

Presentation to:  
The World Bank  
Clean Energy Global Solutions Group  
Energy Sector Management Assistance Program  
Renewable Energy Integration for Islands – The Case of Hawaii

## **Commission Overview**

May 23, 2016



Public Utilities Commission

## **Agenda**

Welcome.

Around-the-room introductions:

Name - Country - Organization - Title.

Presentation: Commission role and key stakeholders /  
process / policies / energy sector transformation.

BREAK (15 minutes).

Discussion: "Current energy developments and issues in  
visitor nations."

Discussion: "Key takeaways."

Wrap up.

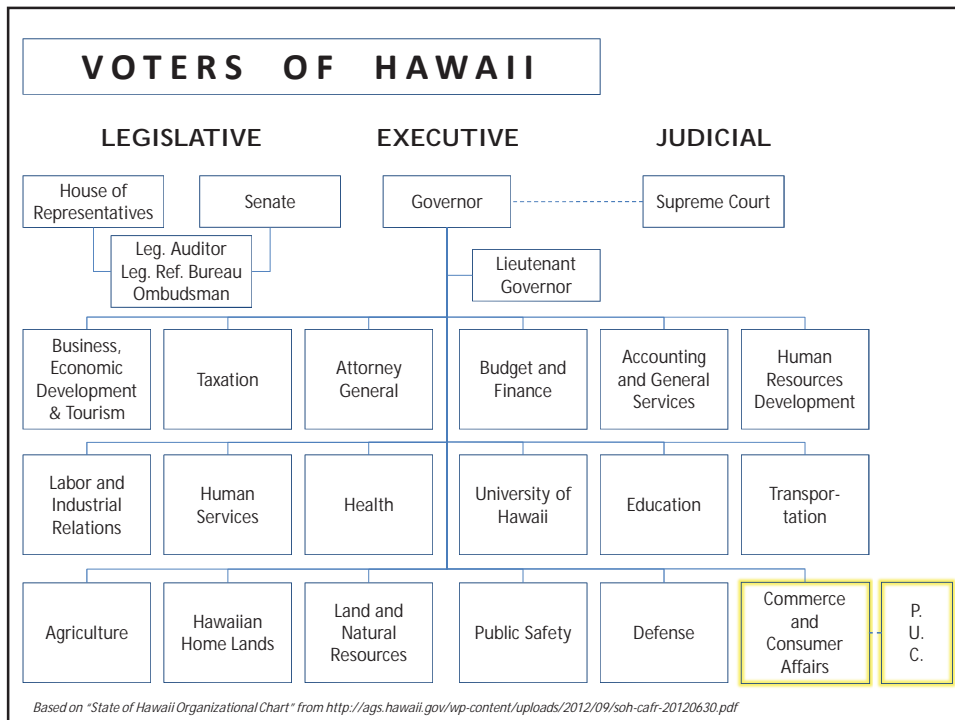
# Hawaii Public Utilities Commission

- **Commission Chair, Randall Y. Iwase**
- **Commission Member, Michael E. Champley**
- **Commission Member, Lorraine H. Akiba**

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## Staff

Executive, Administrative, Legal, Research, Fiscal,  
Personnel, Audit, Engineering, Compliance,  
Information Technology, Clerical Support



## Laws Relating to Public Utilities

Passed by Legislature, Approved by Governor



Delegate regulatory authority to the Public Utilities Commission.



Legislature passes,  
Governor approves,  
Law enacted



Law directs  
PUC  
regulation



Utilities  
request  
approval



## Entities Regulated by the Hawaii PUC

Energy				Transportation						Telecom	Water/ Waste- water	
Electricity			Gas	Water Carriers			Motor Carriers					
Hawaiian Electric Company	Maui Electric Company	Hawaii Electric Light Company	Kauai Island Utility Cooperative	The Gas Company, dba Hawaii Gas	Young Brothers	Sea Link	Hone Heke	899 Passenger Services	523 Property Carriers	Hawaiian Telecom	187 Wireless and Wireline Companies	39 Private Water and Sewer Companies

"PUC" = Public Utilities Commission

## Renewable Portfolio Standards: Hawaii Revised Statutes, Chapter 269

- §269-91 Definitions.
- §269-92 Renewable portfolio standards.
- §269-93 Achieving portfolio standard.
- §269-94 Waivers, extensions, and incentives.
- §269-95 Renewable portfolio standards study.
- §269-96 Energy-efficiency portfolio standards.

[http://www.capitol.hawaii.gov/hrscurrent/Vol05\\_Ch0261-0319/HRS0269/HRS\\_0269-.htm](http://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0269/HRS_0269-.htm)

## §269-91 Definitions

"Renewable energy" means energy [from] the following sources:

- (1) Wind;
- (2) The sun;
- (3) Falling water; [hydropower]
- (4) Biogas, including landfill and sewage-based digester gas;
- (5) Geothermal;
- (6) Ocean water, currents, and waves, including ocean thermal energy conversion;
- (7) Biomass... crops, agricultural and animal residues [and] municipal solid waste...
- (8) Biofuels; and
- (9) Hydrogen produced from renewable energy sources.

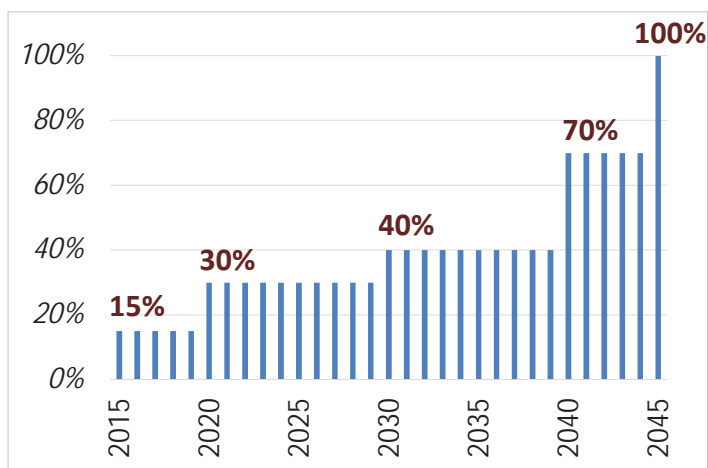
"Renewable portfolio standard" means the percentage of electrical energy sales that is represented by renewable electrical energy.

[http://www.capitol.hawaii.gov/hrscurrent/Vol05\\_Ch0261-0319/HRS0269/HRS\\_0269-0091.htm](http://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0269/HRS_0269-0091.htm)

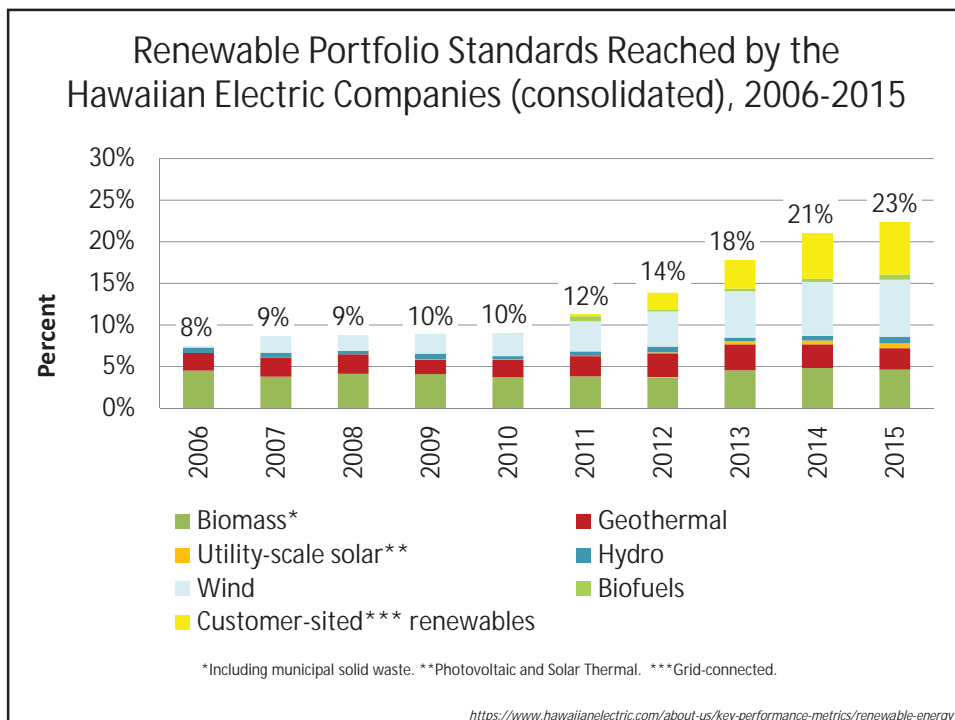
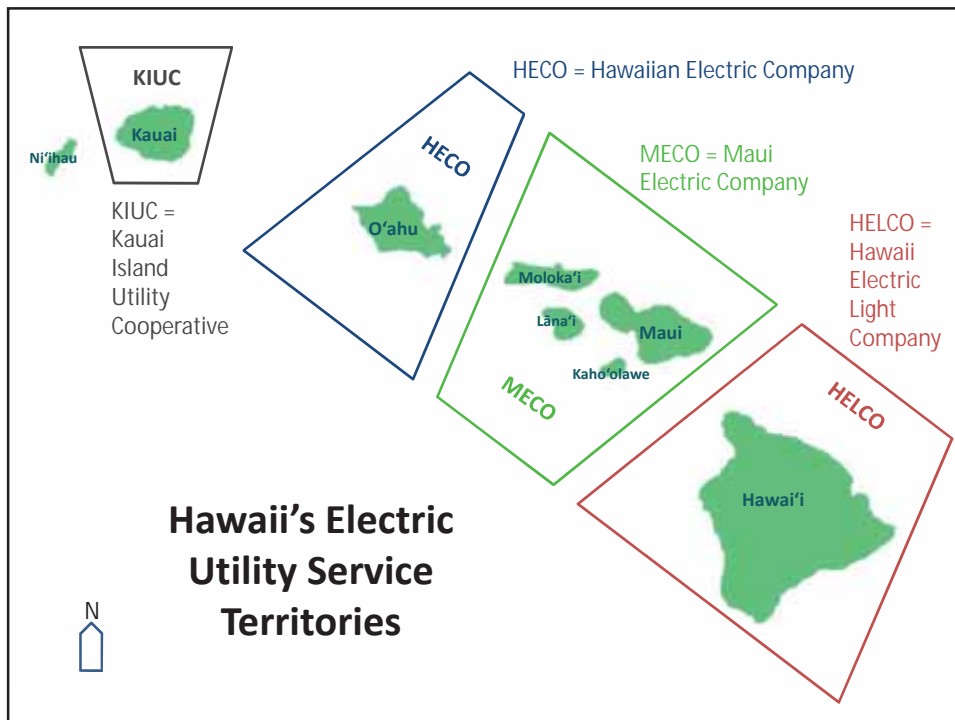
## §269-92(a) Renewable Portfolio Standards

Each electric utility company that sells electricity for consumption in the State shall establish a renewable portfolio standard of:

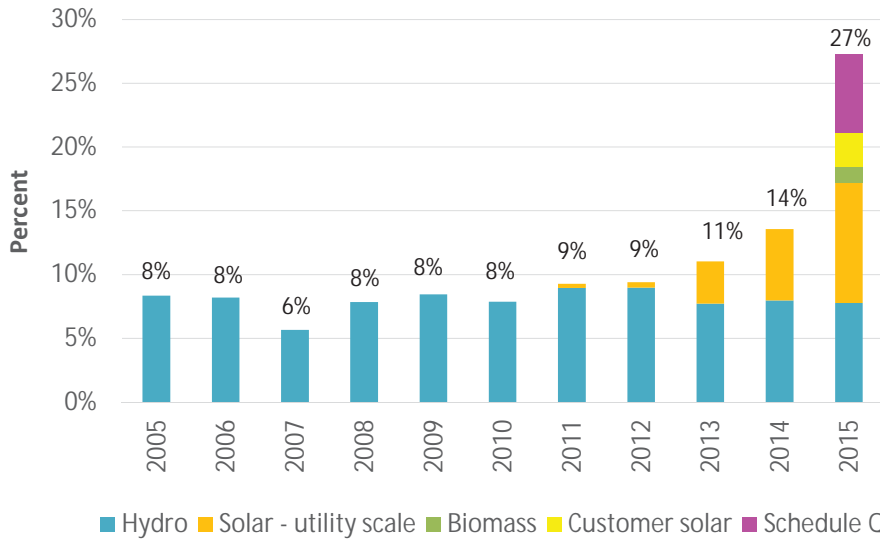
- 15% by 2015
- 30% by 2020
- 40% by 2030
- 70% by 2040
- 100% by 2045.



[http://www.capitol.hawaii.gov/hrscurrent/Vol05\\_Ch0261-0319/HRS0269/HRS\\_0269-0092.htm](http://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0269/HRS_0269-0092.htm)



### Renewable Portfolio Standards Reached by the Kauai Island Utility Cooperative, 2005-2015



<http://puc.hawaii.gov/reports/energy-reports/renewable-portfolio-standards-rps-annual-reports/>

### §269-96 Energy-efficiency Portfolio Standards

- (a) The public utilities commission shall establish energy-efficiency portfolio standards...
- (b) ...designed to achieve four thousand three hundred gigawatt hours of electricity use reductions statewide by 2030...
- (c) The commission may establish incentives and penalties...
- (d) ...revise the standard [and] report its findings and revisions.
- (e) Beginning in 2015, electric energy savings brought about by the use of renewable displacement or off-set technologies, including solar water heating and sea-water air-conditioning district cooling systems, shall count toward this standard.

*4,300  
gigawatt-  
hours of  
electricity  
use  
reductions  
statewide  
by 2030*

[http://www.capitol.hawaii.gov/hrscurrent/Vol05\\_Ch0261-0319/HRS0269/HRS\\_0269-0096.htm](http://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0269/HRS_0269-0096.htm)

Thank you for your attention.



Please find below some of the information resources that were discussed.

**Hawaiian Electric Companies website:** <https://www.hawaiianelectric.com/about-us/newsroom>

**Hawaii Energy website** (energy efficiency program): <https://hawaiienergy.com/>

**PUC website:** <http://puc.hawaii.gov/>

**RPS annual reports:**

<http://puc.hawaii.gov/reports/energy-reports/renewable-portfolio-standards-rps-annual-reports/>

**Hawaii Revised Statutes pertaining to the public utilities:**

[http://www.capitol.hawaii.gov/hrscurrent/Vol05\\_Ch0261-0319/HRS0269/](http://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0269/)

**RPS Law:** [HRS 269-91 through HRS 269-95](#)

**EEPS Law:** [HRS 269-96](#)

**Website for access to PUC orders and other filed documents (Docket website):** <http://dms.puc.hawaii.gov/dms/>

*To access documents, enter the docket number in the "Docket Quick Link" box in the upper left area of the page and click "GO"*

Topic Area	Docket Number
Kauai Island Utility Cooperative's Power Purchase Agreement for 13 MW PV + 13 MW/52 MWh battery	2015-0331
Distributed Energy Resources	2014-0192
Power Supply Improvement Plan	2014-0183
Example of Competitive Bidding RFP (no resultant project)	2012-0092
Energy Efficiency Program with public benefits fee	2007-0323
Renewable Portfolio Standards Docket	2007-0008
Competitive Bidding Framework	2003-0372