



# Regulatory Design Concepts: Pros and Cons for SIDS/the Caribbean

Presented at:  
CARILEC Regulatory Forum

St. Lucia  
April 1, 2014

Ted Kury  
Director of Energy Studies  
Public Utility Research Center  
University of Florida



# Public Utility Research Center

## Research

Expanding the body of knowledge in public utility regulation, market reform, and infrastructure operations (e.g. benchmarking studies of Peru, Uganda, Brazil and Central America)

## Education

Teaching the principles and practices that support effective utility policy and regulation (e.g. PURC/World Bank International Training Program on Utility Regulation and Strategy offered each January and June)

## Service

Engaging in outreach activities that provide ongoing professional development and promote improved regulatory policy and infrastructure management (e.g. in-country training and university collaborations)



# The Body of Knowledge on Infrastructure Regulation





# Outline

- Models of regulatory systems
  - Strong central regulator
  - Strong jurisdictional regulator
- Sources of regulatory conflict
  - Authority
  - Cognitive
  - Values
  - Interest
- Strategies for managing conflict



# Strong Central Regulator

- The central regulator performs most functions selectively delegates authority
- Pros
  - Centralized function, perhaps economies of scale
  - Consistent institutional knowledge
- Cons
  - May be difficult or impossible to recognize heterogeneity
  - May conflict with legal status of jurisdictional entities



# Brazil - ANEEL

- ANEEL is the federal energy regulator in Brazil
- Determines jurisdictional electricity prices for the entire country
- State regulators enforce tariffs and monitor compliance with ANEEL policies
- Frustration on the part of the individual state regulators
  - Point of contact for customer complaints
  - Educate customers on the role of state regulators



# Strong Jurisdictional Regulator

- Overarching regulator provides framework, or has jurisdiction over certain aspects of business
- Local regulator has jurisdiction over most issues
- Pros
  - More respect for territorial boundaries
  - Better able to address local issues
- Cons
  - May not be consistent application across multiple jurisdictions
  - Jurisdictional regulators may waste resources ‘reinventing the wheel’



# United States

- 10th Amendment to U.S. Constitution ensures states' rights
- Federal energy regulator (FERC) jurisdiction limited to interstate commerce
  - Electricity transmission
  - Natural gas transportation and storage
  - Interstate planning and cost allocation
- State regulators have jurisdiction over intrastate commerce
  - Retail electricity and natural gas rates
  - Infrastructure siting



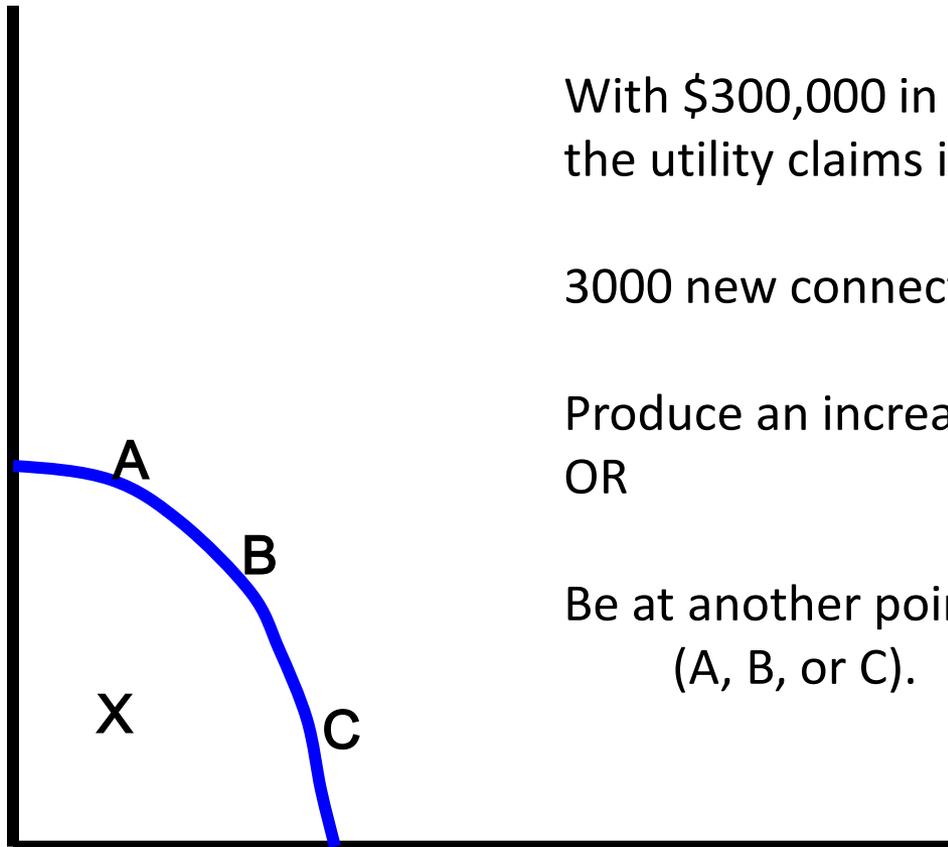
# Sources of Conflict and Sector Performance

1. **Authority Conflicts**: lack of clarity of roles
2. **Cognitive (Factual) Conflicts**: disagreements regarding current or historical facts and causal linkages
3. **Value Conflicts**: conflicting priorities and different weights on outcomes
4. **Interest Conflicts**: stakeholders benefit differentially from decisions

(from Shabman, 2005)

# Context for Regulatory Leadership

Number  
Of New  
Connections



Utility will spend \$700,000 in OPEX.

With \$300,000 in CAPEX,  
the utility claims it can provide

3000 new connections OR

Produce an increase in service quality  
OR

Be at another point on the Frontier  
(A, B, or C).

Change in Service Quality



# Authority Conflict

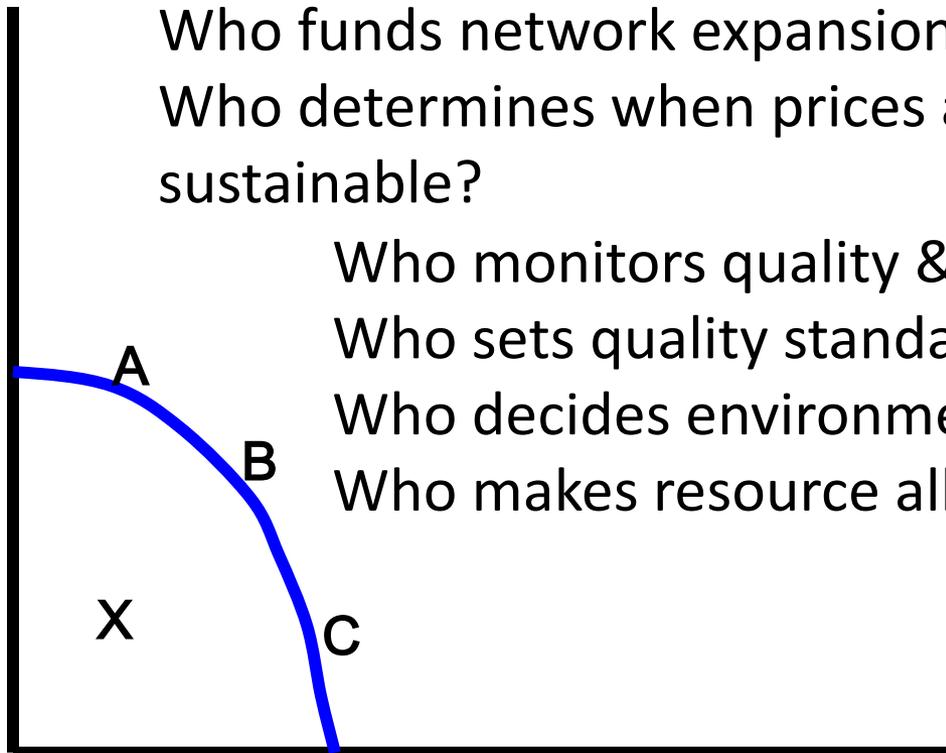
**“Authority” conflicts** reflect different views regarding where decisions will or ought to be made.

## Who decides?

- ✓ Jurisdiction may not yet be assigned or the issue might be addressed by multiple agencies.
- ✓ Stakeholders will go jurisdiction-shopping—selecting the agency or the level of government most likely to support its interests in policy design and implementation.
- ✓ Appeals procedures within the judicial system can delay implementation. In such situations, benefits delayed are (effectively) benefits denied.
- ✓ Issues include: Finance Ministry vs. Water Ministry, Environmental Regulator vs. Sector Regulator

# Authority Issues Facing Regulators

Number  
Of New  
Connections



Who decides where to expand networks?

Who funds network expansion?

Who determines when prices are financially sustainable?

Who monitors quality & enforces rules?

Who sets quality standards?

Who decides environmental requirements?

Who makes resource allocation decisions?

Change in Service Quality



# Regulator: Conflict Resolution--Authority

- ✓ Seek Changes in the Law—legal clarity
- ✓ Cooperate with Sister Agencies (avoid turf wars)
- ✓ Establish Task Forces to Address Issues
- ✓ Educate the Courts and Promote Transparency
- ✓ Improve Appeals Procedures

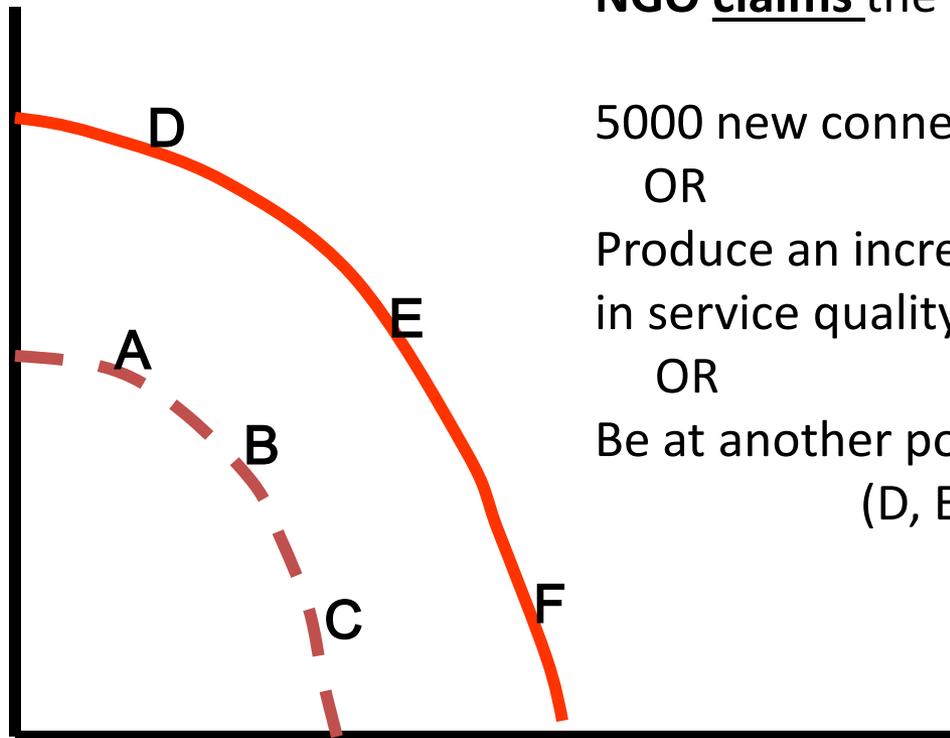


# Cognitive Conflicts

- ✓ “*Cognitive*” conflicts are disputes over factual matters: “**What is?**”
- ✓ For example, How many new connections can be made with \$300,000?
- ✓ Technical disagreements reflect cognitive conflicts. Such conflicts can be reduced through comprehensive data collection and analysis.

# Factual Issues Facing Regulators

Number  
Of New  
Connections



With \$300,000 in CAPEX,  
**NGO claims** the utility can provide

5000 new connections

OR

Produce an increase of “10 points”  
in service quality,

OR

Be at another point on the Frontier  
(D, E or F).

Change in Service Quality



# Regulator: Conflict Resolution--Facts

- ✓ Benchmarking Studies:
  - Input Data (physical and monetary)
  - Output Data (connections, water delivered, continuity, quality)
  
- ✓ Financial Sustainability Studies
  - Income Statements
  - Balance Sheets
  - Cash Flow Statements

Examine Incentives and Estimate time to reach “the” frontier



# Values Conflicts

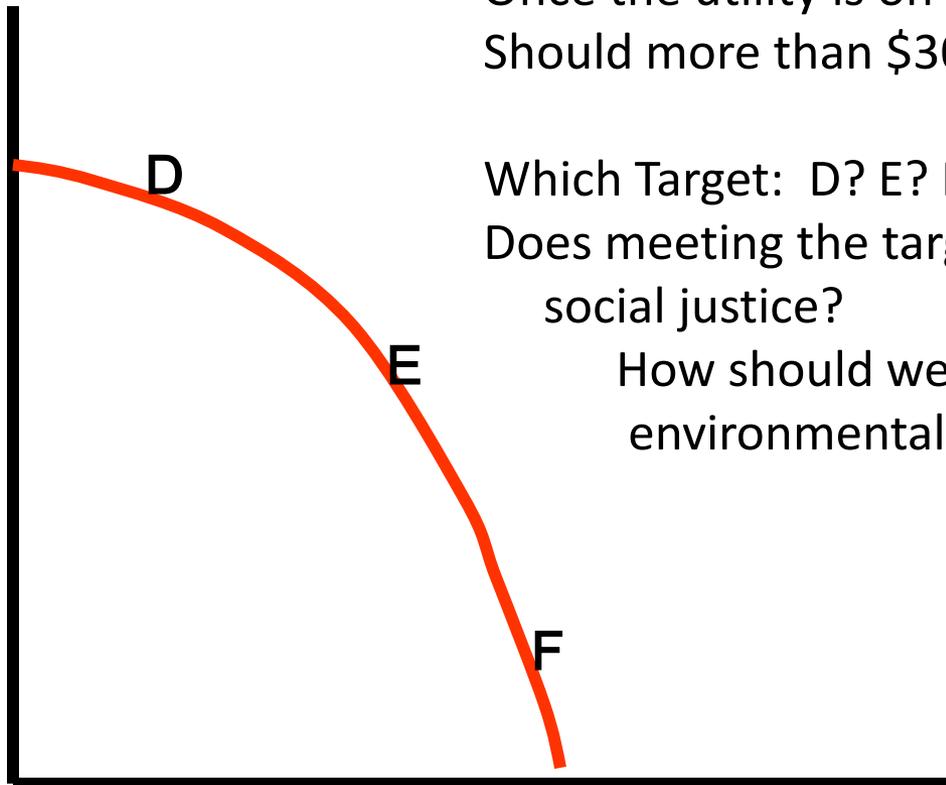
- ✓ “*Values*” conflicts are more ideological in nature, reflecting the different preferences or values of groups.

## What should be?

- ✓ Is there a political consensus over the weight assigned to particular outcomes, especially outcomes involving non-monetary impacts?
- ✓ Targets: Preferred outcomes depend on citizens’ values and attitudes.

# Values Issues Facing Regulators

Number  
Of New  
Connections



Once the utility is on the Frontier . . .  
Should more than \$300,000 be invested?

Which Target: D? E? F?

Does meeting the target promote  
social justice?

How should we prioritize  
environmental objectives?

Change in Service Quality



# Regulator: Conflict Resolution--Values

- ✓ Public Education
  - Publish Performance Comparisons
  - Identify Trade-offs
  - Report to the Legislature
  
- ✓ Promote Citizen Participation
  - Talk Radio
  - News Conferences
  - Citizen Advisory Boards

Limit the Rhetoric: Document Outcomes & Articulate a Vision

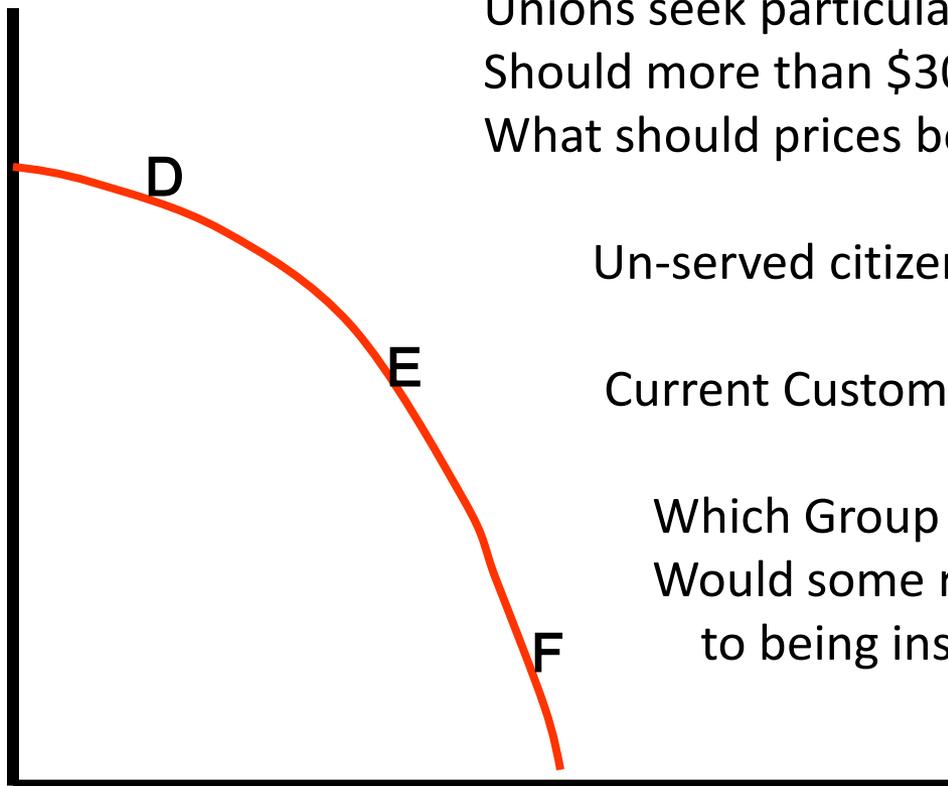


# Interest Conflicts

- ✓ *“Interest” conflicts* reflect the differential impacts of policies on various stakeholder groups: **“Who benefits from the policy?”**
- ✓ If the situation is actually a zero-sum game, one group benefits at another’s expense (unless there is compensation).
- ✓ Special Interests: The Political Economy of Regulation suggests that when the beneficiaries of a particular policy are concentrated (and per capita benefits are high) the beneficiaries will lobby and invest in their preferred policy.
- ✓ If losers are diffuse (and the per capita damages are low), the result is a policy that benefits well-organized stakeholders—even when the costs to the losers outweigh the benefits to the winners.

# Special Interest Issues & Regulators

Number  
Of New  
Connections



Pipe suppliers want to sell pipe.  
Unions seek particular work rules.  
Should more than \$300,000 be invested?  
What should prices be to different groups?

Un-served citizens want “D”

Current Customers want “F”

Which Group has Political Power?  
Would some recommendations lead  
to being inside the “frontier”?

Change in Service Quality



# Strategies for Managing the Four Conflicts

## Cost-Benefit Analysis

“Balance” competing goals

Uses money as “the” common denominator

## Cycle between different objectives

Focus sequentially on specific values

Address citizen confusion over episodic approach

## Compartmentalization through specialized agencies

Develop professional skills

Target specific goals

Collaborate with other agencies (environment, sector)

## Case by Case Resolution

Rely on precedents (and analogies) to make decisions

Avoid general decisions on weights assigned outcomes

(from Thatcher and Rein (2004))



# Regulator: Conflict Resolution--Interests

- ✓ Do not pretend there are no conflicts
  - View from the Balcony—step back from stakeholders
- ✓ Take a Leadership Role in Identifying Benefits and Costs
  - Eg. OFWAT and EU Environmental Standards
  - Collected compliance cost information from utilities
  - Presented costs of meeting targets: current deadline vs. delay

Politicians make Final Decision (Accountability)

Regulators and Operators can provide Leadership in Conflict Resolution

# Conflict Resolution Matrix

Addressed  
By Research

Technical  
Work

Adaptive  
Work

<b>Conflict Over Facts</b>	<b>Conflict Over What is important</b>
<b>Conflict Over Distribution of Gains &amp; Costs</b>	<b>Conflict Over Jurisdiction or Authority</b>

Addressed by  
Engaging  
People with  
Adaptive  
Challenges  
in Research  
And Dialogue

Addressed  
By Research  
And Negotiation

From Mark Jamison



# Conclusions

- Many different options when designing regulatory systems
- Authority conflicts are most common working across national boundaries – important to define roles and responsibilities
- Values and interests may also differ across national boundaries – everyone needs to ensure that their voice is heard
- Different strategies available to manage conflict, but communication is vital throughout process



# Thank You!

- Ted Kury

[ted.kury@warrington.ufl.edu](mailto:ted.kury@warrington.ufl.edu)