

# GHG

Greenhouse  
gas



2014 > Inventory

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## Executive summary

SAIF's 2014 Scope I and II greenhouse gas emissions increased by 2 percent compared to 2013 emissions.

### 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%
2014	3,769	1.95%

We had reductions in all emissions except refrigerants and electricity, which increased.

### SAIF's properties

Building location	Owned or leased	SAIF separately metered	SAIF's Square Footage	Changes in 2014
High Street – Salem (HSB)	Owned	Yes	122,530	
Parkway - Salem (PWB)	Owned	Yes	93,500	
Church – Salem (CSB)	Owned	Yes	9,910/20,180	Tenant moved 10/1/14
Parking garage – Salem	Owned	Yes	187,828	
NE Portland	Leased	No	2,084/4177	Expanded 10/1/14
Portland	Leased	No	34,964	
Eugene	Leased	No	8,587	
Bend	Leased	Yes	5,780/5,150	Relocated 8/14
North Bend	Owned	Yes	1,800	
Medford	Owned	Yes	9,100	
Roseburg	Owned	Yes	2,528	
Baker City	Leased	Yes	0	Closed Aug 2013
Hermiston	Leased	Yes	551	

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

SAIF leased space *to* others in Roseburg and the Church Street building. We leased space *from* others in the NE Portland, Portland, Eugene, Bend, and Hermiston offices. Our tenant moved out of the Church Street Building in late 2014, and we moved our employees to the upper floor early in 2015.

In most space 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 percentage of square feet we lease compared to the entire property.

The Eugene office shares its building with the *Register Guard*, which produces a local newspaper. 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 modern office produces a relatively small amount of emissions, and the owner states it is 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 the 2008, 2009, 2010, 2011, 2012, 2013, and 2014 inventories 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 occur from sources owned or controlled by another party, such as business travel by employees, outsourced activities and contracts, landfill waste, purchases, etc.

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

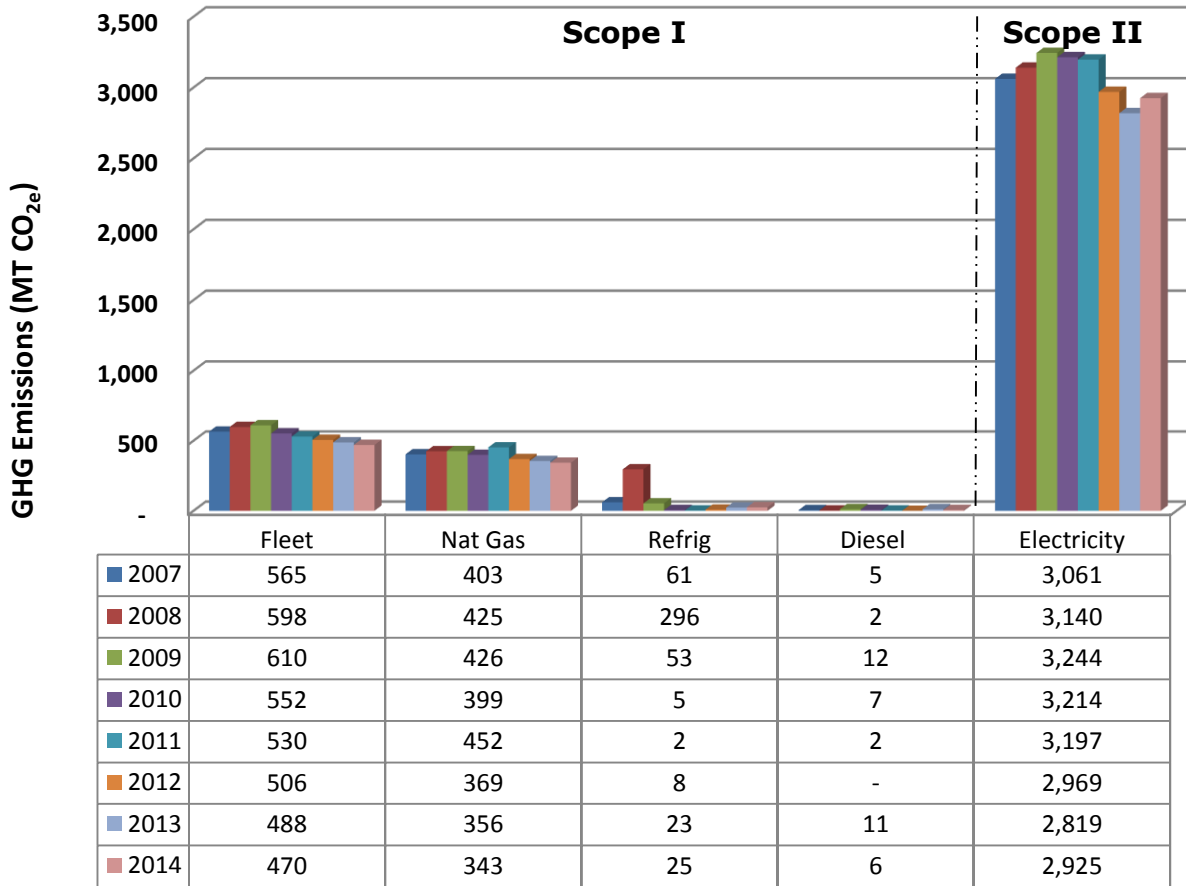
<sup>2</sup> It has been determined that adding a separate meter is not a viable option when considering cost/benefit.

<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).

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**

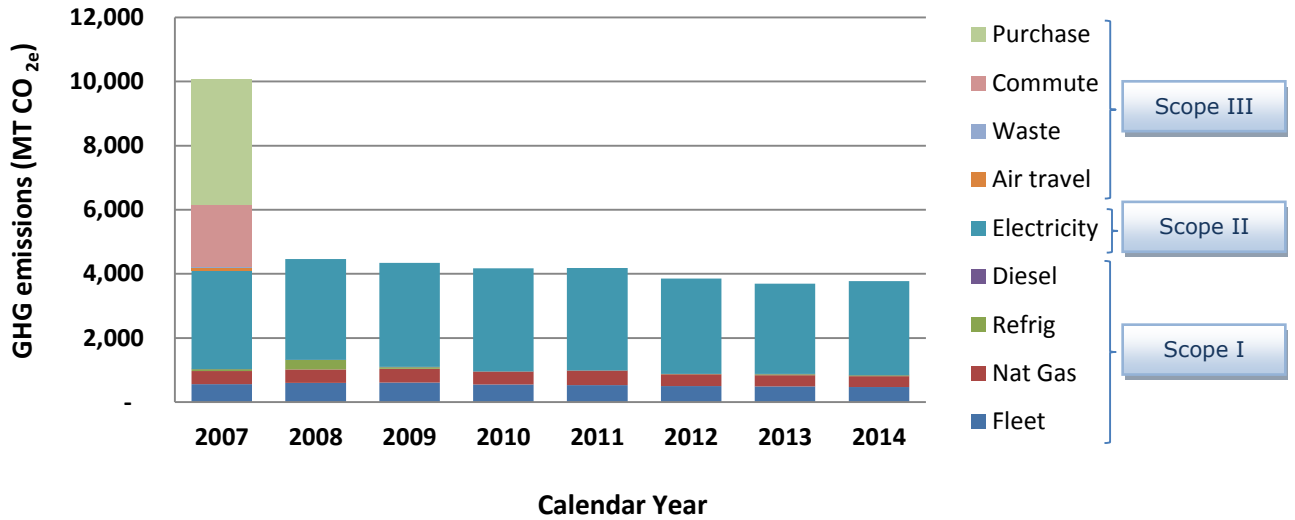
**SAIF’s 2007–2014 greenhouse gas (GHG) inventory results by Scope I and II category and emissions source in metric tons of carbon dioxide equivalent (MT CO<sub>2e</sub>)**



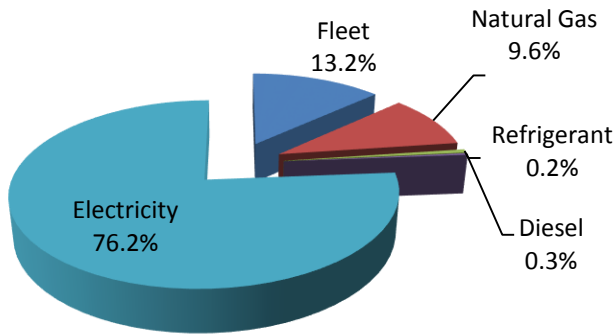
As seen in this graph and those below, emissions are reduced in fleet, natural gas, and diesel, with an increase in refrigerant and electricity emissions.

**SAIF's 2007–2014 greenhouse gas (GHG) inventory results by Scope category and emissions source in metric tons of carbon dioxide equivalent (MT CO<sub>2e</sub>)**

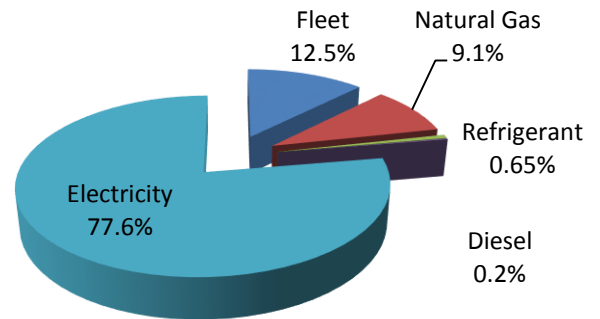
**GHG Emissions**



**2013 Scope I & II**



**2014 Scope I & II**



The type of emissions as a percentage of total, have not changed much from 2013 to 2014. Electricity is still our largest emission, with 78 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 MT CO <sub>2e</sub>	Scope II MT CO <sub>2e</sub>	Scope III MT CO <sub>2e</sub>	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\$
<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>2014</b>	844	2,925	na	4.2	12.8	7.9
<b>Emissions difference</b>	<i>-34</i>	<i>106</i>	<i>na</i>	<i>-0.1</i>	<i>0.2</i>	<i>-0.60</i>
<b>2013 vs. 2014 % diff</b>	<i>-3.9%</i>	<i>3.8%</i>	<i>na</i>	<i>-2.3%</i>	<i>1.6%</i>	<i>-7%</i>

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
<b>2007</b>	893	277,063	\$459,388,650	4,096
<b>2008</b>	901	275,668	\$416,373,338	4,461
<b>2009</b>	869	288,245	\$340,390,911	4,345
<b>2010</b>	852	291,258	\$332,965,896	4,178
<b>2011</b>	830	292,048	\$356,841,178	4,184
<b>2012</b>	852	293,630	\$402,252,479	3,852
<b>2013</b>	854	293,630*	\$435,175,657	3,697
<b>2014</b>	903	294,644	\$474,610,365	3,769
<b>Difference</b>	<b>49</b>	<b>1,014</b>	<b>\$39,434,708</b>	<b>71</b>
<b>% diff 2013 vs 2014</b>	<b>5.7%</b>	<b>0.3%</b>	<b>9.1%</b>	<b>1.9%</b>

The protocol advises 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 are not 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. However, in the measured years of 2007—2014, square footage of SAIF's buildings did not correlate with emissions. In fact, as square feet increased, emissions decreased.

The disconnect between number of employees, square footage, and net premium to emissions, which would normal correlate, is likely due to these items:

- We did not significantly change square footage, but we worked to make the space more efficient to lower emissions.
- Buying vehicles with higher average miles per gallon allowed us to service more customers with less fuel.
- Our net premium decreased significantly from 2007 to 2011 but we did not downsize employee numbers except through not filling empty positions. When revenue began rising we did not need to immediately increase employee numbers.



## Scope I emissions

### Fleet

At the end of 2014, we had 101 fleet vehicles, down from 115 we owned in 2007, the first year a greenhouse gas report was completed. The average fuel efficiency for the fleet in 2014 was 27 (24 in 2013, 23 in 2012, 23 in 2011, and 21 in 2010) miles per gallon (mpg).

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

Fleet at year end	# in fleet 2014	Combined city/hwy MPG <sup>4</sup>
Ford & Chevrolet trucks	14	17
Dodge Journey	1	18
Ford & Dodge Vans (mini)	6	18-23
Ford Escape	8	21
Ford Explorer	2	22
Ford Taurus	11	25
Ford Transit vans (ASD)	2	25
Honda Element	1	26
Ford Fusion	14	27
Chevrolet Malibu	7	29
Subaru Forester	3	33
Subaru Legacy	10	33
Ford Focus	2	34
Chevrolet Cruz	5	35
Honda Civic hybrid	5	44
Toyota Prius hybrid	9	52
Chevrolet Volt	1	60

Increasing our average miles per gallon for fleet cars from 21 in 2007 to 27 in 2014 reduced the amount of fuel purchased and emissions. If our average mile per gallon had been 27 since 2007, we would have reduced gallons purchased by approximately 63,000 and reduced emissions by 560 MT<sub>CO2e</sub>. It pays to purchase vehicles that are more efficient when it makes business sense.

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.

<sup>4</sup> Actual 2014 average mpg.

Although hybrids offer a higher mile-per-gallon, average, after considering life-cycle costs, needs of drivers, and suitability overall,<sup>5</sup> we decided hybrids are not the best vehicle for every situation.

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

**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>6</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	13.2%
<b>2014</b>	1,371,742	52,478	470	12.5%
<b>2013 vs. 2014 difference</b>	46,024	-2,045	-18	
<b>2013 vs. 2014 % diff</b>	3.5%	-3.8%	-3.8%	

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.

<sup>5</sup> The type of vehicle that best fits into the geographic area: 4WD or AWD, etc.

<sup>6</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.

**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>2014</b>	394,949	976,793	1,371,742	29%
<b>2013 to 2014 % diff</b>	25%	-3.3%	3.5%	5%

Overall, we drove 46,024 more miles in 2014 compared to 2013, but we used 3.8 percent fewer gallons of fuel, resulting in a 3.8 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 60 MPG; however, employees have not been consistently driving it, as they appear unsure of its range. Along with regular employee trips, SAIF’s mail courier is using the Volt when he does not need the larger transit van.

In 2011, SAIF’s business travel policy changed, allowing the increased use of personal vehicles. This report uses a personal vehicle average of 23.91 miles per gallon<sup>7</sup>, and our fleet average of 27 miles per gallon.

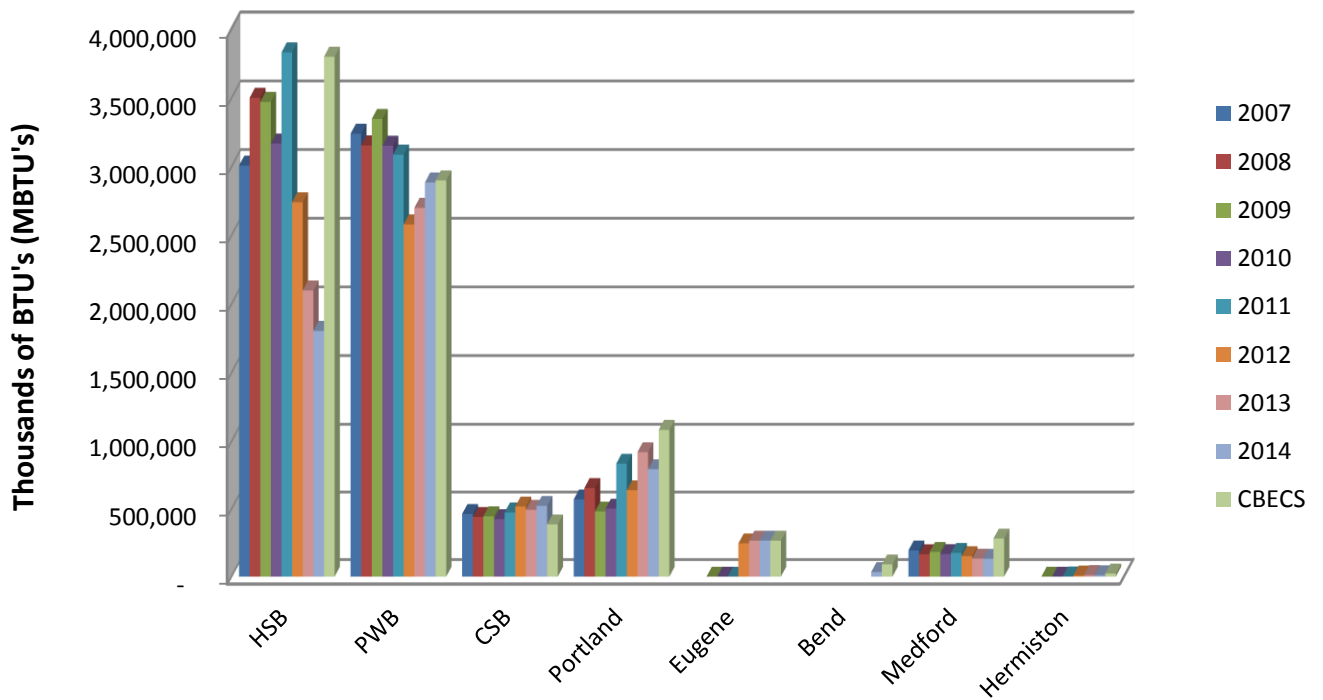
<sup>7</sup> Per an employee survey completed June 2011.

**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>8</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>9</sup>**



<sup>8</sup> MBTU stands for one million British Thermal Units (BTU). BTUs are measures of energy consumption.

<sup>9</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 2013 to 2014**

	Natural gas 2012	Natural gas 2013	Natural gas 2014	Difference 2013 vs. 2014	
High Street (HSB)	2,742,500	2,100,400	1,806,200	-294,200	-14%
Parkway (PWB)	2,581,500	2,702,000	2,886,900	184,900	7%
Church Street (CSB)	519,300	495,159	524,200	29,044	6%
Portland	639,600	922,192	795,800	-126,392	-14%
Medford	152,100	133,100	132,300	-800	-1%
Baker City	83,500	83,500	0		
Hermiston	8,600	11,900	10,200	-1,700	-14%
Eugene	246,067	266,482	266,500	18	
Bend	0	0	33,800	33,800	100%
<b>Total</b>	<b>6,973,167</b>	<b>6,714,730</b>	<b>6,455,900</b>	<b>-258,830</b>	<b>-4%</b>

Our use of natural gas has gone down in four of the eight buildings using gas. See combined energy use (electrical and natural gas) below for specific accounts.

**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 powerful as carbon dioxide. A small amount of fugitive refrigerants can make a big difference in emissions.

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

	<b>Emissions from: HCFC-22</b>	<b>Emissions from: HFC-134a</b>	<b>Total emissions</b>	<b>Percentage of total Scope I &amp; II emissions</b>
<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>2014</b>	25	0	25	0.65%
<b>Emissions difference</b>	2	0	2	
<b>2013 vs. 2014 % diff</b>	6.7%		6.7%	

Refrigerants were added to the systems in 2014. The air-conditioning units on owned buildings are maintained quarterly and leaks are immediately repaired upon discovery. Emissions are generated or counted when refrigerants are added to existing equipment.<sup>10</sup>

<sup>10</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 are located at the Salem offices (Parkway building and High Street building) and even if they are not used they must be tested, which uses diesel.

**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	11.3	0.32%
<b>2014</b>	569	5.81	0.15%
<b>Difference</b>	<b>-538</b>	<b>5.49</b>	
<b>2013 vs. 2014 % diff</b>	<b>-49%</b>	<b>-49%</b>	

Emissions are generated or counted when diesel is purchased.

## 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

	<b>Purchased electricity</b> kWh	<b>Total GHG emissions</b> MT CO <sub>2e</sub>	<b>Percentage of total Scope I &amp; II emissions</b>
<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>	5,456,533*	2,819	76%
<b>2014</b>	5,648,041	2,925	78%
<b>Difference</b>	191,509	106	2%
<b>2013 vs. 2014 % diff</b>	4%	4%	

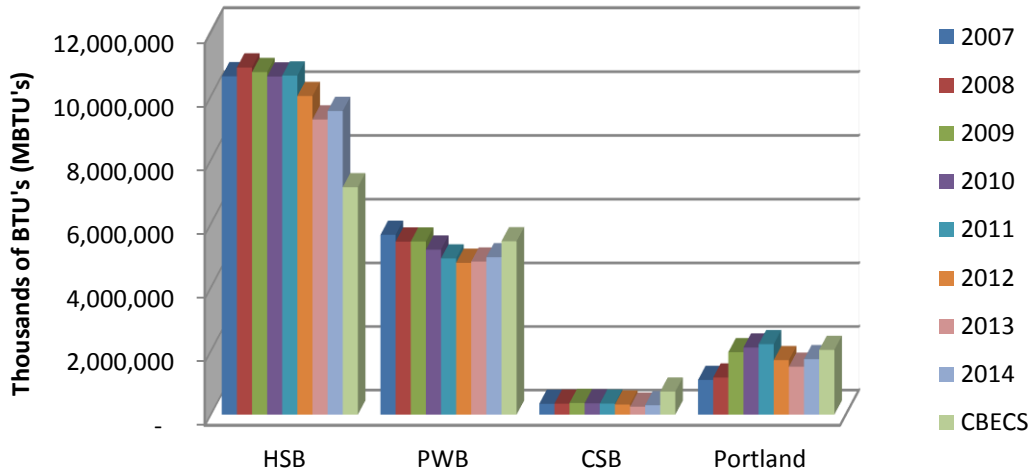
\*See notes above on the lack of a separate meter at the new Eugene location. Average use for office buildings in the Eugene area was use multiplied by SAIF’s square footage. The square footage used in the 2013 report was adjusted due to an inaccurate amount in original report.

SAIF purchases electricity from four Oregon utilities: Portland General Electric (PGE), Eugene Water and 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.

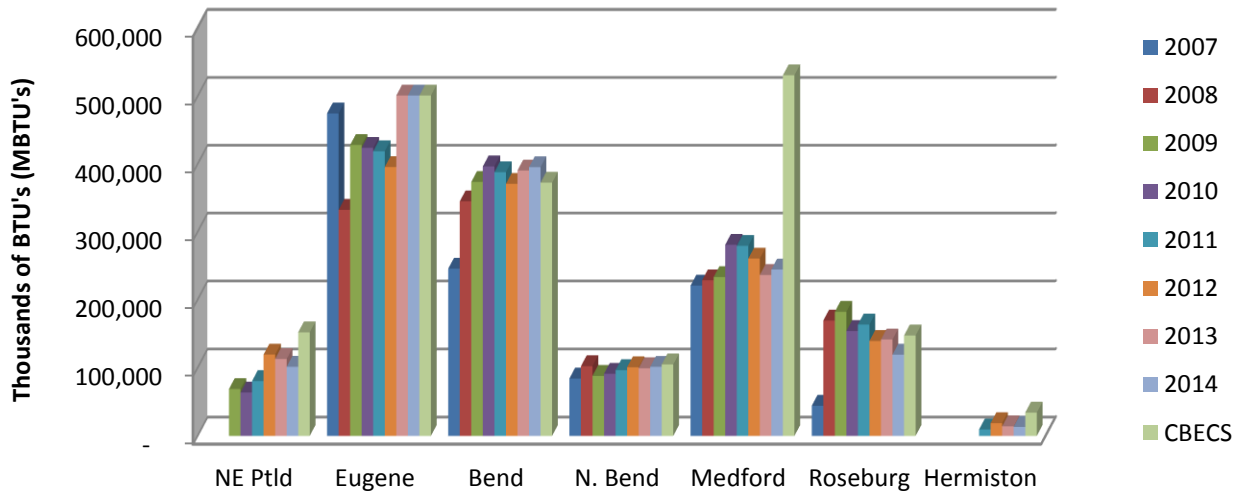


**Comparison of actual electricity consumption against a benchmark estimate based on the Commercial Buildings Energy Consumption Survey (CBECS)**

**Salem and Portland electricity**



**Regional offices electricity**



These charts compare electricity usage in each location 2007-2014 and show the overall average for an office of similar size in the same region (CBECS).

High Street building, Parkway building, Church Street building, Portland, Bend, North Bend, and Medford all increased their electricity use from 2013. NE Portland, Roseburg, and Hermiston decreased their usage. See combined energy use (electrical and natural gas) below for specific accounts.

## Total energy consumption

### Energy change from 2013 to 2014

Location	Natural gas	Electric	Total energy
HSB	-14%	2.9%	-0.2%
PWB	6.8%	2.8%	4.3%
CSB	5.9%	18.7%	10.1%
NE Portland	0	-10.1%	-10.1%
Portland	-13.7%	15.6%	4.5%
Eugene	0	0	0
Bend	100%	1.3%	9.9%
North Bend	0	2%	2%
Medford	-0.6%	3.4%	2%
Roseburg	0	-15.8%	-15.8%
Baker City	-100%	-100%	-100%
Hermiston	-14.3%	-6.3%	-9.9%
<b>Total</b>	<b>-3.9%</b>	<b>3.5%</b>	<b>1.5%</b>

Overall SAIF's total energy use has remained consistent from 2013 to 2014.

**High Street building** | No major differences. 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.

**Parkway building** | An increase in natural gas use the past two years, and the increase is spread over the year, not pinpointed in certain months. This trend appears to be reversing in 2015, as each month has shown lower use than in the same months in 2014.

**Church Street building** | Until fall of 2014, SAIF included only the first floor percentage of the utilities for emissions as we leased out the second floor. The tenant moved out in October of 2014, and we began counting the entire square footage of the building.

**NE Portland** | Square footage expanded in 2014, but energy consumption decreased. No known reason for reduction. We account for a small percentage of entire buildings utilities.

**Portland** | Crown Plaza varies greatly in its use of natural gas and electricity, and a 2012 study showed natural gas usage did not correlate with outside temperature, which is unusual. 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 separate meters so we are responsible 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.

**Eugene** | As noted above, the new Eugene office 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.

**Bend** | 2014 was the first partial year in the new location. It uses natural gas, and the old location did not.

**North Bend** | No major differences.

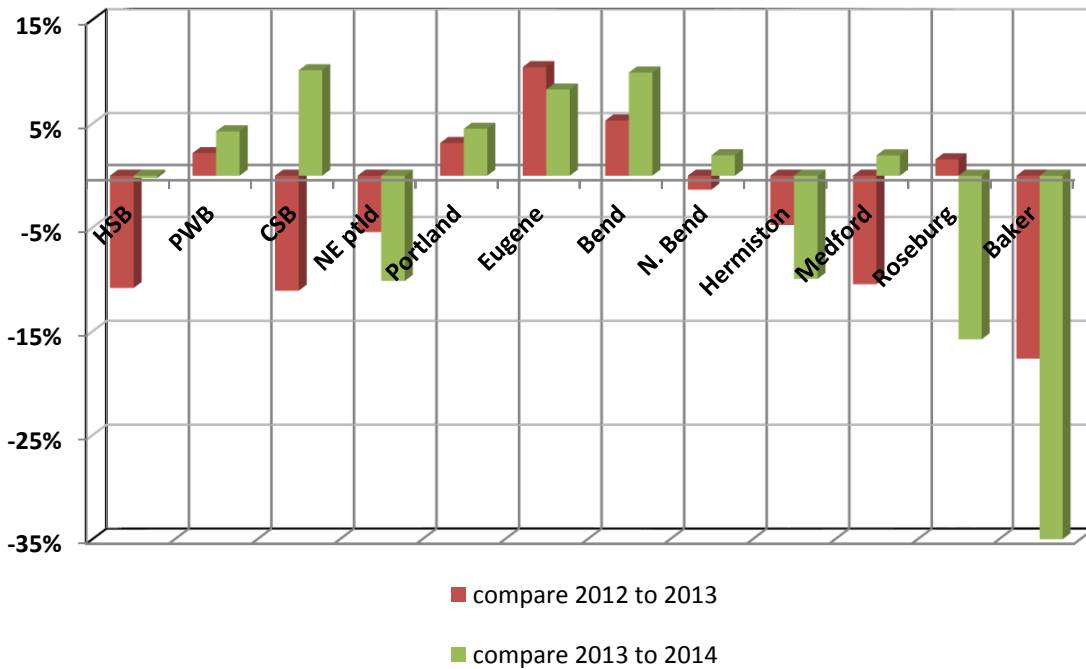
**Medford** | No major differences.

**Roseburg** | Reduction in electricity use for unknown reason.

**Baker City** | Office closed in mid-2013

**Hermiston** | Reduction in natural gas and electricity use for unknown reason.

The chart below demonstrates the changes in energy use per location between 2012 and 2013, and 2013 and 2014.

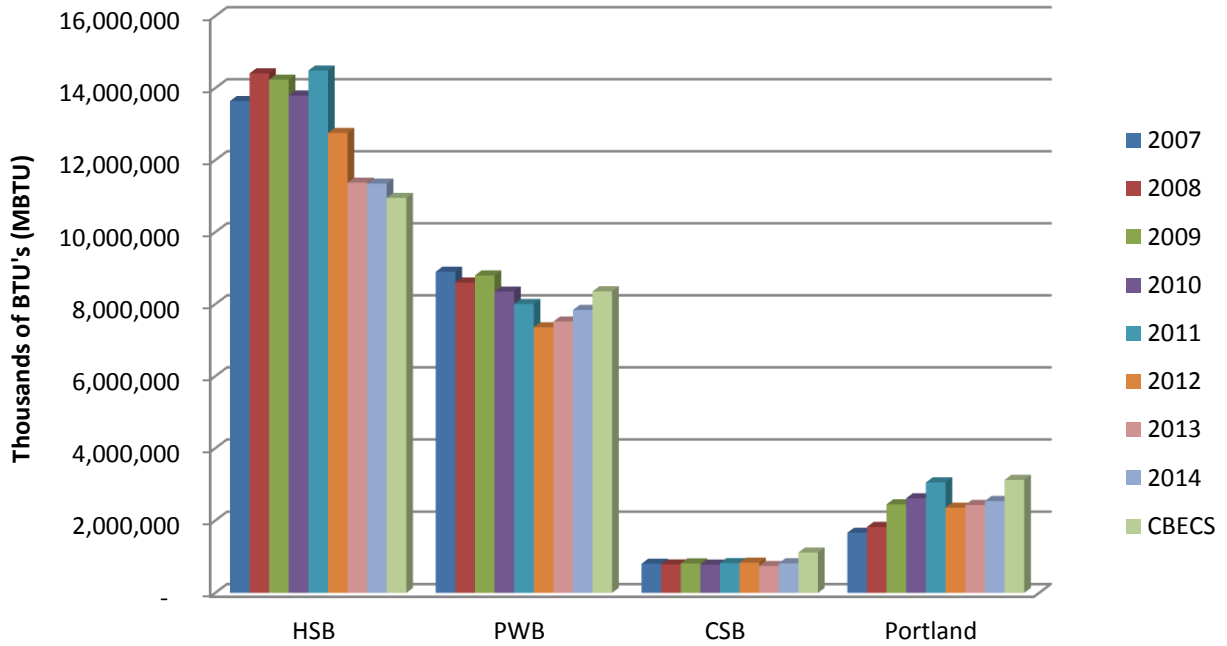


**Combined MBTUs of natural gas (converted from therms) and electricity  
(converted from kWh)**

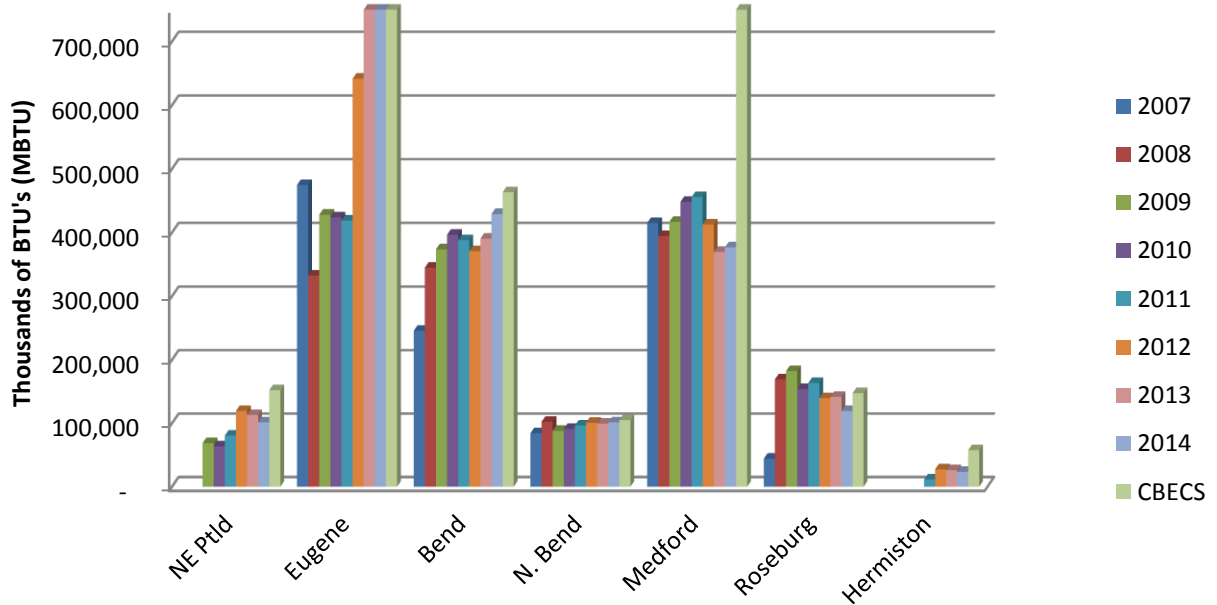
<b>MBTUs</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Change 2013 to 2014</b>	<b>CBECS (local ave) 2014</b>
<b>HSB</b>	12,753,723	11,374,601	11,347,913	-26,688	10,951,820
<b>PWB</b>	7,360,409	7,519,944	7,840,784	320,840	8,357,097
<b>CSB</b>	836,063	743,418	818,828	75,410	1,115,251
<b>NE Ptld</b>	119,360	112,873	101,436	-11,437	152,127
<b>Portland</b>	2,357,699	2,431,905	2,541,714	109,810	3,125,106
<b>Eugene</b>	641,629	767,532	767,532	0	767,532
<b>Bend</b>	370,825	390,499	429,260	38,761	463,261
<b>North Bend</b>	100,805	99,447	101,399	1,952	105,026
<b>Medford</b>	412,682	369,558	376,783	7,225	813,365
<b>Roseburg</b>	139,410	141,599	119,295	-22,304	147,503
<b>Baker</b>	164,607	135,614	0	-135,614	0
<b>Hermiston</b>	27,339	26,040	23,453	-2,587	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)**

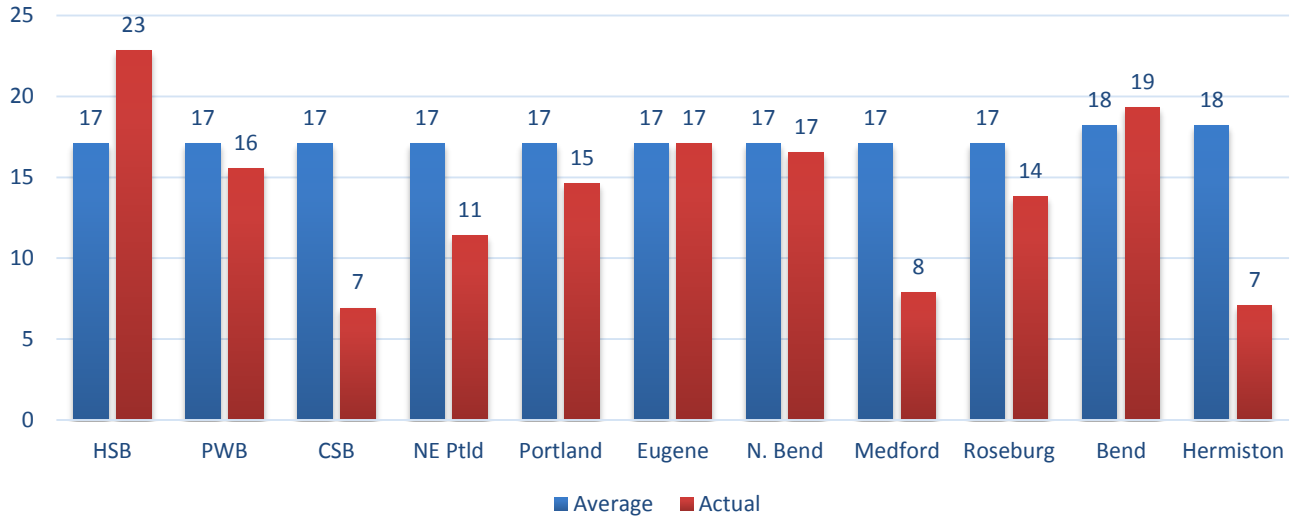


**Regional offices (natural gas + electricity)**



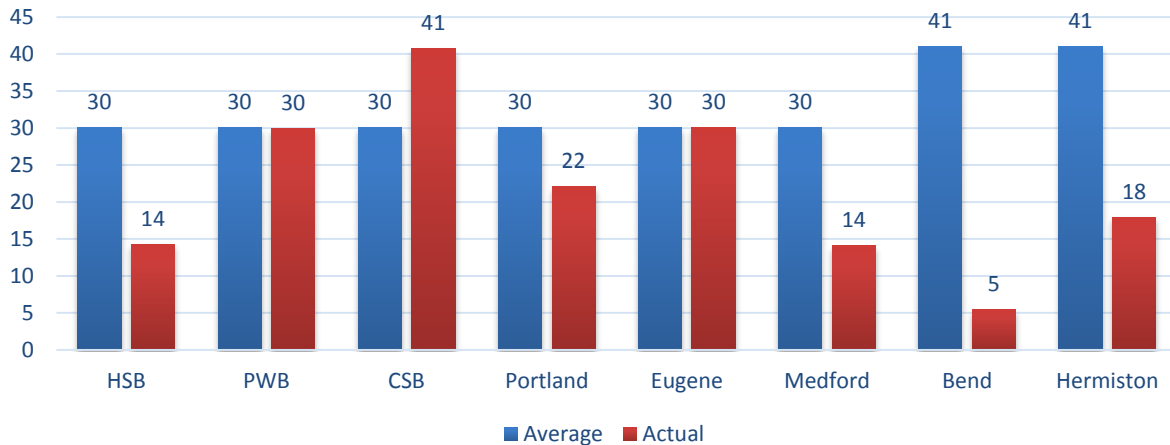
**Comparison of actual energy intensity of SAIF offices with average offices in that geological area**

**Electricity  
Average for Region vs Actual  
kWh/sq ft**



Electricity use in the High Street building and in the Bend office is higher than average for offices in those areas.

**Natural Gas  
Average for Region vs Actual  
per cubic sq ft**



Natural gas use in Church Street building is higher than average for offices in those areas.

### Scope III emissions

Scope III emission sources include air travel, solid waste disposal in landfills, employee office 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 through 2014.

#### 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

There is no requirement to report emissions from employee 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. 2014 calculations show approximately how many miles on average were saved by telecommuters not having to commute every day.

Telecommuting	Savings
Commute miles not driven annually	834,624 <sup>11</sup>
Gallons not used annually	36,288 <sup>12</sup>
<b>Emissions saved annually</b>	<b>325 CO<sub>2e</sub></b>

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

The responsibility for embodied emissions in purchases is not equal to the responsibility for 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>11</sup> Telecommuting days multiplied by commute miles not driven

<sup>12</sup> Commute miles not driven divided by average miles per gallon

## **Conclusion**

Emissions increased from 2013 to 2014 by 2 percent. All measured areas had reduced emissions except fugitive refrigeration and electricity.

### **Fleet**

Overall, we drove 3.5 percent more miles in 2014 compared to 2013, but we used 3.8 percent fewer gallons of fuel, resulting in a 3.8 percent reduction in emissions. The higher our average mile per gallon is, the lower our emissions are.

Fleet contributes 12.5 percent of our total emissions.

### **Natural gas**

Overall, we had a 4 percent reduction in our natural gas emissions. Our new Bend office uses natural gas—our old Bend office did not—but we saw good reductions in other regions. The sealing of the exterior of the High Street building continues to lower our utility use.

Natural gas contributes 9 percent of our total emissions.

### **Refrigeration and diesel**

Refrigeration and diesel together contributed about 1 percent of our total emissions. Both are counted when we purchase to add to cooling equipment and generators.

### **Electricity**

Electricity use increased 3.5 percent from 2013 to 2014, with the largest overall increase in the Portland office. We occupy 14 percent of this high-rise building, which lost a tenant in 2013 and gained a large one in 2014. We are responsible for 14 percent of the emissions for the building no matter how many tenants are in the building. It gives us little control. Portland's increase was partly offset by our vacating the Baker City office in August of 2013, but we still saw an increase to electricity use overall.

Electricity contributes 78 percent of our total emissions, up 1 percent from 2013.



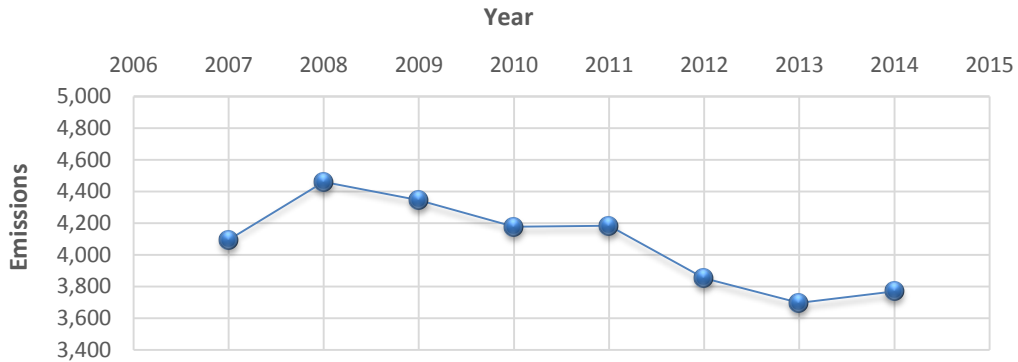
**Governor’s goals**

In approximately 2005, Governor Kulongoski announced several sustainability goals for state agencies. SAIF began participation to meet the goals with data collected in 2007.

- **Lower greenhouse gas emissions (baseline in 2007)** — by 2010, stop the growth of greenhouse gas emissions.

Our 2014 emissions are 8 percent lower than our base year of 2007 and 10 percent lower than our emissions in 2010. We have met the goal.

**SAIF emissions**



- **Energy savings** — by 2015, reduce SAIF’s energy consumption by 20 percent from year 2000.

Percentage reduction of energy use from year 2000:

	<b>All SAIF total kBtu by sq ft</b>	<b>diff from 2000</b>	<b>Owned SAIF total kBtu by sq ft</b>	<b>diff from 2000</b>	<b>Leased SAIF total kBtu by sq ft</b>	<b>diff from 2000</b>
2000	72		67		85	
2001	73	1%	68	1%	86	0.05%
2002	66	-9%	61	-9%	78	-9%
2003	64	-11%	60	-11%	72	-16%
2004	62	-14%	58	-14%	79	-8%
2005	61	-15%	56	-16%	74	-14%
2006	63	-12%	59	-12%	72	-15%
2007	62	-14%	56	-16%	74	-14%
2008	64	-11%	58	-14%	80	-7%
2009	67	-7%	56	-17%	73	-14%
2010	63	-13%	53	-20%	74	-14%
2011	64	-12%	55	-18%	81	-5%
2012	56	-22%	49	-27%	60	-30%
2013	54	-25%	46	-31%	72	-16%
2014	55	-24%	47	-30%	73	-14%

Overall, we met this goal in 2012 and continue to meet it in 2014.