

Wake Sustainability Task Force

October 21, 2010



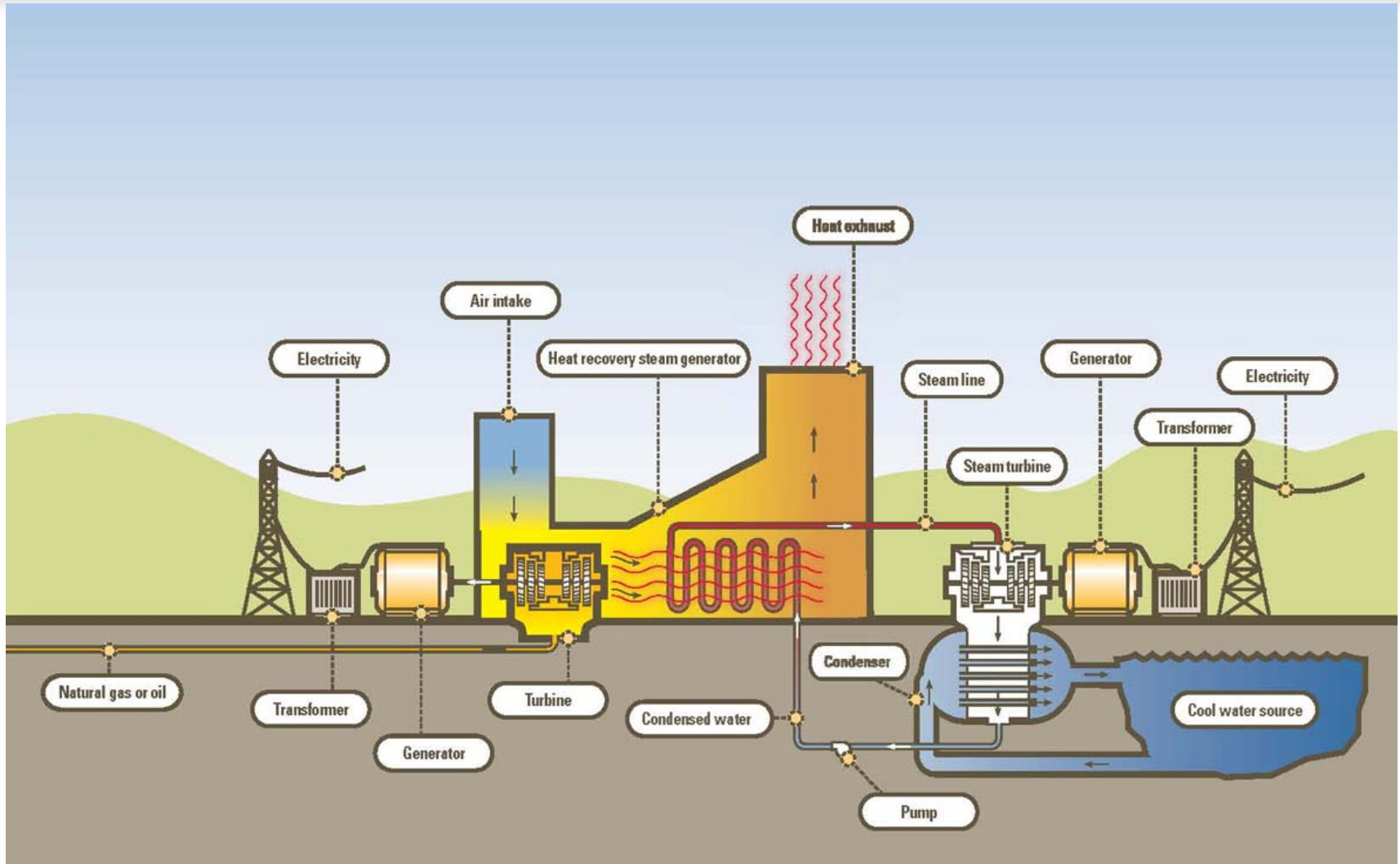
Progress Energy Carolinas

- Serve 34,000 sq. miles in NC & SC
- 12,585 MW of installed generation
- All-time system peak 12,656 MW
- 1.5 million customers in the Carolinas
- 5,779 employees in the Carolinas
- 3,320 employees in Wake County
- 1,842 employees in downtown Raleigh

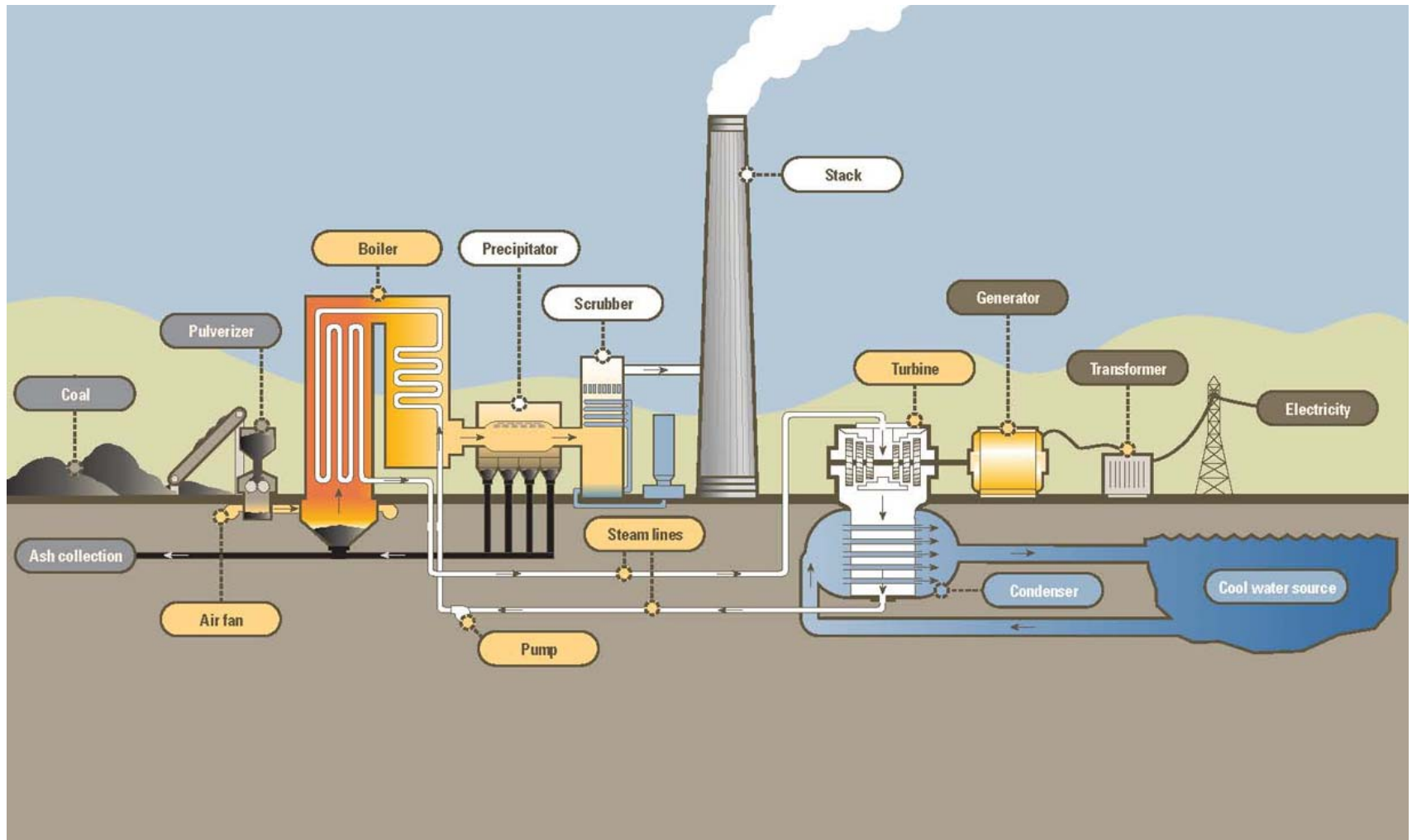
Utility Terms

- Regulators – NCUC, SCPSC, FERC
- Demand and Energy
- Service Territory
- Capacity Reserve Margin
- Integrated Resource Plan
- Renewable Energy
- Smart Grid
- Energy Efficiency Programs
- Demand Response Programs

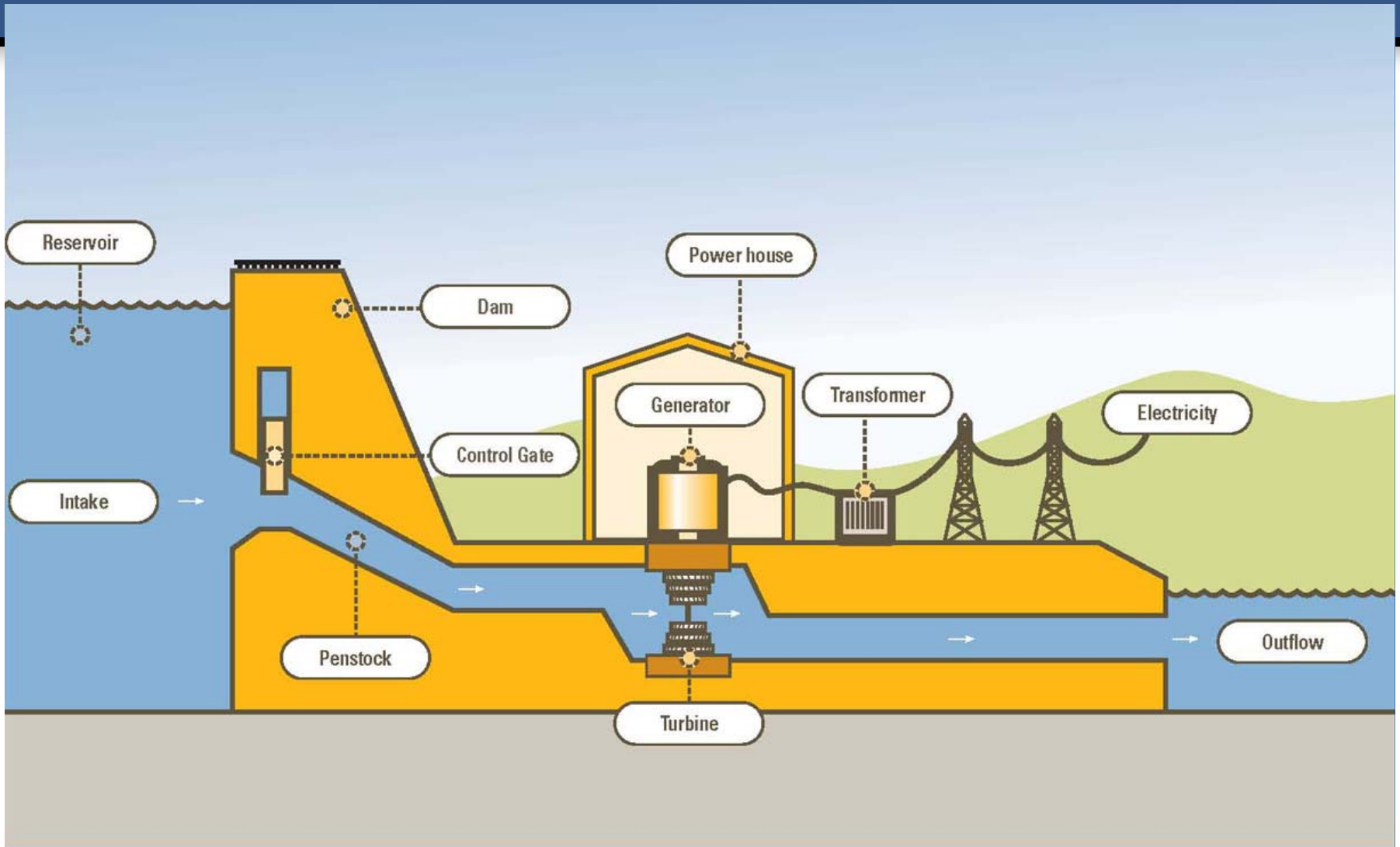
Natural Gas Combined Cycle



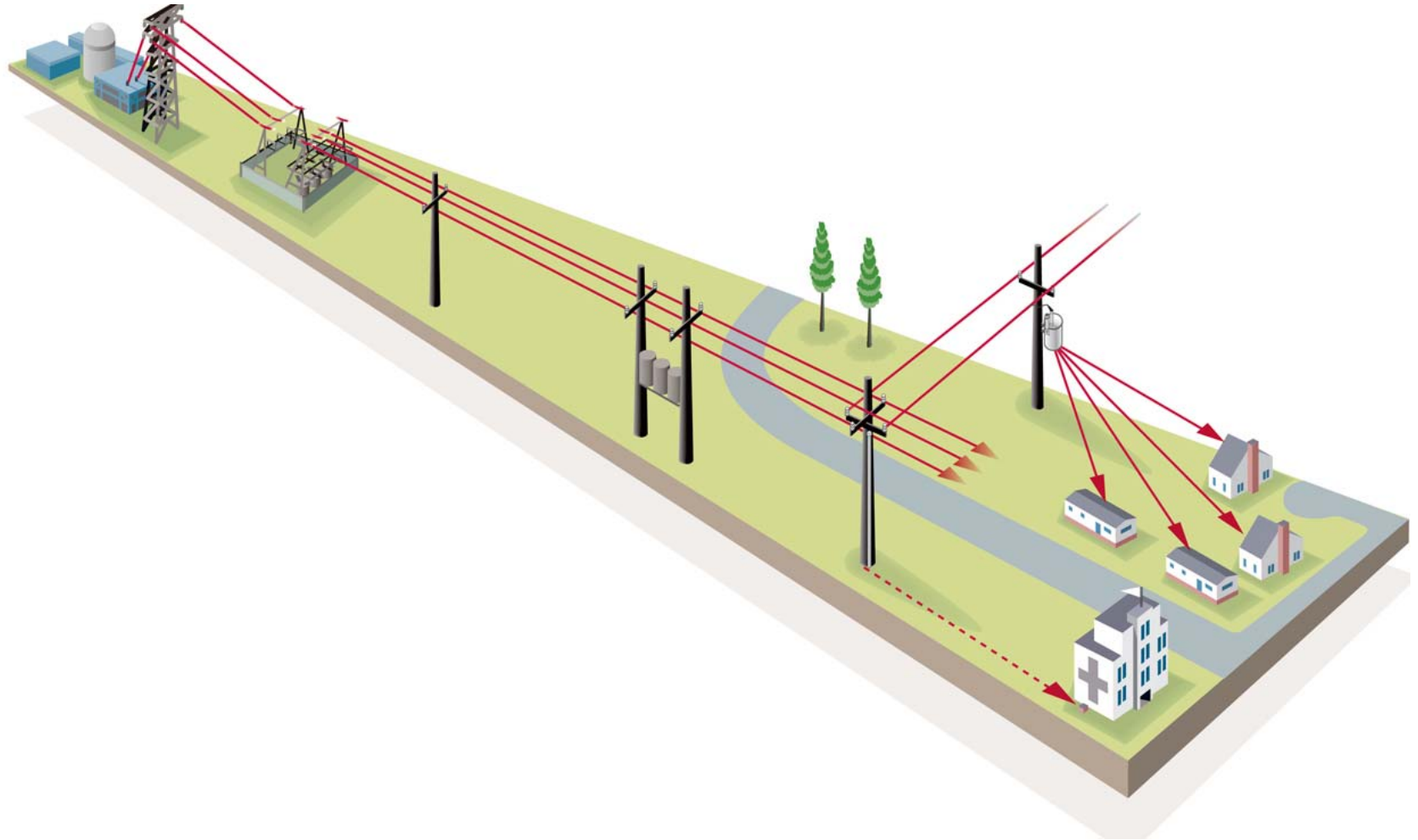
Coal Fired Generation



Hydro Electric Generation



Power Distribution



Progress Energy Resource Mix

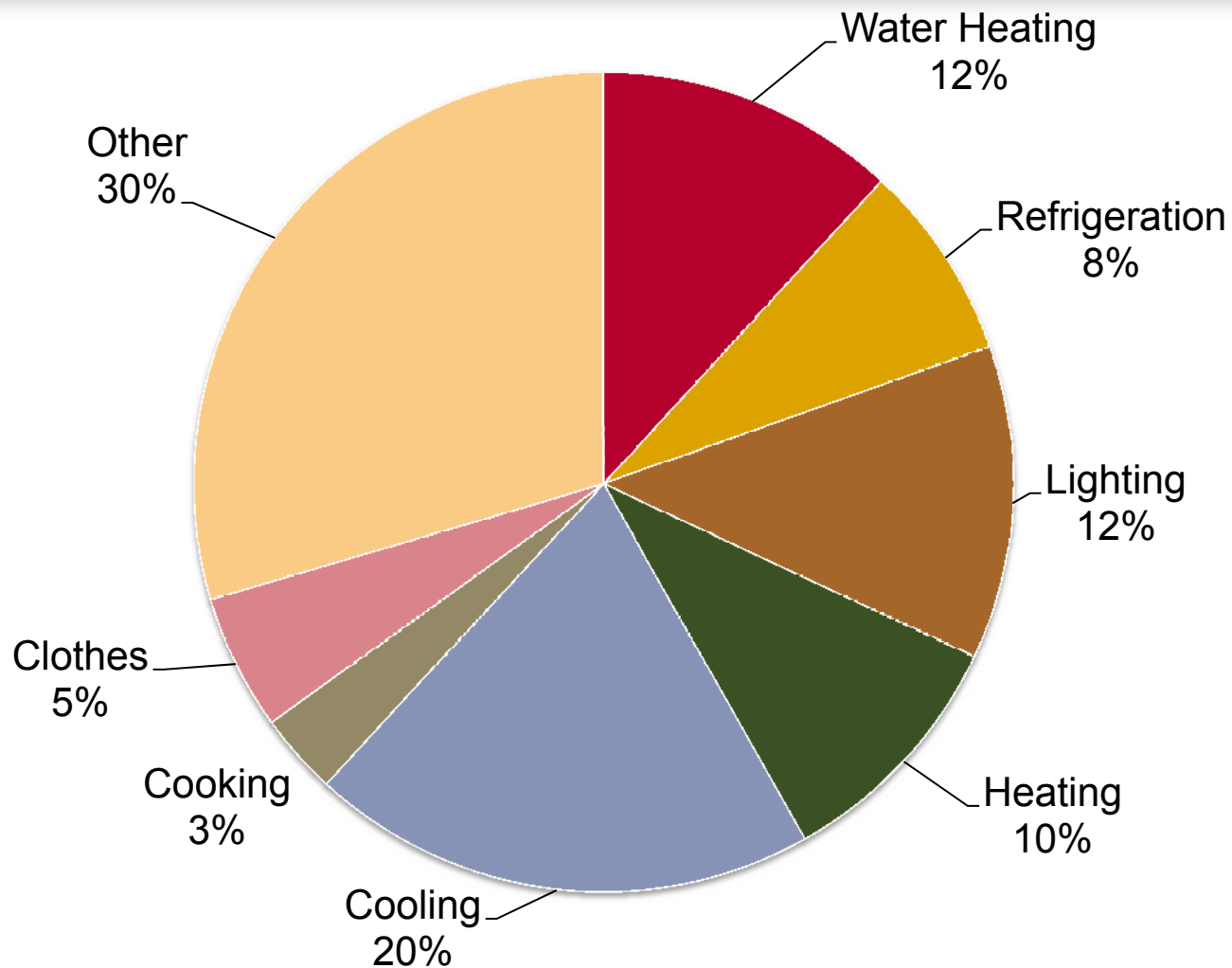
Energy Mix (MWH)

	PEC	PEC Mix
Coal	28,482,791	47%
Gas/Oil (fossil steam, CT, CC)	3,634,089	6%
Nuclear	28,309,216	46%
Hydro	651,000	1%
Total	61,077,096	100%

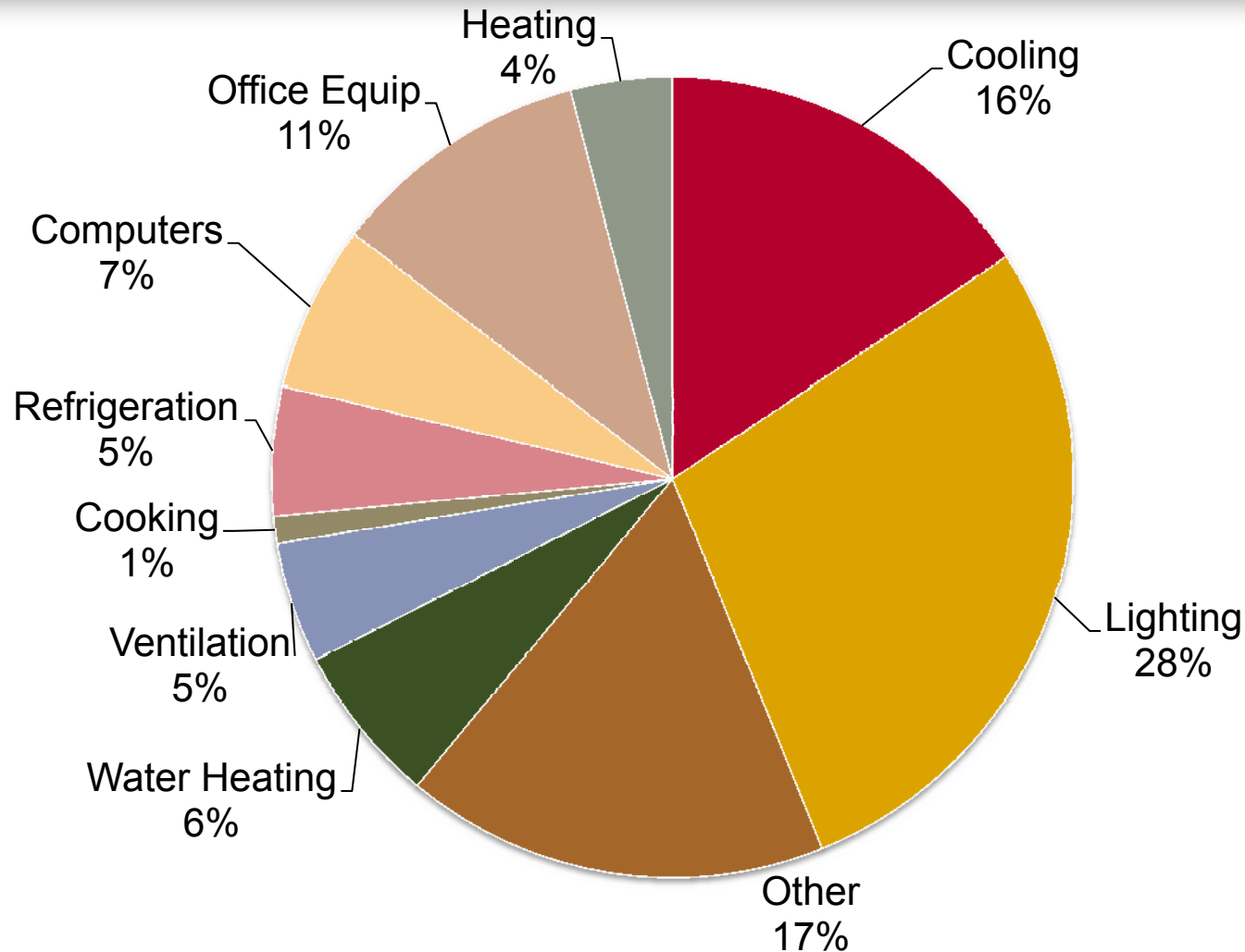
Capacity Mix (MW)

	PEC	PEC Mix
Coal	5,190	41%
Gas/Oil (fossil steam, CT, CC)	3,688	29%
Nuclear	3,482	28%
Hydro	225	2%
Total	12,585	100%

Residential Energy Use



Commercial Energy Use



State Regulatory Structure

- Regulated by the North Carolina Utilities Commission
- Focus on least cost and reliability
- Customer rates based on average cost
- Progress earns return on invested capital
- Assigned territory with obligation to serve
- Some states have moved to an unregulated model
- Unregulated model driven by marginal cost not average

PURPA

- Passed in the late '70's
- Promoted energy independence and alternative energy
- Created class of generator called "Qualifying Facilities"
- Requires utilities to buy output at utilities "Avoided Costs"

North Carolina General Assembly Senate Bill 3

- Introduced January 2007 and signed into NC law on August 20, 2007
- Establishes a Renewable Energy & Energy Efficiency Portfolio Standard (REPS)
- Requires utilities to establish Demand Side Management (DSM) and Energy Efficiency (EE) Programs
- Establishes a cost recovery mechanism

NC SB3: REPS Requirements

	% of NC Retail Sales						
		2012			2015	2018	2021
Total REPS Requirement		3%			6%	10%	12.5%
Set Asides	2010	2012	2013	2014	2015	2018	2021
Solar Electric or Solar Thermal	0.02%	0.07%			0.14%	0.20%	
Swine Waste (state goal)		0.07%			0.14%	0.20%	
Poultry Waste (MWhs – state goal)		170,000	700,000	900,000			

* Energy efficiency can account for 25% through 2020 and up to 40% thereafter

NC SB3: Cost Caps

REPS Incremental Cost Caps			
Years	2008-2011	2012-2014	2015 & thereafter
Customer Class	Annual Cap per Customer Account		
Residential	\$10.00	\$12.00	\$34.00
Commercial	\$50.00	\$150.00	\$150.00
Industrial	\$500.00	\$1,000.00	\$1,000.00

What have we done?

Renewables

- Issued 5 specific RFP's
- Maintain an ongoing RFP for non-solar 10 MW's or less
- 40+ contracts
 - 9 MWs solar PV
 - 73 MWs of wood biomass
 - 18 MWs of landfill gas
 - Solar thermal RECs
 - Small hydro RECs
 - Out-of-state RECs

What have we done?

Energy Efficiency

- Developed and Launched 10 new programs
 - Residential
 - Commercial
 - Demand Response
- Gained approval Cost Recovery Mechanism
 - Timely Cost Recovery
 - Net Lost Revenues
 - Utility Incentives
- Designed Measurement & Verification Process
 - Independent 3rd Party Verification