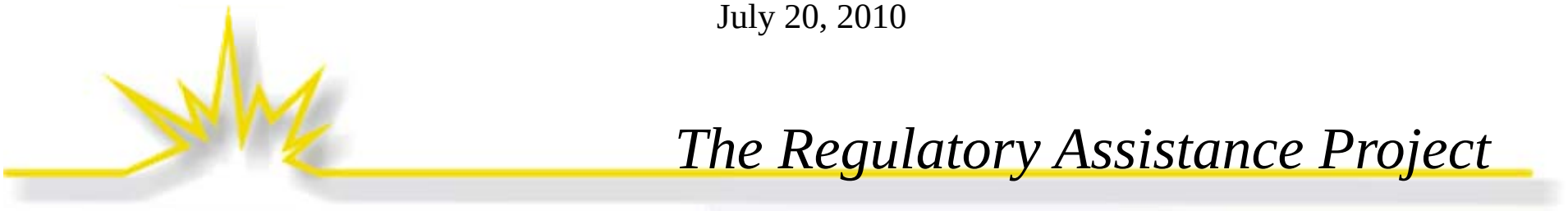
Decoupling:
Characteristics and Impacts

Presentation to
The Energy Resources and the Environment Committee

Summer NARUC Committee Meetings
Sacramento, California

By
Wayne Shirley
July 20, 2010



China ♦ India ♦ European Union ♦ Latin America ♦ United States

Website: *http://www.raponline.org*

Regulatory Assistance Project

- Nonprofit organization founded in 1992 by experienced energy regulators
- Advises policymakers on economically and environmentally sustainable policies in the regulated energy sectors
- Funded by U.S. DOE & EPA, the Energy Foundation, ClimateWorks and other foundations
- We have worked in 40+ states and 16 nations

Revenue Decoupling: The Basic Concept

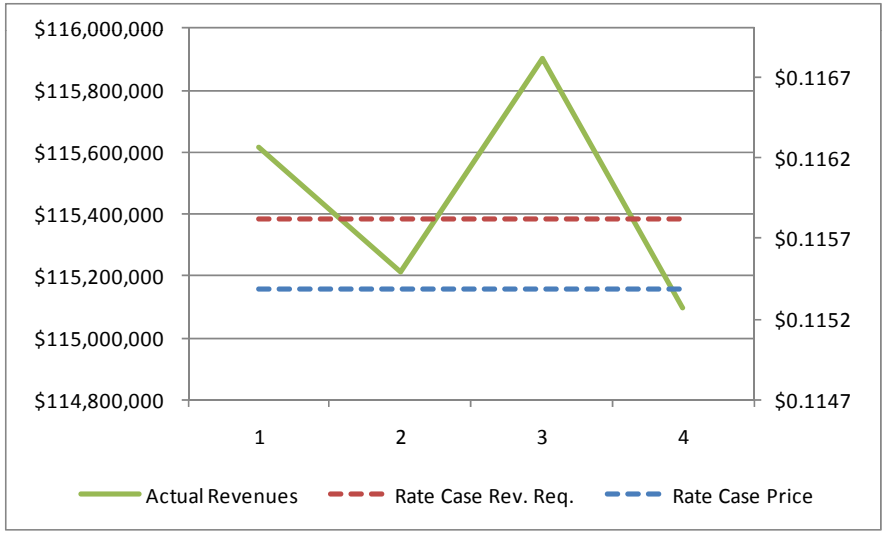
- Basic Revenue-Profit Decoupling has two primary components:
  1. Determine a "target revenue" to be collected in a given period
     - In the simplest form of revenue decoupling (sometimes called "revenue cap" regulation), Target Revenues are always equal to Test Year Revenue Requirements
     - Other approaches have formulas to adjust Target Revenue over time
  2. Set a price which will collect that target revenue
     - This is the same as the last step in a traditional rate case – i.e. *Price = Target Revenues ÷ Sales*

The Decoupling Transformation: Traditional Regulation Decoupling

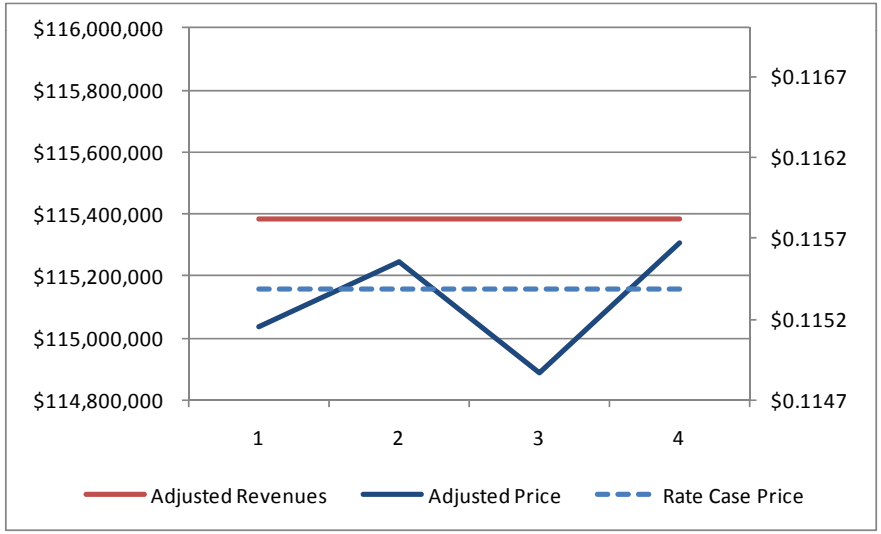
Revenue = ~~Price * Units~~ Sold

The Essential Characteristic of Decoupling

Traditional Regulation:
Constant Price =
Fluctuating Revenues



Decoupling:
Precise Revenue Recovery =
Fluctuating Prices



Revenues = Price * Sales

Price = Target Revenues ÷ Sales

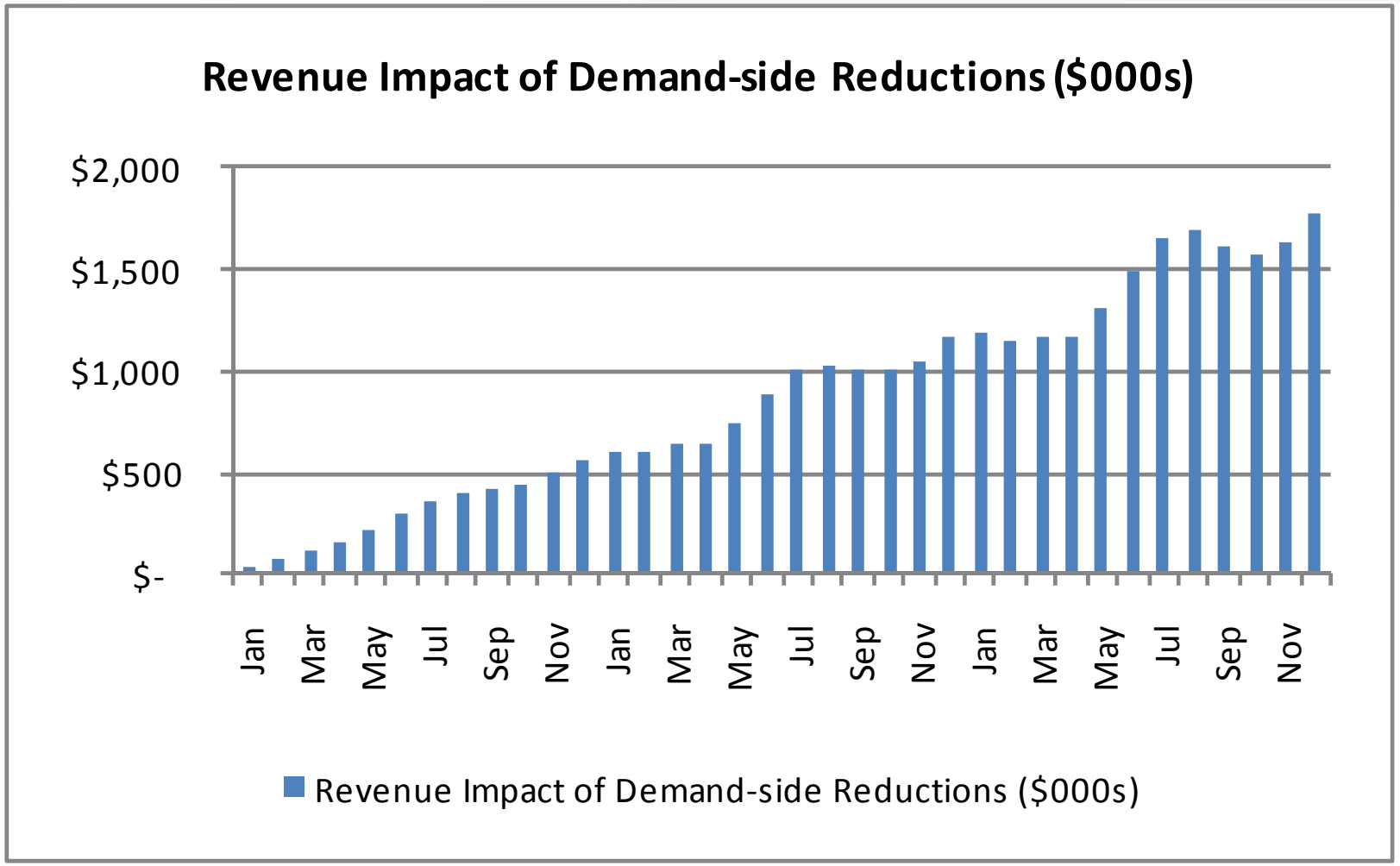
Case Study:
Rate Designs Analyzed

Non-Seasonal Inclining Block Rate Design				
Price Type	Total Revenue	Total Billing Determinants	Rate	
Customer Charge	$ 19,484,784	4,871,196	$ 4.00	
Block 1 (First 200 kWh)	$ 47,640,783	898,696,181	$ 0.0530110	
Block 2 (Next 500 kWh)	$ 109,014,161	1,395,256,018	$ 0.0781320	
Block 3 (Greater than 700 kWh)	$ 63,067,176	709,610,240	$ 0.0888758	
Demand	$ -	-	$ -	
Non-Seasonal Flat Rate				
Price Type	Total Revenue	Total Billing Determinants	Rate	Average Usage Per Customer
Customer Charge	$ 19,484,784	4,871,196	$ 4.00	
Energy Charge	$ 219,722,120	3,003,562,439	$ 0.0731538	617
Demand	$ -	$ -	$ -	
Straight-Fixed Variable				
Price Type	Total Revenue	Total Billing Determinants	Rate	
Customer Charge	$ 239,206,904	4,871,196	$ 49.11	
Energy Charge	$ -	3,008,433,635	$ -	
Demand	$ -	$ -	$ -	

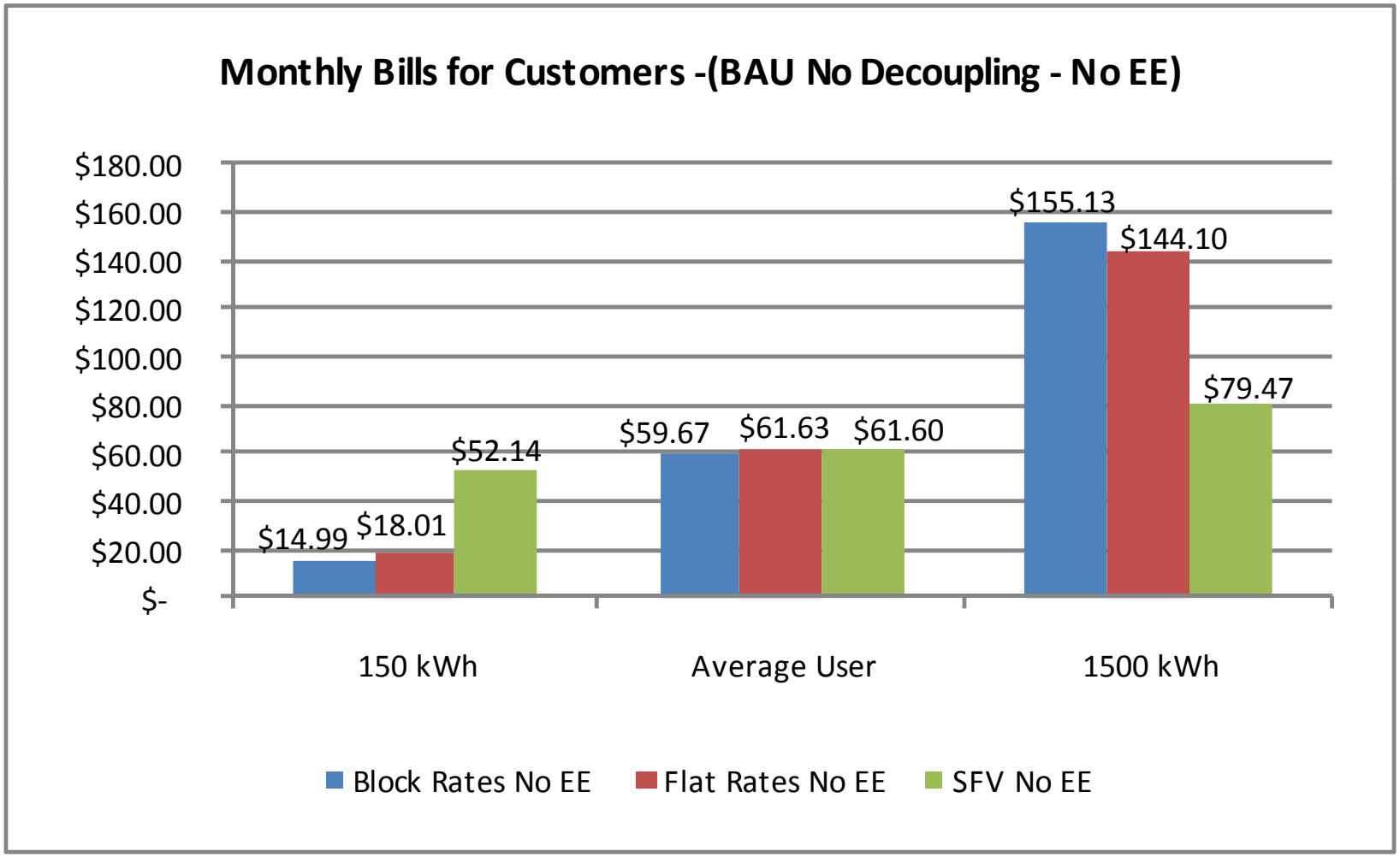
Scenario:
Aggressive EE
Offsetting All Energy Growth

Scenario Inputs	
Customer Growth Rate	**3.00%**
Percent of Growth Offset by Demand-side Reduction	
Block 1	**100.00%**
Block 2	**100.00%**
Block 3	**100.00%**

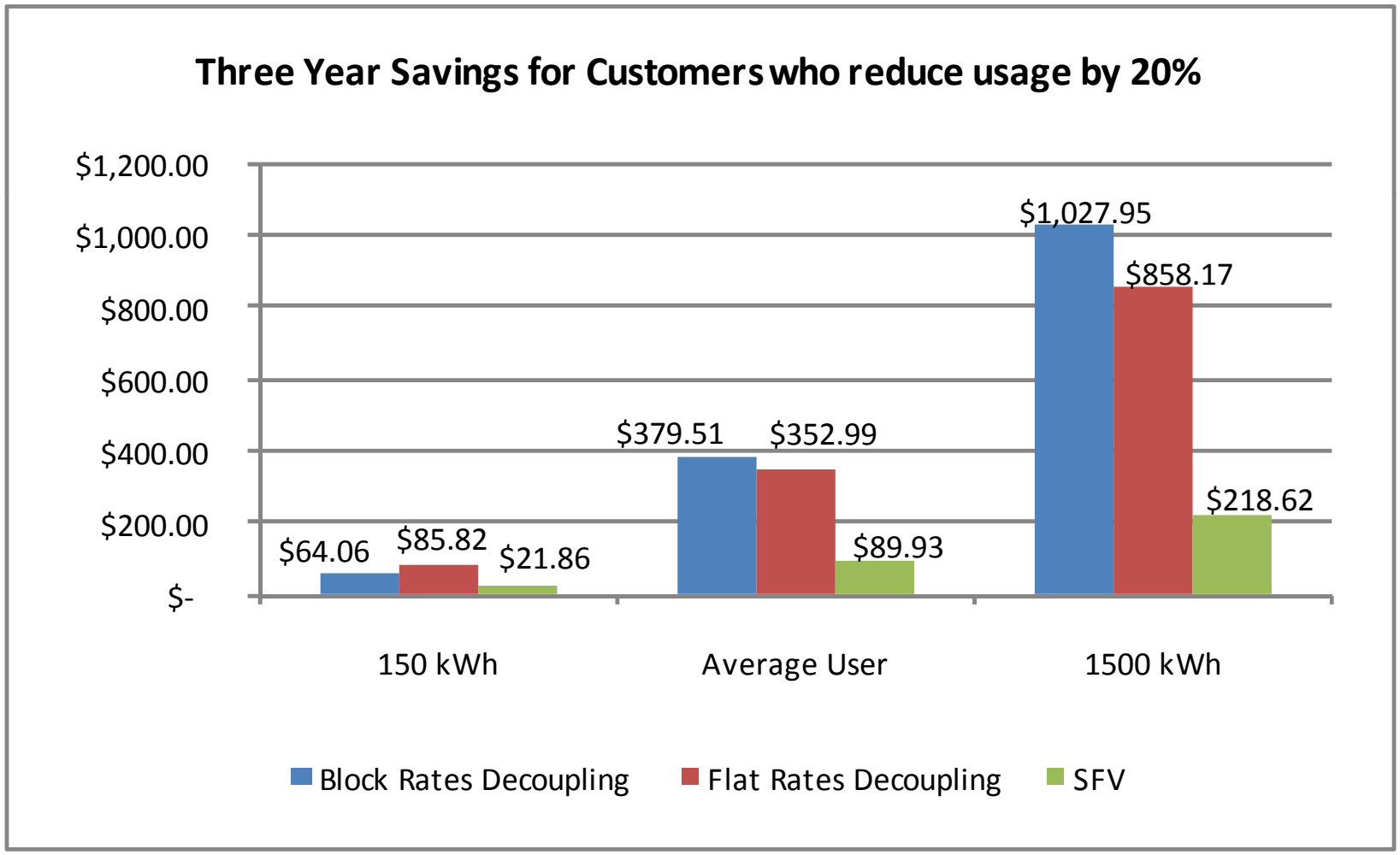
Revenues Lost to Demand-side Reductions



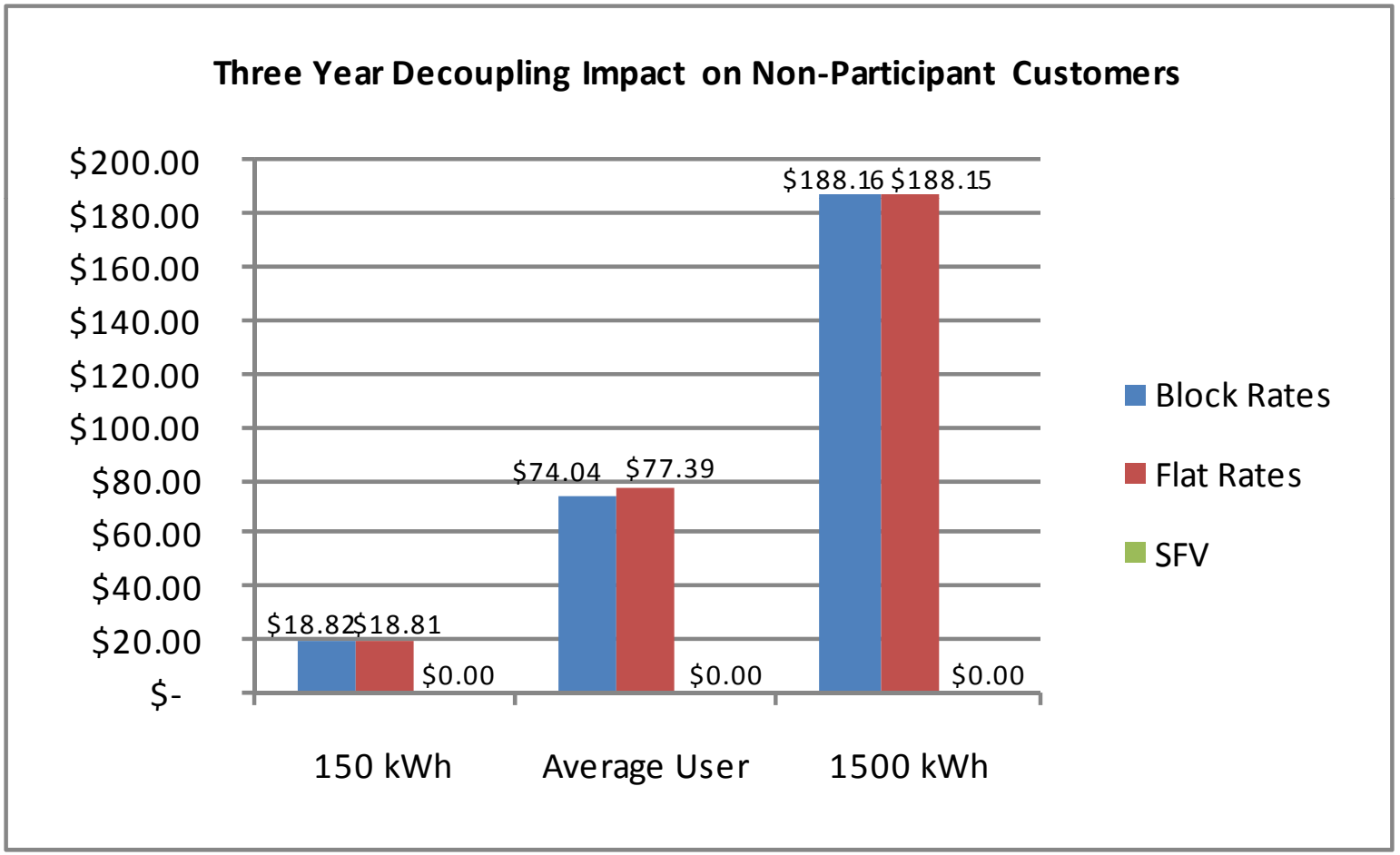
Bills for Different User With Different Rate Design



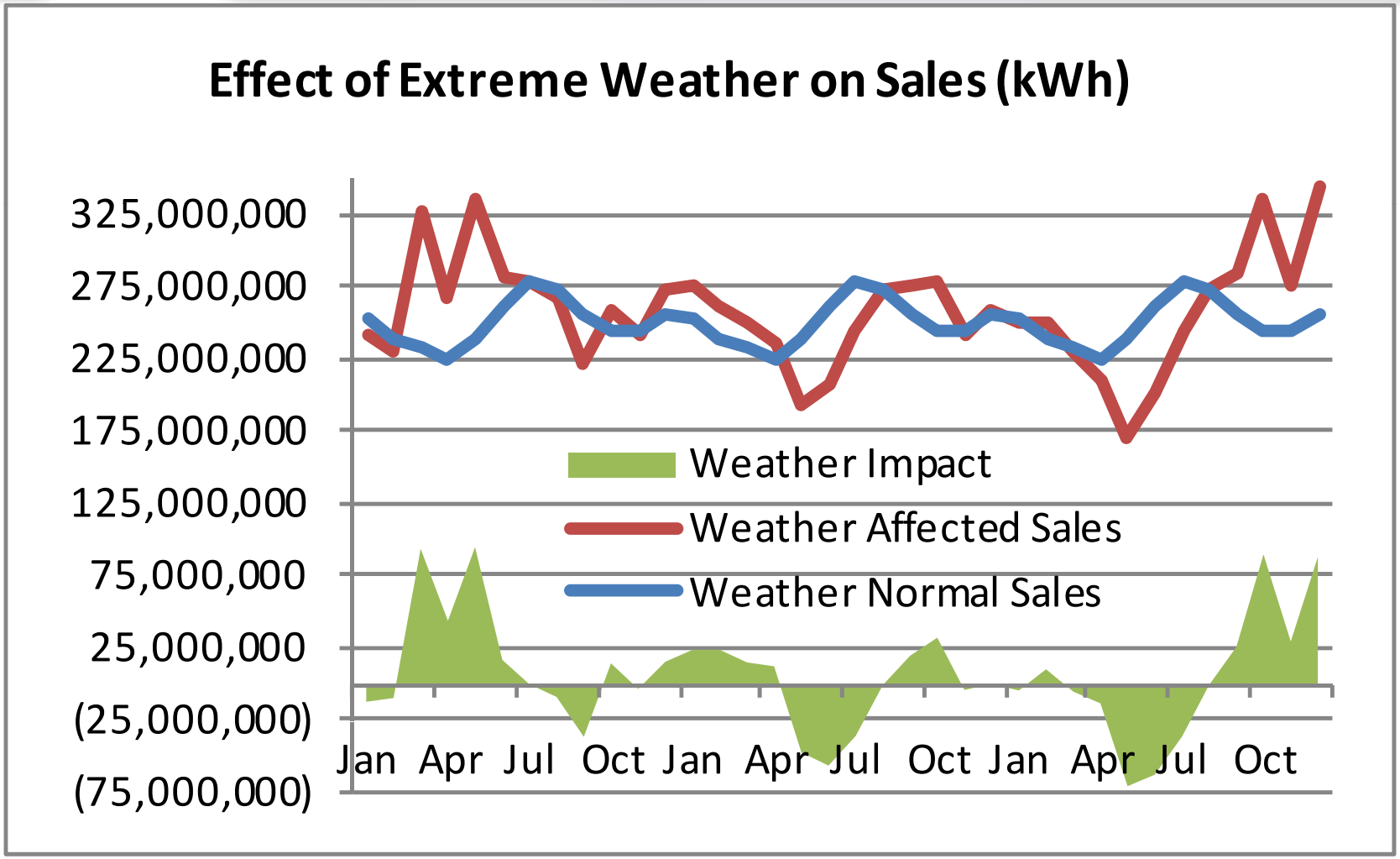
Savings for Customers Who Reduce Usage by 20%



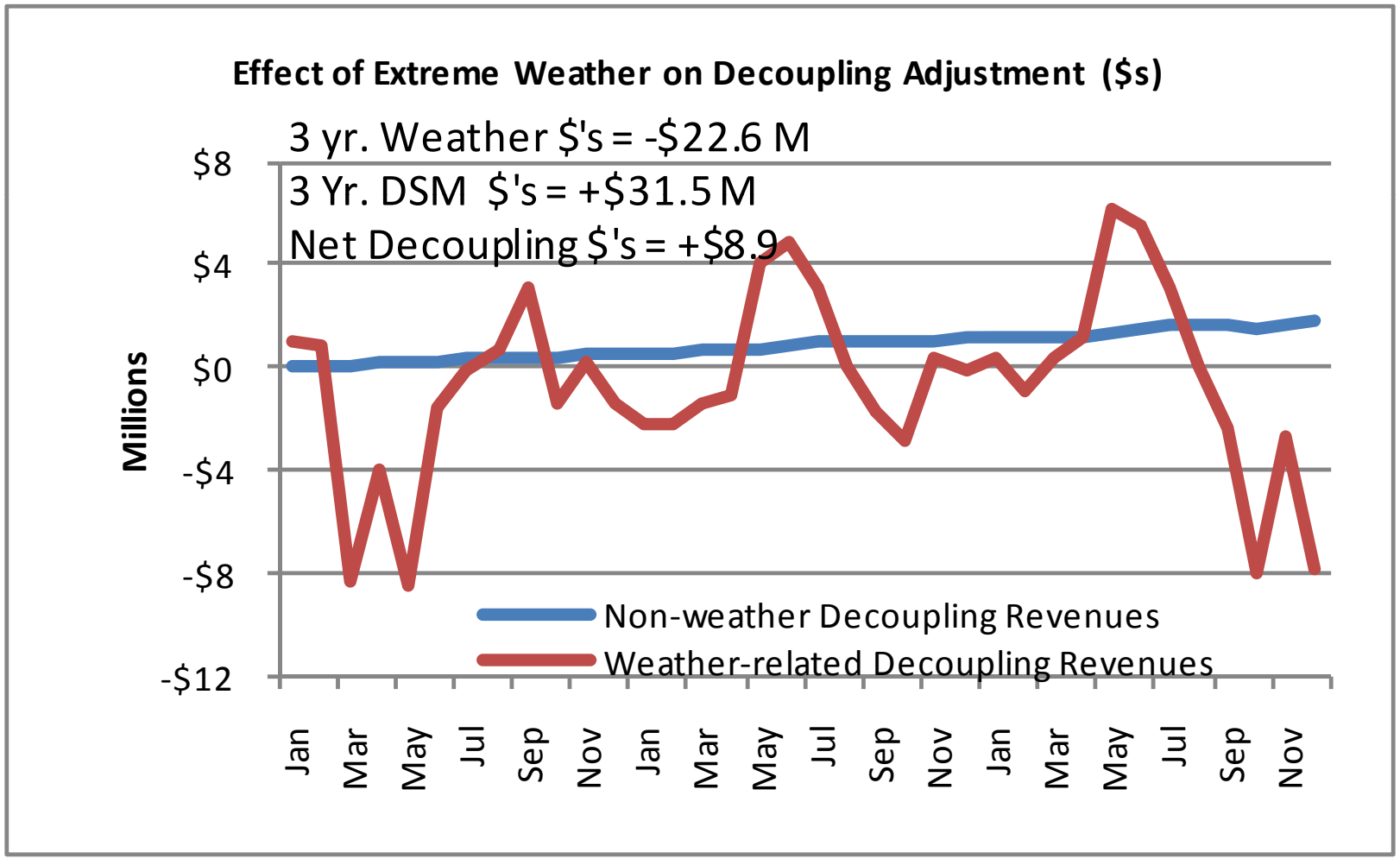
Three Year Impact on Customers Who Do Not Reduce Usage



Weather :
A Volatile Sales Variable…



…and Revenue Variable



Thanks for you Attention

- Questions?
- Contact: wshirley@raponline.org
- Website: www.raponline.org