



Hawaiian Electric
Company, Inc.

Time-of-Use Pricing

Alan Hee

October 7, 2009

PCEA Conference





Hawaiian Electric
Company, Inc.

Time-of-Use Rates

- Optional rates vary depending on the day or time of day
- Rate levels linked to how utility costs vary daily
- Rates are static, i.e., vary, but with a fixed schedule



Rider T – Time-of-Day Rider

Differentials from normal rates

	12M	7A	12N	5P	9P	12M
Monday						
Tuesday	Off-peak		On-peak			Off-peak
Wednesday	- 3¢/kwh		+ 2¢/kwh			- 3¢/kwh
Thursday						
Friday						
Saturday						
Sunday						

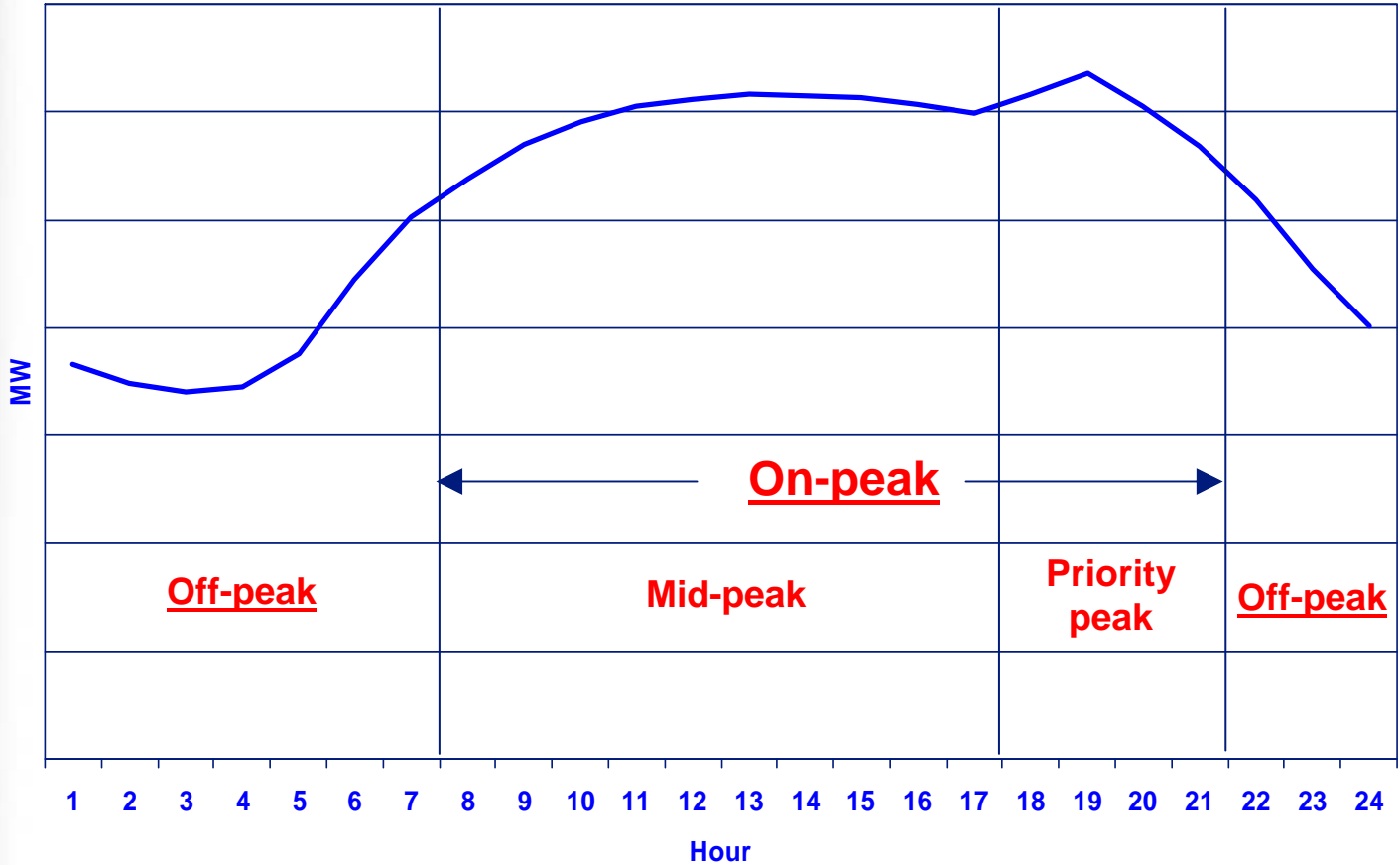
Notes for Rider T:

- Available to Schedule J and P customers
- Only on-peak kW used to bill demand charge
- Has an emergency maintenance waiver



Hawaiian Electric
Company, Inc.

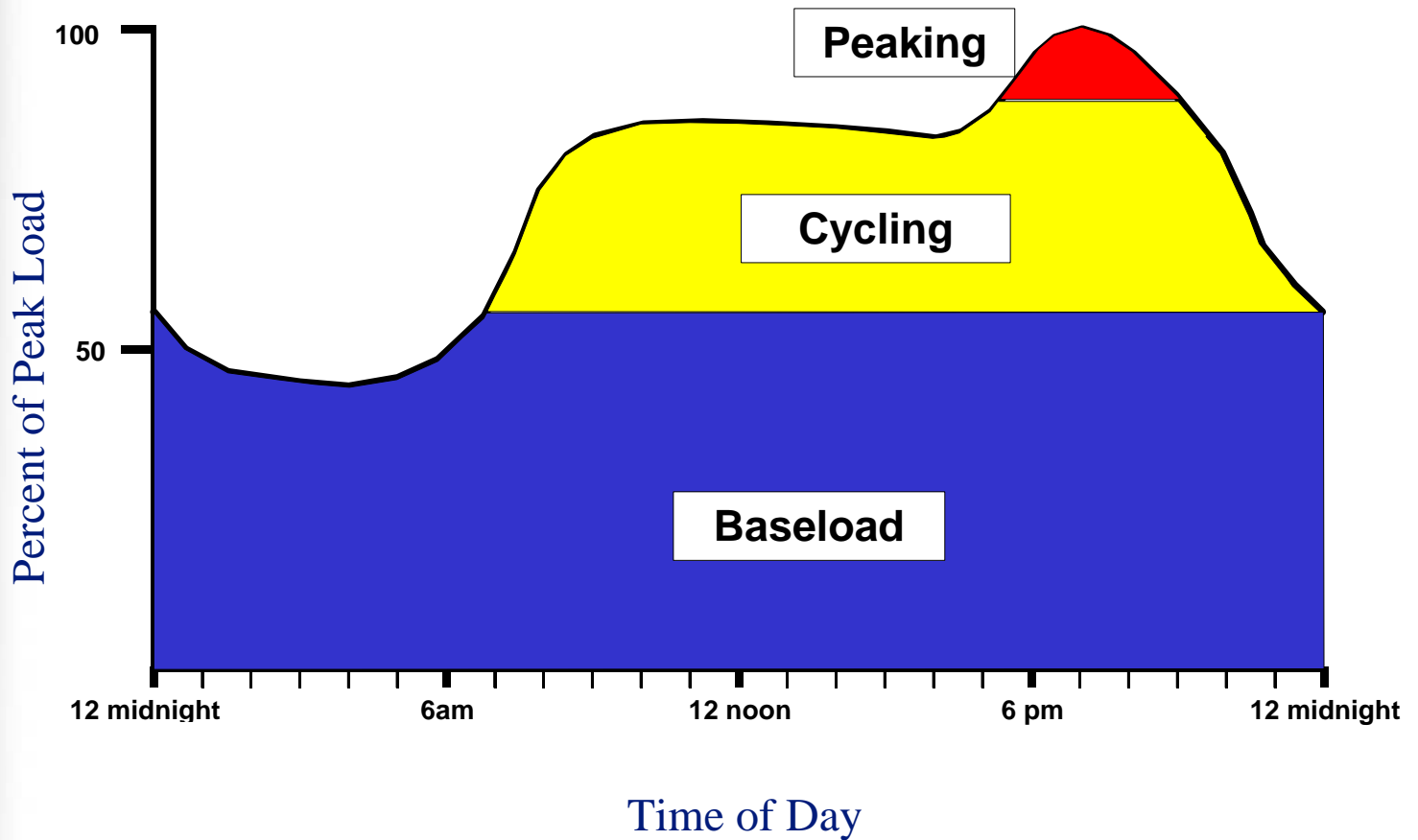
Hawaiian Electric Load Profile





Hawaiian Electric
Company, Inc.

Typical System Load Profile and Types of Generating Units





Hawaiian Electric
Company, Inc.

TOU Rate Objectives

- Encourage customers to shift load
 - Reduces fuel and variable costs
 - Increases the utility supply margin
 - Improves service reliability
 - May reduce long-term utility costs, e.g., may defer the need to add generation
- Customer opportunity to manage bill
 - Requires change in consumption pattern





Hawaiian Electric
Company, Inc.

TOU-C: Commercial TOU Service

Non-demand Service (differentials from normal rates)

	12M	7A	12N	5P	9P	12M
Monday						
Tuesday	Off-peak		Mid-peak		Priority Peak	Off-peak
Wednesday	- 5¢/kwh		+ 2¢/kwh		+ 5¢/kwh	- 5¢/kwh
Thursday						
Friday						
Saturday						
Sunday						

Notes for TOU-C, Non-demand Service:

- Available to Schedule G customers





Hawaiian Electric
Company, Inc.

Load Shifting Opportunities

- Utilize storage (consume off-peak energy for on-peak use)
 - Water pumping
 - Ice storage
 - Heat pump water heaters
- Re-schedule operations
 - Laundry activities
 - Industrial processes



Hawaiian Electric
Company, Inc.

Summary

- TOU rates are optional
- May provide benefits to system and the customer
- Function of current consumption pattern and how pattern can change
- See your account manager for more information





Hawaiian Electric
Company, Inc.

Other TOU Options





TOU-C: Commercial TOU Service

Demand Service (Rate levels – not differentials)

	12M	7A	12N	5P	9P	12M
Monday	Off-peak 10¢/kwh	Mid-peak 15.046¢/kwh		Priority Peak 18.046¢/kwh		Off-peak 10¢/kwh
Tuesday						
Wednesday						
Thursday	\$0/kW Dmnd			\$15/kW Dmnd		\$0/kW Dmd
Friday						
Saturday						
Sunday						

Notes for TOU-C, Demand Service:

- Available to Schedule J customers
- 25 kW minimum demand charge
- No demand ratchet



Sch. U – Time-of-Use Service

Rate levels (not differentials)

	12M	7A	12N	5P	9P	12M				
Monday	Off-peak 10¢/kwh	Mid-peak 13.7277¢/kwh		Priority Peak 13.7277¢/kwh		Off-peak 10¢/kwh				
Tuesday										
Wednesday										
Thursday										
Friday							\$0/kW Dmnd	\$16/kW Dmnd	\$18/kW Dmnd	\$0/kW Dmnd
Saturday										
Sunday										

Notes for Schedule U:

- Available to Schedule P
- Minimum demand charge = maximum on-peak demand x demand charge, not less than 300 kW
- No demand ratchet



Hawaiian Electric Company, Inc.

Rider M, Option A Off-peak Service

Rate levels (not differentials)

	12M	7A	12N	5P	9P	12M
Monday						
Tuesday	Off-peak	On-peak			Off-peak	
Wednesday	\$2/excess	On-peak kW for billing demand only			\$2/excess	
Thursday	kW above				kW above	
Friday	on-peak				on-peak	
Saturday						
Sunday						

Notes for Rider M, Option A:

- Available to Schedules J (if above 100 kW) and P





Hawaiian Electric Company, Inc.

Rider M, Option B Curtaileable Service

Rate levels (not differentials)

	12M	7A	12N	5P	9P	12M
Monday	Non-curtailment hours			Curtailment Period - Billing dmd reduced by 75% of curtailed kW		
Tuesday	Non-curtailment hours					
Wednesday	Non-curtailment hours					
Thursday	Non-curtailment hours					
Friday	Non-curtailment hours					
Saturday	Non-curtailment hours					
Sunday	Non-curtailment hours					

* 40% if curtailment period = 2 hours specified by the utility

Notes for Rider M, Option B:

- Available to Schedules J (if above 100 kW) and P
- Minimum curtailed load = 50 kW for J, and 150 kW for P

