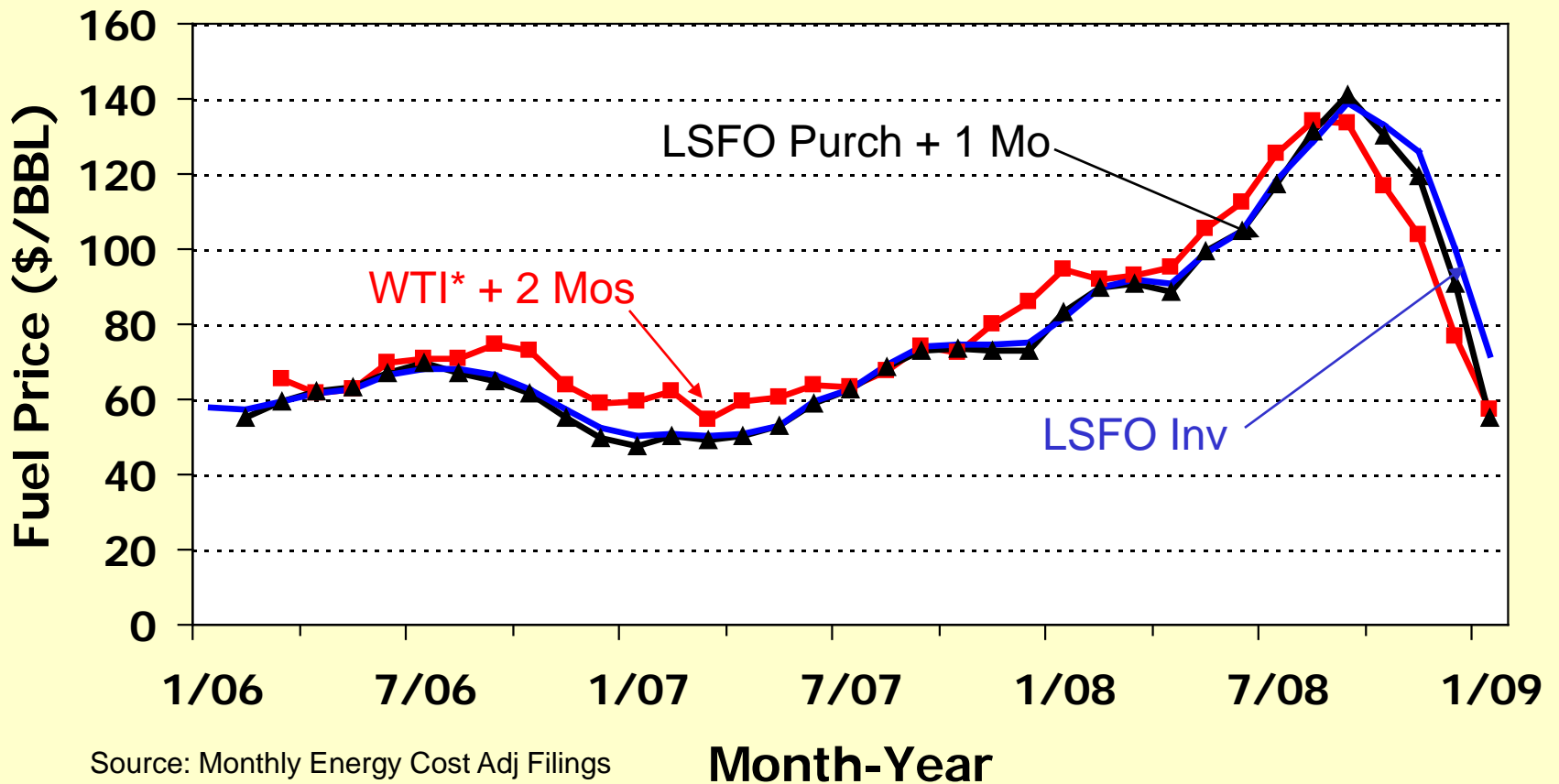


Source: Monthly Energy Cost Adj Filings

Month-Year

\* West Texas Intermediate (Illustrative of a market index)

# HECO Fuel Prices (Shifted)



Source: Monthly Energy Cost Adj Filings

\* West Texas Intermediate

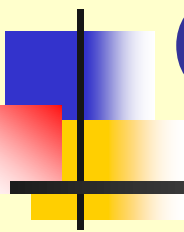




# ECAC Summary

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- Adjusts customers' bills for difference in current energy costs and costs in base rates
- Energy costs are a large portion of expenses
- Customers benefit
  - Lower financing costs passed on to customers through lower base rates
  - See true cost of energy
  - Participate in savings when prices low
- Encourages renewable energy development



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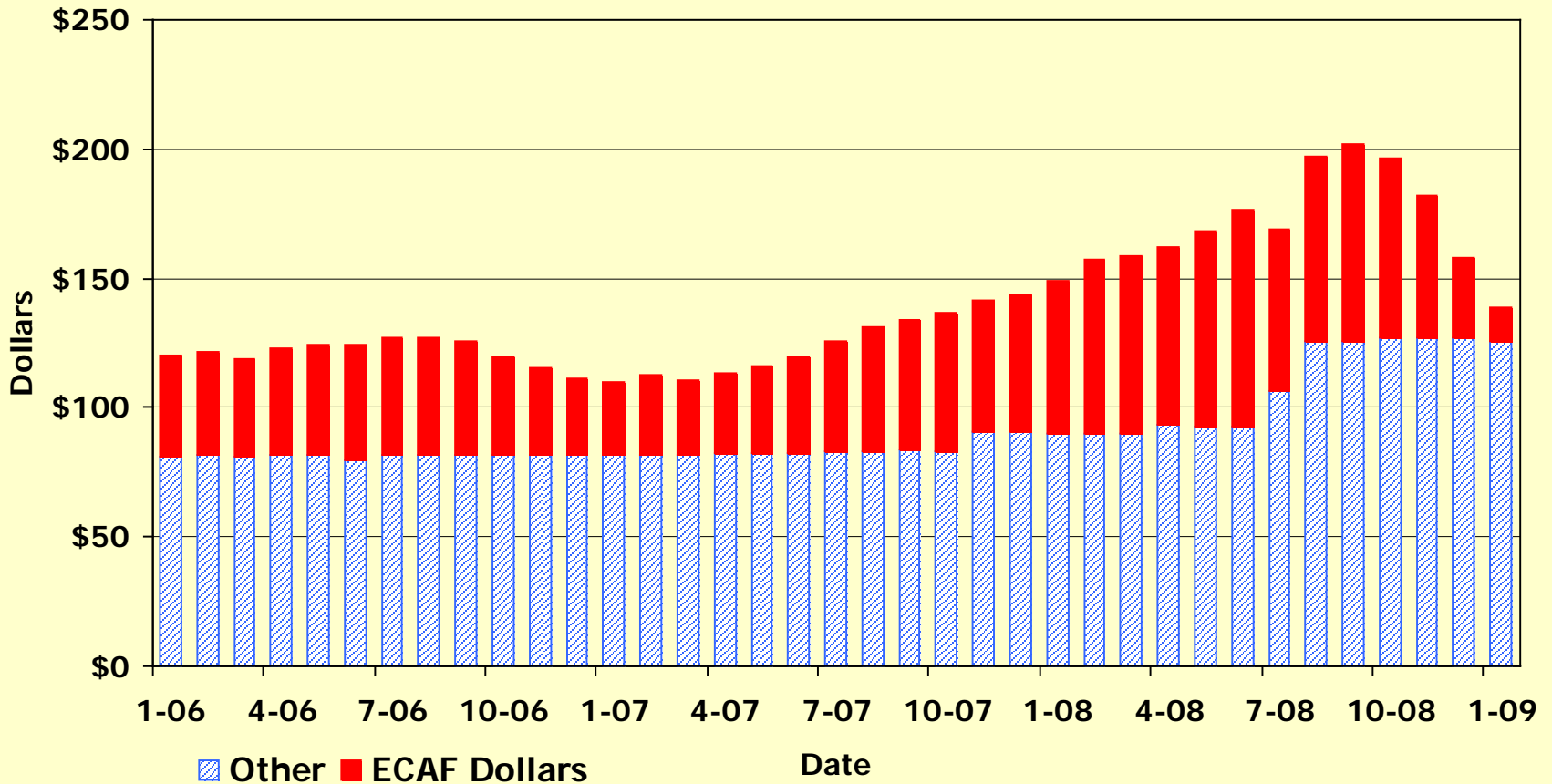
# Energy Adjustment Clauses Widely Used on Mainland

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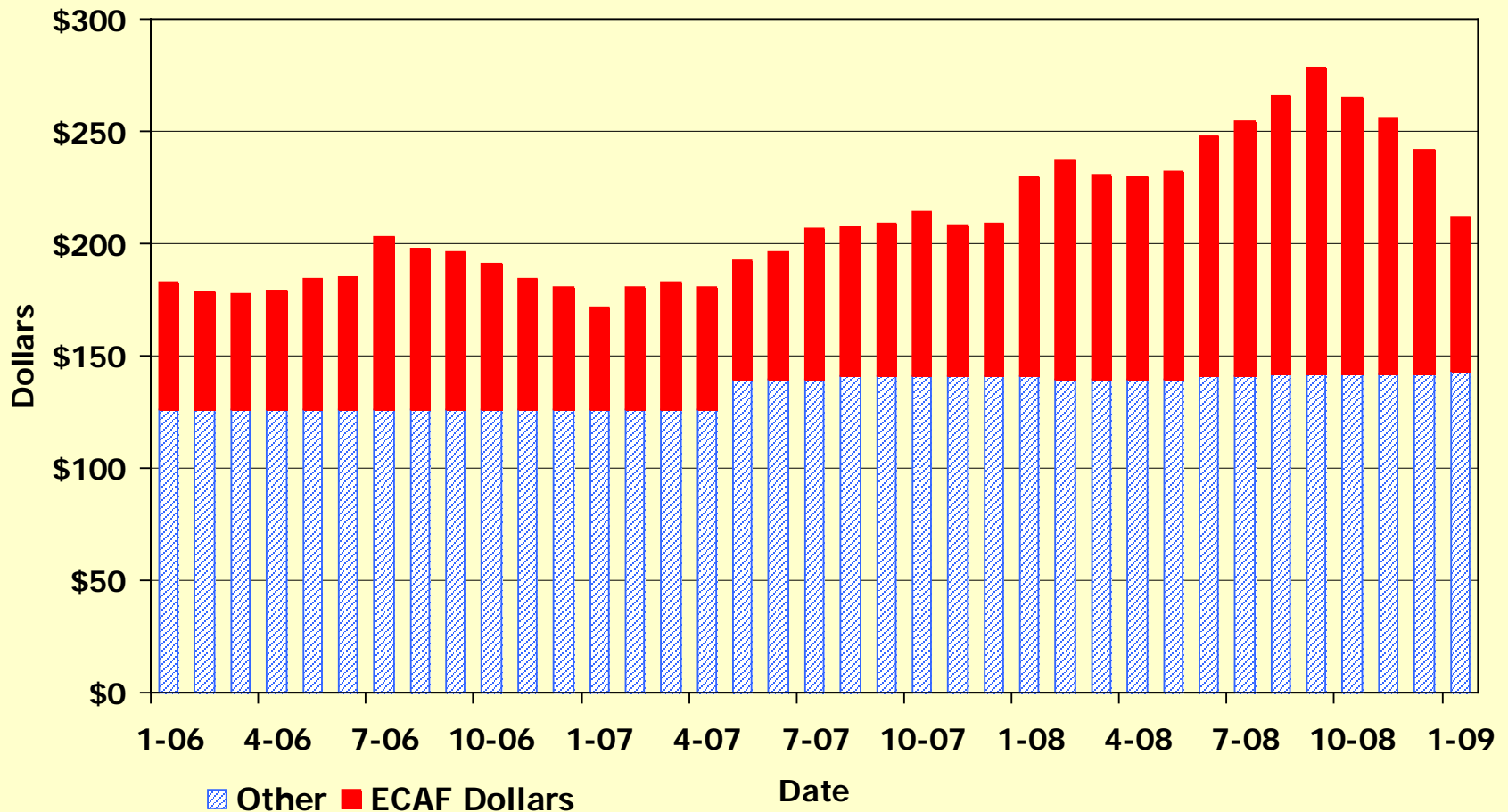
- 33 States have an adjustment clause for energy costs
- Reasons for no ECAC:
  - Deregulated market
    - Typically deregulated utilities distribute, but do not generate, electricity. Therefore, they just pass on their cost of power to customers
  - Fuel prices do not fluctuate significantly (E.g., coal)

\*Source: National Economic Research Associates (NERA)

# HECO Typical Bill At 600 kWh



# HELCO Typical Bill At 600 kWh



# Maui Typical Bill At 600 kWh

