CHP Power Sector Policy:
How government action enables CHP

Georgia Tech Energy Series

Presented by Richard Sedano
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
Table A.1. Costs and Benefits of CHP Programs under the TRC and PAC Tests

<table>
<thead>
<tr>
<th>Benefits</th>
<th>PAC: Electric</th>
<th>PAC: Gas</th>
<th>PAC: Electric &amp; Gas</th>
<th>TRC: Electric</th>
<th>TRC: Gas</th>
<th>TRC: Electric &amp; Gas</th>
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<tbody>
<tr>
<td>Avoided Electric Energy</td>
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<td>Avoided Electric Capacity</td>
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<td>Increased Revenues (gas)</td>
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<tr>
<td>Reduced Bills (electric)</td>
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<table>
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<td>Customer Install Costs</td>
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<td>Customer Annual O&amp;M</td>
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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
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.raponline.org

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