



University System of Georgia Energy Efficiency & Sustainability

*AEE Georgia Chapter
October 28, 2013*



University of Georgia - District Energy Plant #1

"Creating A More Educated Georgia"



Content

1. Overview of the USG
2. Energy Cost & Use Today
3. Energy Challenge: What Have We Done & How Are We Doing?
4. Other Sustainability Initiatives
5. Your Turn to Talk

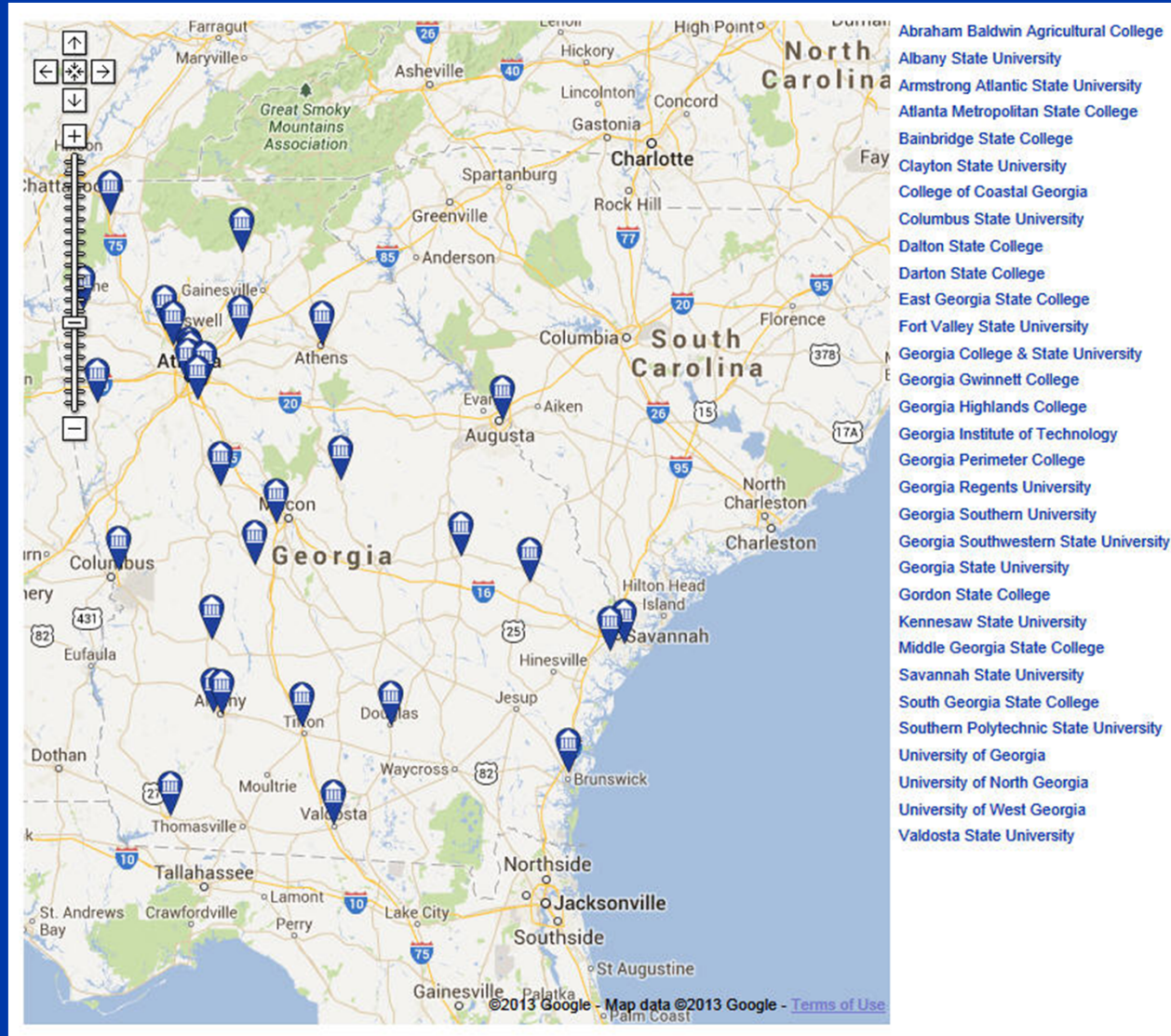


19	# of institutions
31	Space, total ASF
42	% of ASF in classrooms/labs
210,130	Student headcount, Fall 2013
314,365	Sandra's annual salary
10.3M	\$ Spent on Energy FY13
78.5M	Capital Outlay, FY14
100M	Total BTUs used, FY13
298.8M	Answer to the ultimate question of life.....
6.8T	

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Who and Where We Are



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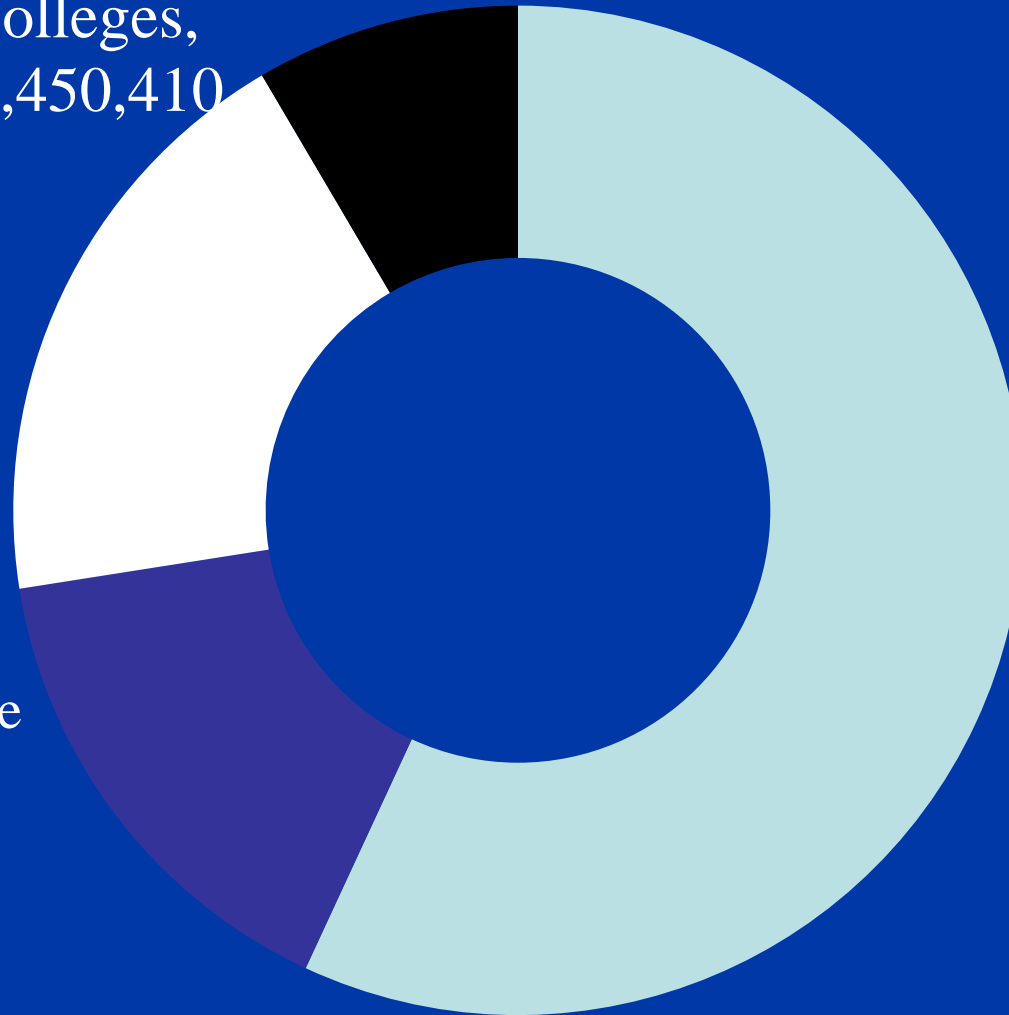


Energy Spend FY13: \$100M

State
Colleges,
\$8,450,410

State
Universities,
\$18,985,166

Comprehensive
Institutions,
\$15,578,240



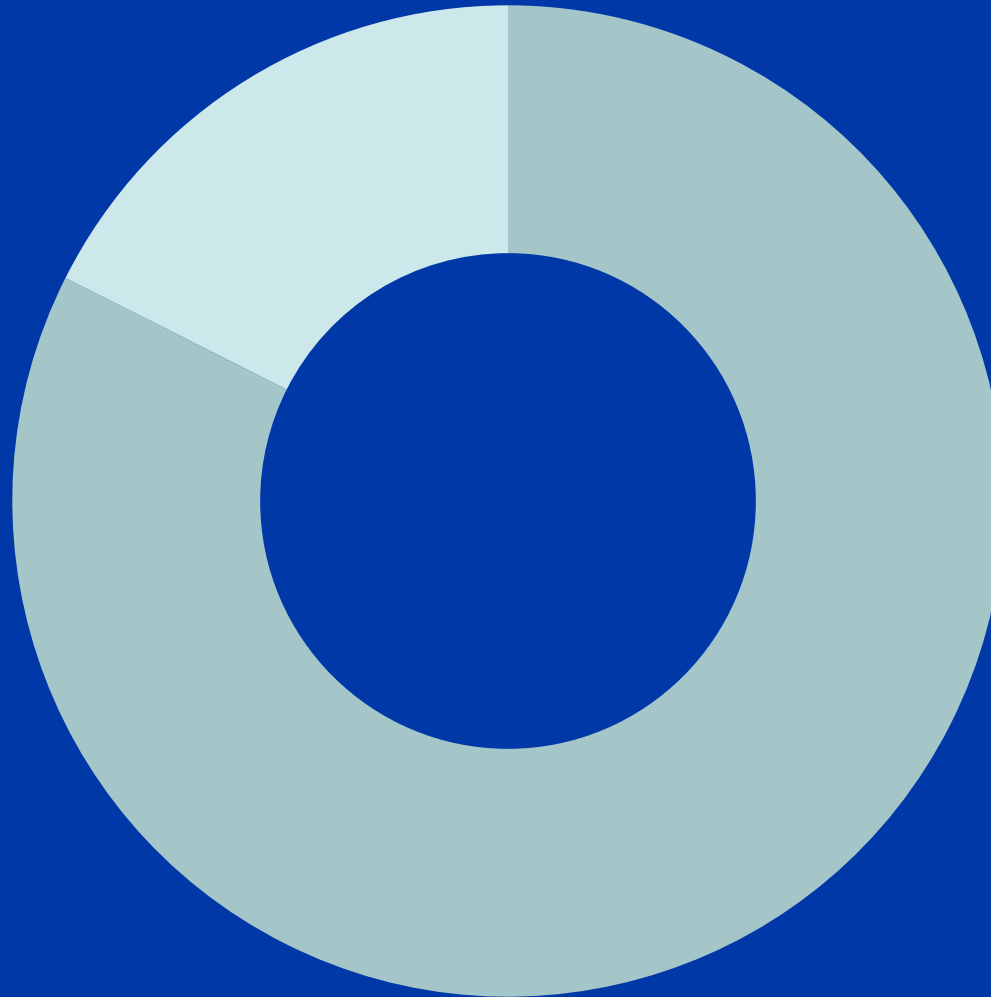
Research
Institutions,
\$56,814,428

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Energy Cost by Type

**Gas &
Other,
\$17,538,846**



**Electricity,
\$82,289,398**

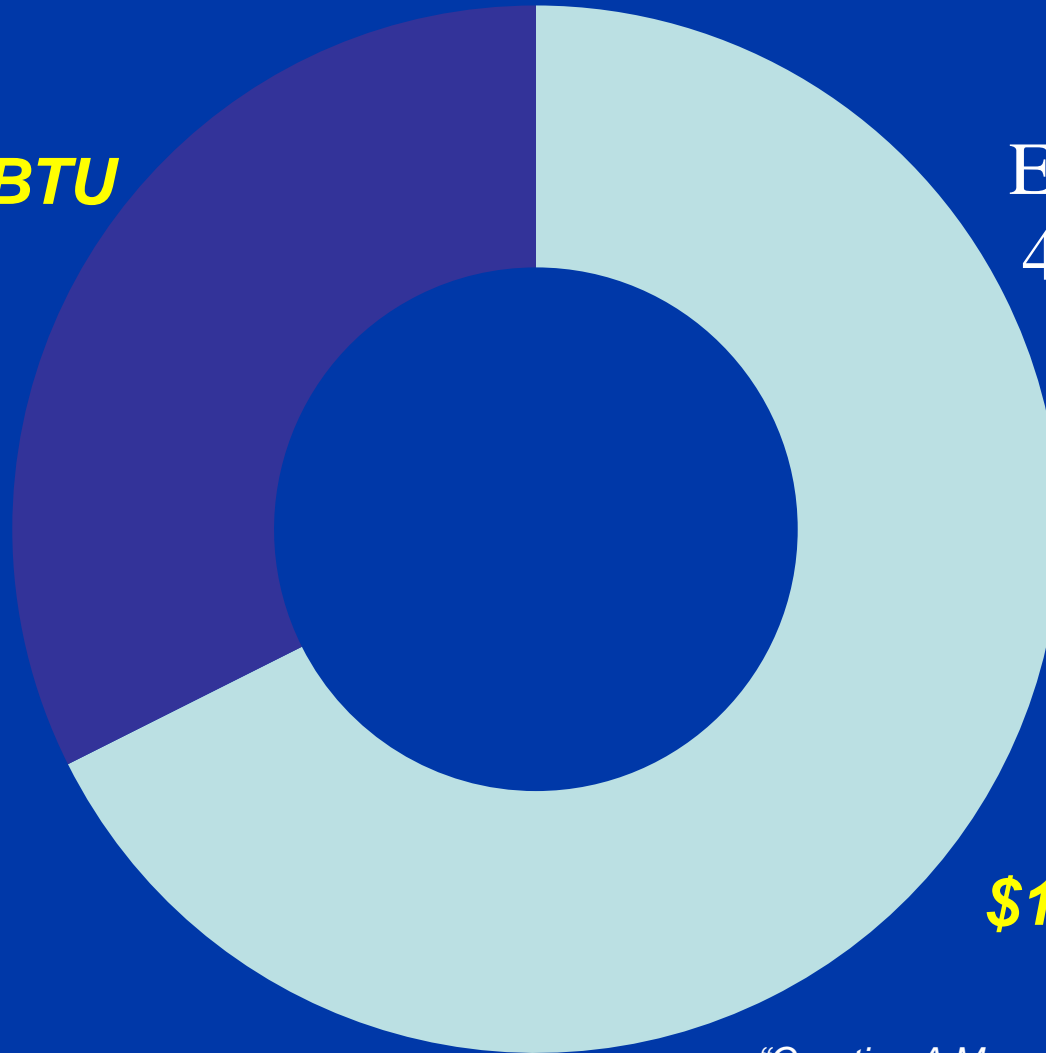
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Total Energy Consumption: 6.8T BTU

\$8 per MMBTU

Gas &
Other,
2,202,577



Electricity,
4,594,101

\$18 per MMBTU

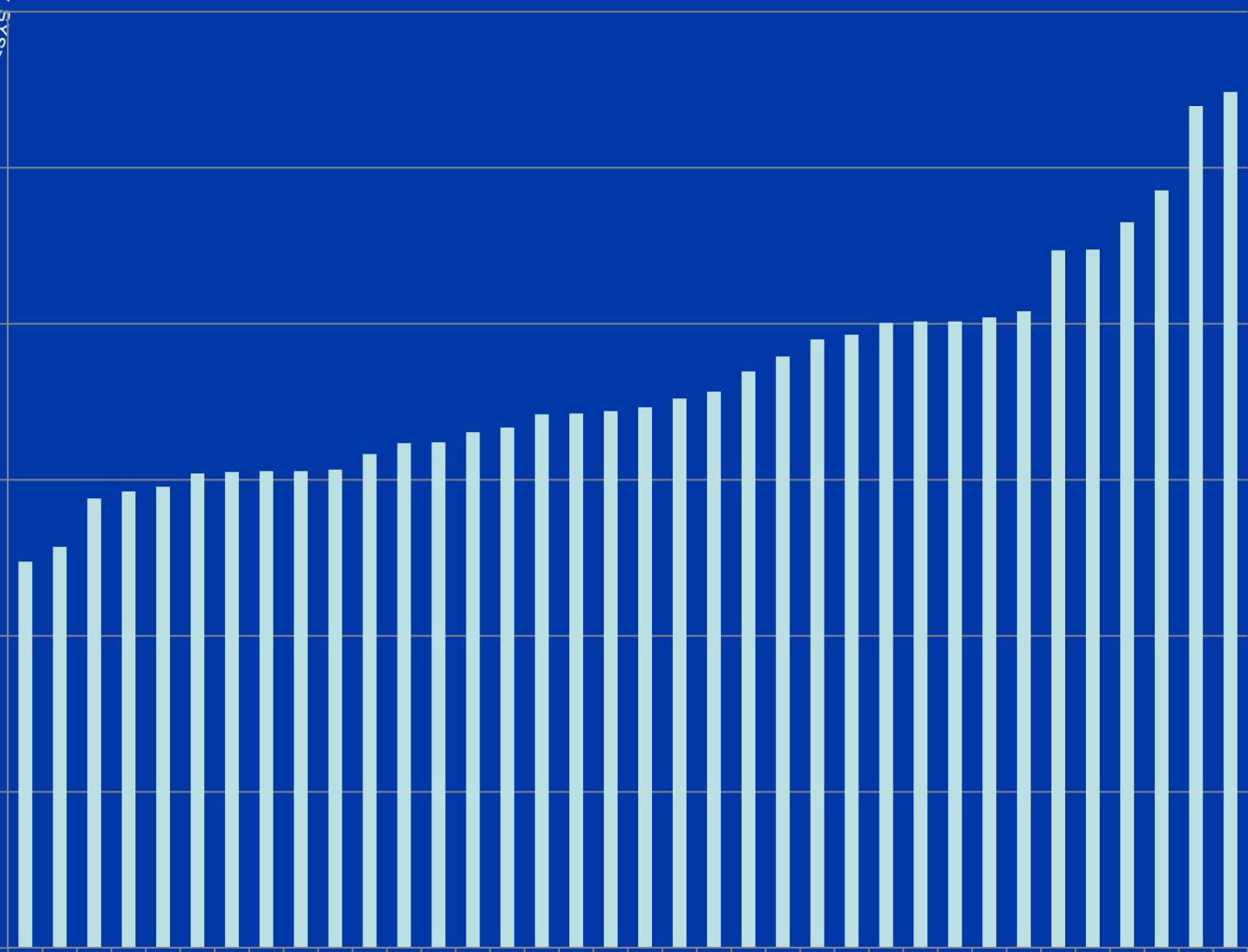
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Electric Unit Costs by Campus

\$ per kWh

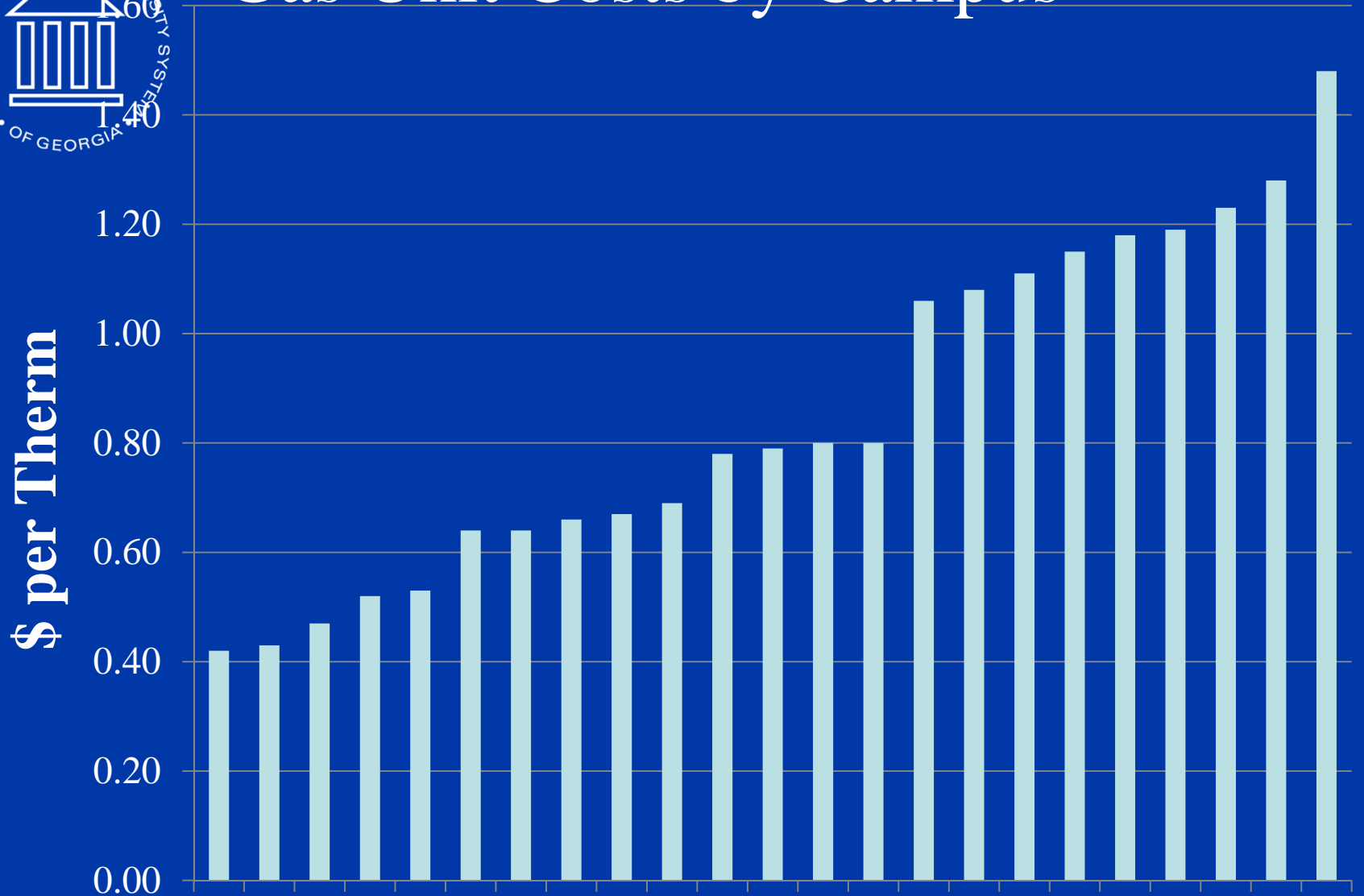
0.10
0.08
0.06
0.04
0.02
0.00



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Gas Unit Costs by Campus



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Georgia Energy Challenge

- April 2008 Executive Order
- Committed state agencies to reducing energy consumption 15% per square foot by 2020 over a 2007 baseline
- Challenged businesses, local governments and citizens to do the same
- Facilitated by GEFA



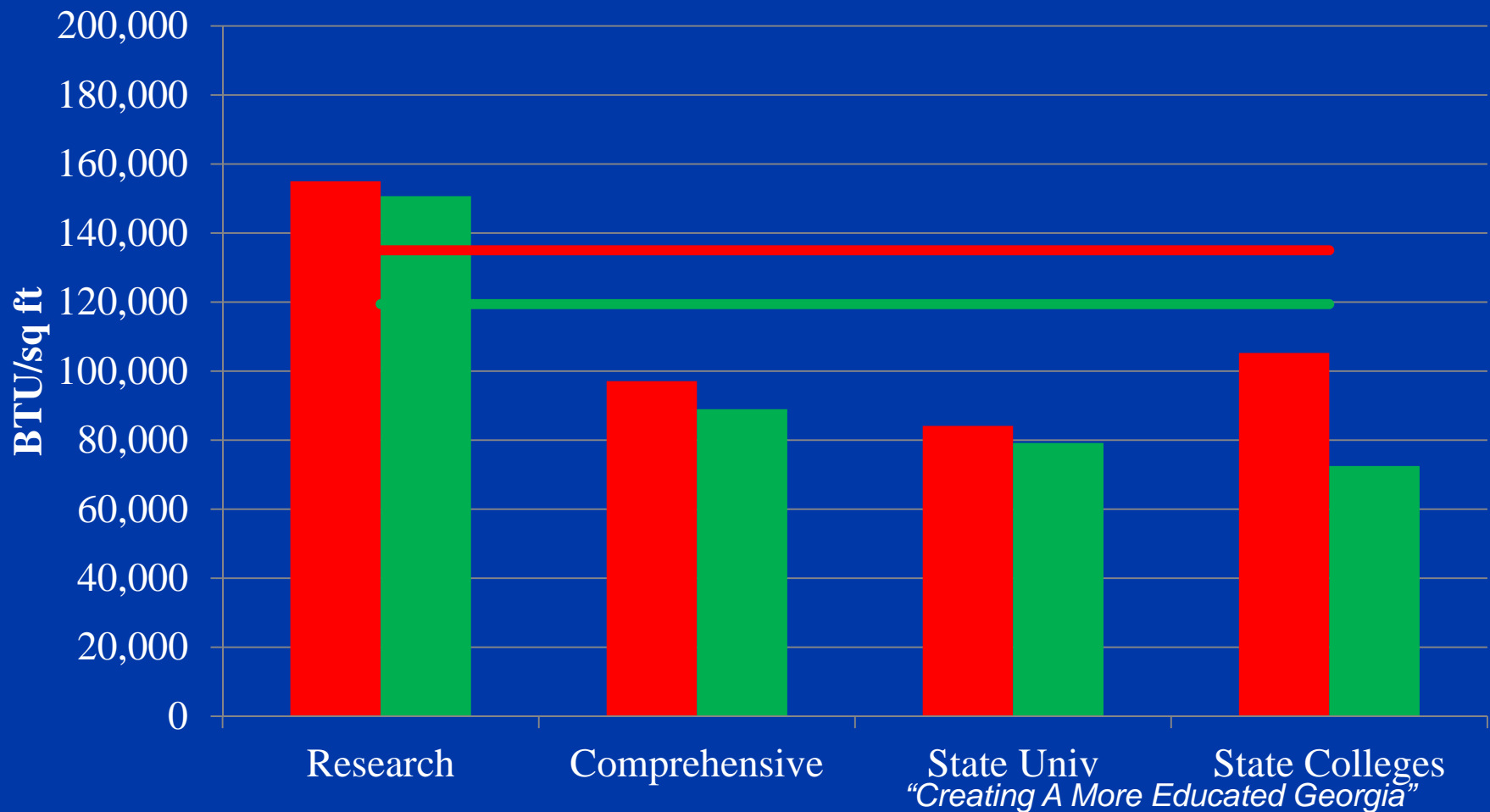
Energy Use Intensity (EUI)

- Measured in BTU/sq ft of conditioned space
- Indicator of energy efficiency of space and operations
- NOT PERFECT
- Consistent Benchmark



How We're Doing

■ 2007 EUI ■ 2013 EUI — Base EUI — Avg 2013 EUI





What's Working

- Campus Energy “Champions”
- Targeted Investments in Energy Projects
 - \$28M in ARRA \$
 - Performance Contracts??
- Best Practices
 - Submetering
 - Building Automation Controls
 - Variable Speed Drives



Other Sustainability Initiatives – Campus Operations

- Sustainability Offices/Coordinators
 - UGA, GIT, GSU, KSU, SPSU, GSOU, GCSU
- Green Building Standards
 - Georgia Peach Program
 - Alternatives to LEED
 - Revisions to USG Lab Design Criteria
- Water Use Reductions



Your Turn!

What can we do
better??

- *Please email your ideas to sandra.neuse@usg.edu or ken.crowe@usg.edu*



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