

ELECTRIC RATES FOR DG

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History of DG

- It was all DG – Pearl Street Station
- Shift from 100% to 4%
- PURPA (monopoly/monopsony)
- Customer Bill of Rights
- EPACT in 2005

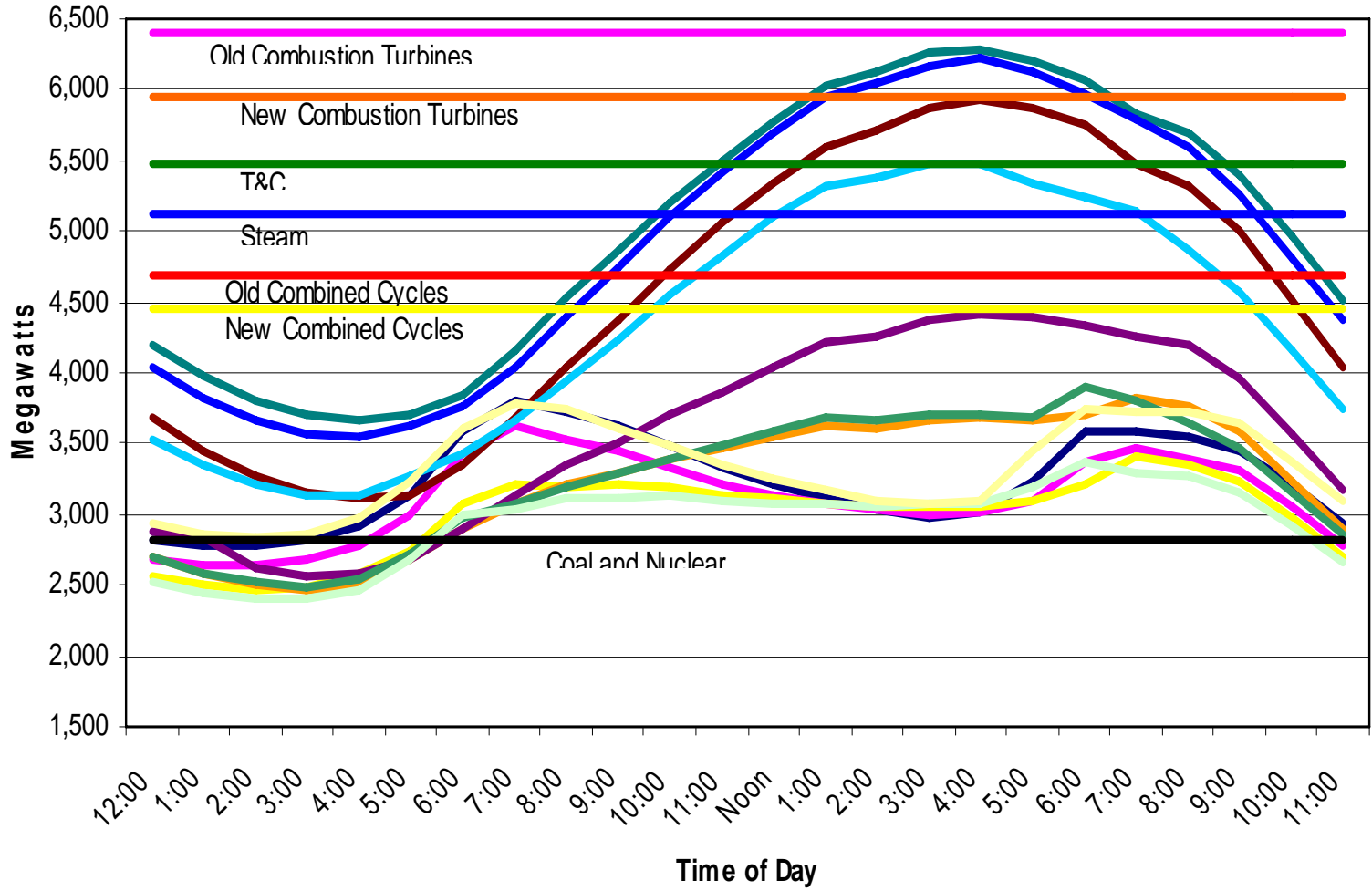
History of Rate Understanding

- Hirt Combustion Engineers Montebello, CA
- Arizona Public Service – Electric classes
- (APUC) understanding
- Customer understanding

What are Rate Choices?

- Declining block rates
- Inverted rates (& Lifeline)
- Flat rates
- Demand (kW) and Energy (kWh)
- Demand (kW) and Energy (kWh) with an Expanding Block (kW/kWh) (E-32)
- Time of Use (TOU) & Combinations

2006 Monthly Average Load Curve
(5% growth) with Dispatch Order



- JAN
- FEB
- MAR
- APR
- MAY
- JUN
- JUL
- AUG
- SEP
- OCT
- NOV
- DEC
- Coal and Nuclear
- New Combined Cycle
- Old Combined Cycle
- Steam
- T&C
- New CT
- Old CT

INCREMENTAL COST OF ELECTRICITY

- Gas fired 8 - 16 cents/kWh w/o capitol
- Gas fired 10 – 26 cents/kWh w/capitol

Present APS General Service Rate E-32

	Summer	Summer
Customer Charge	\$ 12.50	\$ 30.770
Demand Charge for first 100 kW	\$ 1.73	\$ 7.722
Demand Charge for remaining kW	\$ 1.73	\$ 3.497
Energy Charge, kWh		
for the first 200 kWh/kW	\$ 0.10359	\$ 0.07239
for all additional kWh	\$ 0.04471	\$ 0.03476
ACC Env. Surcharge per kWh	\$ 0.000875	\$ 0.000875
up to either \$X or \$Y		
Regulatory Ass. Charge <small>on pretax amount</small>	0.11772%	0.11772%
Sales Tax (varies by location)	7.1429%	7.1429%

BONBRIGHT PRINCIPLES

- 1) Simplicity and understandability
- 2) Freedom from Controversies
- 3) Effectiveness
- 4) Revenue Stability
- 5) Rate Stability
- 6) Fairness
- 7) Avoidance of “undue discrimination”
- 8) Discourage “wasteful use”

PRICE SIGNALS

- Price Signals can be used to make decisions on conservation, DSM, and DG.
- Confusing terminology blurs understanding
- kW peak time is a mystery
- See Proposed answer (later)

TOU RATES FOR MAJOR GROUPS

- RESIDENTIAL
- 40% are on TOU rates

- GENERAL SERVICE (C&I)
- > 0.3% on TOU rates
- 94% Of all 100,000 C&I customers on E-32

BETTER METERING INFO BENEFITS ALL

- Customers can utilize load data to better manage facilities and lower operating costs.
- Provide GS Customers information on Energy usage,
- This is be a logical DSM program to assist APS and customers..

WHO PAYS?, HOW?

- 100 kW, 60% LF
CUSTOMER
- Was \$5/kW & 6.3
cents/kWh
- Prop \$14/kW &
3.4cents/kWh
- 1000 kW, 60% LF
CUSTOMER
- Was \$7.5/kW &
4.4cents/kWh
- Prop \$14/kW &
3.4.4cents/kWh

RATE PROPOSAL

- Provides a more Complex E-32 that is incorrect for today's changed Generation mix.
- A rate that discourages both DSM and DG.

SOULUTIONS

- Provide a new E-32 Rate design, that does not discourage customer understanding and interaction.
- Develop a customer funded metering information DSM program
- Hold hearings to implement meaningful DG rates and interconnections