



RAP

Energy solutions
for a changing world

Smart Rate Design for a Smart Future

NWEC Fall Meeting
December 3, 2015

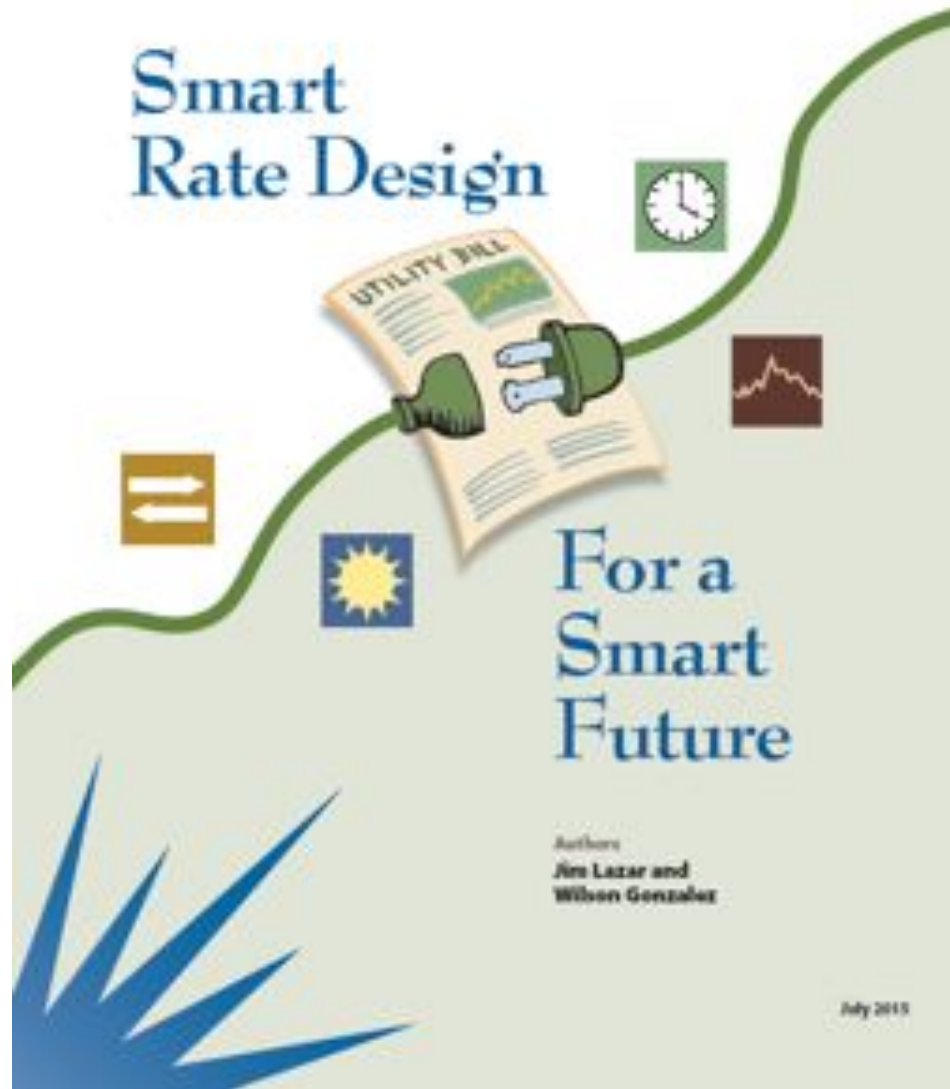
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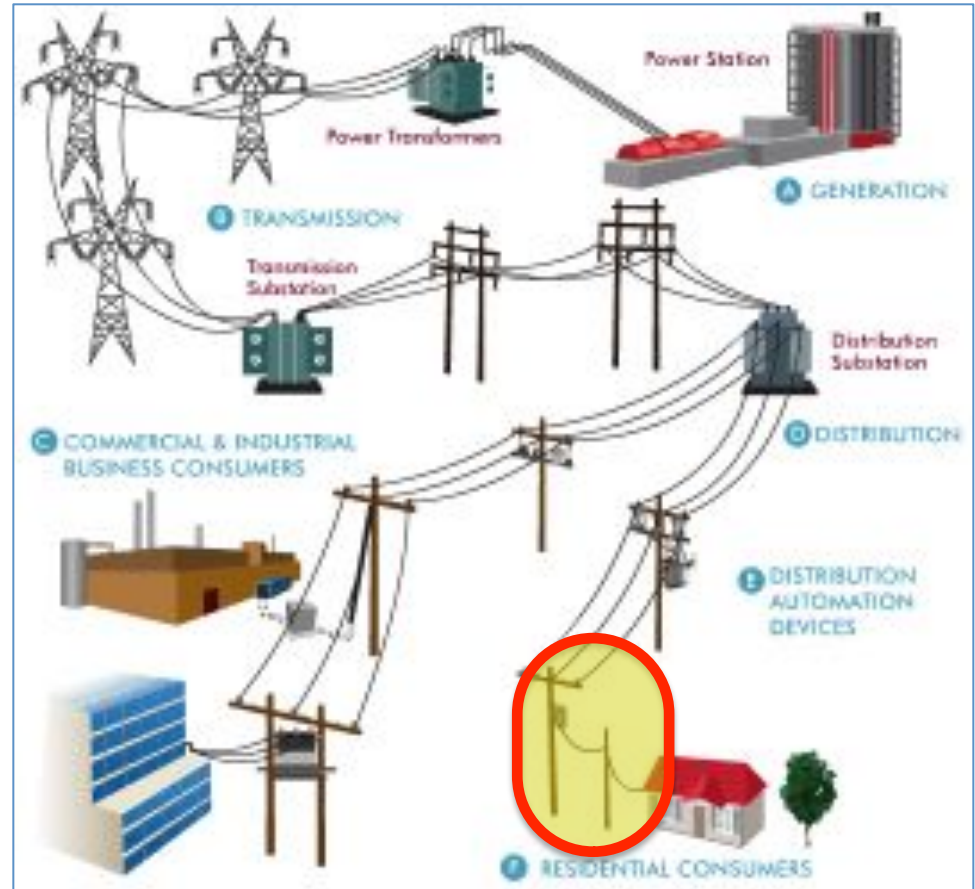
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Smart Rate Design



Principle #1

A Customer should be allowed to connect to the grid for no more than the cost of connecting to the grid.



Principle #2

Customers should pay for the grid in proportion to how much they use the grid, and when they use the grid.



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Customers should pay for the grid in proportion to how much they use the grid, and when they use the grid.



Principle #3

Customers delivering power to the grid should receive full and fair value -- no more and no less.



How Do Other Industries Recover Fixed Costs?



We Pay For Other “Grids” In Volumetric Prices



A Simple Cost-Based Residential Rate Design

Cost to Connect to the Grid

Billing	\$/mo	\$ 4.00
Line Transformer	\$/kVA/Mo	\$ 1.00

Bi-Directional Grid and Power Supply

Off-Peak	\$/kWh	\$ 0.07
Mid-Peak	\$/kWh	\$ 0.09
On-Peak	\$/kWh	\$ 0.14
Critical Peak	\$/kWh	\$ 0.74

Bill Simplification

Crude Oil	\$2.237
Tanker to Refinery	\$0.114
Refinery Capital	\$0.213
Refinery Operating	\$0.235
Product Pipeline	\$0.113
Terminal Rack	\$0.023
Truck to MiniMart	\$0.114
Mini-Mart Profit	\$0.217
State Taxes	\$0.349
Federal Taxes	\$0.184



Bill Simplification

Your Usage: 1,266 kWh			
Base Rate	Rate	Usage	Amount
Customer Charge	\$5.00	1	\$5.00
First 500 kWh	\$0.05000	500	\$25.00
Next 500 kWh	\$0.10000	500	\$50.00
Over 1,000 kWh	\$0.15000	266	\$39.90
Fuel Adjustment Charge	\$0.01230	1,266	\$15.57
Infrastructure Tracker	\$0.00234	1,266	\$2.96
Decoupling Adjustment	\$(0.00057)	1,266	\$(0.72)
Conservation Program Charge	\$0.00123	1,266	\$1.56
Nuclear Decommissioning	\$0.00037	1,266	\$0.47
Subtotal	\$139.74		
State Tax	5%		\$6.99
City Tax	6%		\$8.80
Total Due			\$155.53

Bill Simplification

Base Rate	Rate	Usage	Amount
Customer Charge	\$5.56500	1	\$ 5.56
First 500 kWh	\$0.07309	500	\$ 36.55
Next 500 kWh	\$0.12874	500	\$ 64.37
Over 1,000 kWh	\$0.18439	266	\$ 49.05
Total Due			\$155.53

About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raponline.org



The Regulatory Assistance Project

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Additional Slides for Group Discussion

Seattle City Light

Customer Charge (30 days) \$ 4.35

Summer

First 300 kWh \$ 0.0565

Over 300 kWh \$ 0.1197

Winter

First 480 kWh \$ 0.0565

Over 480 kWh \$ 0.1197

Puget Sound Energy

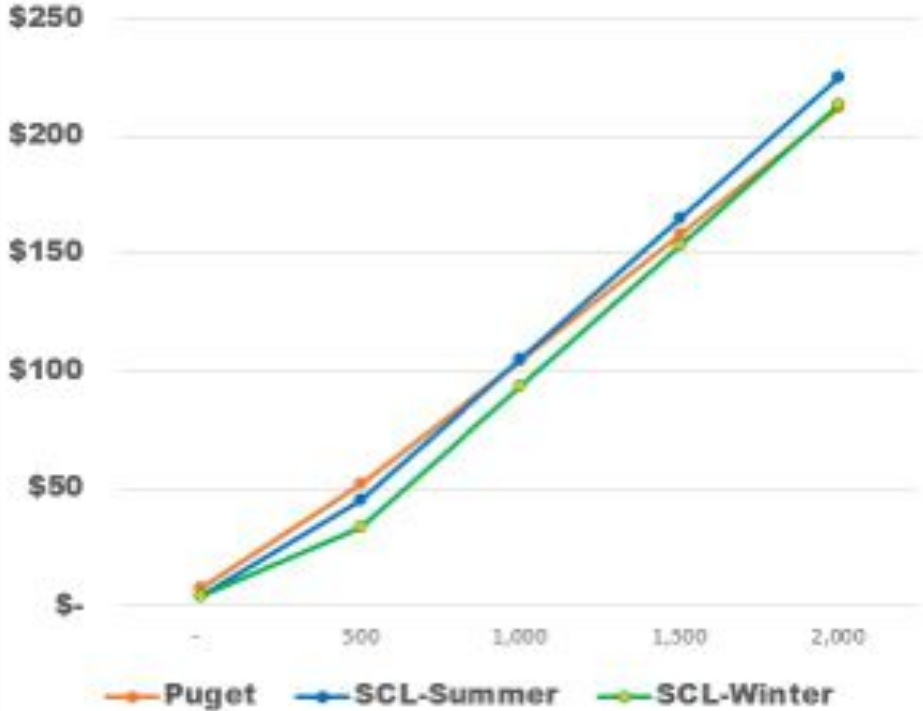
Customer Charge \$ 7.87

First 600 \$ 0.0887

Over 600 kWh \$ 0.1076

Net of Residential Exchange

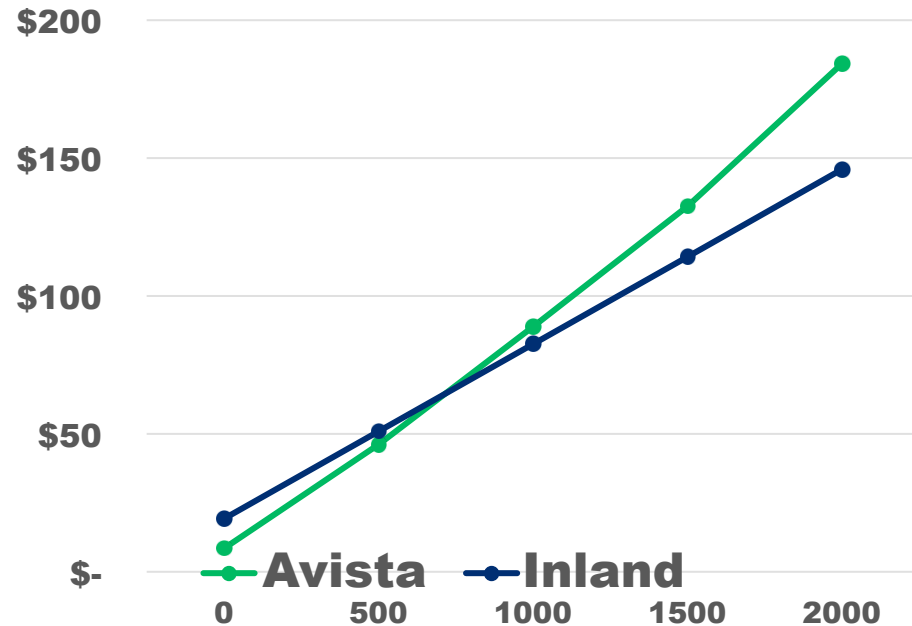
PSE vs. Seattle



Inland Power and Light	
Customer Charge	\$ 19.23
Energy Charge	\$0.0634

Avista Utilities (WA)	
Customer Charge	\$ 8.50
First 800 kWh	\$0.0755
801 - 1,500	\$0.0878
Over 1,500	\$0.1028

Avista vs. Inland



Oregon Trail Electric Cooperative

Customer Charge	\$ 25.50
Energy Charge	\$ 0.071

Pacific Power (OR)

Customer Charge	\$ 9.50
First 1,000 kWh	\$ 0.099
Over 1,000 kWh	\$ 0.119

