



**RAP**

Energy solutions  
for a changing world

# CHP Power Sector Policy: How government action enables CHP

## Georgia Tech Energy Series

## Presented by Richard Sedano

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**The Regulatory Assistance Project**

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# Introducing RAP and Rich

- RAP is a non-profit organization providing technical and educational assistance to government officials on energy and environmental issues. RAP staff have extensive utility regulatory experience.
  - Richard Sedano directs RAP's US Program. He was commissioner of the Vermont Department of Public Service from 1991-2001 and is an engineer.

# CHP development inevitable, can be nurtured

- Inevitable because customers are being empowered
  - Technology
  - Use of markets in regulation
- Valuable to the Electric Grid
- Nurtured how? And how well?
  - By State Government?
  - By Utilities?

# CHP as a program

How a utility would encourage CHP rather than be passive?

- Programs are about customers
  - Can CHP fit into utility program practice?
- Screening
  - Distinctions with Industrial Energy Efficiency?
- Managing Electric / Gas Savings
  - Compare with Geothermal Heating
- Counting against requirements

# From SEE Action CHP Guide (2013)

**Table A.1. Costs and Benefits of CHP Programs under the TRC and PAC Tests**

	PAC: Electric	PAC: Gas	PAC: Electric & Gas	TRC: Electric	TRC: Gas	TRC: Electric & Gas
<b><u>Benefits</u></b>						
Avoided Electric Energy	Yes	---	Yes	Yes	---	Yes
Avoided Electric Capacity	Yes	---	Yes	Yes	---	Yes
Avoided T&D	Yes	---	Yes	Yes	---	Yes
Increased Revenues (gas)	---	Yes	Yes	---	Yes	Yes
Reduced Bills (electric)	---	---	---	---	---	---
Reduced Emissions (electric)	---	---	---	---	---	---
<b><u>Costs</u></b>						
Utility Program Administration	Yes	Yes	Yes	Yes	Yes	Yes
Utility Incentive to Customer	Yes	Yes	Yes	Yes	Yes	Yes
Customer Install Costs	---	---	---	Yes	Yes	Yes
Customer Annual O&M	---	---	---	Yes	Yes	Yes
Increased Bills (gas)	---	---	---	---	Yes	Yes
Increased Emissions (gas)	---	---	---	---	---	---
Reduced Revenues (electric)	---	---	---	---	---	---

# Regulatory Issues

- Mechanics of counting (and EM&V)
- Sharing electric and gas responsibility
- Motivating performance by customer
- Motivating performance by utility
- Enabling customer
- Costs

# Regulatory Issues

- Mechanics of counting (and EM&V)
  - Routine EM&V methods apply
- Sharing electric and gas responsibility
- Motivating performance by customer
- Motivating performance by utility
- Enabling customer
- Costs

# Regulatory Issues

- Mechanics of counting (and EM&V)
- Sharing electric and gas responsibility
  - Methods are fine, companies often don't agree
- Motivating performance by customer
- Motivating performance by utility
- Enabling customer
- Costs



# Regulatory Issues

- Mechanics of counting (and EM&V)
- Sharing electric and gas responsibility
- Motivating performance by customer
- Motivating performance by utility
  - Incentives (financial, performance)
- Enabling customer
- Costs

# Regulatory Issues

- Mechanics of counting (and EM&V)
- Sharing electric and gas responsibility
- Motivating performance by customer
- Motivating performance by utility
- Enabling customer
  - Fair Interconnection, stand by rates, ...
- Costs

# Regulatory Issues

- Mechanics of counting (and EM&V)
- Sharing electric and gas responsibility
- Motivating performance by customer
- Motivating performance by utility
- Enabling customer
- Costs
  - ?

# Advanced program elements: planning and market rules

- Geo-target
  - Motivate CHP where most needed by grid conditions
- Acquire ancillary services with capacity and energy
- Responsive customers
  - motivated especially by high amounts of wind and solar, enabled by tech)
  - what does that mean for CHP?

# Policy Barriers to CHP

- Rate design
  - Presumptions in Stand by Rates about reliability of CHP tend to be too cautious
- Planning
  - Credit for reliability benefits from CHP
- Operations
  - Purchase terms and valuation of products
- REC issues where applicable

# Policy Barriers to CHP

- Loss of sales in traditional regulation is a disadvantage to utilities
  - This can be addressed, some utilities don't want to
- Control of utility operation by the utility may not be compatible with customer-sited generation

# A Resource Standard is a political act to value preferred resources

- CHP can qualify for any standard
  - Assure no double counting
  - Carve out / tier for CHP?
  - All or just new/recent?
- Make it easy – utility acquires tags with power
- Make it market – allow marketing of tags
- Adding CHP means standard amounts should be reassessed





# Resource Standard is a political act to value preferred resources

- Policy first
  - Resource standard should be designed to meet policy goals so best to be clear about them
- Then create market rules that work and don't interfere with other markets created
- Try to give the created market stability, but remember that government has created the market to serve policy

[http://www1.eere.energy.gov/seeaction/pdfs/see\\_action\\_chp\\_policies\\_guide.pdf](http://www1.eere.energy.gov/seeaction/pdfs/see_action_chp_policies_guide.pdf)

**SEE Action**

STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

## **Guide to the Successful Implementation of State Combined Heat and Power Policies**

**Industrial Energy Efficiency and Combined Heat and Power Working Group**

**Driving Ratepayer-Funded Efficiency through Regulatory Policies Working Group**

**March 2013**

## 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.raonline.org](http://www.raonline.org)

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