



# The Fox Theatre

600 Peachtree Street NE Atlanta, GA 30308

## Atlanta BBC Assessment Report

2/18/2014



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Building know-how for a sustainable future

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## **Executive Summary**

### **Project Introduction**

For over 80 years, the historic Fox Theatre has remained one of Atlanta's most famous landmarks. It is one of the city's premiere venues for live entertainment, hosting a variety of cultural and artistic performances and events every year. The Fox Theatre is located in historic Midtown, on the intersection of Peachtree Street and Ponce De Leon Avenue.

The Fox Theatre building has undergone much controversy since its inception in 1929. It was originally intended to be a mosque for Atlanta's Shriners organizations. The organization soon began to suffer the effects of the recession, and in 1928, movie mogul William Fox took over the building project. The construction of the building took eighteen months from start to finish, costing \$3 Million to build. The venue officially opened its doors on Christmas Day 1929. By 1932, however, both the theatre and William Fox became susceptible to the Great Depression and ultimately went bankrupt. Mosque, Inc. bought the property for \$75,000 and continued its operation for the next 30 or so years. Unfortunately, this was not enough to keep the theatre from facing demolition. In response, both public and private organizations and citizens partnered to launch the "Save the Fox" campaign. A non-profit, Atlanta Landmarks, Inc., formed to collect funds to repay the \$3 million outstanding loan within a 3 year period to save the building from destruction. With the help of citizens and five local banks, Atlanta Landmarks was not only able to pay off the debt, but did so 6 months in advance. Today, the building is debt-free and is continuously maintained through regular documentation, archiving and finish restoration. It has also embraced sustainability practices through participating in Midtown's Greenprint Midtown program and the city's Atlanta Better Buildings Challenge (Atlanta BBC).

### **Project Development**

Southface Energy Institute was procured by Midtown Alliance to perform a building assessment for the Fox Theatre as part of the Greenprint Midtown program. Greenprint Midtown was developed in 2012 by Midtown Alliance as part of their sustainability action plan. The plan examines five impact areas – energy, water, open space, transportation, and waste. Building assessments were performed on several multi-use facilities in Midtown, including The Fox Theatre, to identify energy efficiency opportunities and increase water conservation in the facility to meet the energy and water impact area goals of the community.

The Fox Theatre also signed on to the Atlanta Better Buildings Challenge (Atlanta BBC). Launched in 2011 by the Department of Energy, the City of Atlanta took the challenge to reduce energy and water consumption by 20% by 2020. The Fox publicly pledged to meet this goal in the summer of 2012. Southface, as a technical partner for the program, offers guidance and resources dedicated to achieving those goals, including this building assessment report, support in managing the Energy Star Portfolio Manager account (by which savings are tracked by the Department of Energy), and other technical assistance.

In addition to Greenprint Midtown and Atlanta BBC, Fox Theatre is pursuing a grant via the Grants to Green program. The Grants to Green program's goal is to strengthen Atlanta's nonprofits by lowering operating costs through green building practices. The Grants to Green Implementation Grant is a matching grant of up to \$50,000 per cycle. It funds energy efficient and water conservation projects that will produce savings for the nonprofit, directing funds to the mission of the organization. Southface is also the technical partner for this program.

This assessment report is intended to aid the objectives of all three programs: Greenprint Midtown, the Atlanta BBC, and Grants to Green - to provide the Fox Theatre with a plan to save energy, water, and costs.

## Project Summary

ECM	Annual Savings			Project Cost	Simple Payback Period, Yrs
	Electricity, kWh	Costs	Million Btu (Source)		
Replace incandescent lighting with LED	365,356	\$43,323	4,165	\$99,088	2.3
Expand building automation system	52,597	\$6,237	600	\$62,765	10.1
Replace obsolete air-cooled chiller	50,400	\$5,976	575	\$60,125	10.1
<b>Totals for All Projects Above</b>	<b>468,353</b>	<b>\$55,536</b>	<b>5,339</b>	<b>\$221,978</b>	<b>4.0</b>

The costs above are conservative estimates; it is recommended that Fox Theatre obtain bids from qualified contractors before committing to implementation of these recommendations. The savings totals include opportunities that interact with other opportunities, affecting total actual savings. Please use the totals for reference purposes only.

The opportunity summary list is intended to give the organization a chance to apply for Implementation funding several times using the same assessment report. Southface is brand-neutral and does not promote specific products. The sample products in this report are for visual representation only.

Some projects are eligible for rebates under the 2014 Georgia Power Commercial Energy Efficiency Program<sup>1</sup>. The exact rebate amount will be determined upon submission of the online application. There are caps on the annual rebate amount a building can pursue:

- Custom Savings rebate is capped at \$25,000 per building per year or 50% of the project cost for the \$0.08/kWh reduced incentive (this incentive was applied to the HVAC project)
- Lighting rebates are capped at
  - o \$25,000 per building per year up to 50% of the project cost for the \$0.20/watt reduced incentive for indoor lighting
  - o \$10,000 per building per year up to 50% of the project cost for the \$0.20/watt reduced incentive for outdoor lighting

For additional information about rebates please refer to the specific project section and the appendix in this report.

<sup>1</sup> <http://georgiapower.com/energy-efficiency/business/equipment.cshtml>

## Impact Summary

Year	Electricity, kWh	Natural Gas, Therms	Total Energy, Million Btu (source)	Tonnes CO2-e	Water, CCF
ABBC 2009 Baseline	3,332,560	58,512	43,840	2,458	7,957
Recent 12 Months	2,819,560	65,510	38,692	1,768	4,886
Savings from Completed Projects & from Lower Emissions Factor for Electricity	513,000	-6,997	5,148	690	3,071
<b>Current Savings over Baseline</b>	<b>15%</b>	<b>-12%</b>	<b>12%</b>	<b>28%</b>	<b>39%</b>
Estimated Savings from Ongoing Boiler Replacements (estimate by others)	-	12,987	1,299	69	-
Estimated Savings from Projects per ABBC Assessment	468,353	-	5,339	236	-
Total Projected Savings over 2009 Baseline	981,353	5,990	11,786	995	3,071
<b>Potential Savings over 2009 Baseline</b>	<b>29%</b>	<b>10%</b>	<b>27%</b>	<b>40%</b>	<b>39%</b>

## Next Steps

### Final Presentation

A final presentation is the last step in the Atlanta BBC Assessment process. It is also a requirement of the Grants to Green Implementation Grant, a funding source for the Fox Theatre. In the final presentation, the assessment findings are presented by Southface to the organization's Board or applicable Committee of the Board.

### Utility Savings Tracking

As a requirement of both the Atlanta BBC and Grants to Green, Fox Theatre must begin entering monthly utility bill data (for each electric, gas, and water account) into ENERGY STAR<sup>®</sup> Portfolio Manager for tracking purposes. For the Atlanta BBC, this helps the program recognize the Fox locally on an annual basis and is effective through 2020. Grants to Green, requires grantees to provide 12 months of utility data starting on the first day of the grant period. Since the Fox Theatre has an existing account, remaining compliant in both programs is simple as long as the data is continuously updated.

Instructions for entering bills into Portfolio Manager can be found in the "Entering or Modifying Utility Data for Existing Meters" section [here](#)<sup>2</sup>.

### Grants to Green Implementation Grant Schedule

Once an assessment has been completed, the nonprofit is eligible for implementation funding up to \$50,000 for specific recommendations provided in the assessment report. The next implementation grant cycle has the following schedule:

- January 13: Online Orientation, 10 am – 12 noon
- January 24: Deadline for Letter of Intent to Apply for Implementation at 12 noon
- February 7: Notification of declination or invitation to submit Final Application
- February 19: Final Applications due (by invitation only) at 12 noon
- May 14: Organization notified and agreements mailed

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<sup>2</sup>[http://www.energystar.gov/buildings/sites/default/uploads/tools/EnergyStar\\_DataIn\\_103013\\_508.pdf?85cc-d0f4](http://www.energystar.gov/buildings/sites/default/uploads/tools/EnergyStar_DataIn_103013_508.pdf?85cc-d0f4)

## Project Background

### Assessment Process

Southface has coordinated several site visits at Fox Theatre with the help of Michele Schuff, Len Tucker, and Molly Fortune. Specific topics of interest included planned improvements of the facility and any operation or maintenance issues. Energy- and water-saving opportunities were identified throughout the process.

The goal of the assessment report is to provide adequate information for the organization to act upon recommendations. One way to do so is by applying for the Implementation Grant offered by the Grants to Green program (see the Next Steps section in this report for more information). It is recommended that the organization apply for rebates available through Georgia Power's Commercial Energy Efficiency Program as an additional source of funding.

### Project Contacts

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## Facility Overview

Table 1: Facility Space Types

Name	Primary Function	Gross Floor Area (ft <sup>2</sup> )
Theatre	Performing Arts	126,820
Offices	Office	23,060
Restaurant/Concessions	Retail Store	26,738
Basement & Subbasement	Non-Refrigerated Warehouse	36,654

Table 2: Annual Utility Consumption

Utility	Cost		Consumption	
	Last 12 Months	Average Month	Last 12 Months	Average Month
<b>Electric</b>	\$ 334,334	\$ 27,861	2,819,560 kWh	234,963 kWh
<b>Natural Gas</b>	\$ 46,593	\$ 3,883	63,083 CCF	5,257 CCF
<b>Water &amp; Sewer</b>	\$ 96,585	\$ 8,049	4,886 CCF	407 CCF
<b>Total</b>	\$ 477,512	\$ 39,793	-	-

Note: Last 12 months of electricity and water include January to December 2013 and of natural gas include October 2012 to September 2013

Table 3: Utility Accounts Overview

Utility	Provider	Service Address	Account Number	Meter Type	Notes
<b>Electric</b>	Georgia Power	660 PEACHTREE ST NE / ATLANTA, GA, 30308	6286869007	Main	
			6307869009	Emergency	
			7357869005	Supplement	Serves the Bay 9 area (Ponce de Leon Ave offices), front of house, and the apartment
			6328869009	Fire Pump	Not included in analysis
<b>Natural Gas</b>	Atlanta Gas Light / Gas South	62 PONCE-DE-LEON AVE NE ATLANTA GA 30308	AGL 8434964411 / GS 7259561000	Main	Serves boilers and kitchen equipment
	Atlanta Gas Light / Gas South	660 PEACHTREE ST NE, ATLANTA GA 30308	AGL 3583234461 / GS 6980761000	Supplement	Serves the Bay 9 area (Ponce de Leon offices), small boiler & water heater on terrace
<b>Water &amp; Sewer</b>	City of Atlanta Watershed Management	40 PONCE-DE-LEON AVE NE ATLANTA GA 30308	0034898300	Main	
		656 PEACHTREE ST NE / ATLANTA, GA, 30308	00333631300	Supplement	Not included in analysis
		660 PEACHTREE ST NE / ATLANTA, GA, 30308	0154879300	Fire Service	Not included in analysis

Note: Utilities are not shared with other facilities. Publik Restaurant has their own electric, gas, and water meters. Churchill Grounds Café has its own gas and water meter and its electricity is metered through the Fox service.



# Utilities Use History & Benchmarking

## Electricity Use History

The graphs below illustrate the data history for electricity from January 2009 through December 2013. This includes three of the four Georgia Power accounts currently active:

- Main Account #6286869007
- Supplement Account #7357869005
- Emergency Account # 6307869009
- Fire Pump Account # 6328869009 (excluded)

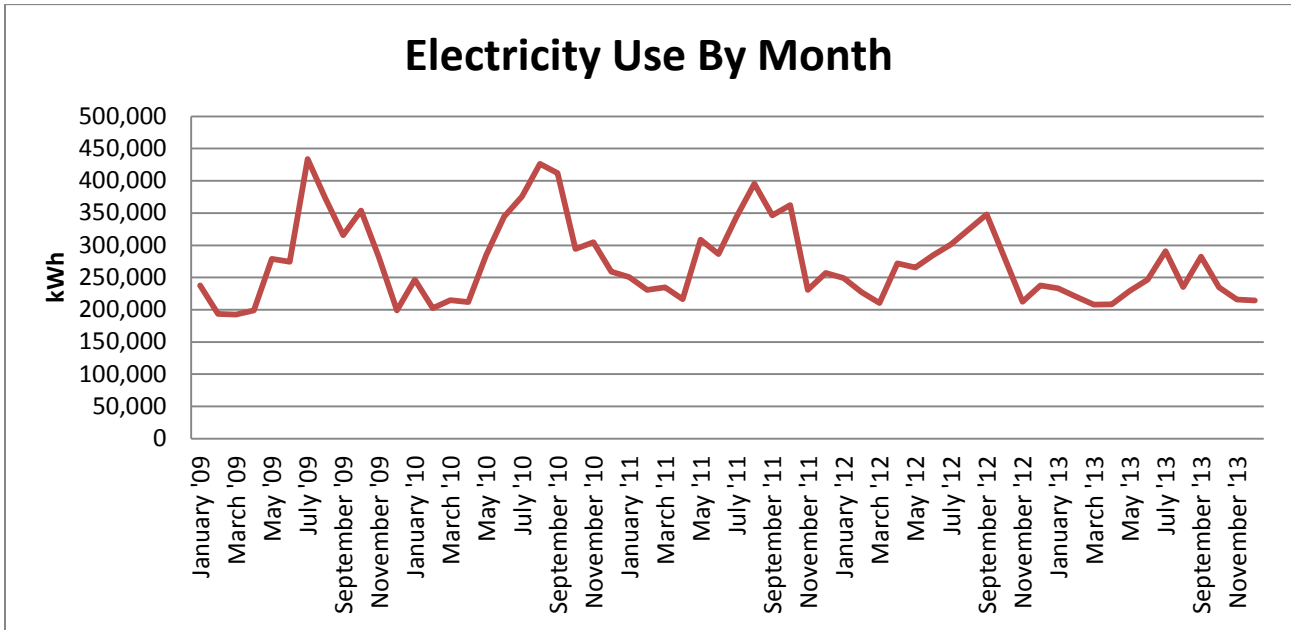


Figure 1: Electricity Use By Month (January 2009 to December 2013)

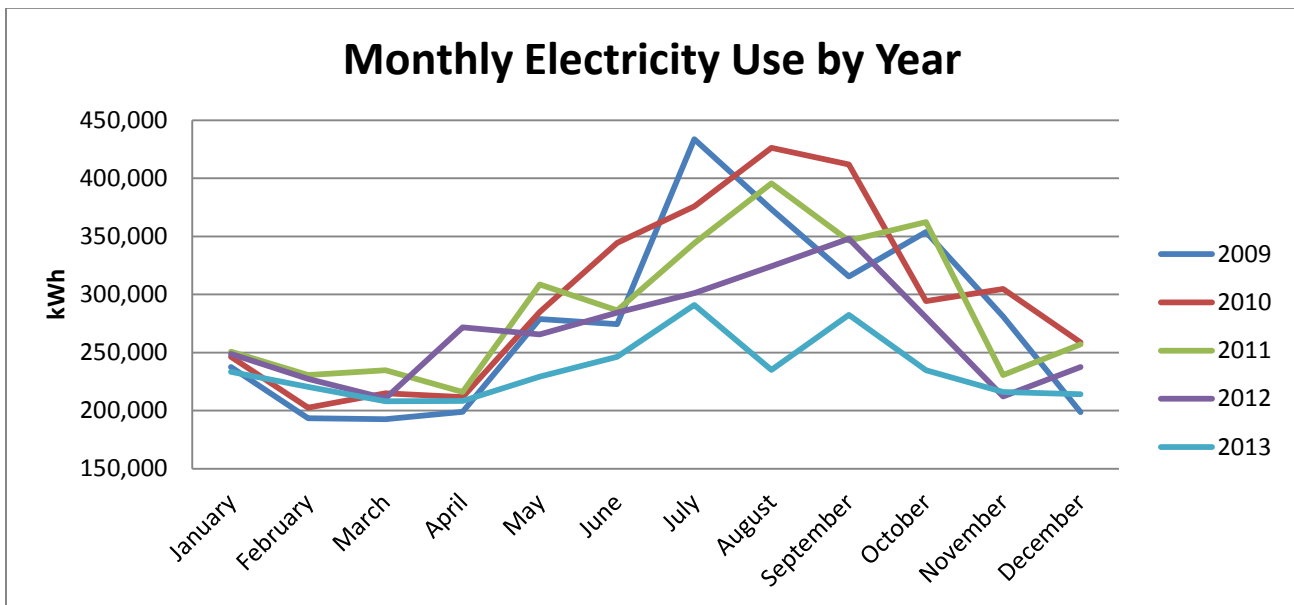


Figure 2: Electricity Use History 2009 Through 2013

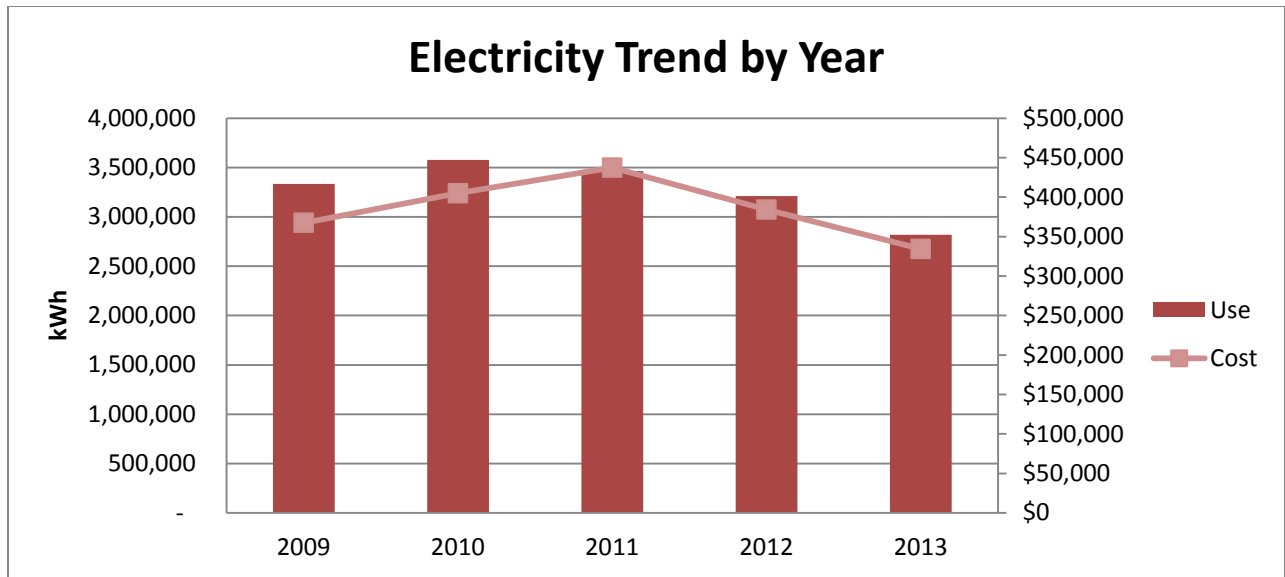


Figure 3: Annual Electricity Trend

The table below quantifies the same information illustrated in the graphs above. The electric use in 2013 relative to that in 2009 is 15% lower, saving the Fox Theatre 9% in costs.

Table 4: Electricity History

Year	kWh	Cost	Use Savings Over 2009
2009	3,332,560	\$367,422	N/A
2010	3,576,920	\$404,928	-7%
2011	3,463,800	\$437,384	-4%
2012	3,212,200	\$384,311	4%
2013	2,819,560	\$334,334	15%

## Natural Gas Use History

The graphs below illustrate the data history for natural gas from January 2009 through August 2013. This includes two accounts, both currently active:

- Main Account: AGL #8434964411 / Gas South #7259561000
- Supplement Account: AGL # 3583234461 / Gas South # 6980761000

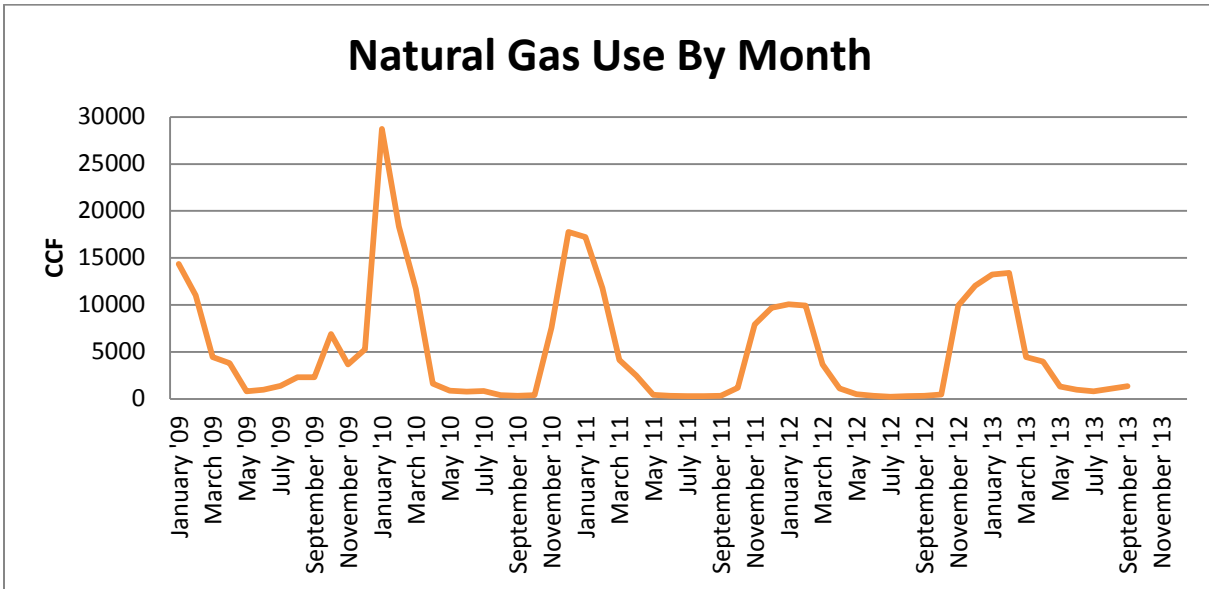


Figure 4: Natural Gas Use By Month (January 2009 to September 2013)

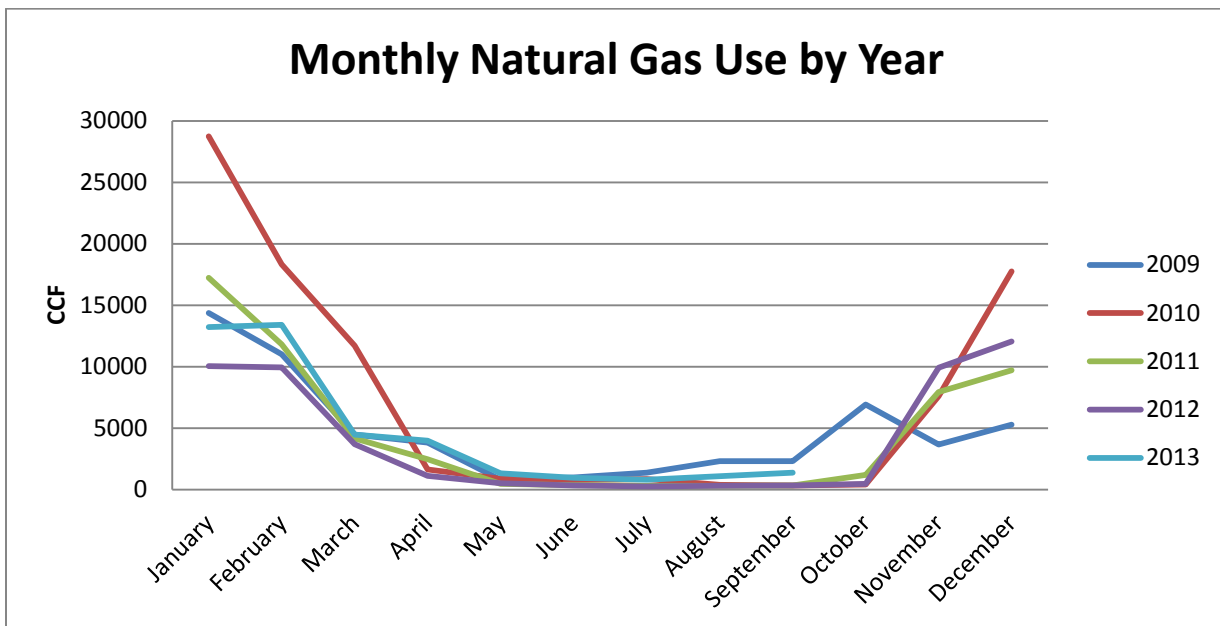


Figure 5: Natural Gas Consumption History January 2009 through September 2013

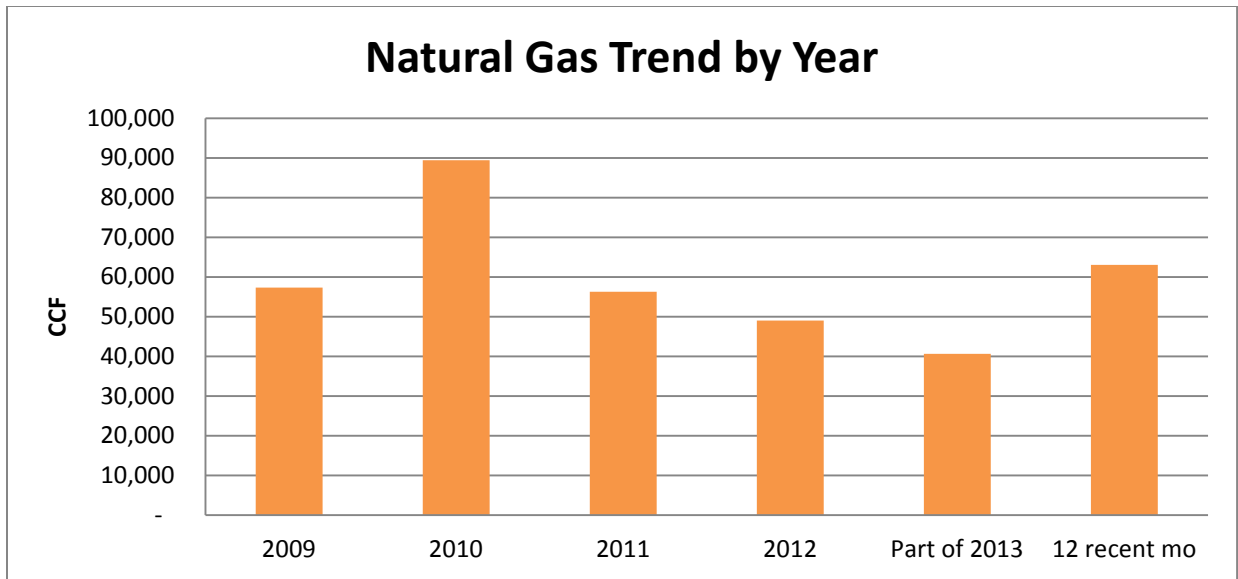


Figure 6: Annual Natural Gas Trend (Cost information not available)

For the graph above, the bar illustrating “Part of 2013” includes natural gas use from January to August. The bar illustrating “12 recent mo” includes natural gas use from September 2012 to August 2013.

A billing error was discovered in the Supplement Account (AGL # 3583234461 / Gas South # 6980761000) during the assessment process. The error lies in how Gas South recorded the consumption, also affecting the cost. It is unclear how far back this has affected the billing process, but the Fox Theatre is expected to receive the sum of what was overpaid from Gas South.

The graphs above illustrate data provided by AGL, which recorded the correct consumption information. The cost information can only be provided by Gas South, and since it is incorrect, it is not considered for this report.

The table below quantifies the same information illustrated in the graphs above. The natural gas use in the most recent 12 months of data (September 2012 to August 2013) relative to that in 2009 has increased by about 12%, meaning the Fox Theatre has not reduced natural gas consumption. Due to the Gas South’s billing error, however, the Fox is expected to receive a large sum of money owed from overbilling.

Table 5: Natural Gas History

Year	Use (CCF)	Use Savings Over 2009
2009	57,365	N/A
2010	89,450	-56%
2011	56,301	2%
2012	49,008	15%
Part of 2013 (Jan 13 – Aug 13)	41,455	28%
12 recent mo (Sept 12 – Aug 13)	64,225	-12%

## Water Use History

The graphs below illustrate the data history for electricity from January 2009 through December 2013. This includes one of the three City of Atlanta Water Management accounts currently active:

- Main Account #0034898300
- Supplement Account #00333631300 (excluded)
- Fire Service Account #0154879300 (excluded)

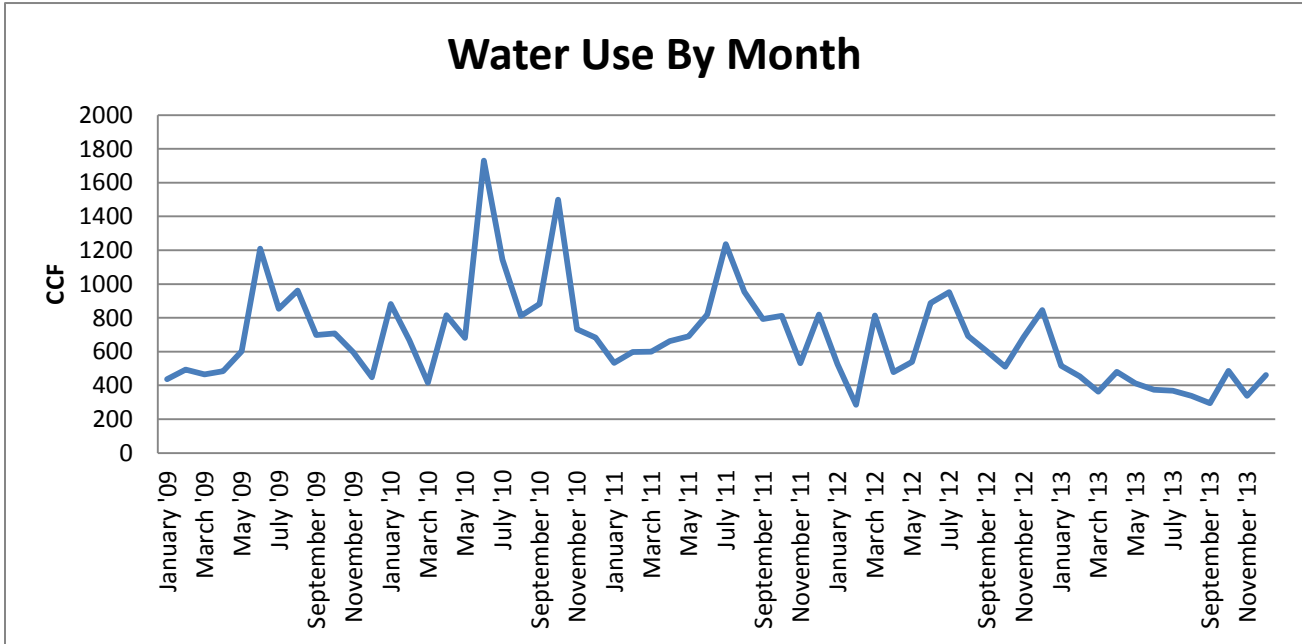


Figure 7: Water Use By Month

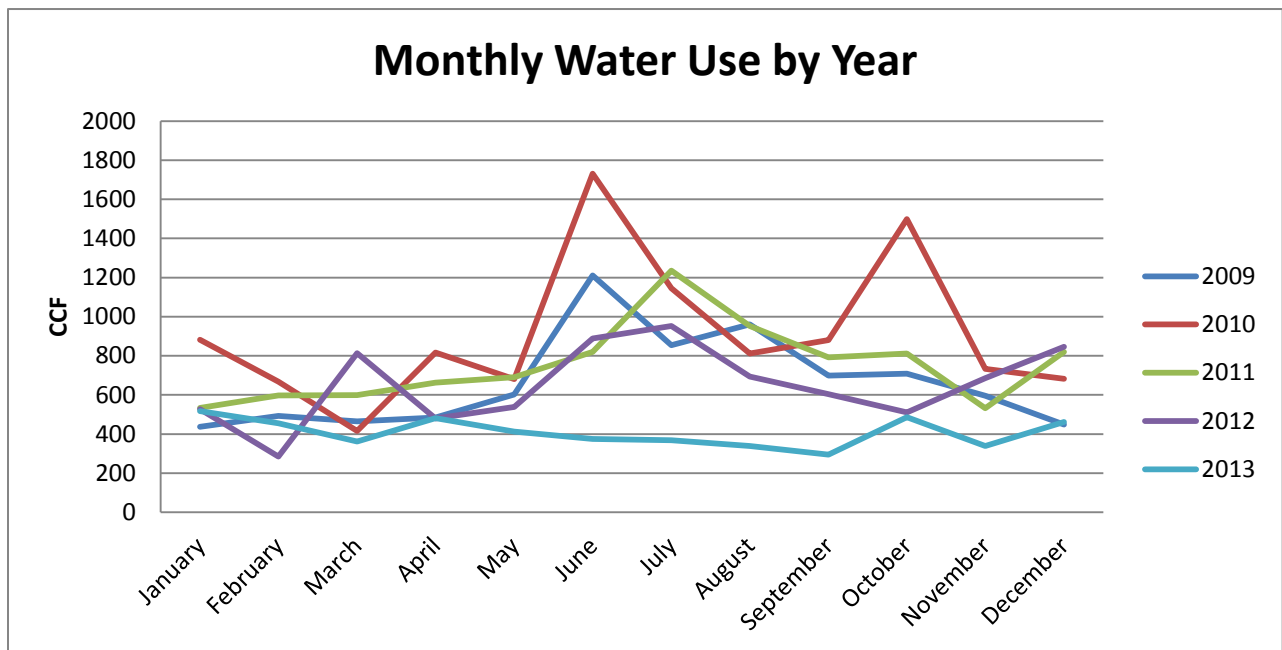


Figure 8: Water Consumption History 2009 to Present

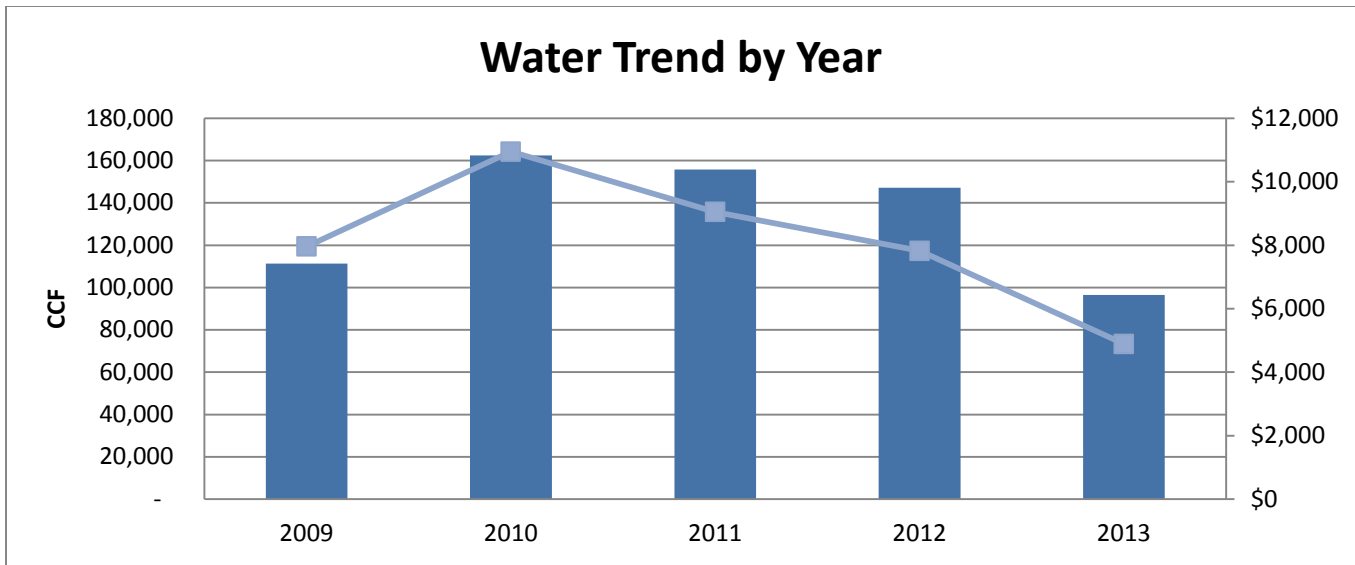


Figure 9: Annual Water Trend

A billing error was discovered in the Main Account (#0034898300) by Fox Theatre before the assessment process began and was corrected in 2011. The error lies in how COA Watershed recorded the consumption, also affecting the cost. The use and cost data used here was provided by COA Watershed and has not been verified by Fox Theatre.

The table below quantifies the same information illustrated in the graph above. The water use in 2013 relative to that in 2009 has decreased by 39%. If water use in 2013 is compared to 2011, it has decreased by 46%.

Table 6: Water History

Year	Use (CCF)	Cost (\$)	Use Savings Over 2009	Use Savings Over 2011
2009	7,957	\$111,328	N/A	N/A
2010	10,945	\$162,364	-38%	N/A
2011	9,046	\$155,705	-14%	N/A
2012	7,821	\$147,111	2%	14%
2013	4,886	\$96,454	39%	46%

Since the water challenge is an Atlanta Better Building Challenge only, and not part of the national challenge, the baseline is set to most credible year of information. It is evident that 2010 had several billing errors, therefore the baseline can be either 2009 or 2011. It is unclear whether 2009 data is credible, however 2011 data should be reliable. A discussion will follow this report to determine which year provides the most favorable baseline.

Whether the baseline is 2009 or 2011, the **Fox Theatre has not only met but exceeded the Atlanta Better Buildings Challenge water goal! Congratulations on your achievement!**

Look forward in participating in this year's Owner's Ceremony, where Mayor Kasim Reed personally awards participants who have met the energy and/or water challenge.

## Energy Benchmarking

The graph below illustrates how the theatre is performing relative to its energy use, which includes electricity and natural gas.

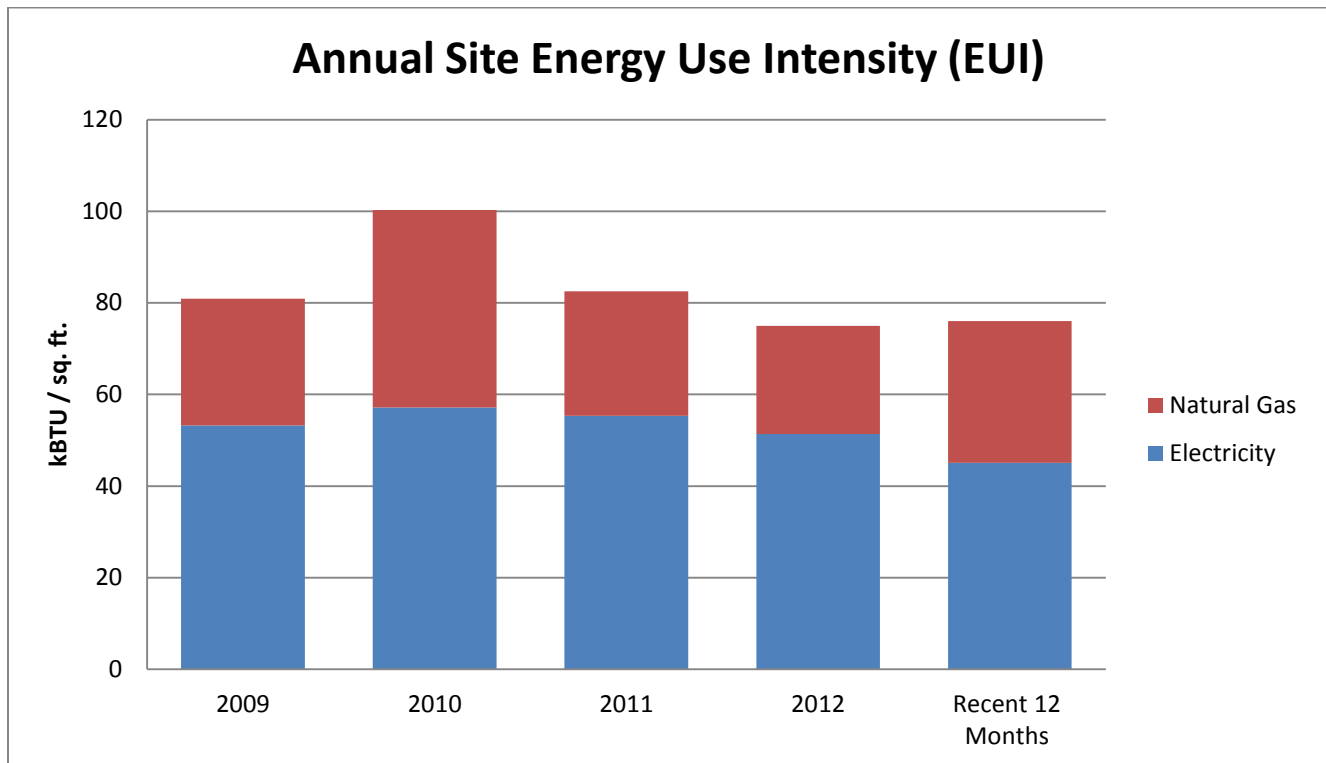


Figure 10: Annual Energy Use Intensity (EUI)

The table below quantifies the same information illustrated in the graph above. Additionally, it quantifies the source energy savings on an annual basis. Site energy is the amount of heat and electricity consumed by a building as reflected in utility bills. Source energy is the total amount of energy used to produce and transport energy to a site in addition to that consumed by the building. Source energy reduction is the savings acknowledged by the Atlanta Better Buildings Challenge.

The site energy use in the most recent 12 months of data relative to that in 2009 has decreased by 6%. Concurrently, source energy has reduced by 12%. If implemented, the projects recommended in this report will can reduce source energy use by an additional 27%, allowing the Fox Theatre to meet and perhaps exceed the energy challenge in the Atlanta Better Buildings Challenge.

Table 7: Annual Energy Intensity Use (EUI)

Year	Electricity (kBTU/sq. ft.)	Natural Gas (kBTU/sq. ft.)	Total Site Energy (kBTU/sq. ft.)	Site Energy Savings Since 2009	Source Energy Savings Since 2009
2009	53	28	81	0%	0%
2010	57	43	100	-24%	-14%
2011	55	27	82	-2%	-3%
2012	51	24	75	7%	5%
Recent 12 Months	45	31	76	6%	12%

## Recommended Projects

### Replace Incandescent Lighting with LED

The Department of Energy has taken a step towards implementing the Energy Independence and Security Act of 2007 by phasing out several types of inefficient lighting. This includes incandescent bulbs (100W in 2012, 75W in 2013, and 40W and 60W since the beginning of 2014). Since these bulbs are no longer manufactured in the United States and are now scarce, the cost of these bulbs has/will skyrocket. It is recommended that Fox Theatre limit the use of these lamps and transition to more efficient products such as LED.

This project recommends replacing existing incandescent or fluorescent lighting with LED lighting. LED lighting provides the following benefits to the facility:

- Reduced energy consumption
- Reduced the amount of maintenance resources
- Divert less waste to landfill as a result of longer lasting fixtures and lamps
- The risk of toxic substances reaching occupants is reduced since LED has no mercury
- Improved aesthetics

Savings for this project are based on the wattage reduction from retrofitting to LED lamps. Additional savings will be observed on the operations and maintenance side, as the recommended lamps have a longer life. This includes staff time and material costs.

In addition to Grants to Green Implementation Grant, funding can be achieved if applying for Georgia Power Company's Commercial Rebate Program<sup>3</sup>. Details on the rebate program can be found in the appendix in this report.

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<sup>3</sup> <http://georgiapower.com/energy-efficiency/business/>



<b>Lighting Project Overview</b>	
Raw Project Overview	
0.20	Assumed hours of labor per bulb including project management
\$40	Assumed hourly rate for in-house labor
\$8	Labor cost per bulb replaced
1,109	Total project person-hours
\$44,374	Total project labor cost
\$54,714	Total project materials cost
\$99,088	Total project cost
365,356	Annual energy savings, kWh
\$43,323	Annual energy cost savings
2.3	Simple payback period on total cost, years
Project Overview with Grants to Green Funding	
<b>\$49,544</b>	<b>50% of total project cost covered by Fox</b>
<b>1.1</b>	Simple payback period , years
\$5,170	Fox 50% match minus value of in-house labor
Project Overview with Grants to Green & Rebate Funding	
\$40,677	Estimated potential utility rebates
<b>\$ (35,507)</b>	<b>Cash required by Fox net of grant and rebates</b>
<b>\$78,830</b>	<b>Cash acquired by Fox including 50% match, rebates, and savings generated from projects</b>

If implemented, Fox Theatre can recoup the cost of the project very quickly. To get the most out of this project, Fox is strongly encouraged to pursue Georgia Power's rebates, as they may be over by the end of 2014. Almost 75% of the material costs can be covered by rebates!

If Fox Theatre pursues the Grants to Green grant using in-house labor, and the Georgia Power Rebates, the facility is expected to recapture \$35,507 of those funds. Including the savings generated from this project, the **Fox will be able to can acquire \$78,830 in about 1 year!**

## Expand Building Automation System<sup>4</sup>

This project proposes expanding the currently existing building automation system to include more mechanical units. Those units are listed in the table below, along with a description as they currently operate and the potential savings achieved from optimizing their control.

HVAC Equipment	Capacity Each	Units	Peak kW	EFLH	Annual Electricity Use, kWh	Estimated Savings from BAS Tie-In, kWh	Notes
Old centrifugal chiller	300	tons	240.0	100	24,000	3,600	Backup only
Office RTUs	3	tons	11.3	1,500	16,875	2,531	Gas heat, less than 4 years old
Office RTUs	5	tons	6.0	1,500	9,000	1,350	Gas heat, less than 4 years old
Office RTUs	10	tons	12.5	1,500	18,750	2,813	Gas heat, less than 4 years old
Admin & some refrigeration units	40	tons	50.0	1,500	75,000	11,250	16-18 years old - due for replacement next year. 4 scroll compressors. Area is served by furnace that needs to be controlled.
Dressing room (south) tower	40	tons	50.0	3,000	150,000	22,500	Carrier, 2 scroll compressors. Heat in this space is via radiators served with steam from central boilers already under BAS control.
Chilled water pumps	7.5	HP	4.5	8,760	39,210	5,881	Serve Trane system. One is backup.
Marquis split systems	2	tons	5.0	1,500	7,500	1,125	Provide cooling for Marquis.
Counting room	2.5	tons	3.1	1,500	4,688	703	Serves money counting room; no heat.
Accounting room	1.5	tons	3.8	1,500	5,625	844	Has heat from a different system (one of 5 office RTUs).
<b>Total Project</b>					<b>350,647</b>	<b>52,597</b>	

\$62,765	Project cost (based on Siemens estimate minus overlay cost & monitoring of metering)
\$0.119	Average cost per kWh
\$6,237	Annual energy Cost Savings
10.1	Simple payback period

<sup>4</sup> Potential gas savings via the BAS are neglected in this analysis due to the lack of nameplate data.

## Replace Obsolete Air-Cooled Chiller

This project recommends replacing the 40-ton chiller serving the dressing room in the south tower with a higher-performing unit. The tables below describe the existing unit along with the proposed project<sup>5</sup>.

HVAC Equipment	Capacity	Units	Current Seasonal Average kW/ton	Proposed Seasonal Average kW/ton	EFLH	Annual Electricity Use, kWh	Annual Savings, kWh
Chiller serving dressing room (south) tower	40	tons	1.25	0.83	3,000	150,000	50,400

<b>\$60,125</b>	<b>Project cost (\$48,100 from RSMeans + 25% Fox complexity factor)</b>
\$0.12	Average cost per kWh
\$5,976	Annual energy Cost Savings
<b>10.1</b>	<b>Simple payback period</b>

<sup>5</sup> <https://www.progress-energy.com/assets/www/docs/business/chiller-fact-sheet-052005.pdf>

## Existing Lighting Equipment Requirements

Project Type	Incentive and Cap
Linear Fluorescent, High Bay, LED Fixture and Other Lighting	\$0.20/watt reduced (\$25,000 per building per year up to 50% of project cost)
Pole-mounted Outdoor Lighting (existing building only)	\$0.20/watt reduced (\$10,000 per building per year up to 50% of project cost)

Equipment Type	Baseline	Incentive (not to exceed equipment cost)	Details
Compact Fluorescents (CFLs)	Incandescent	\$1.25/lamp	CFL screw-in
	Incandescent	\$6.50/fixture	CFL hardwired
LED Replacement Lamps	Incandescent	\$9/lamp	LED – screw-in
LED Exit Signs (retrofit only)	Incandescent or fluorescent exit sign	\$7/fixture	LED or electroluminescent (EL) Exit Sign - one- or two-faced
Occupancy Sensor	Manual wall switch or no control	\$7/sensor	Wall-, ceiling-, or fixture mounted replacing switch or no control; retrofit or new construction
Daylight Sensor		\$25/sensor	Hardwired photo control designed to dim or switch lamps on or off based on ambient light levels

### Existing Building Lighting

- 10 percent minimum wattage reduction required.
- All retrofitted lighting fixtures must operate a minimum of 1,000 hours per year to qualify.
- Incentives are available for new fixture systems or for retrofitting existing fixtures with new lamps and ballasts. Incentives are not available for de-lamping—defined as the removal of lamps from an existing fixture without replacing the ballast and installing higher efficiency lamps.
- Incentives may be adjusted from the requested amount if the light output of the existing and proposed systems is not equivalent.
- Outdoor Pole-mounted lighting incentives are for metered systems and retrofit projects only.

### Other Lighting Requirements

- LED products must be on one of the following qualified product lists: [ENERGY STAR®](#), [DesignLights Consortium® \(DLC\)](#), or [Lighting Design Lab \(LDL\)](#). If the product is not on one of these three lists, an LM-79 test must be submitted for review.
- T5 adapter kits are not eligible.
- We recommend that new linear fluorescent equipment be listed on the Consortium for Energy Efficiency website.

## Heating & Cooling Requirements

Unitary and split system cooling equipment must be new equipment and meet Air Conditioning, Heating and Refrigeration Institute (AHRI) standards (210/240, 320 or 340/360) or ISO-13256-1, be UL listed, and use a minimum ozone-depleting refrigerant (e.g. HCFC or HFC).

System Net Cooling Capacity	System Type	Minimum Requirements (Tier 1)	Incentive (Tier 1)	Minimum Requirements (Tier 2)	Incentive (Tier 2)
<i>Air-Cooled Unitary Air Conditioners</i>					
<65,000 Btu/h	Split System	14.0 SEER 12.0 EER	\$20/ton	15.0 SEER 12.5 EER	\$30/ton
	Single Package	14.0 SEER 11.6EER	\$20/ton	15.0 SEER 12.0 EER	\$30/ton
≥65,000 Btu/h and <135,000 Btu/h	Split System and Single Package	11.7 EER 11.8 IEER	\$20/ton	12.2 EER 14.0 IEER	\$30/ton
≥135,000 Btu/h and <240,000 Btu/h	Split System and Single Package	11.7 EER 11.8 IEER	\$20/ton	12.2 EER 13.2 IEER	\$30/ton
≥240,000 Btu/h and <760,000 Btu/h	Split System and Single Package	10.5 EER 10.6 IEER	\$20/ton	10.8 EER 12.3 IEER	\$30/ton
≥760,000 Btu/h	Split System and Single Package	9.9 EER 10.0 IEER	\$20/ton	10.4 EER 11.6 IEER	\$30/ton
<i>Air-to-Air Unitary Heat Pumps</i>					
<65,000 Btu/h	Split System	14.0 SEER 12.0 EER 8.5 HSPF	\$40/ton	15.0 SEER 12.5 EER 9.0 HSPF	\$60/ton
	Single Package	14.0 SEER 11.6EER 8.0 HSPF	\$40/ton	15.0 SEER 12.0 EER 8.5 HSPF	\$60/ton
≥65,000 Btu/h and <135,000 Btu/h	Split System and Single Package	11.3 EER 11.4 IEER 3.4/2.4 COP	\$40/ton	11.3 EER 12.3 IEER 3.4/2.4 COP	\$60/ton
≥135,000 Btu/h and <240,000 Btu/h	Split System and Single Package	10.9 EER 11.0 IEER 3.2/2.1 COP	\$40/ton	10.9 EER 11.9 IEER 3.2/2.1 COP	\$60/ton
≥240,000 Btu/h	Split System and Single Package	10.3 EER 10.4 IEER 3.2/2.1 COP	\$40/ton	10.3 EER 10.9 IEER 3.2/2.1 COP	\$60/ton
<i>Water Source Heat Pump</i>					
≥135,000 Btu/h	Split System and Single Package	14.0 EER 4.6 COP	\$50/ton	NA	NA

Equipment Type	Minimum Requirements	Incentive
Variable Frequency Drives	<p>Eligible variable frequency drives (VFDs) include those installed on existing HVAC equipment, including:</p> <ul style="list-style-type: none"> <li>• Building exhaust fans</li> <li>• Make-up air fans</li> <li>• HVAC return air fans</li> <li>• Cooling tower fans</li> <li>• HVAC supply air fans</li> <li>• Chilled and condenser water pumps</li> </ul> <p>Must be between 2- 200 HP and operate for at least 1,500 hours annually. If you have a VFD application that is not on this list, please visit our Custom Savings page.</p>	\$50/HP

## Water Heater and Water Equipment Requirements

Equipment Type	Minimum Requirements	Customer Incentive
Electric Storage Water Heater	EF $\geq$ 0.94. Residential water heater installed in commercial location	\$40/unit
Water Heater Heat Trap	Electric water heating system	\$25/trap
Heat Pump Water Heater	EF > 2.20	\$250/unit
Water Heater Pipe Insulation	> 1" thickness, electric water heating system	\$1.00/linear ft.
Water Heater Heat Exchanger	Minimum water temperature difference of 80°F, electric water heating system	\$150/water heating system
Irrigation System - Low Pressure Impact Sprinkler Nozzle	Permanent – solid set or portable – hand move. Must convert from a high-pressure, sprinkler system nozzle (50 psi operating pressure or more at the sprinkler head) to a low-pressure sprinkler system nozzle. Low-pressure nozzles must replace high-pressure nozzles one-for-one.	\$25/unit

## Reflective Roofing Requirements

Improvement Type	Minimum Requirements	Customer Incentive
Reflective Roof	ENERGY STAR <sup>®</sup> Qualified	\$0.05/sq ft of applicable roof area*

\*Roofing over conditioned space only

### Additional requirements

- Reflective roofing incentive capped at \$10,000 per building per year.
- Available for existing and new construction buildings.



## Food Service & Grocery Equipment Requirements

Equipment Type		Minimum Requirements	Customer Incentive
Commercial Dishwasher		<a href="#">ENERGY STAR® Qualified</a> ; not Low Temperature	\$250/unit
Low Temperature Dishwasher		Stationary	\$25/unit
Commercial Ice Machine	101-500 lbs ice/day	<a href="#">ENERGY STAR® Qualified</a> or CEE	\$50/unit
	501-1,000 lbs ice/day		\$100/unit
	>1,000 lbs ice/day		\$150/unit
Commercial Kitchen Ventilation Control		The control system must be used in conjunction with variable speed fan motor controls and be equipped with a temperature and/or an optic sensor that varies the rate of exhaust based on energy and effluent output.	\$200/exhaust fan HP
Commercial Glass-, Mixed-, or Solid-Door Refrigerator or Freezer		<a href="#">ENERGY STAR® Qualified</a>	\$75/unit
Commercial Refrigerator Pipe Insulation for Bare Suction Lines		R-4 Insulation	\$0.50/linear ft
Electric Fryer		<a href="#">ENERGY STAR® Qualified</a>	\$75/vat
Electric Griddle		<a href="#">ENERGY STAR® Qualified</a>	\$50/unit
Electric Steam Cooker		<a href="#">ENERGY STAR® Qualified</a>	\$150/cooker
Grocery Anti-Sweat Control		The control system must be able to reduce or turn off anti-sweat heaters of refrigerated display case doors.	\$15/door
Grocery Case Door Gaskets		Replacement gaskets in existing facilities only	\$2/linear ft
Grocery Display Case LED Lighting		Must be ≥46" strip LED fixtures installed on both sides of door and have NRTL certification. Replacement tube lamps are not eligible under this category and should be submitted as a custom lighting measure.	\$40/door
Insulated Holding Cabinet	½ Size	<a href="#">ENERGY STAR® Qualified</a>	\$200/unit
	¾ Size		\$250/unit
	Full Size		\$300/unit
Refrigerated Vending Machine Control		Installed on refrigerated vending machine	\$50/unit

## Custom Savings Requirements

Measure	Incentive	Details
Custom Savings	\$0.08/kWh saved	<ul style="list-style-type: none"> <li>• Projects require pre-approval.</li> <li>• Project incentive will be determined by Georgia Power Commercial Program staff after the application is submitted.</li> <li>• Incentives are capped at \$25,000 per building per year or 50% of project cost*.</li> </ul>

*\*Cost includes materials and labor*

Eligible projects must involve the installation of equipment that meets the following criteria:

- Produce measurable and verifiable reduction in electricity consumption.
- Have a useful life of and be in operation for at least five years. Incentives are not available for changes in behavior or O&M strategies.
- Exceed government minimum standards. Incentives will be paid only on the energy savings above and beyond minimum federal, state, and local mandates on energy efficiency performance.

Measures that are not eligible for the program incentive include those that:

- Rely on changes in customer behavior and require no capital investment;
- Achieve savings through equipment maintenance, re-commissioning or operational changes, without an equipment efficiency upgrade;
- Involve only relocating existing equipment or processes outside of Georgia Power's service territory;
- Are required by local, state, or federal law; building or other codes; or are standard industry practice;
- Produce an electric energy reduction through substitution of another energy source for electricity;
- Merely terminate existing processes, facilities, or operations;
- Involve plug loads; or
- Are eligible for an incentive through any other energy efficiency program (Lighting, Heating & Cooling, Water Heater, Food Service & Grocery, Roofing and Small Commercial) offered by Georgia Power.

This program offers incentives for a variety of custom applications, including but not limited to:

- HVAC systems not included in the Heating & Cooling equipment list (e.g. Chillers, VRF and Mini-split systems)
- Chiller and Refrigeration System Upgrades
- New Energy Management System (EMS) or EMS upgrade with additional control points
- ECM motors
- Refrigeration evaporator fan controls
- Window film or other building envelope improvements

Additional program rules including instructions on how to calculate a baseline for your project are available on the Custom Savings application. [Please contact Georgia Power at 1.877.310.5607 / \[commercialsavings@southernco.com\]\(mailto:commercialsavings@southernco.com\) to discuss your upcoming project.](tel:18773105607)


## Small Commercial Equipment Requirements

Specific incentives are available to Georgia Power Small Commercial customers that are on the following commercial rates: Power and Light Small, General Service, Optional General Service, Flatbill, or Time of Use Energy Only. In addition to these Small Commercial incentives, all of the other Georgia Power Commercial Energy Efficiency incentives are available to Small Commercial customers.

Measure	Incentive	Details
Linear Fluorescent, High Bay, LED Fixture and Other Lighting	\$0.40/watt reduced	Lighting upgrades that result in installed wattage reduction $\geq 10\%$ . Lighting that is eligible for a \$/unit incentive (LED screw-ins and CFLs) are not eligible for \$0.40/watt reduced.
LED Exit Sign (retrofit only)	\$7/sign	LED or Electro Luminescent (EL) Exit Sign – 1 or 2 faced replacing incandescent or fluorescent sign.
Water Heater Blanket (electric only)	50% of cost up to \$50/unit	Installation of $\geq R-6.7$ insulation blanket on electric water heater only. Water heater must be $> 5$ years old and located in unconditioned space.
Programmable Thermostat	50% of cost up to \$100/unit	Replacing a standard thermostat or programmable thermostat that is $\geq 10$ years old. Must have Intelligent Recovery technology; seven days, 5-1-1, or 5-2 day
Ceiling Insulation	50% of cost up to \$500/project	Baseline is $\leq R-11$ . Must add R-19 or greater. Example: R-11 plus R-19 = R-30.
Refrigerator/Freezer Recycling	\$50/unit	Must be in working condition and sized between 10 and 30 cubic feet.
Room Air Conditioner	\$25/unit	Must be ENERGY STAR qualified.
Clothes Washer	\$25/unit	Must be ENERGY STAR qualified.
Refrigerator	\$25/unit	$\geq 7.75$ cubic feet. Must be ENERGY STAR qualified.
Freezer	\$20/unit	$\geq 7.75$ cubic feet. Must be ENERGY STAR qualified.

### Are you a Small Commercial Customer?

To determine if your business is on a qualifying Small Commercial rate, look on page 2 of your Georgia Power bill under the “Current Electric Service” section. To qualify, one of the following rates must be listed next to “Current Electric Service”: Power and Light Small, General Service, Optional General Service, Flatbill, or Time of Use Energy Only.



**GEORGIA POWER**  
A SOUTHERN COMPANY

Customer name  
**JANE DOE**

Account number  
**01234-56789**

Page 2 of 2

**Please pay by**      **October 16, 2013**

**Total due**            **\$201.13**

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**Current electric service – Power and Light Small – Commercial** ←

<b>Service period</b>	<b>Next scheduled read date</b>	<b>Meter number</b>
Aug 3, 2013 - Sept 2, 2013	On or after Sept 30, 2013	G09298

<b>Reading type</b>	<b>Current reading</b>	<b>- Previous reading</b>	<b>x Constant</b>	<b>=</b>	<b>Usage</b>
Tot kWh	72900	70677			2,223 kWh

Current Service	179.01
Environmental Compliance Cost	6.04
Municipal Franchise Fee	2.92
Sales Tax	13.16
<b>Total current electric service \$210.13</b>	

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**Budget Billing** Avoid peaks in your power bill. We will average your power bill over 12 months, so you will pay roughly the same amount each month. To sign up, call 1-888-660-5890 or visit [georgiapower.com/budgetbilling](http://georgiapower.com/budgetbilling)

**Paperless Billing** Pay your electric bill with a mouse click. It's quick, easy, and convenient. To sign up, call 1-888-660-5890 or visit [georgiapower.com/paperless](http://georgiapower.com/paperless)

**Auto Pay** Save time and effort. Auto pay is a free bill payment option—you can authorize your bill amount to be automatically debited from your checking or savings account. To sign up, call 1-888-660-5890 or visit [georgiapower.com/autopay](http://georgiapower.com/autopay)

**Credit Card** Credit card payments are only accepted through