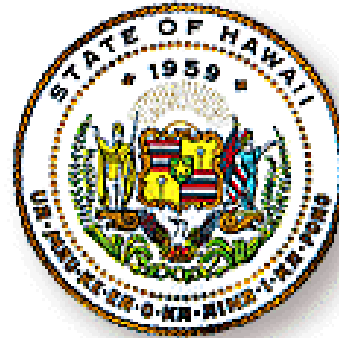




State of Hawaii Energy Emergency Preparedness Program



*State of Hawaii
Energy Emergency Preparedness (EEP)
Briefing Overview*



November 2006

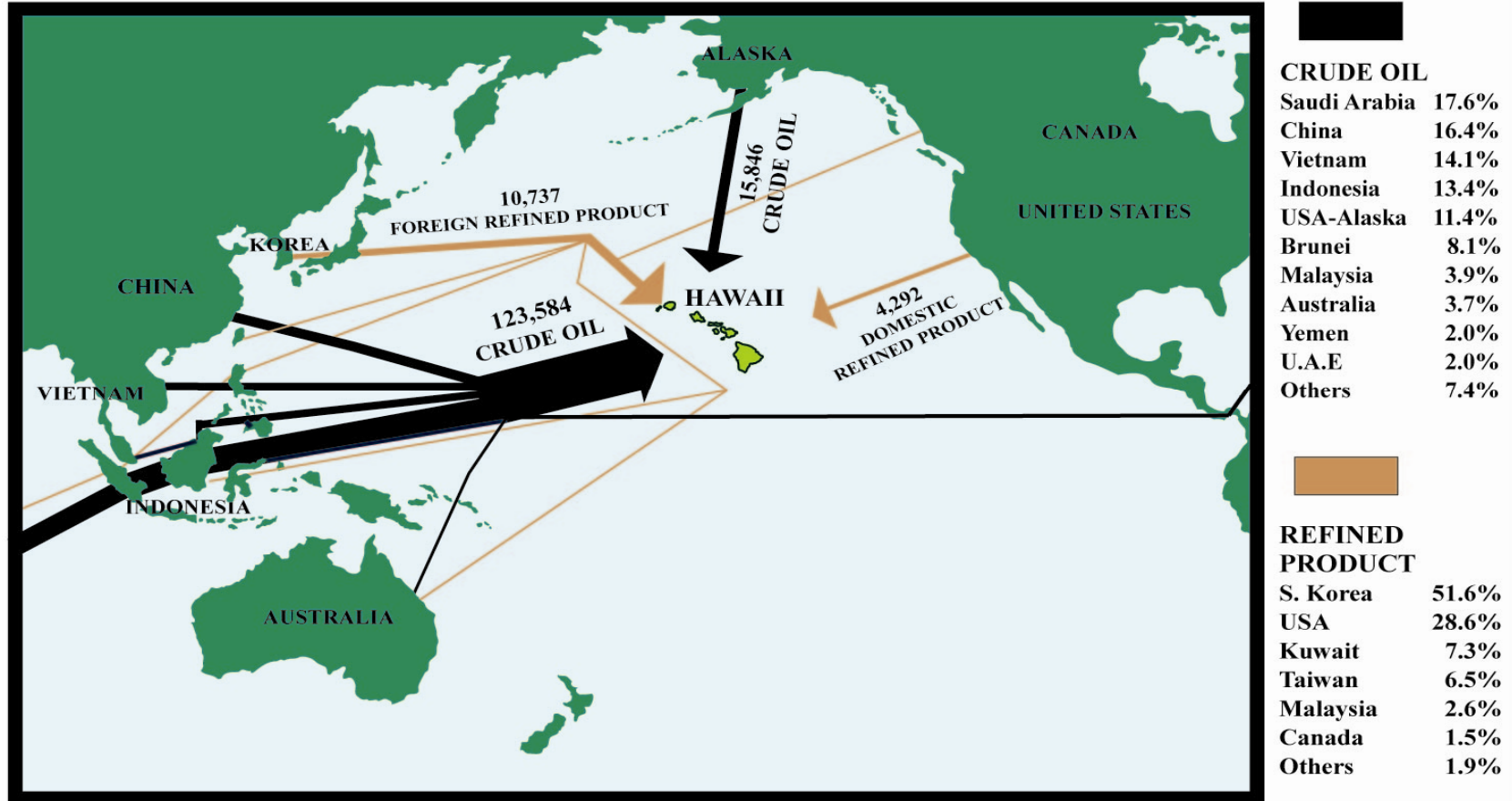
**State of Hawaii
Department of Business, Economic Development & Tourism
Strategic Industries Division**





Hawaii's Petroleum Imports 2005

Movement of Petroleum to Hawaii - 2005
Barrels per Day - Average (P)



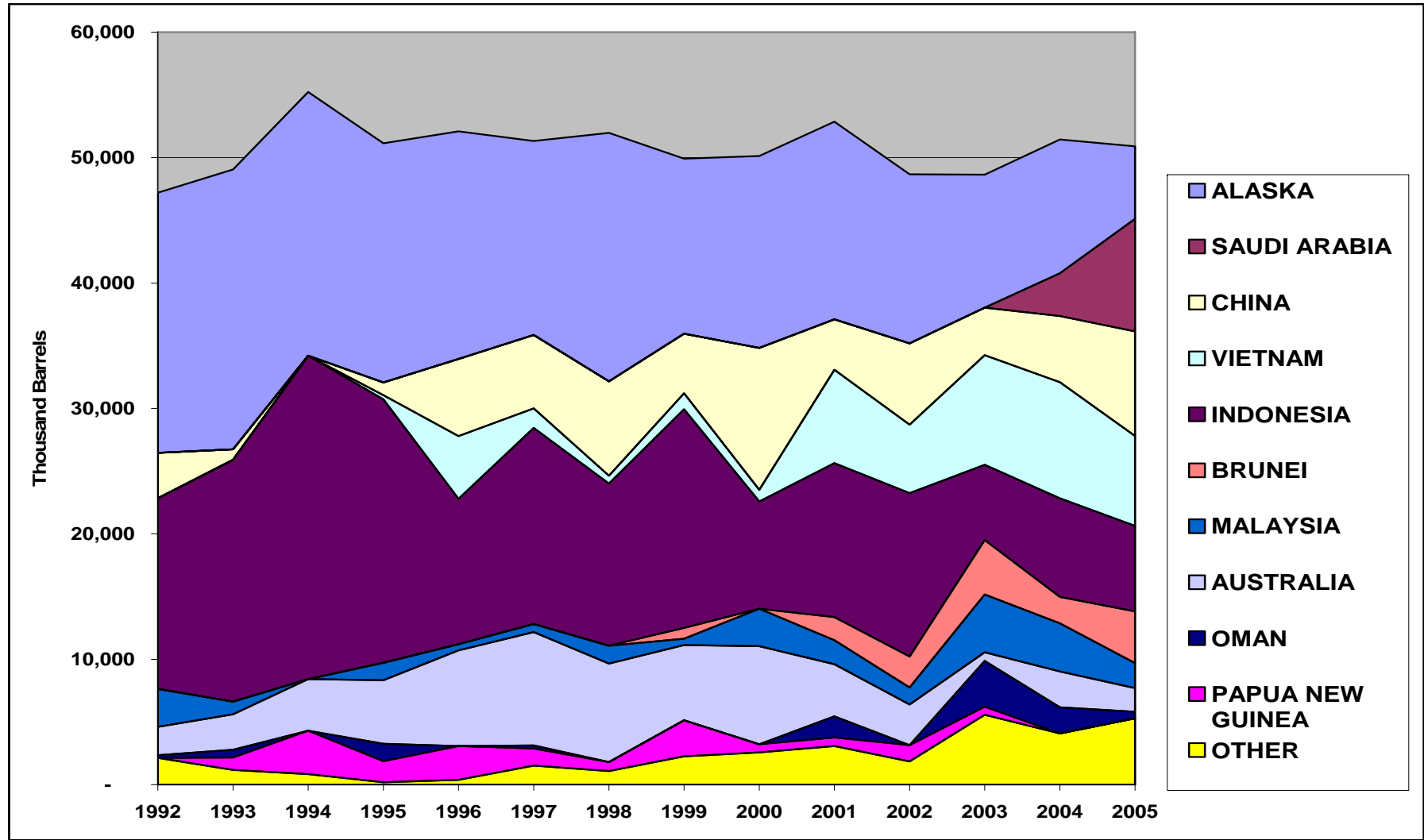
Sources: State of Hawaii Strategic Industries Division; and U.S. Energy Information Agency - 2006 (P): Preliminary-April 2006

NOTE: Arrows' width are roughly proportionate to percentages of oil imports from sources.





Changes in Origins of Hawaii's Crude Oil



Sources: State of Hawaii – DBEDT, 2006; and U.S. Energy Information Administration (USEIA), 2006.





Some of Hawaii's Energy Security and U.S. Security Issues

- **No indigenous fossil fuels.**
 - **Electricity system heavily oil-dependent.**
 - **No interconnected electrical grids.**
 - **Transportation energy uses most of Hawaii's oil:**
 - Jet fuel represents $\approx 31\%$ of our oil use -- no commercial alternative.
 - Little discretionary driving in Hawaii where $\approx 21\%$ of oil used.
- **All U.S. Military bases in Hawaii are on the commercial power grid, fueled mostly by oil.**
 - **Military and civilians employed by military all purchase transportation fuel from Hawaii's commercial fuel suppliers; e.g., the on-base exchange service stations.**





The Challenge

To be as prepared as possible to effectively contend with energy emergencies and threats to our energy security.





Relevant Legal & Policy Authorities, and Planning Frameworks

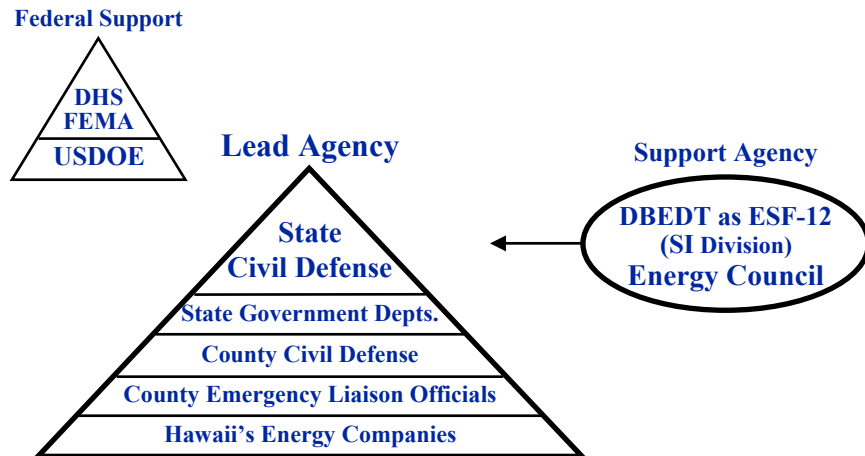
- **Homeland Security Act of 2002 (6 U.S. Code 101, et seq.), Establishes Department of Homeland Security.**
 - *National Strategy for Homeland Security, July 2002.*
 - *National Response Plan, December 2004.*
- **Presidential Decision Directive (PDD) 63, Critical Infrastructure Protection; and, Homeland Security Presidential Directive – 7 December 2003**
 - *Interim National Infrastructure Protection Plan, February 2005.*
- **Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (42 U.S. Code 5121, et seq.), and Individual Agency Statutory Authorities.**
- **Energy Policy and Conservation Act (EPCA), as amended (42 U.S.C. 6201, et seq.), authorizes U.S. Strategic Petroleum Reserve (SPR). Energy Conservation Reauthorization Act (Public Law 101-383, 1998) amended EPCA in 1998, and Section 9 added subsection 161(j) (42 U.S.C. 6241, et seq. (j)), provides Hawaii emergency assured access to SPR crude oil – exemption from competitive bidding, top logistics priority, and other flexibility provisions.**
- **U.S. Department of Energy requires State EEP Plan for State Energy Program funding eligibility.**
- **Chapters 127 and 128 Hawaii Revised Statutes (HRS), Disaster Assistance Act, and Civil Defense and Emergency Act; and Administrative Directive 95-02: Civil Defense Policy.**
 - *Hawaii State Civil Defense, The State Plan for Emergency Preparedness – Disaster Response and Assistance Plan; and Critical Infrastructure Protection Plan (Draft).*
 - *State of Hawaii Energy Council Concept of Operations Plan (State-level ESF# 12 - Energy).*
- **Chapter 125C, HRS, Procurement, Control, Distribution and Sale of Petroleum Products, and Chapter 486J, HRS, Petroleum Industry Information Reporting Act.**
 - *State of Hawaii Energy Emergency Preparedness Plan & Reference Book (Note: Updated plan (draft) under review).*





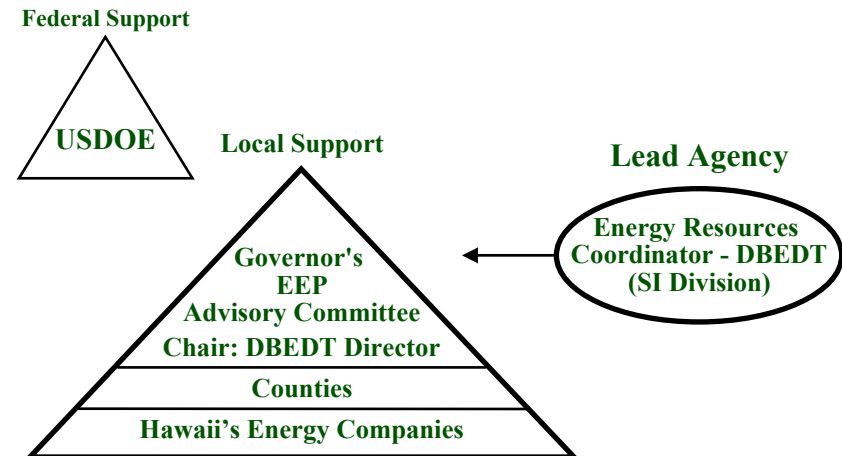
Hawaii's Organizational Concept for Energy Emergency Preparedness & Critical Energy Infrastructure Protection

Disaster-related Energy Emergency



Chapters 128, HRS, Civil Defense and Emergency Act

Oil Market-related Energy Emergency



Chapter 125C, HRS, Procurement, Control, Distribution, and Sale of Petroleum Products





Federal & State Emergency Support Functions (ESF) For Emergency Management

ESF #	FUNCTION	FEDERAL ESF COORDINATOR	STATE OF HAWAII PRIMARY DEPT
1	Transportation	Dept of Transportation	Dept of Transportation
2	Communications	Dept of Homeland Security/ National Communications System	Dept of Budget & Finance (Information & Communication Services Div)
3	Public Works and Engineering	Dept of Defense / U.S. Army Corps of Engineers	Dept of Accounting and General Services (DAGS) (Bottled/Bulk Water & Ice)
4	Firefighting	Dept of Agriculture / Forest Service	State Fire Council (DLIR) DLNR
5	Emergency Management	Dept of Homeland Security / Federal Emergency Management Agency	Dept of Defense (State Civil Defense)
6	Mass Care, Housing, and Human Services	Dept of Homeland Security / Federal Emergency Management Agency	American Red Cross / Dept of Human Services / Dept of Business Economic Development, and Tourism (DBEDT)
7	Resource Support	General Services Administration	DAGS / Dept of Human Resources Development
8	Public Health & Medical Services	Dept of Health and Human Services	Dept of Health
9	Urban Search & Rescue	Dept of Homeland Security / Federal Emergency Management Agency	Dept of Defense (National Guard)
10	Oil & Hazardous Materials Response	Environmental Protection Agency	Dept of Health
11	Agriculture and Natural Resources	Dept of Agriculture	Dept of Agriculture
12	Energy	Dept of Energy	DBEDT (State Energy Office)
13	Public Safety and Security	Dept of Homeland Security / Dept of Justice	Dept of the Attorney General (<i>proposed</i>)
14	Long Term Community Recovery and Mitigation	Dept of Homeland Security / Federal Emergency Management Agency	Dept of Defense (State Civil Defense) / DBEDT (<i>proposed</i>)
15	External Affairs	Dept of Homeland Security	Dept of Defense (State Civil Defense) (<i>proposed</i>)

Sources: Hawaii State Civil Defense; *National Response Plan*, December 2004, U.S. Department of Homeland Security.





State Level ESF #12 Role

Key Elements in EEP & Energy Sector CIP





DBEDT-Strategic Industries Division's ESF # 12 - Energy Role & Responsibilities – Overview

- **Provide organization and general planning guidance for emergency management.**
- **Coordinate rapid restoration of Hawaii's energy (electricity & gas utilities, and fuel) systems:**
 - Assist fossil fuel energy companies obtain emergency resources to repair and restore energy systems.
 - Support SCD with relevant public information/education.
 - Coordinate with other ESFs for energy systems restoration



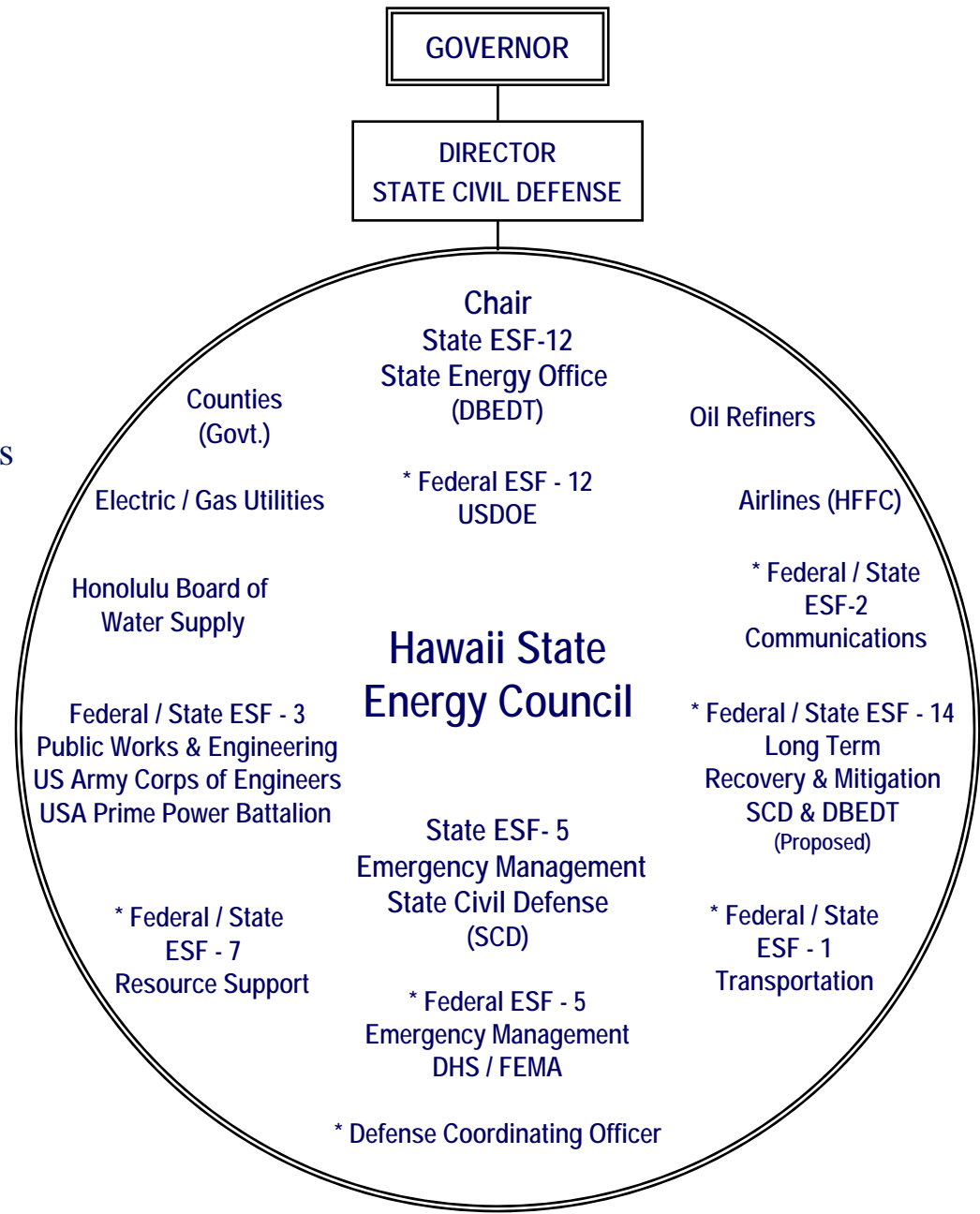


HAWAII STATE ENERGY COUNCIL

Mission

Support the implementation of Emergency Support Function - 12 (ESF-12), Energy, consistent with State Civil Defense programs and plans. EC's responsibility is to *coordinate* activities and information necessary to *facilitate* the affected energy utilities' safe, rapid restoration of the commercial energy grid, and provide temporary emergency generators to safely and rapidly provide and sustain electricity for essential and emergency facilities and services until commercial energy utility service can be restored, and *facilitate* the availability and adequacy of fuel supplies, storage, and distribution. *Coordinate* plans and *facilitate* activities and information for security and protection of critical energy infrastructure for Homeland Security.

* NOTE: In actual emergency, ESF representatives with an asterisk (*) attend daily EC meetings when necessary, and/or in Federally declared emergency.



Structure

Hawaii State Energy Council

*A Government and Industry Partnership Working Together to Meet the Challenge –
To be prepared to effectively contend with energy emergencies and threats to Hawaii's energy security.*

Energy Council Members

- Strategic Industries Division (SID),
State of Hawaii – DBEDT (Chair)
- State of Hawaii –
Department of Transportation
- Defense Coordinating Officer –
196th Infantry Brigade
- County of Hawaii
- County of Kauai
- County of Maui
- Hawaiian Electric Company
- Hawaii Electric Light Company
- Maui Electric Company, Limited
- Kauai Island Utility Cooperative
- Hawaii State Civil Defense
- The Gas Company
- Oahu Gas Service (Represents Amerigas)
- U.S. Army Corps of Engineers
- U.S. Army 249th Engineer Battalion –
Prime Power
- Oahu Civil Defense Agency –
City & County of Honolulu
- Honolulu Board of Water Supply
- Aloha Petroleum
- Tesoro Hawaii Corporation
- Chevron Corporation
- Hawaii Fueling Facilities Corporation



Hawaii State Energy Council – Role & Responsibilities

What Is The Energy Council?

- An Industry/Government partnership with flexible structure and concept of operations to support energy emergency preparedness and critical energy infrastructure protection (EEP/CIP).
- Principal mechanism for planning and implementing State-level, government ESF # 12 – Energy, a DBEDT-SID responsibility.





Hawaii State Energy Council – Role & Responsibilities

What Does The Council Do?

- Functions at policy and operational levels relating to EEP/CIP.
- Facilitates industry and government coordination essential to EEP/CIP – inter-sector, and all levels of government. Organized to support:
 - Priority setting, and critical resource allocation.
 - All-hazards mitigation, planning and preparedness, response, and recovery.
 - Efficiency of critical organizational/human resource deployment via as-needed meetings.
- Integrates and disseminates information to all Council Members – inter-sector, and all government levels, and public.
 - Provides system-wide, balanced perspectives – helps highlight interdependencies (electricity, fuel & water) in policy and operational contexts; e.g., at Legislature, or damage assessments, SITREPs, etc.
 - Gives "Big Picture" with details appropriate to audiences: Industry inter-sector; Government leaders and emergency management agencies - SCD/Governor, FEMA/President, Counties/Mayors; other relevant ESFs; Media; and, Public.
 - Supports management of expectations - speaking with one voice.





Hawaii State Energy Council – Role & Responsibilities

What It's Not.

- **It's Not a static government entity, or program.**
- **It's Not appropriated any targeted funding.**
- **It's Not the decision-making body for emergency resources.**





Fuel Shortage Declaration Criteria

Whenever Governor determines:

- **Increase in demand, or decrease in available supply of a petroleum product, or both;**
- **May cause a major adverse impact on economy, public order, or health, welfare, or safety of the people of Hawaii; and,**
- **May not be responsibly managed within the free market distribution system.**

Source: §125C-2, *Hawaii Revised Statutes*





Fuel Shortage Management Primary Objectives

- **Maintain health, welfare, safety & public order**
- **Sustain essential and emergency services**
- **Minimize economic and personal hardships**
- **Keep public informed of situation**





*Four Phases
Of
Fuel Shortage Energy Emergency
Response & Management*

Phase 4
**POST-SHORTAGE
EVALUATION**

Phase 3
**DECLARED
SHORTAGE**

Phase 2
PRE-SHORTAGE

Phase 1
**INFORMATION
VERIFICATION**

Shortage Classified by Severity:

- *Mild*
- *Moderate to Severe*
- *Severe to Extreme*

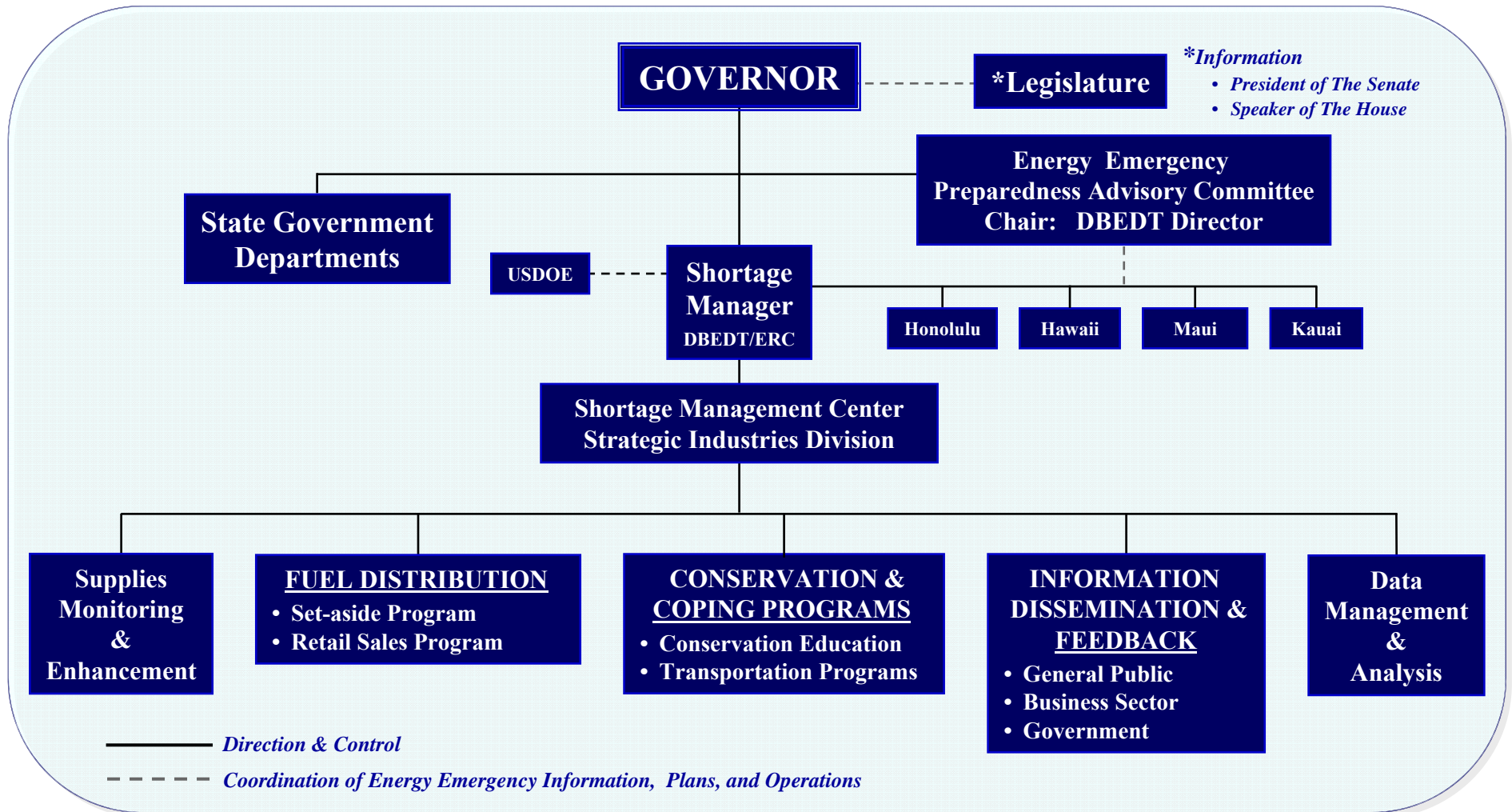
Shortage Response Plan Comprised of Portfolio of Measures – Two Main Tracks:

- *Supply & Demand Intervention Measures*
- *Public Info & Education Measures*





Oil Market-Related Energy Emergency Management Structure & Response Measure Categories



The State Energy Resources Coordinator (ERC) - DBEDT Director - is Governor's designated representative to plan & prepare for and manage oil market-related energy emergencies (Chapter 125C, HRS).





State Fuel Set-aside Program

- **Governor empowered to set aside up to 5% of supplies (up to 10% of aviation gasoline).**
- **Provide fuel to meet emergency & hardship needs of wholesale bulk users (must have bulk storage tankage).**
- **Priority goes to emergency and essential services.**
- **May be made available to motor fuel retailers in designated shortage areas or communities.**
- **12-month historical “base period” for calculation of supply.**
- **Administered by State Shortage Management Center (SMC).**





State of Hawaii Emergency Assured Access to U.S. Strategic Petroleum Reserve (SPR) Oil

Hawaii & SPR Information Paper – Purpose (*Separate Attachment)*

- **Overview of the SPR and the SPR crude oil drawdown process.**
- **General provisions of Hawaii’s unique emergency “assured access” to SPR oil (42 U.S.C. 6241(j) (Public Law 101-383, 1998)).**
- **Details for implementing Hawaii’s assured SPR access – U.S. Department of Energy (USDOE)/Hawaii-DBEDT MOU.**
- **History leading to Federal law providing Hawaii’s assured access to SPR oil.**
- **Hawaii’s unique participation in USDOE *Eagle* SPR Exercises.**
- **Significance of measure for Hawaii in an emergency SPR drawdown.**





State of Hawaii Emergency Assured Access to U.S. Strategic Petroleum Reserve (SPR) Oil

THE U.S. SPR AND HAWAII

(42 U.S.C. 6241(j) (Public Law 101-383, 1998))

Special Provisions of Federal Law for Hawaii's Energy Security:

- **State appoints eligible Hawaii refiner as “designated entity.”**
- **Noncompetitive access of up to 3% of SPR oil in a Presidential Drawdown.**
- **Hawaii pays average successful competitive price.**
- **Priority loading of Hawaii-bound tankers (they go to front of the line).**
- **Exchange and processing agreements authorized for maximum flexibility.**
- **Hawaii only state in Nation with guaranteed access to SPR.**
- **Eligible Hawaii refineries retain right to compete in SPR drawdown bidding.**





SPR Drawdown

- **Presidential Finding**
 - **Severe Energy Supply Interruption**
 - **Anticipatory Of Supply Shortage (1990)**
 - **Price As Consideration (1991)**
- **Use Policy**
 - **Early**
 - **In Large Quantities**
 - **In Coordination With The International Energy Agency**

Strategic Petroleum Reserve Complexes And Associated Pipelines And Terminals





*SPR Drawdown Process & Hawaii's Assured Access**

**DRAWDOWN
ACTIVATION**

ALERT LEVEL I

**POTENTIAL
ENERGY
EMERGENCY**

ALERT LEVEL II

**POTENTIAL
DRAWDOWN
RESPONSE**

ALERT LEVEL III

**PRESIDENTIAL
DRAWDOWN
DECISION**

**COMPETITIVE
SALES CYCLE**

**COMPETITIVE
SALES
PROCESS**

DAY 1-15

**SCHEDULING
& DELIVERY
PROCESS**

DAY 15-60

**INVOICING &
PAYMENT
PROCESS**

DAY 40-80

**HAWAII
ASSURED
ACCESS SALES
CYCLE**

**USDOE NOTIFIES
HAWAII**

**DBEDT APPOINTS
"DESIGNATED
ENTITY"**

NOTICE OF SALE

- **CERTIFY
"DESIGNATED
ENTITY"**
- **SUBMIT BIND-
ING OFFER**
- **WEIGHTED AVE.
PRICE
DETERMINED**

SPR DELIVERY

- SPECIFY:**
- **DELIVERY
MODE**
 - **PRIORITY
HANDLING**
 - **EXCHANGE/
PROCESSING
AGREEMENT**

**INVOICING &
PAYMENT
PROCESS**



U.S. Strategic Petroleum Reserve (SPR) Inventory

As of September 1, 2005

(MMBL = 1 Million Barrels. 1 Barrel = 42 U.S. Gallons)

Current Inventory of SPR Oil				SPR Storage Capacity	
Sweet (Sulfur content \leq 0.5%)	Sour (Sulfur content \geq 0.5%)	Total	Days of Inventory Protection (Normal Demand)	Existing Storage Capacity	Authorized Fill Level
280.9 MMBL	419.7 MMBL	700.6 MMBL	59 days	727 MMBL	1 Billion BL
Maximum SPR Drawdown Capability 4.4 Million Barrels/day for first 90 days (Drawdown rate thereafter progressively declines)			Time for SPR Oil to Enter U.S. Market 13 days from Presidential Decision		



Post - 9/11/01 Hawaii EEP Program Initiatives

- **State of Hawaii Threat Protection Levels & Measures in concert with U.S. Department Of Defense Force Protection Conditions.**
- **Critical Energy Infrastructure Identified by Priority: National Security, and Economic Security.**
- **Joint Vulnerability Assessments of Critical Infrastructure & Follow up Reviews.**
- **State of Hawaii Critical Infrastructure Protection Guidelines (Protection and Security Measures based on State Threat Levels) – *Initially Designed for Energy Facilities and Adopted for All Infrastructure Facilities.***
- **Armed Force Deployment and Protection Plan Based on Threat Protection Level & Criticality of Facilities – *State ESF-12 Provided Advisory Support to State Civil Defense & Law Enforcement by Request.***
- **Critical Infrastructure Protection Guidelines Adapted to State of Hawaii Homeland Security Advisory System (HSAS), now based on Federal HSAS.**
- **In-House, and Joint Coordinated Exercises – *State Civil Defense, State ESF-12, and Energy Council.***





Post - 9/11/01 Hawaii EEP Program Initiatives (Cont)

- **State Civil Defense Establishes State of Hawaii Critical Infrastructure Protection Plan – Sets *State ESF-12* Coordination Role for Critical Energy Infrastructure.**
- **Statewide GIS Emergency Generators in Emergency & Essential Service Facilities – *Partners: State ESF-12, U.S. Army Corps of Engineers, Hawaiian Electric Company, and State Civil Defense.***
- ***Asia Pacific Homeland Security Summit & Exposition. Summit Sessions:***
 - **2003 Translating Threat Assessments into Strategies: Overview of Hawaii’s Post-September 11, 2001, Experience in Critical Energy Infrastructure Security & Protection.**
 - **2004 Critical Infrastructure Protection – Infrastructure Sector Interdependencies and Inter-organizational Coordination.**
- **U.S. Department Of Energy - Offices of Energy Assurance, and National Association of State Energy Officials Recognition – *State Civil Defense, State ESF-12, and Energy Council.***
- **Updating *State of Hawaii Energy Emergency Preparedness Plan*, Per Evolution of State Civil Defense Plans, and *National Response Plan.***





National Response Plan – Dec '04

- **Foundation is National Incident Management System (NIMS)**
 - All disciplines/all hazards approach to emergency management
 - Integrates prevention, preparedness, response, and recovery
 - Integrates crisis & consequence management
 - Overriding operational strategy is to support Local Incident Commander.
- **Added New Emergency Support Functions (ESF)**
 - *Public Safety & Security (ESF-13)*
 - *Long-term Community Recovery & Mitigation (ESF-14)*
 - *External Affairs (ESF-15)*





A Comprehensive Program Update:

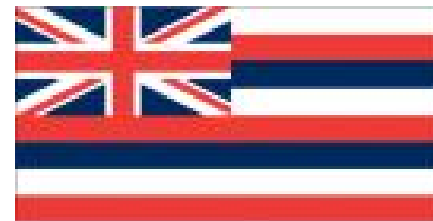
- Focus is ESF #12
- Update of the EEP
- Creation of a “Reference Book”
- Development of an “Action Plan”





Compliance with National Standards:

- **National Incident Management System (NIMS)**
 - MACS / ICS
- **National Response Plan (NRP)**
 - US DOE ESF #12
 - Critical Infrastructure Protection Plan (CIPP)

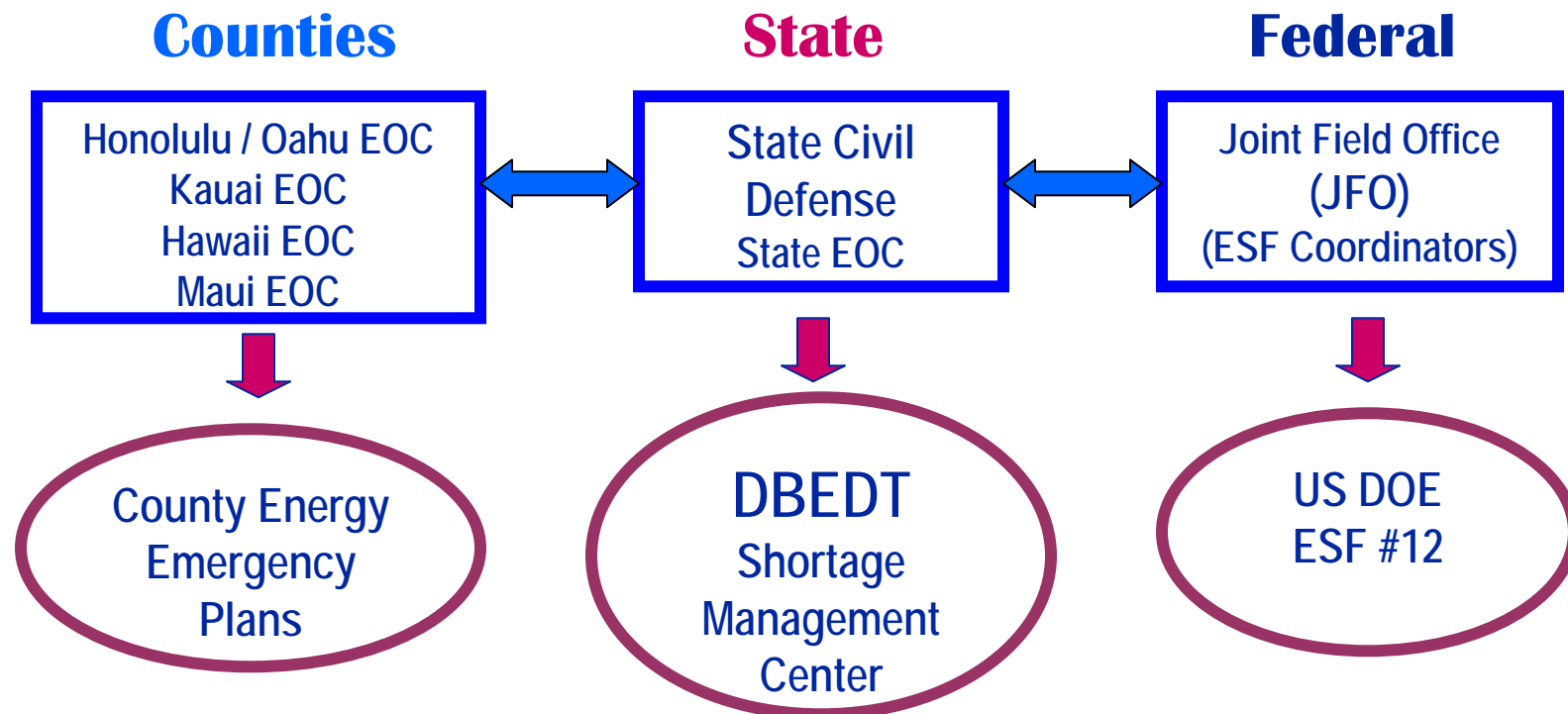


Hawaii
The Aloha State





Coordination with US DOE – State Civil Defense – County Energy Plans:





Mahalo!

