

  
 Southern Alliance for Clean Energy


## Energy Recycling Recommendations

**North Carolina Legislative Commission  
 on Global Climate Change**  
 January 2009

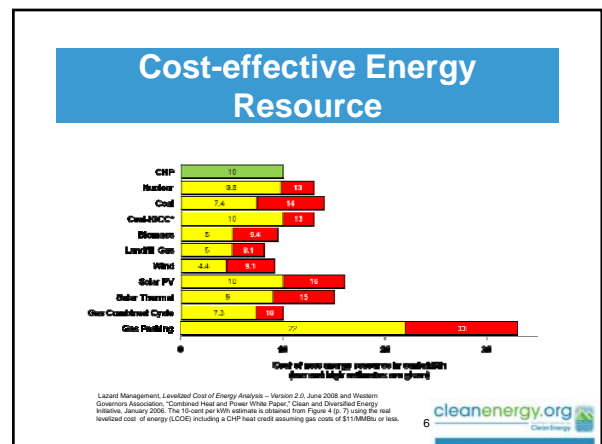
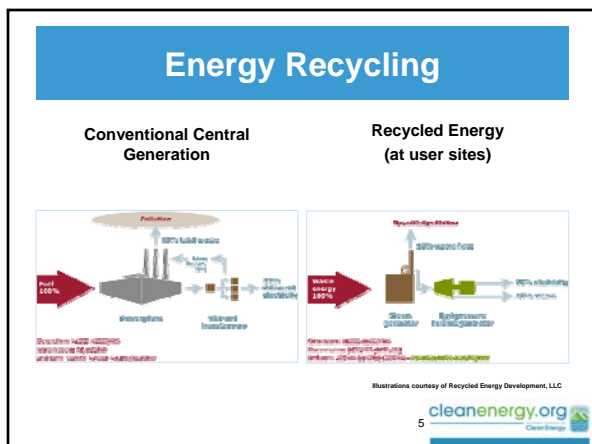
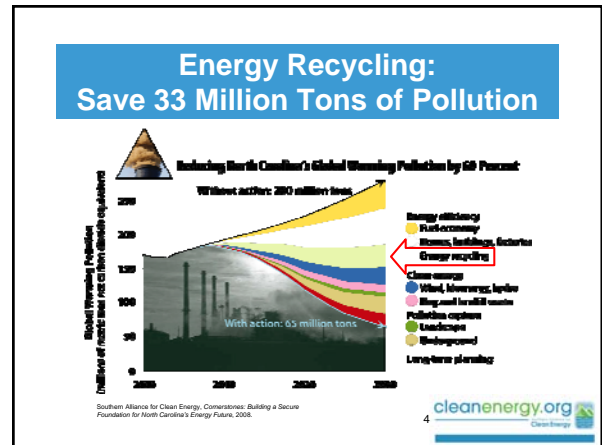
## Overview



- Combined Heat & Power (CHP)
- Combined Cooling Heat & Power (CCHP)
- Waste Heat Recovery
- Future innovation?



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## Energy Recycling Forecast

	Electricity Supplied (GWh)	Share of Annual Electric Sales	Share of <i>Today's</i> Technical Potential
2010	4,204	3%	10%
2015	14,804	10%	35%
2020	25,848	18%	60%
2025	36,579	24%	85%
2030	39,781	25%	93%

Southern Alliance for Clean Energy, Cornerstones: Building a Secure Foundation for North Carolina's Energy Future, 2008.

## Why We Need Legislation

- Electricity from energy recycling systems is undervalued
- Interconnection standards not fully standardized, retain unnecessary barriers
- Non-utilities are barred from selling surplus thermal energy
- Environmental permitting is perceived as a barrier
- Non-utilities cannot use REPS as an incentive for energy recycling

## Legislative Recommendations

- Offer market price for electricity
  - The "levelized cost" tends to be 50% higher than the "avoided cost"
- Remove remaining obstacles to interconnection
- Authorize sale of thermal energy by non-utilities
- Provide sound environmental permitting
- Amend REPS law to allow non-utilities to generate RECs from energy recycling