



Benchmarking

Presented by Selena O'Neal, Certified Energy Manager

June 2013



EPA DOT Fuel Economy and Environmental Comparisons Gasoline Vehicle

26 MPG
combined city 22 highway 32

Annual Fuel Cost \$1,617

3.8 gallons used every 100 miles

How This Vehicle Compares
Among all vehicles and within SUVs

Worst **10** SUVs **26** 103 Best

Environment

Greenhouse Gases (CO₂ grams, tailpipe only) **347**

Other Air Pollutants **6**

Smartphone Interactive
Scan code for more information about this vehicle or to compare it with others.

Visit www.fueleconomy.gov to calculate estimates personalized for your driving, and to download the Fuel Economy Guide (also available at dealers).



EVOK IMAGES

OSM No. 2060-0347

ENERGY STAR **STATEMENT OF ENERGY PERFORMANCE**
Ada County Courthouse & Administration Bldg

Building ID: 1033004
For 12-month Period Ending: September 30, 2012
Date SEP becomes Ineligible: January 28, 2013
Date SEP Generated: October 04, 2012

Facility: Ada County Courthouse & Administration Bldg
200 W Front Street
Boise, ID 83702

Facility Owner: Ada County
200 W Front Street
Boise, ID 83702
(208) 287-7100

Primary Contact for this Facility: Dave Logan
200 W Front Street
Boise, ID 83702
(208) 287-7100
dave@gataweb.net

Year Built: 2000
Gross Floor Area (sf): 356,300

Energy Performance Rating: (1-100) 82

Site Energy Use Summary*

Direct Hot Water (kBtu)	4,112,378
Electricity - Grid Purchase(kBtu)	16,672,862
Natural Gas (kBtu)*	490,000
Total Energy (kBtu)	21,275,188

Energy Intensity*

Site (kBtu/sqft)	80
Source (kBtu/sqft)	173

Emissions (based on site energy use)

Greenhouse Gas Emissions (MCO ₂ e/year)	2,264
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Electric Distribution Utility: Idaho Power Co (IDACORP Inc)

National Median Comparison

National Median Site EUI	82
National Median Source EUI	206
% Difference from National Median Source EUI	-35%
Building Type	Courthouse

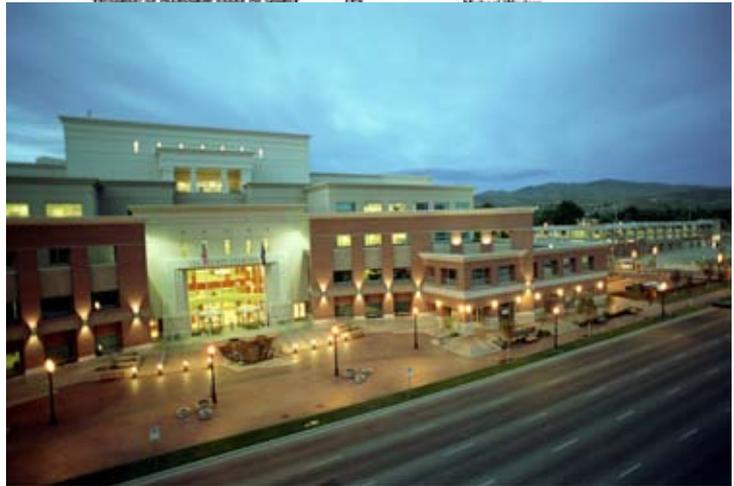
Meets Industry Standard¹ for Indoor Environmental Conditions:
Ventilation for Acceptable Indoor Air Quality: Yes

Professional Engineer Stamp

Signature:

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate and in accordance with the Licensed Professional Guide.

Professional Engineer
License Number: 4385
State: ID





A Type for all Types

Elementary – Are you Smarter than My Third Grader?

- Pencil (colored pencils, optional)
- Calculator

Intermediate

- ENERGY STAR
- Utility Manager

Advanced

- Submetering
- Energy Dashboard



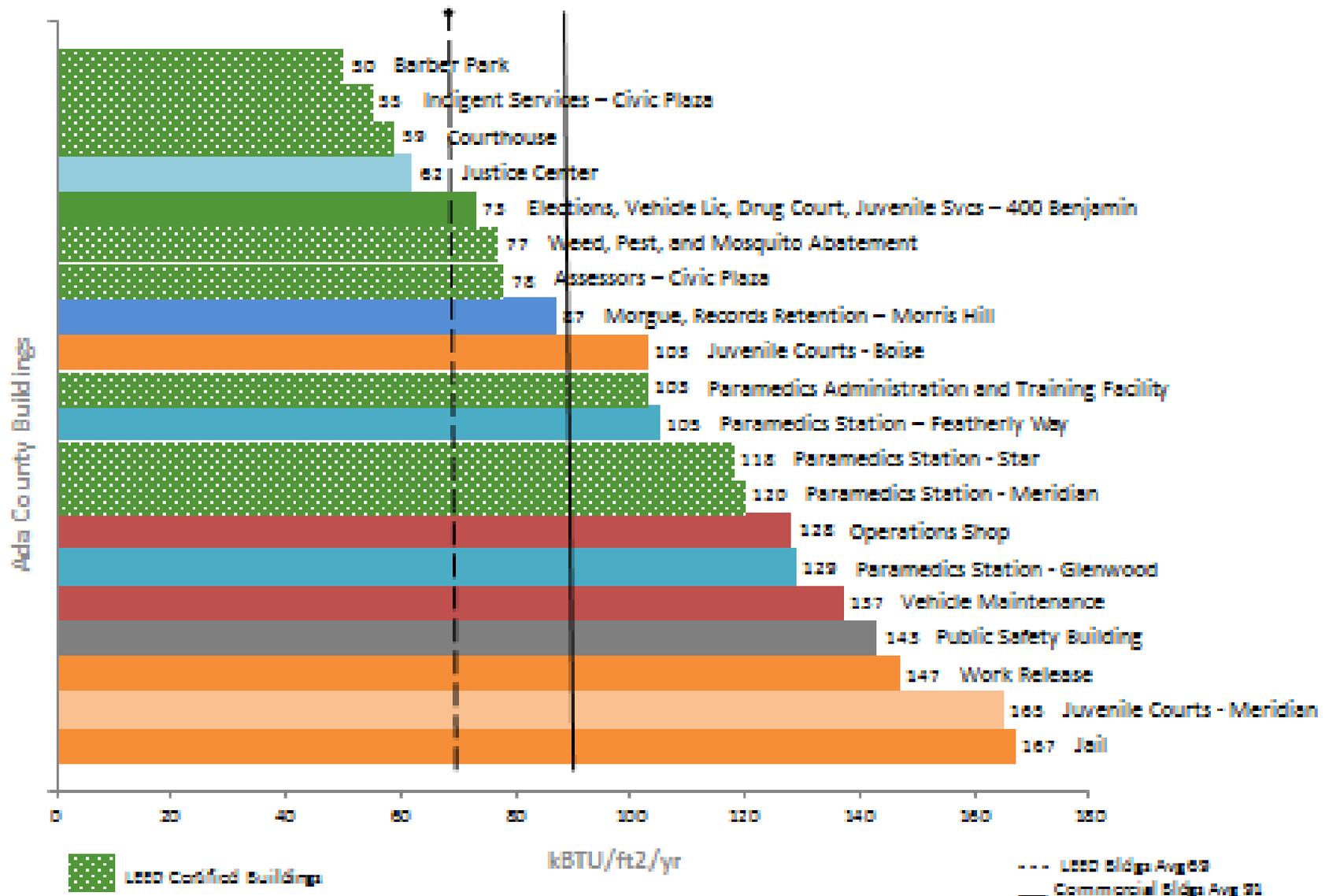
Idaho Green Schools Challenge 2013

Project Goal -

**To find out how energy efficient
Gateway School is**

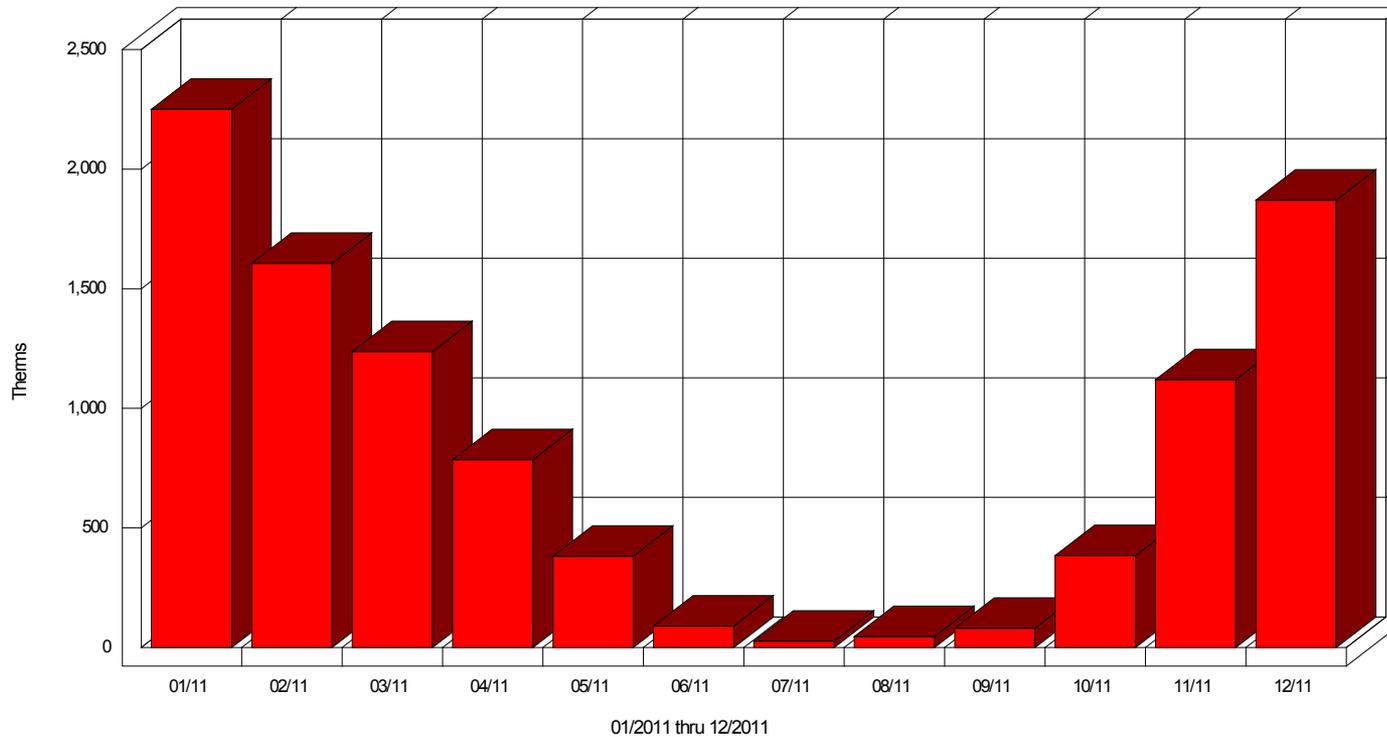


Energy Use Index



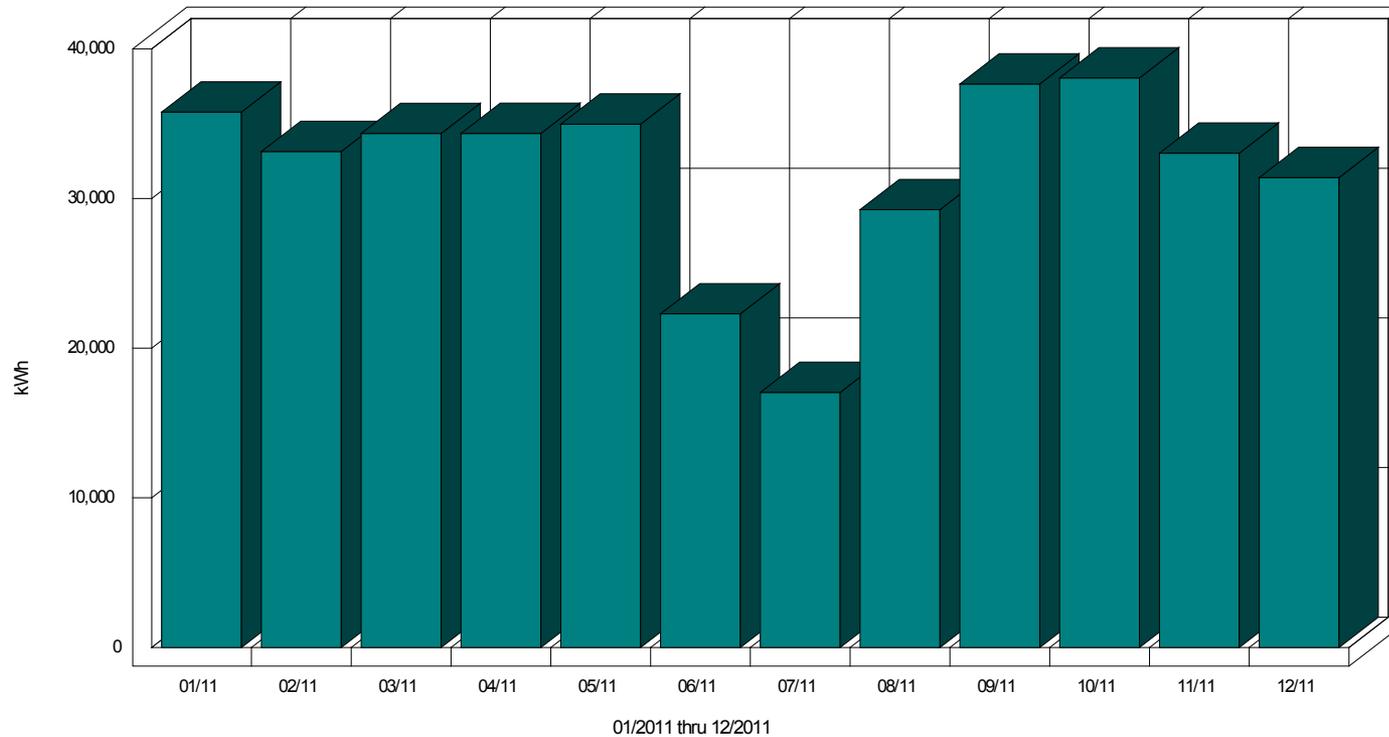
Natural Gas - 2011

Monthly Natural Gas Use for Gateway School



Electricity - 2011

Monthly Electricity Use for Gateway School





Definitions

- **BTU - British Thermal Unit:** The amount of heat energy it takes to raise the temperature of 1 pound of water 1 degree.

- **Therm:** A measurement of the heat in natural gas.

1 therm = 100,000 BTUs

- **kWh:** A measurement of how much electricity a device uses in an hour.

1 kWh = 3,412 BTUs

Name: _____

Date: _____

Energy Use Index for 2011
Gateway School of Language and Culture
Building Size: 62,540 Square Feet

FORMULAS

1. Natural Gas BTUs: **Therms x 100,000**
2. Electricity BTUs: **KWHs x 3,412**
3. Total BTUs: **Natural Gas BTUs + Electricity BTUs**
4. kBTUs: **Total BTUs ÷ 1,000**
5. Energy Use Index: **Total kBTUs ÷ Building Square Feet**

2011	Natural Gas (Therms)	1. Natural Gas BTUs	Electricity (KWHs)	2. Electricity BTUs	3. Total BTUs	4. kBTUs
January	2,250		35,778			
February	1,606		33,141			
March	1,237		34,345			
April	785		34,350			
May	381		34,970			
June	90		22,296			
July	26		17,046			
August	46		29,258			
September	80		37,653			
October	384		38,060			
November	1,120		33,029			
December	1,871		31,402			
Total kBTUs						

5. Energy Use Index: _____ ÷ _____ = _____
Total kBTUs Square Footage



Step 1. Calculate BTUs for natural gas for a month

Formula: Therms \times 100,000 = BTUs

Step 2. Calculate BTUs for electricity for a month

Formula: kWhs \times 3,412 = BTUs

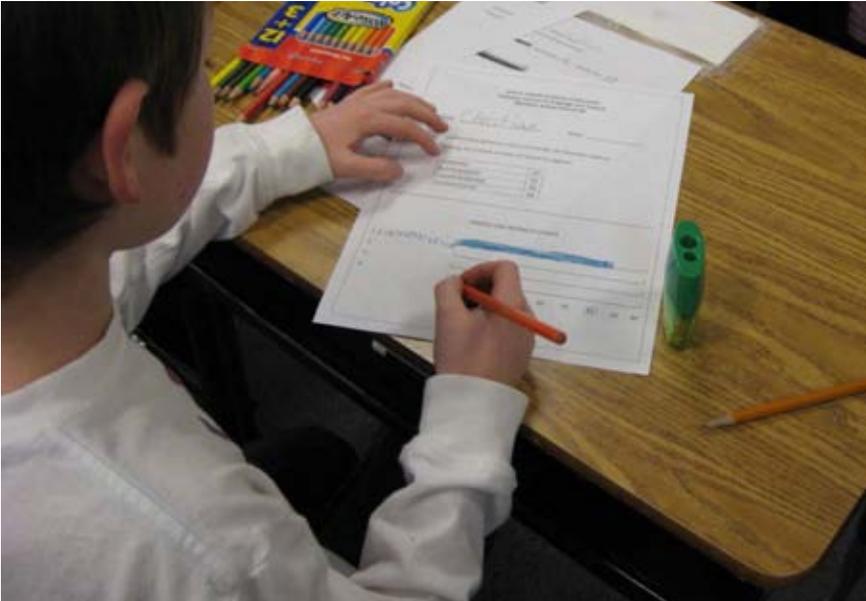
Step 3. Add all natural gas and electric BTUs together

Step 4. Divide Total BTUs by 1,000 to get kBTUs

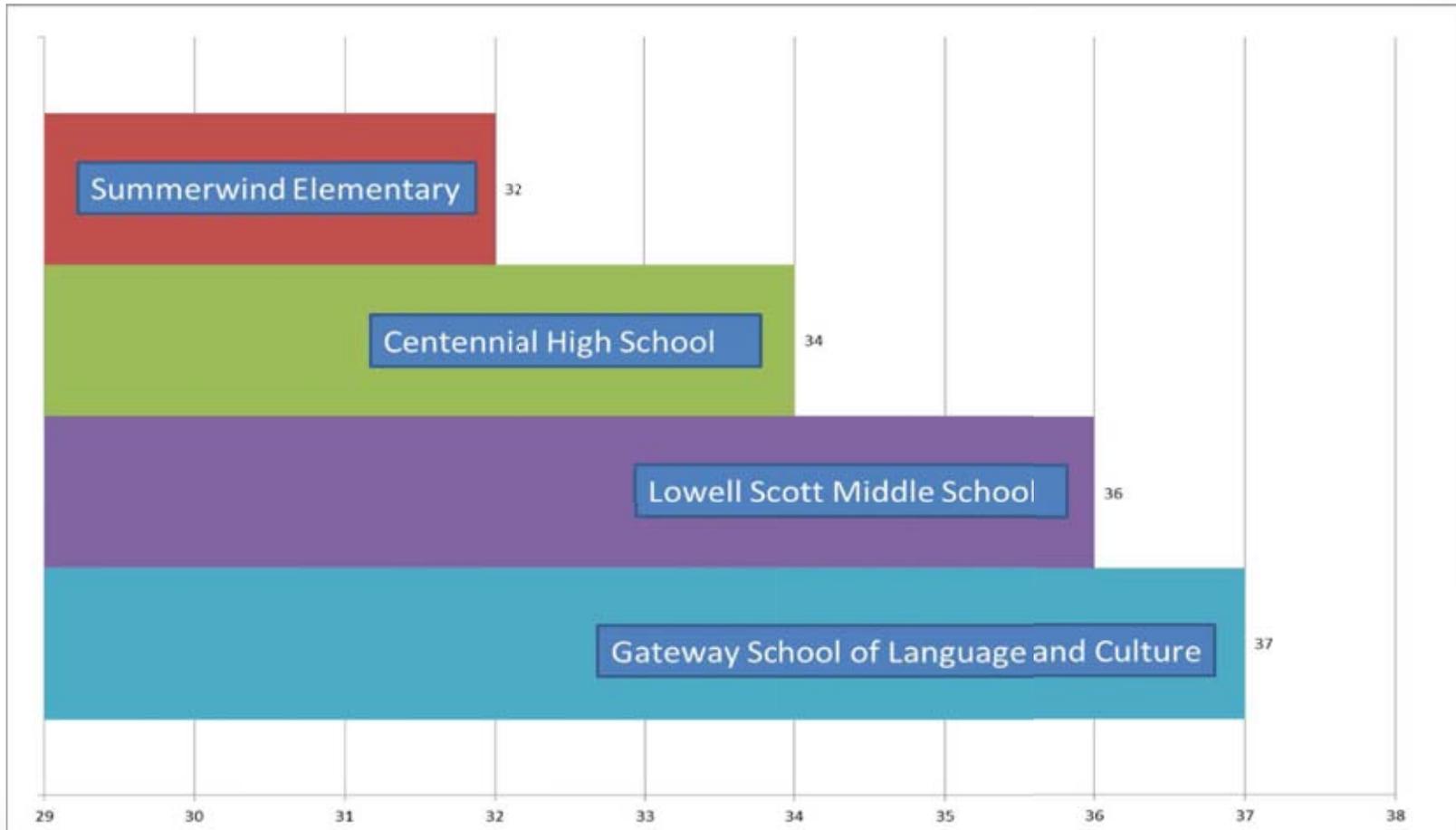
Step 5. Divide kBTUs by building square footage to get EUI



Chart the EUI of Gateway and 3 other schools



School Energy Use Index





How can you save energy?



1. Using less ✓
2. Turn off light ✓✓✓✓
3. Turn off electronics ✓✓✓
4. Turn off stuff ✓✓✓
5. Recess, turn off ✓
6. Use solar power
7. Turn off faucet
8. Use fewer lights
9. Turn off heaters





The bulletin board features several items:

- Top Left:** A photograph of a group of people at a meeting, with text below it.
- Top Center-Left:** A bar chart with red bars showing data across categories.
- Top Center-Right:** A table with multiple columns and rows of data.
- Middle Left:** A bar chart with blue bars showing data across categories.
- Middle Center-Left:** A table with multiple columns and rows of data.
- Middle Center-Right:** A table with multiple columns and rows of data.
- Middle Right:** A poster for "Join us LOR4x" featuring a cartoon character and a tree.
- Bottom Left:** A document with a table and text, tilted at an angle.
- Bottom Center:** A bar chart with four colored bars (red, green, purple, blue) representing different categories.
- Bottom Right:** A diagram or flowchart with various boxes and connecting lines.







Intermediate

ENERGY STAR and Utility Manager



ENERGY EFFICIENT products

ENERGY SAVINGS at home

ENERGY EFFICIENT new homes

ENERGY STRATEGIES FOR buildings & plants

- ABOUT ENERGY STAR
- PARTNER RESOURCES

SEARCH



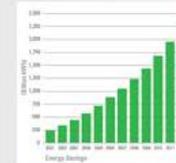
How energy efficient is your home?

Find out with the Home Energy Yardstick.

GET STARTED →



ENERGY STAR is a U.S. Environmental Protection Agency voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency. [Learn more about ENERGY STAR.](#)



With help from ENERGY STAR, by 2012, Americans had cumulatively prevented more than 1.8 billion metric tons of GHG emissions.

[See 2012 Achievements.](#)

ENERGY EFFICIENCY

FOR YOUR HOME

FOR YOUR BUSINESS



Home Energy Yardstick
Assess the energy efficiency of your home and see how it measures up.



Product Finder



Tax Credits



Find an ENERGY STAR Builder



Heating and Cooling Tips

How can we help you?

- Improve your home's comfort and efficiency
- Buy an energy-efficient new home
- Heat and cool your home efficiently
- Learn about Home Performance with ENERGY STAR
- Find the most efficient technology
- Use your TV more efficiently
- Find energy efficient power tools

Seasonal Links

- Home Improvement FAQs
- HVAC Maintenance Tips
- Climate Change
- Efficient Heating
- Water Heaters

LOG IN TO ENERGY STAR

View and manage information about your organization's ENERGY STAR participation and contacts; access all of your password-protected tools or resources.

username

password

[FORGOT PASSWORD?](#)

[SIGN IN](#)

PARTNER RESOURCES

Featured Partner < >



Partner of the Year Award
Scott County Public Schools received recognition for its demonstrated success in improving energy efficiency. [Learn More](#)

TOOLS & INITIATIVES

< 1 2 3 >



JOIN OUR MOVEMENT
[See who's helping us save energy.](#)



SET YOUR PROGRAMMABLE THERMOSTAT



LOW CARBON IT CAMPAIGN
[Time and tools to reduce energy.](#)

Quick Links

[All Partner Resources](#)

[Product Requirements](#)



Home > My Portfolio

Portfolio Averages

Baseline Rating: 61
Facilities Included: 0

Current Rating: 63
Facilities Included: 0

Change from Baseline: Portfolio Adjusted Percent Energy Use (%): -2.4%
Facilities Included: 0

Averages are weighted by Total Floor Space.

[More about Baselines](#)
[More about Change from Baseline: Adjusted Energy Use](#)

[Add](#) a Property
[Import](#) Facility Data Using Templates

Work with Facilities
[Update](#) Multiple Meters
[Share](#) Facilities

Reporting and Analysis
New! [Generate](#) Reports and Graphs
[Request](#) Energy Performance Report
[Request](#) Campus Report

Apply for Recognition
[Apply](#) for the ENERGY STAR

Automated Benchmarking
[Get Started Now](#)

GROUP: All Facilities [Create Group](#) | [View All](#)

VIEW: Summary: Facilities [Create View](#) | [Edit View](#) | [View All](#)

[Download](#) in Excel

Search Facility Name: [Search](#)

Results 1 - 10 of 10

All # [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

Facility Name <input type="checkbox"/>	Current Rating (1-100) <input type="checkbox"/>	Change from Baseline: Adjusted Energy Use (%) <input type="checkbox"/>	Total Floor Space (Sq. Ft.) <input type="checkbox"/>	Energy Use Alerts <input type="checkbox"/>	Current Energy Period Ending Date <input type="checkbox"/>	Eligibility for the ENERGY STAR <input type="checkbox"/>	Last Modified <input type="checkbox"/>
Ada County Assessors Office	42	-1.4	14,247	Data > 120 days old	09/30/2012	Not Eligible: Less than 90% of Facility is owned or managed (ENERGY STAR Eligibility Rules)	11/26/2012
Ada County Courthouse & Administration Bldg	74	-3.1	356,300		04/30/2013	Not Eligible: Less than one year since the period ending date of the last ENERGY STAR application. Eligible again on 09/30/2013 (ENERGY STAR Eligibility Rules)	06/07/2013
Ada County Indigent Services	58	-11.3	12,297	Data > 120 days old	09/30/2012	Not Eligible: Less than 90% of Facility is owned or managed (ENERGY STAR Eligibility Rules)	11/26/2012
Ada County Paramedics Administration and Training Facility	N/A	3.0	24,311	Data > 120 days old	12/31/2012	Not Eligible: Rating must be 75 or above (ENERGY STAR Eligibility Rules)	02/21/2013
Barber Park	N/A	-16.2	5,817	Data > 120 days old	09/30/2011	Not Eligible: Rating must be 75 or above (ENERGY STAR Eligibility Rules)	12/12/2011
Benjamin Building	81	-2.8	85,330		03/31/2013	Apply for the ENERGY STAR	05/10/2013
Gateway Elementary	97	-3.9	62,540	Data > 120 days old	10/31/2012	Not Eligible: Current period ending over 120 days (ENERGY STAR Eligibility Rules)	12/14/2012
Jail	21**	-0.6	169,000	Data > 120 days old	11/30/2005	Not Eligible: Rating must be 75 or above (ENERGY STAR Eligibility Rules)	11/01/2011
Meridian Paramedics #63	N/A	23.4	4,137	Data > 120 days old	06/30/2010	N/A	08/11/2010
Public Safety Building	N/A	N/A	101,000	Less than 1 year of data;		Not Eligible: Rating must be 75 or above (ENERGY STAR Eligibility Rules)	09/28/2007



Home > My Portfolio > Ada County Courthouse & Administration Bldg

Facility Summary: Ada County Courthouse & Administration Bldg

How do I use this page?

Building ID: 1033984
Level of Access: Building Data Administrator

Electric Distribution Utility: Idaho Power Co [IDACORP Inc]
Regional Power Grid: WECC Northwest
Select my Power Generation Plant to calculate my electric emissions rate
Electric Emissions Rate (kgCO2e/MBtu): 114.8 (what is this?)

Generate a Statement of Energy Performance for uses other than applying for the ENERGY STAR.

General Information Edit
Address: 200 W Front Street , Boise, ID 83702
Year Built: 2000
Property Type: Single Facility
Baseline Rating: 71
View Period Ending Dates
Water Period Ending Dates
Energy Period Ending Dates
Eligibility for the ENERGY STAR
Not Eligible: Less than one year since the period ending date of the last ENERGY STAR applicat

Facility Performance Set Baseline Periods | Set Energy Performance Target

Select View: Summary: Energy Use Create View Edit View

Table with 6 columns: 12 Months Ending, Current Rating (1-100), Current Site Energy Intensity (kBtu/Sq. Ft.), Current Source Energy Intensity (kBtu/Sq. Ft.), Change from Baseline: Energy Use Intensity (kBtu/Sq. Ft.), Change from Baseline: Adjusted Energy Use Intensity (kBtu/Sq. Ft.)

REFRESH VIEW

Space Use Add Space

Table with 6 columns: Space Name, Space Type, Floor Area (Sq. Ft.), % Floor Area, Alerts, Delete Space

General Facility Administration
Track Energy Performance Improvements
Delete this Facility from Portfolio Manager
Contact us

Sharing Data
Add user to share this Facility
Modify list of users
Transfer Facility to another user
View entire Access List for this Facility

Because more than 50% of your building is Courthouse, your building is designated as Courthouse within Portfolio Manager. This building may be eligible for a rating (Click to learn more). If you can see a rating for this building, please note that the rating takes into account all of the space types you have listed. If you cannot see a rating for this building, you can be compared to the national average for Courthouse (Click to learn more).

Due to rounding, the % Floor Area Total may not always equal 100%.

Applying for the ENERGY STAR
Apply for the ENERGY STAR
View status of ENERGY STAR Applications

Energy Meters Add Meter | Update Multiple Meters | View All Meter Data in Excel

Table with 6 columns: Meter Name, Energy Type, Space(s), Last Meter Entry (End Date), Alerts, Read/Write Access

Building Profiles
Manage Building Profiles
View Building Profiles



Edit Energy Use: IPCo

Please enter the energy use for each meter entry below. Portfolio Manager requires that entries are for consecutive time periods; only one day of overlap or one day of gap can exist between meter entries to be eligible to generate an Energy Performance Rating.

Meter Information [Edit](#)

Fuel Type: Electricity, Grid Purchase (kWh (thousand Watt-hours))

Space(s): Entire Facility

[Download Meter Data in Excel](#)

Edit Energy Use: [Edit Previous 24 Entries](#)

[Add Meter Entries](#)

Remove Entry	Start Date (MM/DD/YYYY)	End Date (MM/DD/YYYY)	Energy Use (kWh (thousand Watt-hours))	Cost - US Dollars (optional)	Last Updated
<input type="checkbox"/>	04/01/2013	04/30/2013	505933.00	\$	06/07/2013 by ADACOUNTY
<input type="checkbox"/>	03/01/2013	03/31/2013	499286.00	\$	06/07/2013 by ADACOUNTY
<input type="checkbox"/>	02/01/2013	02/28/2013	430535.00	\$	06/07/2013 by ADACOUNTY
<input type="checkbox"/>	01/01/2013	01/31/2013	448095.00	\$	06/07/2013 by ADACOUNTY
<input type="checkbox"/>	12/01/2012	12/31/2012	392238.00	\$	06/07/2013 by ADACOUNTY
<input type="checkbox"/>	11/01/2012	11/30/2012	395028.00	\$	06/07/2013 by ADACOUNTY
<input type="checkbox"/>	10/01/2012	10/31/2012	419177.00	\$	06/07/2013 by ADACOUNTY
<input type="checkbox"/>	09/01/2012	09/30/2012	400000.00	\$	10/04/2012 by ADACOUNTY
<input type="checkbox"/>	08/01/2012	08/31/2012	478645.00	\$	10/04/2012 by ADACOUNTY
<input type="checkbox"/>	07/01/2012	07/31/2012	489080.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	06/01/2012	06/30/2012	419534.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	05/01/2012	05/31/2012	428170.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	04/01/2012	04/30/2012	392642.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	03/01/2012	03/31/2012	399412.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	02/01/2012	02/29/2012	359499.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	01/01/2012	01/31/2012	375420.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	12/01/2011	12/31/2011	379465.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	11/01/2011	11/30/2011	372740.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	10/01/2011	10/31/2011	391938.00	\$	09/18/2012 by ADACOUNTY
<input type="checkbox"/>	09/01/2011	09/30/2011	433046.00	\$	11/01/2011 by ADACOUNTY



Automated Benchmarking

- Create an account on [Energy Star's Portfolio Manager website](#).
- Add a Property. Enter basic information for each building to benchmark.
- Add a meter. Enter the utility meter number.
- Initiate the ABS process and select utility from dropdown menu.
- Complete the Permission to Release Utility Data agreement.
- Utility will automatically upload usage data to Portfolio Manager through the ABS on a monthly basis until you terminate the service.



Apply for the ENERGY STAR



Statement of Energy Performance



STATEMENT OF ENERGY PERFORMANCE Office Sample Facility

Building ID: 1126306
For 12-month Period Ending: July 31, 2009
Date SEP becomes available: November 26, 2008
Date SEP Deleted: November 26, 2008

Facility
Office Sample Facility
1234 Main Street
Charlotte, NC 28227

Facility Owner
Sample Owner
1500 Test Avenue
Charlotte, NC 28227
555-555-5555

Primary Contact for this Facility
Jane Smith
1500 Test Avenue
Charlotte, NC 28227
555-555-5555
jsmith@sample.com

Year Built: 2000
Gross Floor Area (GFA): 63,230

Energy Performance Rating: (1-100) 88

EPA Energy Use Summary*

Natural Gas (kBtu) 1,174,270
Electricity (kBtu) 2,288,772
Total Energy (kBtu) 3,463,042

Energy Intensity*

Site (kBtu/ft²/yr) 55
Source (kBtu/ft²/yr) 167

Emissions (based on site energy use)

Greenhouse Gas Emissions (MTCO₂e/yr) 408

Electric Distribution Utility

Duke Energy Carolinas, LLC

National Average Comparison

National Average Site (EUI) 104
National Average Source (EUI) 216
% Difference from National Average Source (EUI) -57%
Building Type Office

Meets Industry Standards* for Indoor Environmental Conditions:

Lowest Achievable Outdoor Air Quality Yes
Acceptable Thermal Environmental Conditions Yes
Adequate Humidity Yes



Professional Engineer Stamp

Signature
Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate and in accordance with the PE Guidelines.

Professional Engineer

License Number: 3000233
State: NC
Name: Jane Smith
33 Country Lane
Charlotte, NC 28227
555-555-7788



ENERGY STAR Data Checklist for Commercial Buildings

In order for a building to qualify for the ENERGY STAR, a Professional Engineer (PE) must validate the accuracy of the data underlying the building's energy performance rating. This checklist is designed to provide an organized summary of a building's physical and operating characteristics, as well as to facilitate energy benchmarking. To allow the PE to accurately check the information for the building owner or operator, has already been entered into the database.

Please complete and sign this checklist and include it with the stamped, signed Statement of Energy Performance. NOTE: You must check each box to indicate that each value is correct. If it needs a note.

CRITERION	VALUE AS ENTERED IN PORTFOLIO MANAGER	VERIFICATION QUESTIONS	NOTES	<input checked="" type="checkbox"/>
Building Name	Office Building	Is the office building name to be displayed in the ENERGY STAR Registry of Labeled Buildings?		<input type="checkbox"/>
Type	Office	Is this an accurate description of the space in question?		<input type="checkbox"/>
Address	100 Main St., Washington, DC 20002	Is the address accurate and complete? Correct weather normalization requires an accurate zip code.		<input type="checkbox"/>
Structure	Single Facility	Does the SEP represent a single structure? SEPs cannot be submitted for multiple-building complexes (with the exception of hotels, care or children's hospitals; nor can they be submitted as representing only a portion of a building).		<input type="checkbox"/>
Area	100,000 Sq. Ft.	Does this square footage include all supporting functions such as restrooms and break rooms, used by staff, storage areas, administrative areas, elevators, equipment, and entry shafts, etc. Also note that existing atriums should only include the base floor area that is occupied. Potential open-plan space between floors should not be included in the total. Finally gross floor area is not the same as leasable space. Leasable space is a subset of gross floor area.		<input type="checkbox"/>
Weekly operating hours	50 hours	Is this the total number of hours per week that the office space is 75% occupied? The number should exclude hours when the facility is occupied only for maintenance, security, or other support personnel. For facilities with a calendar that varies during the year, "operating hours/week" refers to the total weekly hours for the schedule most often followed.		<input type="checkbox"/>
Workers on Main Shift	400	Is this the number of employees present during the main shift? Does this also the total number of employees or visitors who are in a building during an entire 24-hour period. For example, if there are two shifts of four shifts of 100 workers each, the Workers on Main Shift value is 100. The typical worker density ranges between 0.3 and 10 workers per 1000 square feet (92.2 square meters).		<input type="checkbox"/>
Number of PCs	400	Is this the number of personal computers in the Office?		<input type="checkbox"/>
Percent Cooled	92% or more	Is this the percentage of the total GFA cooled within the facility that is served by mechanical cooling equipment?		<input type="checkbox"/>
Percent Heated	92% or more	Is this the percentage of the total floor space within the facility that is served by mechanical heating equipment?		<input type="checkbox"/>



Start Over Reset Search Back

ENERGY STAR Labeled Buildings & Plants



Facility Profile



ENERGY STAR Labeled Building Profile

Ada County Courthouse & Administration Bldg

200 W Front Street
Boise, ID 83702

[Map It!](#)



The Ada County Courthouse and Administration building is a five-story, 356,300 square foot building located at 200 West Front Street in Boise, Idaho. Construction of the facility began in January 2000 with occupancy in January 2002. It is a multi-purpose facility with offices and meeting rooms for County Commissioners and County employees in various administrative departments, as well as space for County court-related functions such as the Public Defenders' Office and Prosecuting Attorneys' Office. The facility serves the public by providing courtrooms for magistrate courts and district courts, along with other county services such as Vehicle Licensing and Welfare services.

The Ada County Courthouse and Administration building earned the EPA's ENERGY STAR largely as the result of excellent design and top-notch operations and maintenance (O&M) practices. The original design and equipment specifications incorporated energy efficient measures including a geothermal heating system, multi-staged chillers, variable drive pumps and motors, and fresh air economizers, all automatically controlled by a direct digital control (DDC) system. Other steps taken to increase efficiency include insulated ductwork, insulated water lines, Low-E (emissivity) glass, and window tinting. Energy efficient lighting was installed using mainly electronic ballasts and T-8 lamps. Modular workstations have a transparent panel on the top portion of the cubicle walls to allow the natural daylight to penetrate further into the space.

Energy efficiency and environmentally-responsible design was a priority from the beginning, but good O&M practices are equally important to keep the building operating as designed. Ada County is very proud to have earned the first ENERGY STAR through NACo's ENERGY STAR Courthouse Campaign.

Communications:

A public ceremony marked the unveiling of the ENERGY STAR plaque on October 12, 2004, in the first floor lobby of the building. Ada County Commissioners were on-hand along with the Director of the EPA's Idaho Operations office and a Community Services Associate from the National Association of Counties (NACo). In addition, Ada County was featured in NACo's County News newspaper, the Energy Efficiency Network newsletter, and the Leadership Letter newsletter, and EPA's Local Government newsletter.

Testimonial:

"We believed it was our responsibility to build a sustainable structure and incorporate energy efficiency in the construction from day one. The building is safe and comfortable for employees and visitors, and easy and cost-effective to maintain and operate."

-- Dave Logan, Director of Operations, Ada County Operations Department

Please note: Narrative information in this profile has been provided by Ada County or a representative of this facility. Other building information was verified and submitted to EPA at the time of application. Building energy performance, operating characteristics, and ownership/management may be subject to change over time.

Building Owner:*

Ada County

Property Manager:*

N/A

Year(s) Labeled (Rating):

2012 (82)
2011 (82)
2010 (84)
2009 (84)
2008 (84)
2007 (85)
2006 (83)
2005 (79)
2004 (76)

Facility Type: Courthouse

Total Floorspace: 356300 sf

Year Constructed: 2000

Contract Type: None

Technologies Used:

Stage 2-Lighting

- + Daylighting
- + Electronic Ballasts
- + T8 or T5 Lamps

Stage 4-Fan Systems

- + Premium Efficiency Motors
- + Pump VFD's

Stage 5-Heating and Cooling Plant

- + High Efficiency Chillers

For More Info:

Dave Logan
Director of Operations
Boise, ID 83702
(208) 287-7100

davel@adaweb.net



File

Setup

Monthly

Reports

Financial

Avoided Cost

Energy Star

Emissions

Options

Help

Contact Us

Exit

Energy Star

- ▶ **Guide to Energy Star Benchmarking**
- ▶ **Edit Energy Star Site Attributes**
- ▶ **Upload Energy Star Data**
- ▶ **Download Energy Star Results**
- ▶ **View Energy Star Ratings Report**

Version 4.5-Pro
April 29, 2010

Copyright (c)
1995-2010
LPB Energy
Management

Utility Bills

Search Accounts

Acct #: 5542922737

Utility: Idaho Power

Site: Courthouse/Admin Bldg

Memo

Copy Clear

Select bill by date

Bill date: 04/30/2013

Due date: 06/04/2013

Estimated

04/30/2013

Current charges: \$25,468.90

Budget period: 04/2013

Previous balance: \$0.00

Total due: \$25,468.90

	Item	Meter #	Units	From	Thru	Usage	Cost
EL	Service Charge	N/A	N/A	03/31/2013	04/30/2013		299.00
EL	BLC-Basic Load Capacity	009R2728497	kW	03/31/2013	04/30/2013	1,435	1,808.10
EL	Demand, Non-Summer	009R2728497	kW	03/31/2013	04/30/2013	1,224	5,495.76
EL	Demand, On-Peak Summer	N/A	kW	03/31/2013	04/30/2013		0.00
EL	Energy, Mid-Peak	N/A	kWh	03/31/2013	04/30/2013	338,554	10,864.54
EL	Energy, Off-Peak	N/A	kWh	03/31/2013	04/30/2013	166,969	4,660.44

Delete Save Review... History...

Total current charges: \$25,468.90

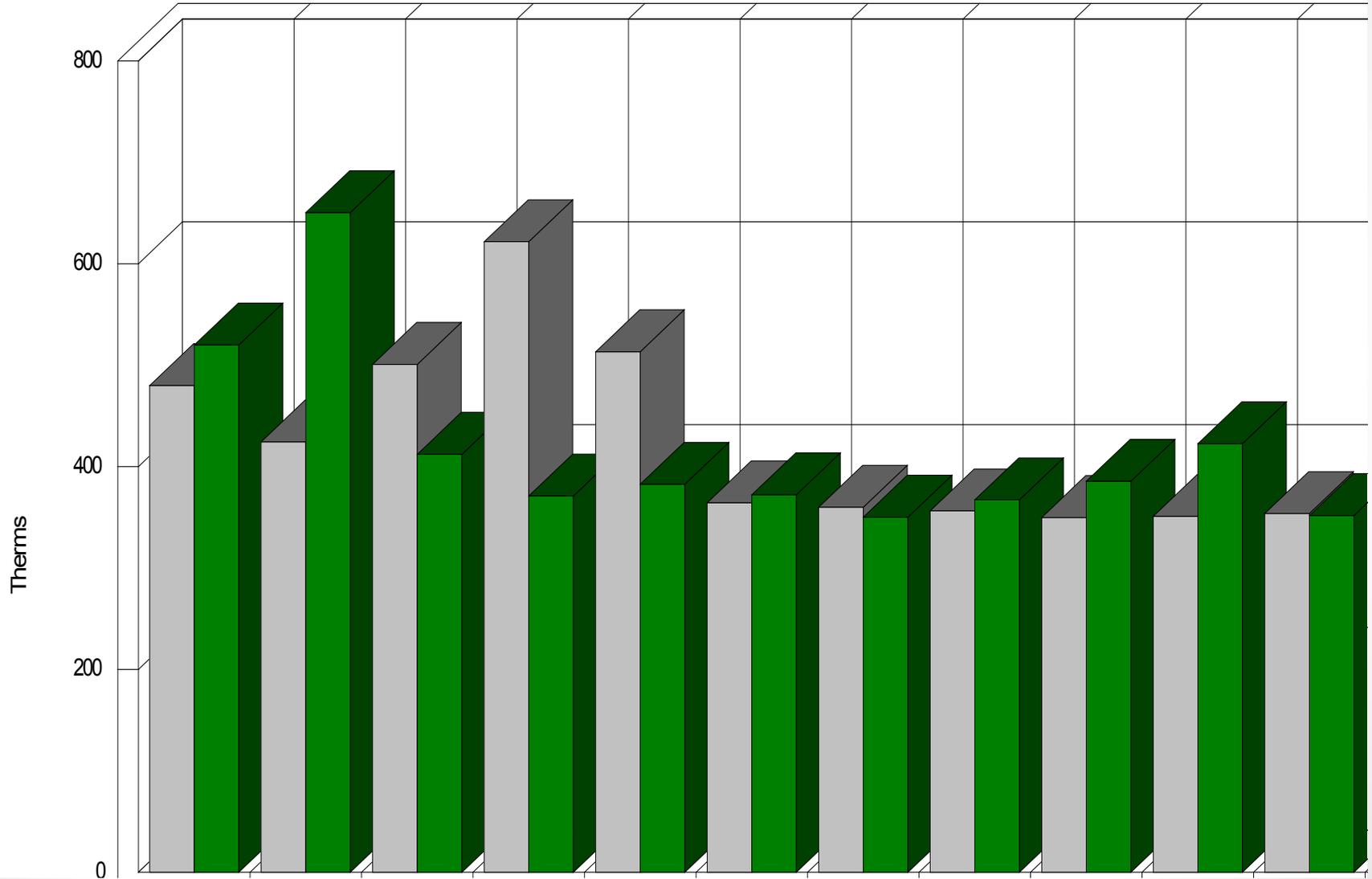
Undistributed: \$0.00

Cancel

Date entered: 05/28/2013 Batch: No Batch Vendor#: 002



Monthly Natural Gas Use for Courthouse/Admin Bldg





Advanced

Submetering and Energy Dashboard



Ada County



Energy Dashboard



Energy Dashboard

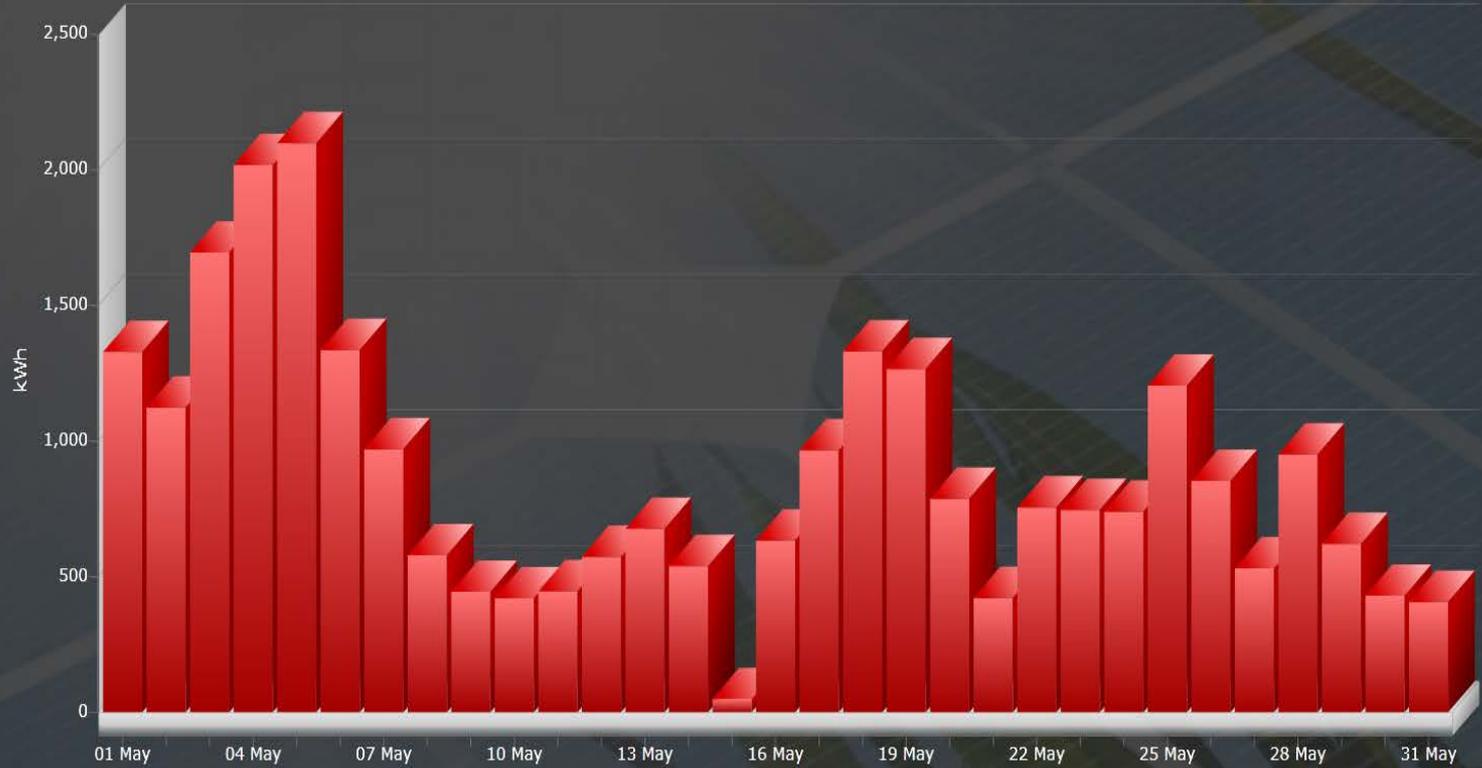


Ada County

kWh Pulse Metering

90 °F

Boise



Expo Main



Time Period

Last Month



Home



Summary



Electricity



Demand



Gas



Weather



Renewables

Federal and Industry Partners Issue Challenge to Manufacturers

The screenshot shows a web browser window displaying the EERE News website. The browser's address bar shows the URL http://apps1.eere.energy.gov/news/progress_alerts.cfm. The website header includes the U.S. Department of Energy logo and the text "Energy Efficiency & Renewable Energy". The main content area features a news article with the following details:

- Headline:** Federal and Industry Partners Issue Challenge to Manufacturers
- Date:** June 04, 2013
- Text:** A coalition that includes the U.S. federal government and over 200 major commercial building sector partners has issued a simple challenge to U.S. manufacturers. If you can build wireless sub-meters that cost less than \$100 apiece and enable us to identify opportunities to save money by saving energy, we will buy them. A group of at least 18 manufacturers has already agreed to take up the challenge, pledging to produce devices that will meet the specifications outlined by the U.S. Department of Energy and its private sector partners that have signed letters of intent to purchase the wireless sub-meters.
- Quote:** "This is a perfect example of how government can team up with industry to identify a problem and promote the innovation needed to solve it," said U.S. Energy Secretary Ernest Moniz. "Affordable, accurate sub-metering of electricity use will give building managers the critical information they need to find and eliminate waste that hurts their businesses and costs billions of dollars a year. Even a small improvement in efficiency will mean huge savings for companies as well as for taxpayers."
- Text:** Electricity sub-meters don't save energy by themselves, but they provide building operators with the information they need to identify opportunities for savings. For example, a large commercial building might pay \$10,000 a month or more for electricity, but not have any way to detect which systems are consuming the most electricity. A wireless sub meter could be installed at various electrical panels throughout the building to give a more detailed picture of where the electricity is being used, helping to identify savings. It might also allow commercial building operators (at a strip mall, for example) to bill individual tenants for their electricity usage, creating an incentive for energy efficiency. Wireless sub-meters are available today, but typically cost about \$1,000 per installation, so the goal is to reduce the cost by about 90%.
- Text:** The Energy Department worked with members of its Better Buildings Alliance and federal agencies to develop a [performance-based manufacturing specification](#). The specification recommends minimum performance requirements for one or more multiple wireless measurement devices, or sub-meters. The metering system addresses energy consumption, measuring and monitoring granular electric energy consumption data at the panel level to support the implementation of energy efficiency improvements. The Department's Washington, D.C. headquarters, the James A. Forrestal Building, will be used as a testing facility. Energy data will be collected from within the facility's eight occupied floors, basements, and 1,754,800 square feet of floor space.
- Text:** Partners that have signed letters of intent expressing interest in purchasing the meters include:

On the right side of the page, there is a "FEATURES" section with three items:

- Subscribe to EERE News Updates
- Information for Media
- B-Roll

The browser's taskbar at the bottom shows the Windows Start button and several application icons, including Internet Explorer, Google Chrome, and Microsoft Office. The system tray in the bottom right corner displays the time as 3:06 PM on 6/6/2013.



Submeters don't magically Save Energy

"Affordable, accurate sub-metering of electricity use will give building managers the critical information they need to find and eliminate waste that hurts their businesses and costs billions of dollars a year. Even a small improvement in efficiency will mean huge savings for companies as well as for taxpayers."

U.S. Energy Secretary Ernest Moniz

- Measure granular electric consumption at the panel-level to support implementation of energy efficiency improvements
- Energy Department's headquarters, the James A. Forrestal Building in Washington, D.C. will be used as a testing facility



Manufacturers include:

- BLUEdev
- Continental Controls–
MicroStrain
- Dent Instruments
- Eaton Corporation
- Energy Aware Technologies
- Energy Detective
- IE Technologies
- Ingreenium
- Inoscope International
- Lem
- Leviton
- LoadIQ
- Negawatt
- Obvius
- Powerhouse Dynamics
- Schneider Electric
- Smart OES
- Universal Devices



Signed LOI to purchase meters

- Bullitt Foundation
- CBRE
- Enterprise Green Communities
- Fitzmartin Consulting
- Jonathan Rose Companies
- McKinstry
- Natural Resources Defense Council
- Prologis
- Stanford University
- University of California–Berkeley
- University of Maryland Medical Center
- U.S. Federal Energy Management Program
- U.S. General Services Administration
- Vermont Energy Investment Corporation
- Whole Foods Market
- Yum! Brands



Summary

- There are many ways to benchmark.
- Find the one that works best for you.
- Start small, until you get comfortable with the data.
- KISS – Keep it Simple Silly 😊

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