

November 16, 2017

# Performance-Based Regulation

## Bermuda Energy Summit 2017: Building Bermuda's Energy Future

---

David Littell  
Principal  
The Regulatory Assistance Project (RAP)<sup>®</sup>

---

550 Forest Avenue, Suite 203  
Portland, Maine  
United States

---

+1 207 592 1188  
dlittell@raponline.org  
raponline.org



1

# What is Traditional Regulation and What is PBR Ratemaking?



---

# “All regulation is incentive regulation”

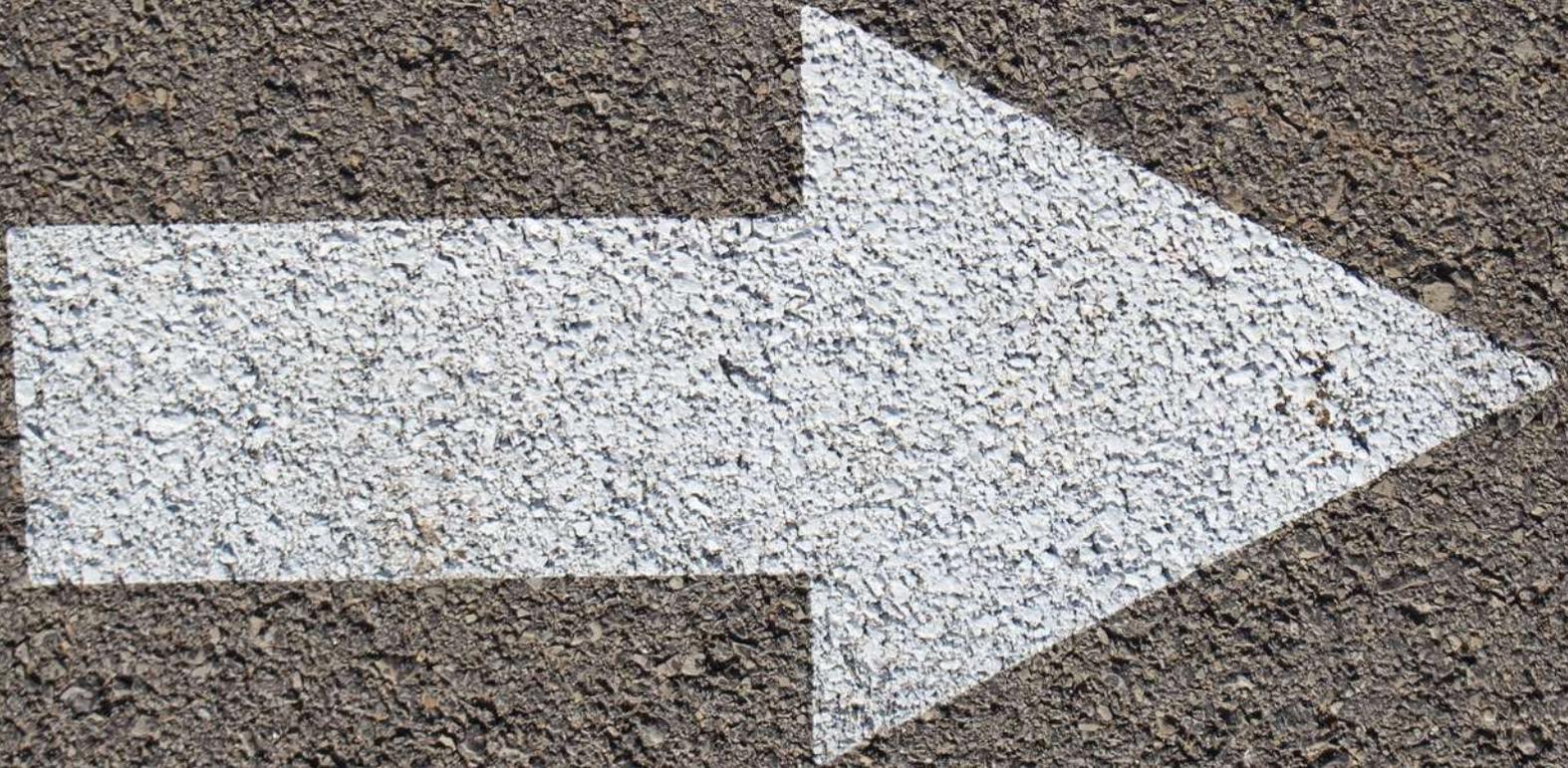
- Incentives of traditional regulation
  - Build and own to grow rate base
  - Increase volume of sales and electricity usage to enhance profits
  - Decrease expenses (OPEX)
  - Avoid disallowances

---

# Questions: Are there . . .

- Good things that are not profitable for the utility? (EE, solar PV)
- Bad things that are profitable to the utility? (Non-beneficial electrification)
- Good things not getting done for lack of interest or motivation? (Smart meters)
- Bad incentives but easily seen or less easily seen? (Free incandescent holiday lights)

# Directional Incentives



*Photo: Shirley Niv Marton*

# Measurable Performance Criteria

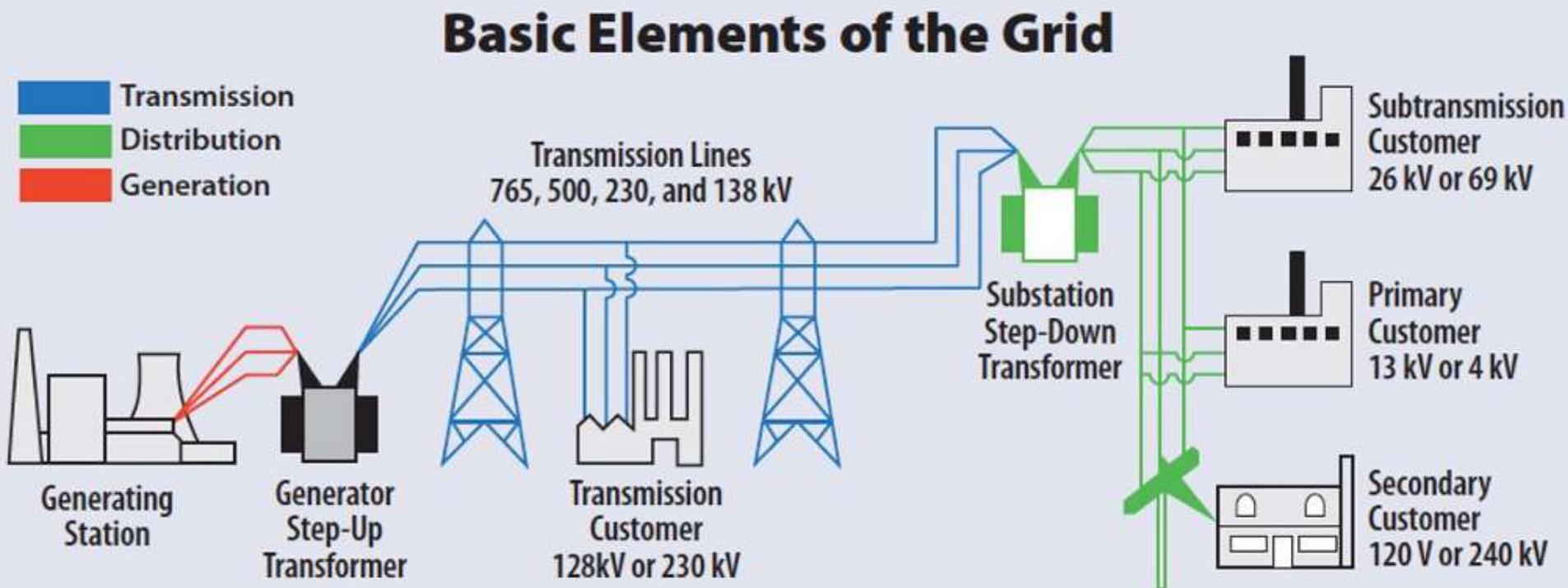


# 2

## Why is Alternative Regulation Important?

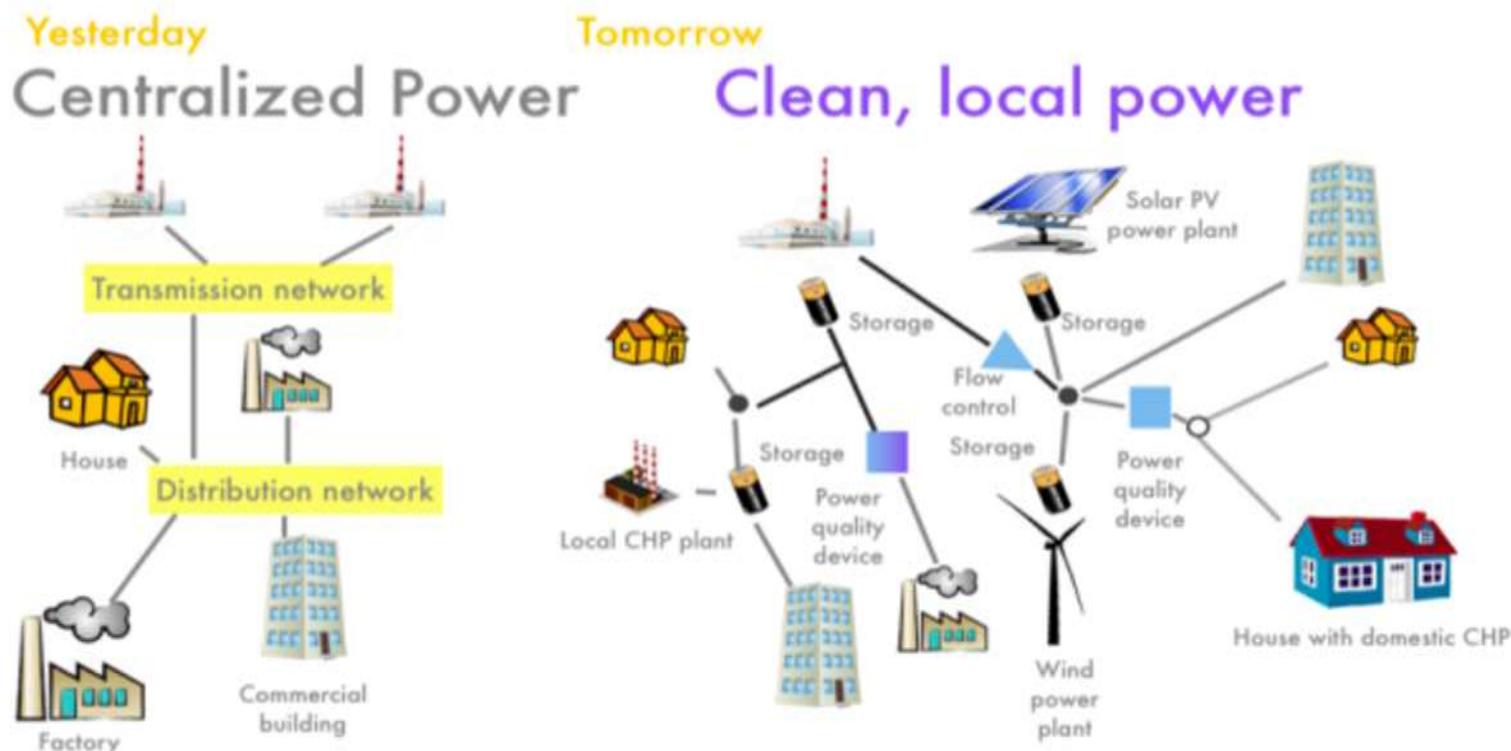


# PBR enables reform of 100-year old regulatory paradigm



Source: US-Canada Power System Outage Task Force final report, April 2004.

# PBR and smart transformation of power sector



Source: Farrell, J. (2011). The Challenge of Reconciling a Centralized v. Decentralized Electricity System. Institute for Local Self-Reliance.

---

# 2006



**Only three states were saving  
0.8% of sales or better**

---

# 2014



**18 states were saving  
0.8% of sales or better**

---

# PBR can identify and target positive incentives and outcomes

- Solar distributed generation
- Higher ramping rate for integration of renewables
- Peak load reduction via demand response
- Increase customers enrolled in time-varying rates
- Use advanced metering infrastructure?
- EV rate education and charging control to minimize system and ratepayer costs

---

# PBR can harness disruption

Recent history is full of transformative technology changes that were not foreseen by experts.



---

# Takeaways

- Innovative rate design aligns interests of utilities, regulators, customers
- Innovative rate design can provide cost containment incentives to utilities
- Poorly designed mechanisms exist, and provide debatable benefits
- Innovative rate design could help reform regulation for the “next generation” utility

# About RAP

The Regulatory Assistance Project (RAP)<sup>®</sup> is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at [raponline.org](https://raponline.org)



---

David Littell  
Principal  
The Regulatory Assistance Project (RAP)<sup>®</sup>

---

550 Forest Avenue, Suite 203  
Portland, Maine  
United States

---

+1 207 592 1188  
[dlittell@raponline.org](mailto:dlittell@raponline.org)  
[raponline.org](https://raponline.org)