



UNITED STATES CLEAN
HEAT & POWER ASSOCIATION

Where Does Waste Heat to Power Fit?

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Presented to

Waste Heat to Power Workshop

September 26, 2007

Houston TX

Goals are more important than paths.

- Homestead Act encouraged people to go west, not to buy Conestoga wagons
- Kennedy urged us to put a man on the moon, not to develop Titan rocket technology
- Energy policy ought to encourage clean, cheap energy, not pick favorite technologies.



USCHPA Rebranding: Clean, not Combined

- Founded to encourage the deployment of combined heat and power. Developed advocacy and membership based around goals of:
 - Environmental & Energy policy that rewards energy efficiency (output based standards, decoupling, etc.)
 - Removal of barriers to local energy sources (standby rates, interconnection, etc.)
 - Regulatory reform to allow clean energy to earn some/all of the benefits it creates (location specific pricing, emissions trading markets, etc.)
- Traditional cogen is one of many beneficiaries of these reforms.
 - Both advocacy and membership handicapped by perception that we were motivated only by the desire to deploy a particular technology.



“Where does waste heat to power fit” is the wrong question.

- Waste-heat-to-power is one of the most cost-effective ways to lower carbon emissions
 - Only end-use efficiency is better
 - But not the only one!
- Framing in terms of any given technology is bound to create counter-productive conflict with other technologies.
 - Clean, cheap energy vs. Dirty, expensive energy is a winnable fight.
 - Waste-heat-to-power vs. Solar/Wind/Biomass is not.



Define success, don't pick technologies.

Goal	Explanation
Maximize CO ₂ reduction / \$ of investment	<i>Denominator is critical, since all wallets are finite</i>
Minimize <u>delivered</u> cost of energy	<i>Economy depends on retail, not wholesale prices; have to factor in wires & losses</i>
Minimize fossil fuel use / unit of useful energy	<i>Only solution to most significant energy issues, from national security to global warming that doesn't lower standard-of-living</i>
Be pro-market, not pro-business	<i>Competitive markets will preferentially deploy lowest cost technologies; preferential rewards to specific businesses will not</i>

WHTP is a slam-dunk on these metrics, but it's much easier to make a case for the goal than the path.



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