

INTRODUCTION TO LUAF

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November 16, 2018

What is LUAF?

Summary

$$\text{LUAF \%} = \frac{\text{Measured Gas Receipts} - \text{Total Delivered Gas}}{\text{Total Delivered Gas}}$$

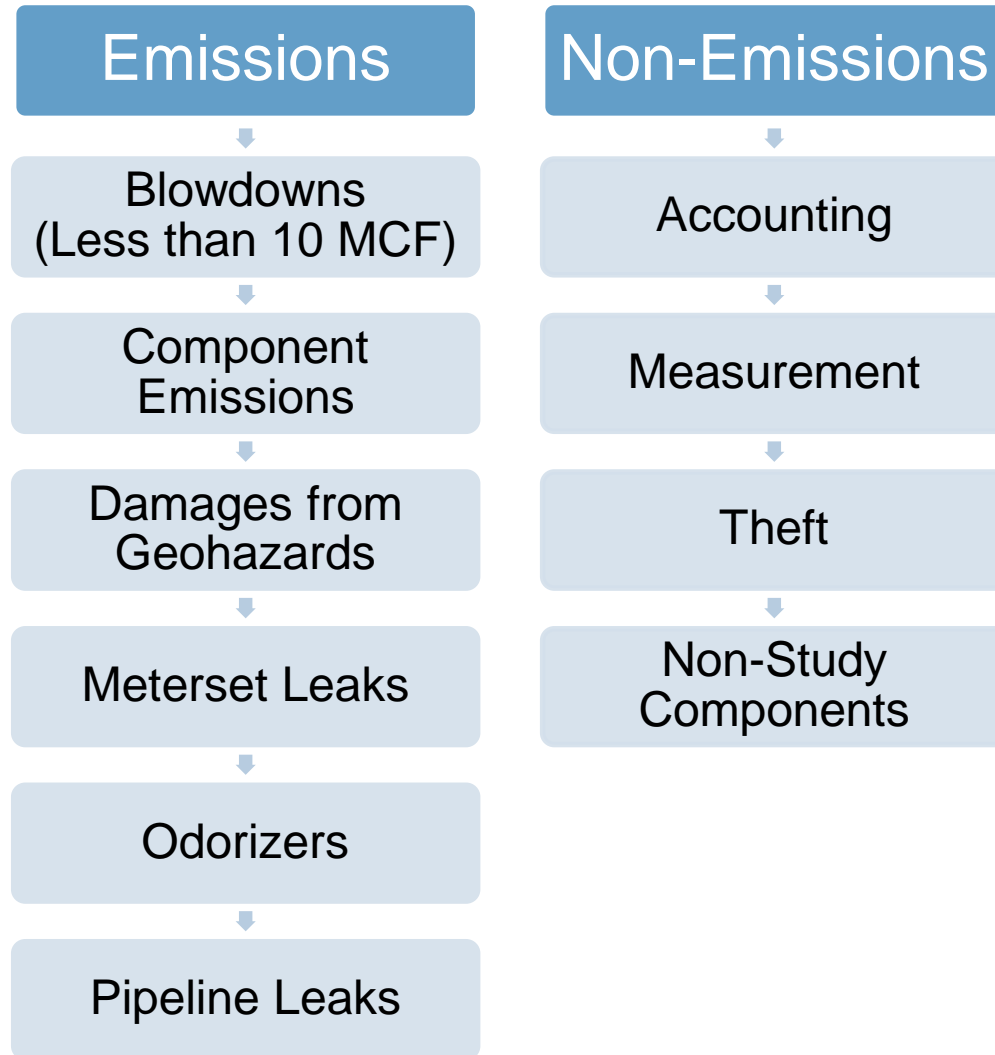
AGA

“The difference between the total gas available from all sources and the total gas accounted for as sales, net interchange, and company-use. This difference includes leakage or other actual losses; discrepancies due to meter inaccuracies, variations of the temperature and/or pressure; and other variants, particularly billing lag.”

PHMSA

- Unaccounted for gas is gas lost; that is, gas that the operator cannot account for as usage or through appropriate adjustment. Adjustments are appropriately made for such factors as variations in temperature, pressure, meter-reading cycles, or heat content; calculable losses from construction, purging, line breaks, etc., where specific data are available to allow reasonable calculation or estimate; or other similar factors.

LUAF Components



Why Should we Stop Talking About LUAF?

Annual Emissions Report

- Storage System Leakage
- Excavation Damages
- Other Outside Forces Damage
- Blowdowns Emissions
- Compressor Emissions

- Trans. & Dist & Leakage
- Some Damages
- Blowdown
- Equipment Vented Emissions

LUAF

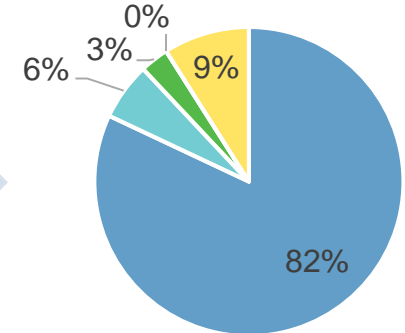
- Accounting Adjustment
- Measurement Error
- Theft/Diversions
- Non-study Components

Historical LUAF Analysis at SoCalGas and SDG&E

- Measurement error
- Accounting
- Leakage
- Theft
- Non-Study Components

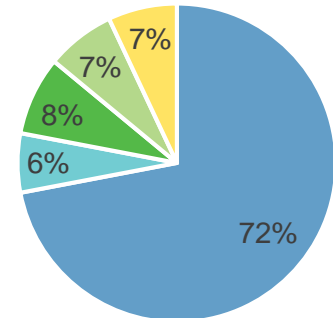
1991

- Study conducted to analyze UAF components
- Revealed significant shift in relative size of contributions
- Demonstrated only 8% of UAF was due to leakage



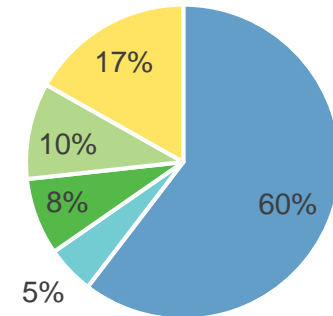
2006

- Addendum to update 1991 study for both SoCalGas and SDG&E
- Key data change included ultrasonic meters used to serve large customers
- Components attributed to core and noncore customer classes

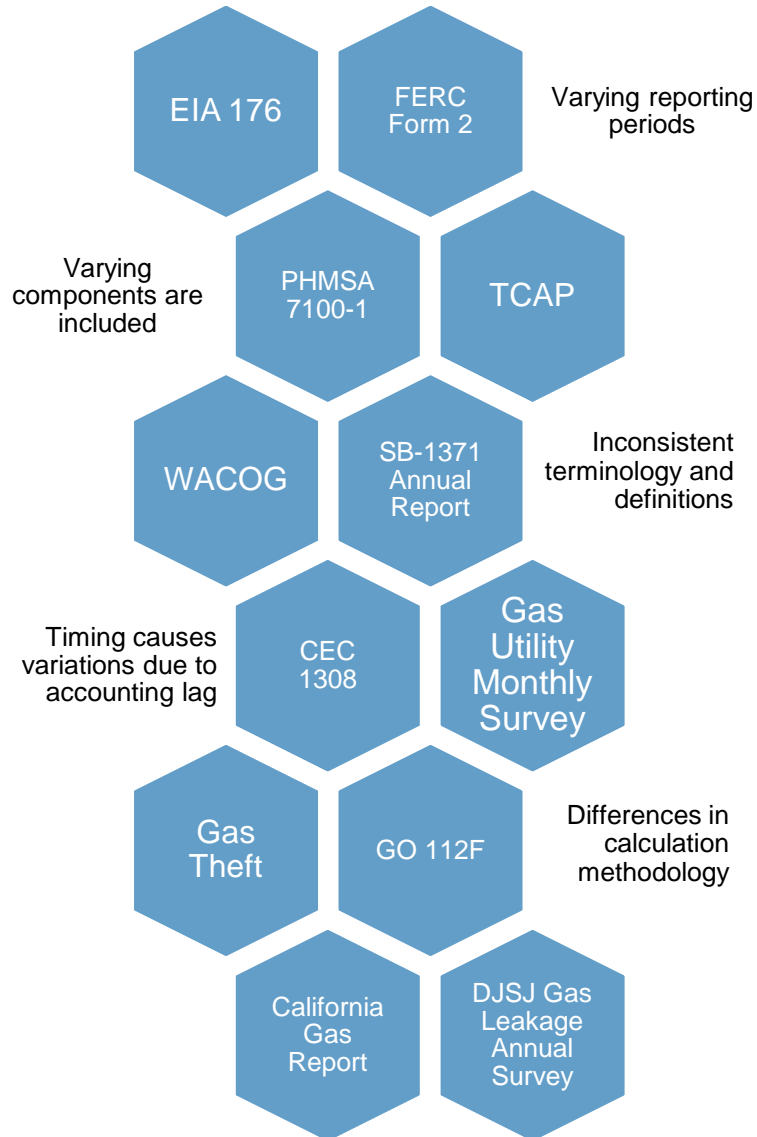


2017

- SoCalGas and SDG&E began reporting emissions in Annual Emissions Report
- Emission reporting is based on emissions factors from national sources, not specific utility studies
- For consistent reporting between Emissions Report and G.O. 112F, contributions to LUAF were adjusted from historical studies
- Emissions are now accounted for, do they belong in UAF?

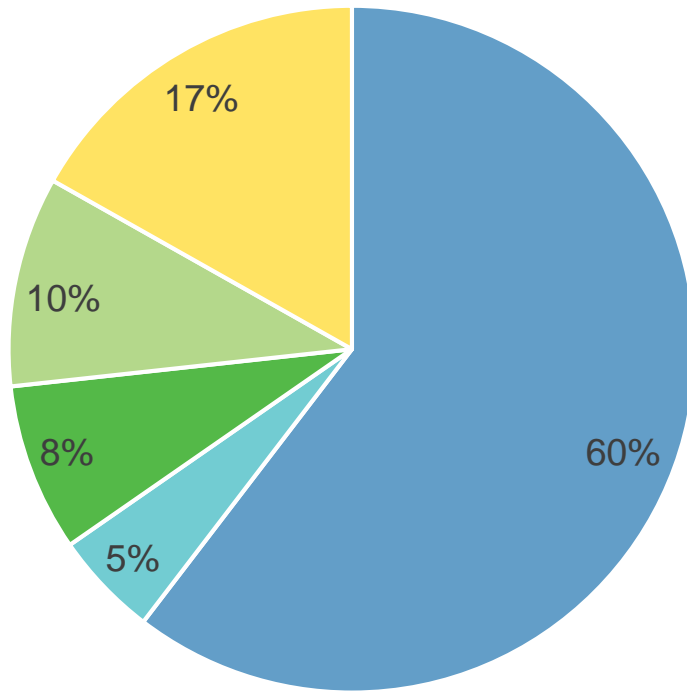


Reporting variations

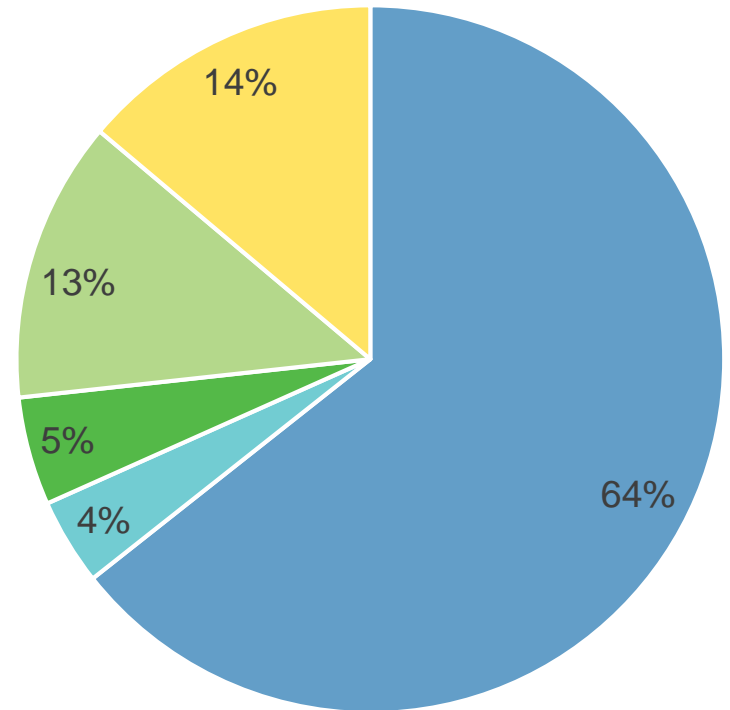


2017 LUAF Component Breakdown

SoCalGas LUAF Components



SDG&E LUAF Components



■ Measurement error ■ Theft ■ Accounting ■ Non-Study Components ■ Leakage