

St Teresa of Avila Catholic Parish
Voluntary Report on Energy Use and Greenhouse Gas (GHG) Emissions in 2015¹
(for information only)
May 2016

In keeping with our pastoral mission for social justice, St Teresa's Parish is providing this voluntary report on our use of energy and the resulting emissions of greenhouse gases in 2015.

In his 2015 Encyclical², Pope Francis recognized global climate change as "one of the principal challenges facing humanity in our day." Scientists agree that greenhouse gas emissions from human activities are contributing to global climate change which harms people and livelihoods in many ways. These changes often have their greatest impact on the poor and on those who are least able to adapt, exacerbating social injustice.

About St Teresa's voluntary greenhouse gas (GHG) emissions report

WHO: St. Teresa's Catholic Parish is providing this report voluntarily, in our capacity as the operator parish facilities owned by the Archdiocese of San Francisco.

WHAT: The report provides data for energy use (mainly natural gas and electricity from PG&E) and the resulting emissions of the GHG, Carbon Dioxide (CO₂).

WHEN: The report covers calendar year 2015, and includes data already reported for 2013-14.

WHERE: The report covers energy use in the church building at 1490 19th Street and the priory at 390 Missouri Street, in San Francisco, California.

WHY: Our intention in preparing this report is to try to reduce our emissions of GHGs in the future and to encourage others to do likewise.

HOW: This report is prepared using commonly-accepted terminology and methods for GHG accounting. GHG accounting is explained in detail in the GHG Protocol³, which stresses relevance, completeness, consistency, transparency and accuracy.

BOTTOM LINE: Due to an ongoing billing error, we do not have data for gas use at the church in 2015. However, based on the data we do have, it appears that relative to 2013, **we are staying the course of energy and cost savings as well as emissions reductions achieved in 2014.**

Gas: Gas use at St Teresa's priory in 2015 was 18% higher than 2014, and 16% less than 2013. Our priory gas bills were \$211 higher relative to gas use in 2014, and \$281 lower relative to 2013. We believe that the savings relative to 2013 were mainly due to upgrade of insulation at the priory at the end of 2013, and the increase relative to 2014 was mainly due to the last quarter of 2015 being colder than the last quarter of 2014.

Electricity: St. Teresa's total electricity use in 2015 was 5% below 2014 and 13 % below 2013. Our total electricity cost savings⁴ in 2015 were \$376 relative to electricity use in 2014, and \$870 relative to 2013. Although electricity use in the church was higher in 2015 due to some construction work, this was more than offset by savings at the priory. We believe that the net year on year savings were mainly due to care taken to turn things off, and to consistent replacement of old worn out appliances and light bulbs with modern high efficiency ones.

¹ The May 2016 report is also an update on our emissions in 2013 and 2014 due to PG&E's revision of emission factors during the drought years

² Pope Francis' Encyclical, *Laudato Si, Our Common Home*, ¶25 (signed May 24 and published June 18, 2015)

³ Greenhouse Gas Protocol is available free online at <http://www.ghgprotocol.org/>

⁴ Cost savings are based on what we would have paid in 2015 to use as much energy as we did in 2014 or in 2013. Prices of gas and electricity have gone up, so the savings are greater than the dollar difference in annual payments.

Greenhouse Gas Emissions: Our GHG emissions from use of gas at the priory was 18% more than in 2014, and 16% less than 2013. Our GHG emissions from electricity at the church and priory combined were 5% less than 2014 and 13% less than in 2013. Incorrect gas bills for the church prevent us from stating the total GHG emissions for 2015.

What next: While we continue to reap savings due to ongoing conservation and actions taken in 2013 and 2010, St. Teresa's is looking ahead for additional savings and further reductions in our GHG emissions. Two areas we are working on for 2016 are:

- 1) implementing recommendations of the SF Energy Watch assessment in March 2016
- 2) use of renewable electricity at St. Teresa's

St Teresa's Energy and Greenhouse Gas Emissions Inventory⁵

Year	2013	2014	2015
Gas - church	1,547 therms	922 therms	Not available
Gas - priory	986 therms	699 therms	827 thrms
Total gas	2,533 therms	1,621 therms	Not available
Lamp oil	4 gallons	4 gallons	4 gallons
Total Scope 1 emissions	29,679 pounds CO ₂	19,017 pounds CO ₂	Not available
Electricity - church	8,673 kWh	7,466 kWh	8,423 kWh
Electricity - priory	15,354 kWh	14,511 kWh	12,525 kWh
Total electricity	24,027 kWh	21,977 kWh	20,948 kWh
Total Scope 2 emissions	10,382 pounds CO ₂	9,435 pounds CO ₂	8,987 pounds CO ₂
Total emissions⁶	40,061 pounds CO ₂	28,452 pounds CO ₂	Not available

St Teresa of Avila Parish PG&E Utility Costs

	Church		Priory		Total
	gas	electric	gas	electric	
2013 actual cost	\$1670	\$1766	\$1122	\$3579	\$8137
2013 energy cost in 2015		\$1866	\$1498	\$3678	
2014 actual cost	\$1365	\$1551	\$954	\$3273	\$7143
2014 energy cost in 2015		\$1613	\$1009	\$3832	
2015 actual cost	\$490 ⁷	\$1795	\$1218	\$2879	\$6,382
2015 savings relative to 2013	N/A	\$71	\$281	\$798	N/A
2015 savings relative to 2014	N/A	(\$182)*	(\$209)*	\$559	N/A

*these are additional costs rather than savings.

⁵ Gas and electricity data are from the PG&E bills, and are not independently verified. Gas bills for the church have been incorrect since April 2015, but these have yet to be rectified despite our repeated calls to PG&E.

⁶ Emissions factors for electricity purchased from PG&E have been updated by PG&E on February 5, 2016 at: <http://www.pgecurrents.com/2016/02/05/pge%E2%80%99s-carbon-emissions-remain-among-nation%E2%80%99s-lowest/> Due to drought, emission factors were higher than anticipated. This increase is reflected in higher GHG totals for electricity use in 2013 and 2014 than we reported in October 2015.

⁷ St Teresa's was billed \$490 for gas service charges in 2015, but nothing for actual gas use. If PG&E revises the 2015 bills during 2016, it will be reported in the next emissions inventory.