

# GHG

Greenhouse  
gas



2013 > Inventory

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## Executive summary

SAIF's 2013 Scope I and II greenhouse gas emissions *decreased* by 4 percent compared to 2012 emissions. Our total emissions are the lowest since we started measuring in 2007.

### History of emissions

Year	Total emissions (MT CO <sub>2e</sub> ) <sup>1</sup>	Difference from prior year
2007	4,096	na
2008	4,461	8.9%
2009	4,345	-2.6%
2010	4,178	-3.8%
2011	4,184	0.13%
2012	3,852	-7.9%
2013	3,697	-4.0%

We had reductions in all emissions except refrigerants and diesel, which increased due to purchase and replacement, not leakage.

### SAIF's properties

Building location	Owned or leased	SAIF separately metered	SAIF's square footage	Changes or comments for 2013
High Street – Salem (HSB)	Owned	Yes	122,530	
Parkway - Salem (PWB)	Owned	Yes	93,500	
Church Street – Salem (CSB)	Owned	Yes	9,910	Ground floor unoccupied, second floor leased out
Parking garage – Salem	Owned	Yes	187,828	Not employee occupied
NE Portland	Leased	No	2,084	
Portland	Leased	No	34,964	
Eugene	Leased	No	9,515	
Bend	Leased	Yes	5,780	
North Bend	Owned	Yes	1,800	
Medford	Owned	Yes	9,100	
Roseburg	Owned	Yes	2,528	
Baker City	Leased	Yes	1,776	Closed 8/31/2013
Hermiston	Leased	Yes	551	

<sup>1</sup> Metric ton carbon dioxide equivalent – standard measurement to compare emissions.

SAIF has space to lease *to* others in Medford, Roseburg, and the Church Street building, although the Medford space has not been leased since 2009. We leased space *from* others in the NE Portland, Portland, Eugene, Bend, Baker City, and Hermiston offices. The Baker City office was closed in August of 2013 and employees work from their homes.

In most spaces that we lease from others, we do not have separate utility meters. When there are not separate meters, we prorate utilities for this report using a percentage of our leased square footage compared to the entire property.

The Eugene office is located in the *Register-Guard building*, where a daily newspaper is produced. The production and printing of the paper are completed on site, and there is not a separate electric or natural gas meter for SAIF or for the paper plant. This creates an issue in determining how much energy SAIF uses at that location. Because SAIF is not separately metered, the percentage method described above would normally be used; however, SAIF would then be including emissions for the paper plant. Because this office produces a relatively small amount of emissions, and the actual office is modern and energy efficient, SAIF is using the regional average for energy use per square foot of office space.<sup>2</sup>

## Methodology

The 2007 greenhouse gas inventory was completed by Good Company, which also provided a workbook template for future inventories. This workbook was used to complete each inventory and to compare those with the base year of 2007.

This report follows the same protocols as SAIF's 2007 greenhouse gas inventory. Please refer to the 2007 report for details.

The inventory includes all SAIF office locations. The emissions by category are as follows:

- Scope I:** Emissions from natural gas use, vehicle fuel combustion, fuel used in generators, and fugitive refrigerants. These are sources of greenhouse gas emissions that originate directly from equipment and facilities owned or operated by SAIF.
- Scope II:** Emissions from purchased electricity and indirect emissions as a result of imported electricity, heat, or steam.
- Scope III:** All other indirect sources of GHG emissions that may result from the activities of SAIF, but which originate from sources owned or controlled by another party, such as business travel by employees, outsourced activities, and contracts, landfill waste, purchases, etc.

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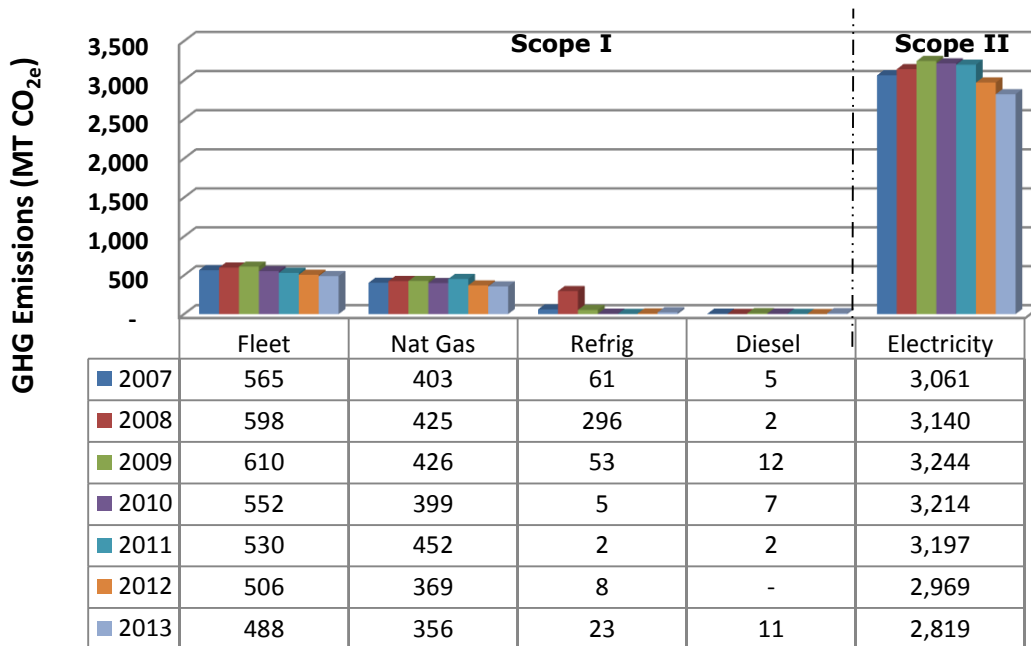
<sup>2</sup> It has been determined that adding a separate meter is not a viable option when considering cost/benefit.

Scope III was included in the 2007 inventory, but not in those completed thereafter. The Climate Registry Reporting Protocol<sup>3</sup> requires including both Scope I and Scope II emissions data, but Scope III emissions are *optional*. This is because sources are not always directly controlled by SAIF, the data is not always easily found, and it may already be reported by others. We completed a Scope III analysis in 2007, as it was the base year and we wanted to include all emission sources for possible later comparison.

**Summary information**

**SAIF’s 2007–2013 greenhouse gas (GHG) inventory results by Scope I and II category and emissions source in metric tons of carbon dioxide equivalent (MT CO<sub>2e</sub>)**

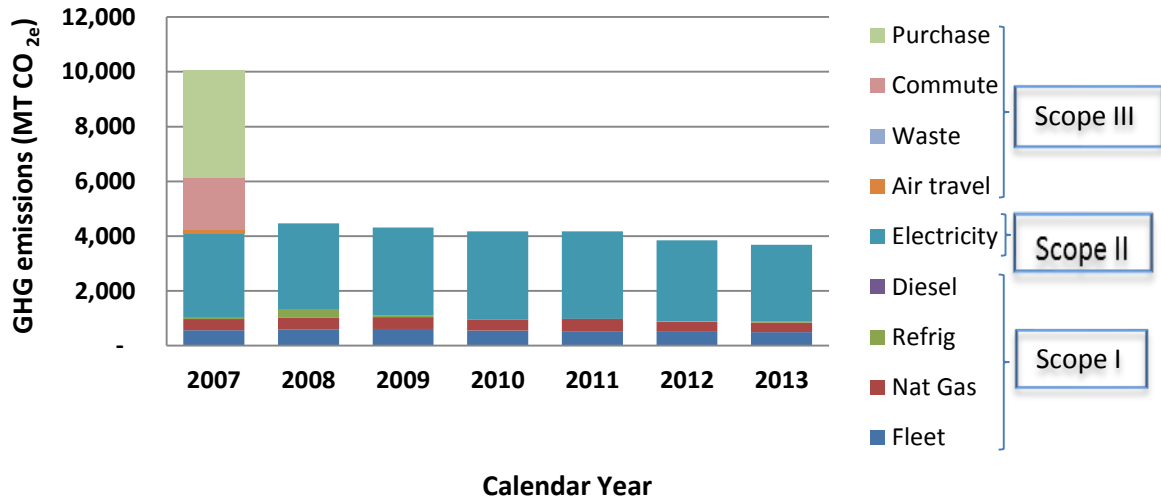
As seen in this graph and those below, emissions were reduced in electricity, fleet, and natural gas, with an increase in refrigerant and diesel emissions.



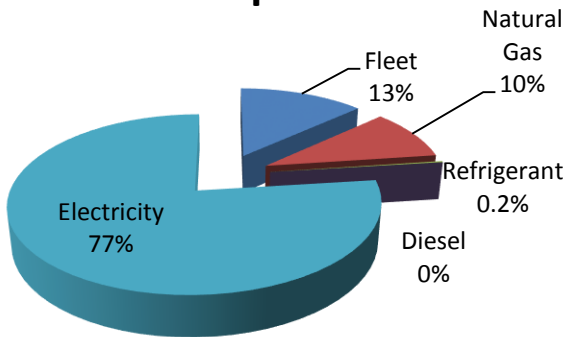
<sup>3</sup> This inventory follows the methods described in the Climate Registry General Reporting Protocol, Version 1.1, May 2008. [www.theclimateregistry.org](http://www.theclimateregistry.org).

**SAIF's 2007-2013 greenhouse gas (GHG) inventory results by Scope category and emissions source in metric tons of carbon dioxide equivalent (MT CO<sub>2e</sub>)**

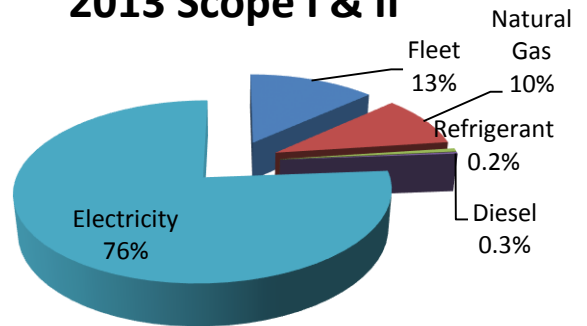
**GHG Emissions**



**2012 Scope I & II**



**2013 Scope I & II**



The types of emissions as a percentage of totals have not changed much from 2012 to 2013. Electricity is still our largest emission, with 76 percent of the total Scope I and II.

**Summary of base-year emissions by scope category (includes emissions per employee, per occupied building square foot, and million dollars of net earned premium)**

Calendar year	Scope I	Scope II	Scope III	Annual emissions per employee Scope I & II MT CO <sub>2e</sub> /ee	Annual emissions per occupied sq foot Scope I & II kg CO <sub>2e</sub> / hundred sq ft	Annual emissions per \$1 mil of net prem Scope I & II MT CO <sub>2e</sub> /\$mil
	MT CO <sub>2e</sub>	MT CO <sub>2e</sub>	MT CO <sub>2e</sub>			
<b>2007</b>	1,035	3,061	5,980	4.6	14.8	8.9
<b>2008</b>	1,321	3,140	na	5.0	16.2	10.7
<b>2009</b>	1,101	3,244	na	5.0	15.1	12.8
<b>2010</b>	964	3,214	na	4.9	14.3	12.5
<b>2011</b>	986	3,197	na	5.0	14.3	11.7
<b>2012</b>	883	2,969	na	4.5	13.1	9.6
<b>2013</b>	878	2,819	na	4.3	12.6	8.5
<b>Emissions difference</b>	<b>-5</b>	<b>-150</b>		<b>-0.2</b>	<b>-0.5</b>	<b>-1.08</b>
<b>2012 vs. 2013 % diff</b>	<b>-0.6%</b>	<b>-5%</b>		<b>-4.25%</b>	<b>-4.02%</b>	<b>-11.28%</b>

Measuring emissions by number of employees, square footage, and net premium puts the numbers into perspective and helps compare apples to apples.

**Changes in variables that affect energy use**

Year	Ave # of employees	Occupied Square feet	Net premium	Scope I & II emissions
2010	852	291,258	\$332,965,896	4,178
2011	830	292,048	\$356,841,178	4,184
2012	852	293,630	\$402,252,479	3,852
2013	854	293,630*	\$435,175,657	3,697
<b>Difference 2012 vs 2013</b>	<b>2</b>	<b>0</b>	<b>\$32,923,178</b>	<b>-155</b>

\* The Baker City office closed August 31, 2013 reducing total square footage by 1,776. Baker City employees began working from home.

The protocol recommends comparing emissions against total revenue, but in our case it is more telling to compare it to net earned premium, as that relates more to our customer base and operations (our emissions aren't changed by how our investments perform). Total revenue is not included in this report.

Square footage is one of the most common numbers used for comparison from year to year, as emissions and square footage are likely to be correlated: the less space to heat, cool, and light, the fewer emissions that are generated.

In 2013, our number of employees and net premium increased, and our square footage remained the same until September with the closing of the Baker City office. Closing that office and not using electricity or natural gas the last three months, saved approximately 1.2 metric tons of carbon dioxide equivalent emissions<sup>4</sup>. This is approximately .01 percent of our entire reduction from 2012 to 2013.

In comparison, If Medford had the same reduction of electricity and natural gas, there would be a savings of approximately 5.5 metric tons of carbon dioxide equivalent emissions.

The reason there is a difference between emissions generated from electricity used in Baker City versus Medford is due to each utilities unique power generation mix.<sup>5</sup> Baker City uses Oregon Trail Electric which relies primarily on hydro power, giving them a lower emission factor than Medford's Pacific Power.

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<sup>4</sup> Estimated electricity and therms savings for October through December using prior year actuals.

<sup>5</sup> SAIF purchases electricity from four Oregon utilities: Portland General Electric (PGE), Eugene Water & Electric Board (EWEB), Pacific Power, and Oregon Trail Electric. Each of these utilities has a unique generation mix, which is the type and percentage of resources used to produce electricity (hydro, coal, nuclear, natural gas, etc.). This mix results in a unique utility emissions factor based on the percentage of fossil fuels in the mix and the type of fuel combusted. The unique emissions factor is relative: Some offices may use more electricity per square foot, but emissions are lower because their electricity comes from more environmentally friendly sources.



## Scope I emissions

### Fleet

At the end of 2013 we had 99 fleet vehicles down from 112 vehicles in 2010. The average fuel efficiency for the fleet in 2013 was 23.94 miles per gallon. (23.21 in 2012, 22.65 in 2011, and 20.81 in 2010)

### Average miles per gallon (mpg) for SAIF fleet

Fleet at year end	# in fleet 2013	Average MPG
Ford & Chevrolet trucks	14	16
Ford Explorer	2	18
Vans (mini)	7	19
Ford Escape	10	20
Transit vans	2	21
Ford Taurus	12	22
Ford Fusion	14	25
Honda Element	1	25
Chevrolet Malibu	7	28
Subaru Legacy AWD	8	30
Ford Focus	2	31
Chevrolet Cruz	5	33
Honda Civic hybrid	5	42
Toyota Prius hybrid	9	47
Chevrolet Volt	1	68

It is our current policy to consider fuel efficiency when choosing fleet vehicles to purchase, and we have added several hybrids and smaller four-cylinder vehicles. However, although hybrids offer a higher mile-per-gallon average, after considering life-cycle costs, needs of drivers, and suitability overall,<sup>6</sup> we decided they are not the best vehicle for every situation. The newer non-hybrid sedans have better average miles per gallon compared to the older sedans, as most are now four-cylinder vehicles.

All of the above vehicles are owned by SAIF, except the Chevrolet Volt is leased - emissions for all are included in this report.

<sup>6</sup> The type of vehicle that best fits into the geographic area: 4WD or AWD, etc.

**Annual business miles and fuel consumption (fleet and personal) converted to carbon dioxide equivalent (CO<sub>2e</sub>), and percentage of total Scope I and II emissions**

	Total miles <sup>7</sup>	Total gallons	Emissions MT CO <sub>2e</sub>	Percentage of total Scope I & II emissions
<b>2007</b>	1,343,978	63,239	565	14%
<b>2008</b>	1,398,283	66,806	598	13%
<b>2009</b>	1,560,581	68,102	610	14%
<b>2010</b>	1,408,036	61,714	552	13%
<b>2011</b>	1,356,448	59,225	530	13%
<b>2012</b>	1,320,569	56,515	506	13%
<b>2013</b>	1,325,718	54,523	488	13%
<b>2012 vs. 2013 difference</b>	5,149	-1,992	-18	0
<b>2012 vs. 2013 % diff</b>	0.4%	-3.5%	-3.5%	0

The emissions calculation uses total number of gallons, so, in order to lower fleet emissions, we must lower the number of gallons used. This could be done by driving fewer miles or improving gas mileage.

**Fleet vs. personal car miles used for business**

Year	Personal car miles	Fleet car miles	Total miles	Personal as % of total miles
<b>2007</b>	176,990	1,166,988	1,343,978	13%
<b>2008</b>	177,699	1,220,584	1,398,283	13%
<b>2009</b>	154,985	1,405,596	1,560,581	10%
<b>2010</b>	129,685	1,278,351	1,408,036	9%
<b>2011</b>	289,298	1,067,150	1,356,448	21%
<b>2012</b>	318,392	1,002,177	1,320,569	24%
<b>2013</b>	316,001	1,009,717	1,325,718	24%
<b>2012 to 2013 % diff</b>	-0.8%	0.8%	0.4%	

Overall we drove almost the same amount of miles in 2013 compared to 2012, and we used 3.5 percent fewer gallons of fuel, resulting in a 3.5 percent reduction in emissions. We added the Chevy Volt, an electric car, in 2013. It runs approximately 30 miles on electricity before switching to gasoline to fuel a generator that creates electricity. It averaged 68 MPG, however employees have not been consistently driving it as they

<sup>7</sup> For the SAIF fleet, we track the actual gallons used each year; for personal cars, we track miles driven. Because emissions are calculated using gallons not miles, we must use the average miles per gallon for personal cars to compute gallons from miles.

appear unsure of its range. We will focus on educating employees and encouraging the Volt's use.

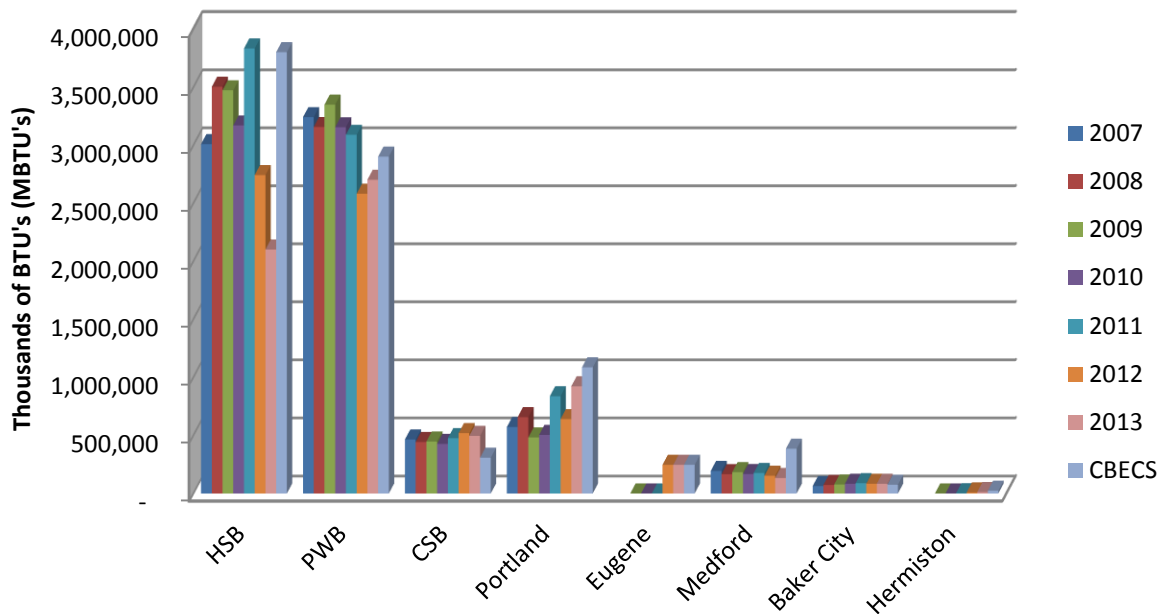
In 2011, SAIF's business travel policy changed, allowing the increased use of personal vehicles. The personal vehicles averaged 23.91 miles per gallon<sup>8</sup>, and for the first year since we started measuring emissions, our fleet average mile per gallon exceeded the personal car average at 23.94 miles per gallon. We also had an increase in employees using fleet over their personal cars in 2013 as evidenced by mileage.

### Natural gas

Natural gas is used to heat eight (four owned, four leased) of SAIF's 12 occupied buildings and, in some of those, to heat water.

The graph below uses MBTUs<sup>9</sup> instead of therms, as electricity and natural gas are measured differently. Converting both to MBTUs allows easier comparisons.

### Comparison of natural gas consumption (not all locations use natural gas) with a benchmark estimate based on the Commercial Buildings Energy Consumption Survey (CBECS)<sup>10</sup>



<sup>8</sup> Per an employee survey completed June 2011.

<sup>9</sup> MBTU stands for one million British Thermal Units (BTU). BTUs are measures of energy consumption.

<sup>10</sup> The Commercial Buildings Energy Consumption Survey (CBECS) is a national sample survey on commercial buildings, their energy-related characteristics, and their energy consumption.

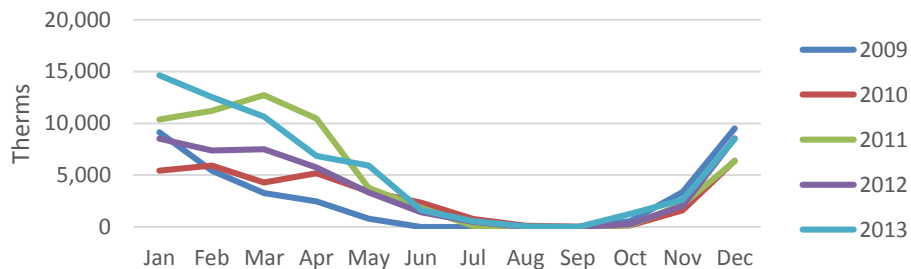
**Comparison of natural gas MBTUs 2012 to 2013**

	Natural gas 2011	Natural gas 2012	Natural gas 2013	Difference 2012 vs. 2013	Difference 2012 vs 2013
High Street (HSB)	3,834,300	2,742,500	2,100,400	-642,100	-23%
Parkway (PWB)	3,089,500	2,581,500	2,702,000	120,500	5%
Church Street (CSB)	475,660	519,300	495,200	-24,100	-5%
Portland	836,225	639,600	922,192	282,592	44%
Medford	176,400	152,100	133,100	-19,000	-12%
Baker City	88,300	83,500	83,500	0	0
Hermiston	2,000	8,600	11,900	3,300	38%
Eugene	0	246,100	246,100	na	na
<b>Total</b>	<b>8,502,385</b>	<b>6,973,200</b>	<b>6,694,392</b>	<b>-278,808</b>	<b>-4%</b>

Our use of natural gas has gone down in three of the eight buildings using gas. Some possible reasons for the changes from 2012 to 2013:

- **High Street building** | In mid-2012, we sealed the exterior of the High Street building to reduce cold/warm air from leaking, and this has continued to show savings.
- **Church Street building** | This building continues to show a small decrease, likely because we are not using the lower floor as workspace.
- **Portland's** | Crown Plaza varies greatly in its use of natural gas, and a 2012 study showed the usage did not correlate with outside temperature, which is unusual. The chart below shows the differences each year for five years. For the 2011 inventory, there was a 66 percent *increase* from the prior year in natural gas use, and from 2011 to 2012 there was a 24 percent *decrease*. Building management has not been able to explain the variance, but it may be due partly to occupancy of the building. SAIF does not have a separate meter so we must take responsibility for 14 percent of the emissions (we occupy 14 percent of the building) even though use appears to vary by building occupancy rates, over which we have no control.

Portland Crown Plaza therms (entire building)



- **Hermiston** | Our lease started June 2011, so natural gas use was only for half of that year. The reason for the increase from 2012 to 2013 is unknown.

### Fugitive refrigerants

Refrigerants are compounds used in air-conditioning and refrigeration units. They efficiently absorb heat, undergoing a phase change from liquid to gas that allows for the cooling of indoor space. Most refrigerants are in closed-loop systems with no emissions. However, when new refrigerants are added to, or refrigerants escape from, the system, there are emissions. These emissions are hundreds to thousands of times as damaging as carbon dioxide. A small amount of fugitive refrigerants can make a big difference in emissions.

### The refrigerant types, associated emissions, and percentage of total Scope I and II emissions

	Emissions from: HCFC-22	Emissions from: HFC-134a	Total emissions	Percentage of total Scope I & II emissions
<b>2007</b>	59	2	61	1.23%
<b>2008</b>	296	0	296	6.64%
<b>2009</b>	53	0	53	1.49%
<b>2010</b>	5	0	5	0.13%
<b>2011</b>	2	0	2	0.05%
<b>2012</b>	8	0	8	0.21%
<b>2013</b>	23	0	23	0.60%
<b>Emissions difference</b>	15	0	15	
<b>2012 vs. 2013 % diff</b>	188%	0	188%	

Emissions are generated or counted when refrigerants are added to existing equipment.<sup>11</sup> In 2013, refrigerants were added to our systems resulting in the counting of emissions.

<sup>11</sup> Climate Registry General Reporting Protocol, Version 1.1, May 2008, page 121.

**Diesel generator emissions**

Diesel fuel is purchased for back-up power generators that are maintained for use during a power outage. These generators, which use diesel, are located at the Salem offices (Church Street and High Street) and, even if they are not used, they must be tested.

**Diesel purchased for back-up power generators, the associated emissions, and the percentage of total Scope I and II emissions**

	<b>Diesel fuel gallons</b>	<b>Total GHG emissions MT CO<sub>2e</sub></b>	<b>Percentage of total Scope I &amp; II emissions</b>
<b>2007</b>	500	5.10	0.12%
<b>2008</b>	160	1.63	0.04%
<b>2009</b>	1200	12.25	0.28%
<b>2010</b>	704	7.19	0.17%
<b>2011</b>	172	1.75	0.05%
<b>2012</b>	0	0	0
<b>2013</b>	1107	11	0.32%
<b>Difference</b>	1107	11	
<b>2012 vs. 2013 % diff</b>	100%	100%	

In 2009 extra diesel was purchased and the generators filled, which resulted in less fuel purchased in the next three years. In 2013, diesel was purchased resulting in the counting of emissions.

## Scope II emissions

### Purchased electricity

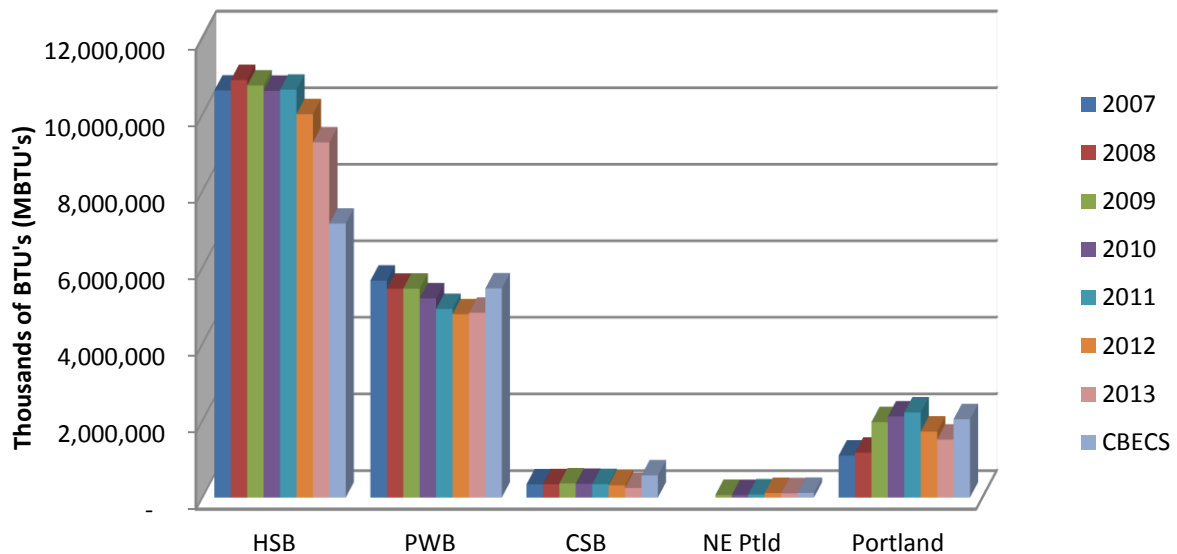
The electricity purchased for use in SAIF's 12 office locations and one parking structure represents the only source of SAIF's Scope II emissions.

### Total kWhs used by SAIF, the associated emissions, and percentage of total Scope I and II emissions

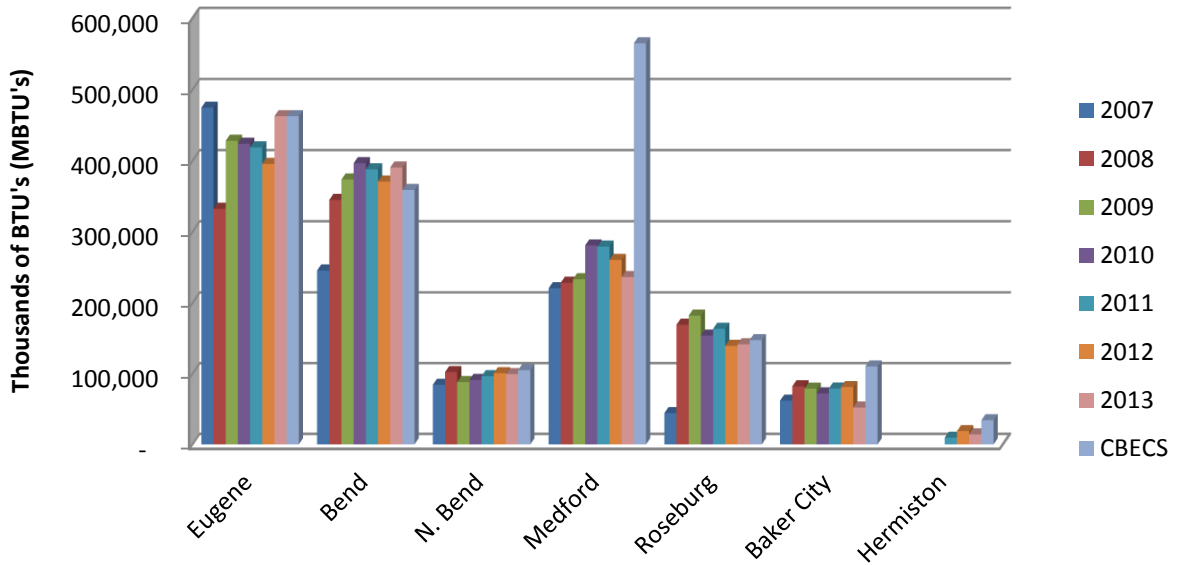
	Purchased electricity kWh	Total GHG emissions MT CO <sub>2e</sub>	Percentage of total Scope I & II emissions
<b>2007</b>	5,948,131	3,061	75%
<b>2008</b>	6,023,911	3,140	70%
<b>2009</b>	6,240,699	3,244	75%
<b>2010</b>	6,175,186	3,214	77%
<b>2011</b>	6,151,042	3,197	76%
<b>2012</b>	5,724,736	2,969	77%
<b>2013</b>	5,445,284	2,816	76%
<b>Difference</b>	<b>-279,452</b>	<b>-153</b>	
<b>2012 vs. 2013 % diff</b>	<b>-5%</b>	<b>-5%</b>	

### Comparison of actual electricity consumption against a benchmark estimate based on the Commercial Buildings Energy Consumption Survey (CBECS)

#### Salem and Portland electricity



**Regional offices electricity**



These charts compare electricity usage in each location 2007-2013 and show the overall average for an office of similar size in the same region (CBECS 2003).

Parkway building, Eugene, Bend, and Roseburg all increased electricity use while High Street, Church Street, NE Portland, Portland, North Bend, Medford, Baker City, and Hermiston reduced their electricity use. See combined energy use (electrical and natural gas) below for specific anecdotes.



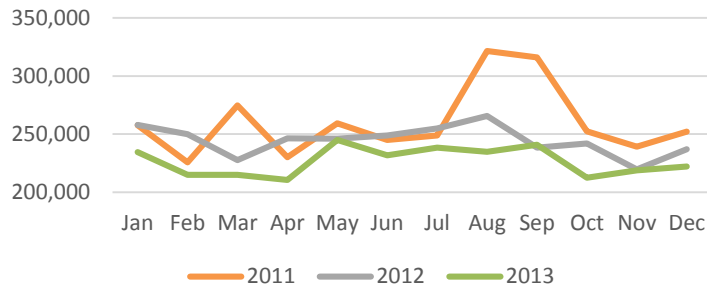
## Total energy consumption

### Energy change from 2012 to 2013

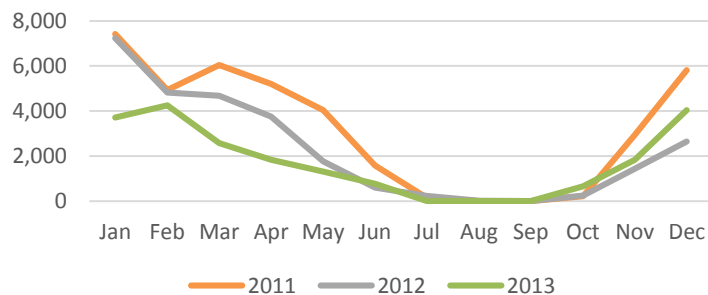
Location	Natural gas	Electric	Total energy
HSB	-23%	-7%	-11%
PWB	5%	1%	2%
CSB	-5%	-22%	-11%
NE Portland	na	-5%	-5%
Portland	44%	-12%	3%
Eugene	0	17%	10%
Bend	na	5%	5%
North Bend	na	-1%	-1%
Medford	-12%	-9%	-10%
Roseburg	na	2%	2%
Baker City	0	-36%	-18%
Hermiston	38%	-25%	-5%
<b>Total</b>	<b>-4%</b>	<b>-5%</b>	<b>-5%</b>

**High Street building** | Compared to 2012, electricity usage was lower in every month except one. Natural gas usage was lower in seven of the 12 months. We are likely seeing a reduction because we sealed the exterior of the building in mid-2012 to reduce air leaks.

HSB electricity usage - kWh



HSB natural gas usage - therms



**Parkway building** | We saw no major differences.

**Church Street building** | The likely reason for reduction is because we didn't use the bottom floor in 2013. We did continue to store items in the area and use some energy.

**NE Portland** | In prior years, the incorrect square footage was used for the emission calculation. The 2013 report corrects all prior years<sup>12</sup>.

**Portland** | Energy use in the Crown Plaza building fluctuates greatly throughout each year. The landlord has not been able to explain the fluctuation, although much of it may be related to occupancy rates and the type of tenants. Our space is not separately metered, and we must claim 14 percent of the building's total utility emissions for our greenhouse gas report even though we have no control over most of the building.

In prior years the incorrect square footage was used for the emission calculation. The 2013 report corrects all prior years<sup>13</sup>.

**Eugene** | As noted above, the new Eugene office location is not separately metered from the *Register-Guard* and its newspaper production. Therefore, this report uses the average energy use per square foot for the region. The new office also uses natural gas for heat; whereas, the old office did not. The Eugene relocation occurred in early 2012 resulting in energy use in both locations in that year.

**Bend** | No major differences.

**North Bend** | No major differences.

**Medford** | There was reduction in energy use from 2012 for an unknown reason.

**Roseburg** | No major differences.

**Baker City** | The office was vacated on August 31, 2013.

**Hermiston** | In 2012, the incorrect square footage was used for the emission calculation. The 2013 report corrects the 2012 information<sup>14</sup>.

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<sup>12</sup> NE Portland – Prior years included square footage of all four buildings instead of just SAIF's building in calculating SAIF's percentage of emissions. The 2013 report corrects all years.

<sup>13</sup> Crown Plaza – Prior years used a percentage of the square footage of SAIF's office and computer room in calculating SAIF's emissions; however, the computer room usage should be included at 100 percent. The 2013 report corrects all years.

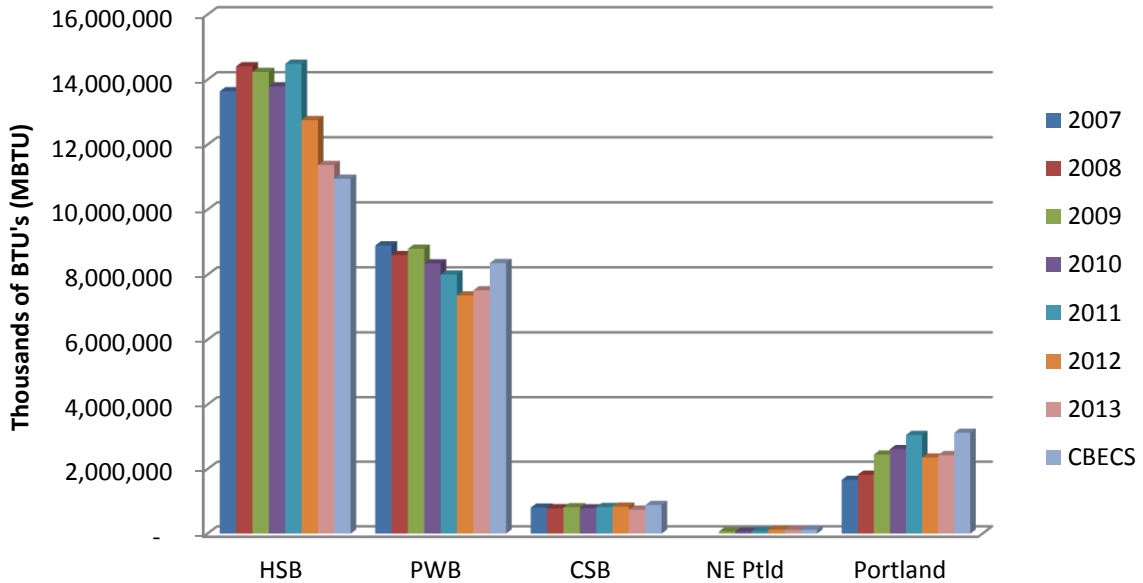
<sup>14</sup> Hermiston – 2012 used a percentage of the totals received from the landlord but the space is separately metered and should be included at 100%. 2013 corrects 2012.

**Combined MBTUs of natural gas (converted from therms) and electricity  
(converted from kWh)**

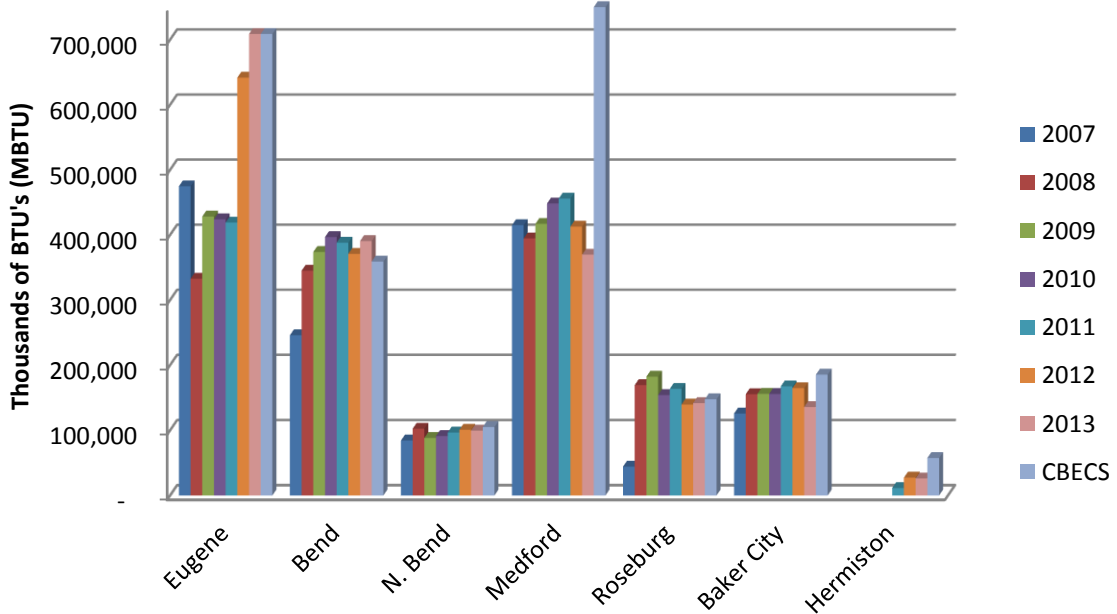
<b>MBTUs</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Change 2012 to 2013</b>	<b>CBECS (local ave) 2013</b>
<b>HSB</b>	14,487,041	12,753,723	11,374,601	-11%	10,951,820
<b>PWB</b>	8,005,713	7,360,409	7,519,944	2%	8,357,097
<b>CSB</b>	824,594	836,063	743,418	-11%	885,763
<b>NE Ptlid</b>	80,484	119,360	112,873	-5%	121,595
<b>Portland</b>	3,054,858	2,357,699	2,431,905	3%	3,125,106
<b>Eugene</b>	418,878	641,629	708,749	10%	708,716
<b>Bend</b>	387,960	370,825	390,499	5%	358,944
<b>North Bend</b>	96,499	100,805	99,447	-1%	105,026
<b>Pendleton</b>	84,628	0	0	0%	
<b>Medford</b>	455,755	412,682	369,558	-10%	949,785
<b>Roseburg</b>	163,506	139,410	141,599	2%	147,503
<b>Baker</b>	167,346	164,607	135,614	-18%	185,364
<b>Hermiston</b>	11,435	27,339	26,040	-5%	57,508

**Comparison of actual total energy consumption (natural gas and electricity) with a benchmark estimate based on the Commercial Buildings Energy Consumption survey (CBECS).**

**Salem and Portland (natural gas + electricity)**

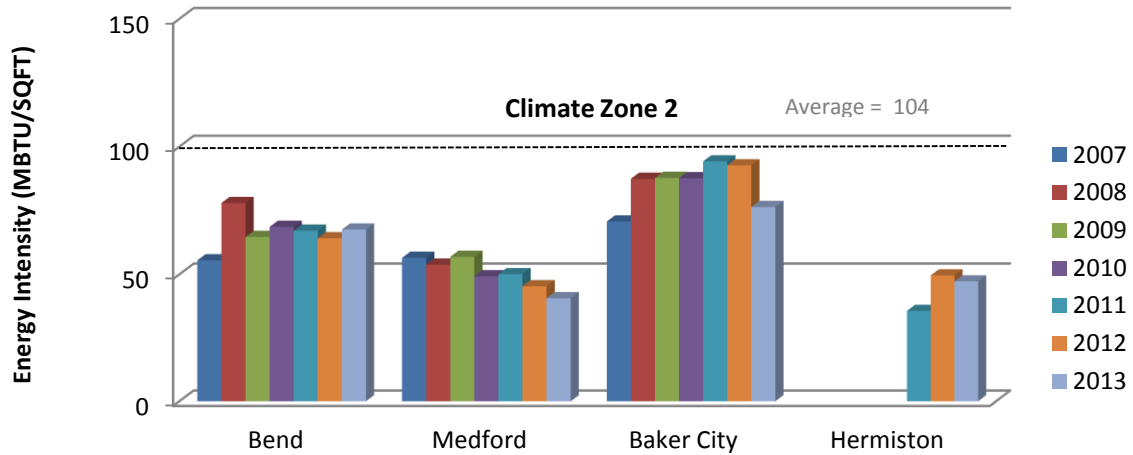
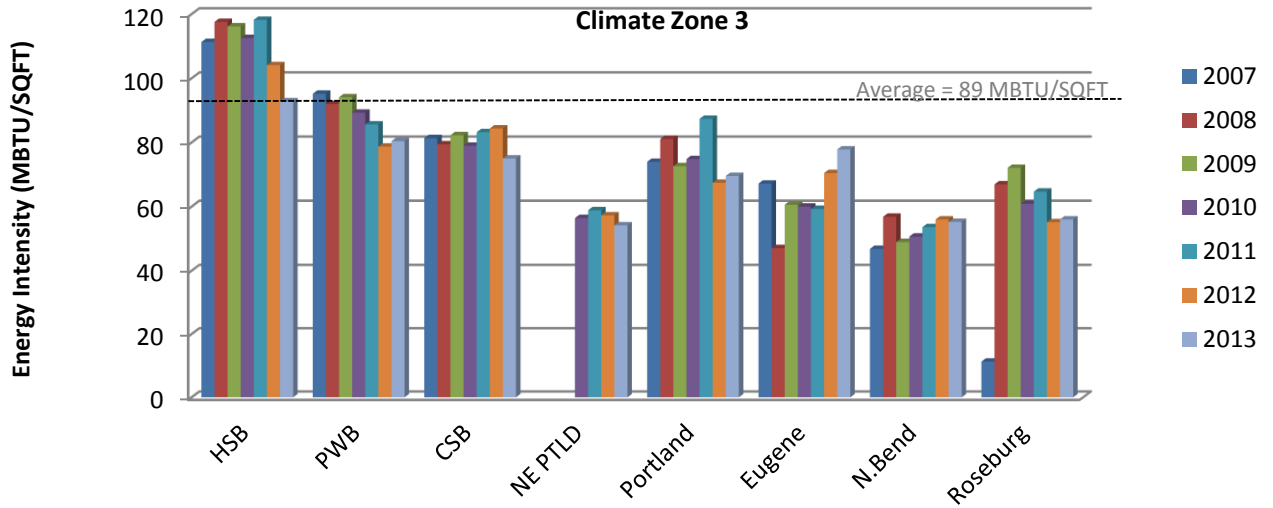


**Regional offices (natural gas + electricity)**



The CBECS average for Medford is likely high as we have empty office space that we usually rent out. CBECS does not take into account whether the space is used or empty, but our actual use is lower when the space is empty.

**Comparison of energy intensity of individual SAIF offices (MBTUs of energy consumed per square foot of office space).**



### Scope III emissions

Scope III emission sources include air travel, solid waste disposal in landfills, employee commute, and embodied emissions within purchased office goods and services. As stated in the introduction, Scope III measurement and recording are not required in greenhouse gas inventories.

Scope III data was collected in 2007 to create a full baseline, but has not been collected in 2008, 2009, 2010, 2011, 2012, or 2013.

#### Air travel

SAIF uses a relatively small amount of air travel, so we do not currently track flown miles; therefore, we have not calculated the emissions.

#### Solid waste

The solid waste calculation is based on the number of SAIF employees, the type of disposal plan in each geographical area, and a California Integrated Waste Management Board factor. Because it is not based on actual SAIF waste, it is marginally instructive, and we have not calculated the emissions.

#### Employee-to-office commute emissions

We conducted an all-employee commute survey for the 2007 greenhouse gas inventory but not for the 2008, 2009, or 2010 inventories. We did conduct a small survey in 2011 to update the miles per gallon that employees average in their personal vehicles.

There is no requirement to report emissions from employee’s commute, but SAIF has actively worked to reduce vehicle commute miles by providing free bus passes, free parking for carpooling, and reimbursement for bicycle equipment for those who bike to and from work.

Although SAIF’s telecommuting policy was not established for the purpose of reducing emissions, it had quite an impact. In January of 2013 we calculated approximately how many miles on average were saved by telecommuters not having to commute every day.

Telecommuting	Savings
Miles not driven annually	1,055,200 <sup>15</sup>
Gallons not used annually	44,132 <sup>16</sup>
<b>Emissions saved annually</b>	<b>395 CO<sub>2e</sub></b>

#### Embodied emissions of purchased office goods and services

Our control of embodied emissions in purchases is not equal to our ability to control emissions produced directly by SAIF’s operations and owned equipment, such as the burning of fossil fuels. We have not completed the emissions calculations for purchases, because the information is not required by the Climate Registry.

<sup>15</sup> Telecommuting days multiplied by commute miles not driven

<sup>16</sup> Commute miles not driven divided by average miles per gallon

## Conclusion

Emissions decreased from 2012 to 2013 by 4 percent. All measured areas had reduced emissions except fugitive refrigeration and diesel.

### Fleet

Overall, we drove 5,149 *more* miles in 2013 compared to 2012 but we used 1,992 *fewer* gallons of fuel, resulting in a 3.5 percent reduction in emissions. Our reduction in emissions is due to having better fuel efficiency.

### Natural gas

In 2013 we continued to reduce natural gas emissions, having the lowest in the seven years of completing greenhouse gas reports.

High Street building leads the reduction due to the sealing of the building envelope in 2012. Portland and Eugene increased natural gas use, but the large reduction from the High Street building offset the increase.

Overall natural gas continues to contribute 10 percent of our total emissions.

### Refrigeration and diesel

We purchased both refrigerant and diesel in 2013 resulting in the calculation of emissions.

### Electricity

In 2013 our electricity use continued to drop and we had the lowest emissions from electricity in the seven years since we began completing greenhouse gas reports. Only four of our 12 occupied buildings had an increase in electricity use.

Overall, electricity continues to contribute 77 percent of our total emissions.