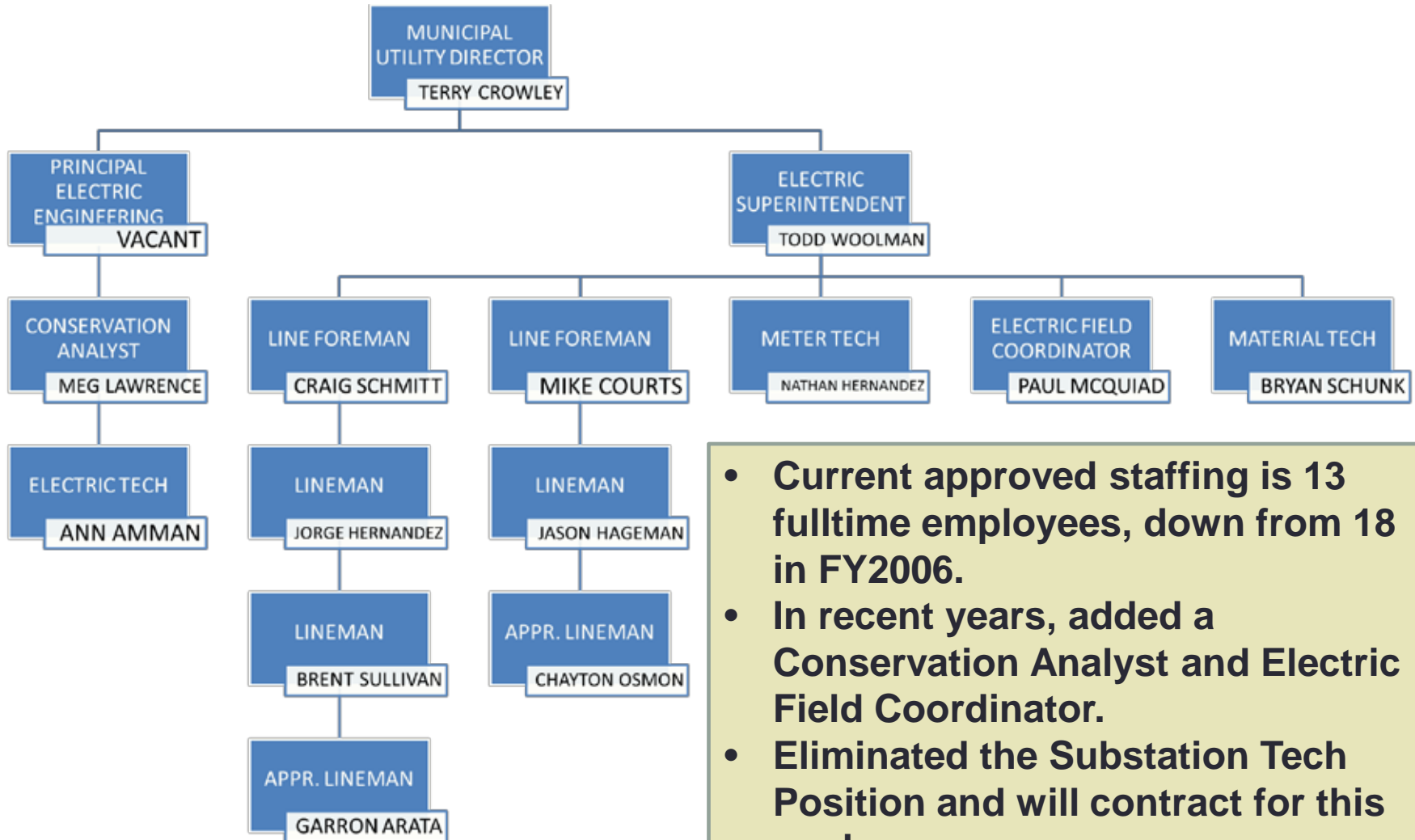


HEALDSBURG ELECTRIC DEPARTMENT

Annual Update

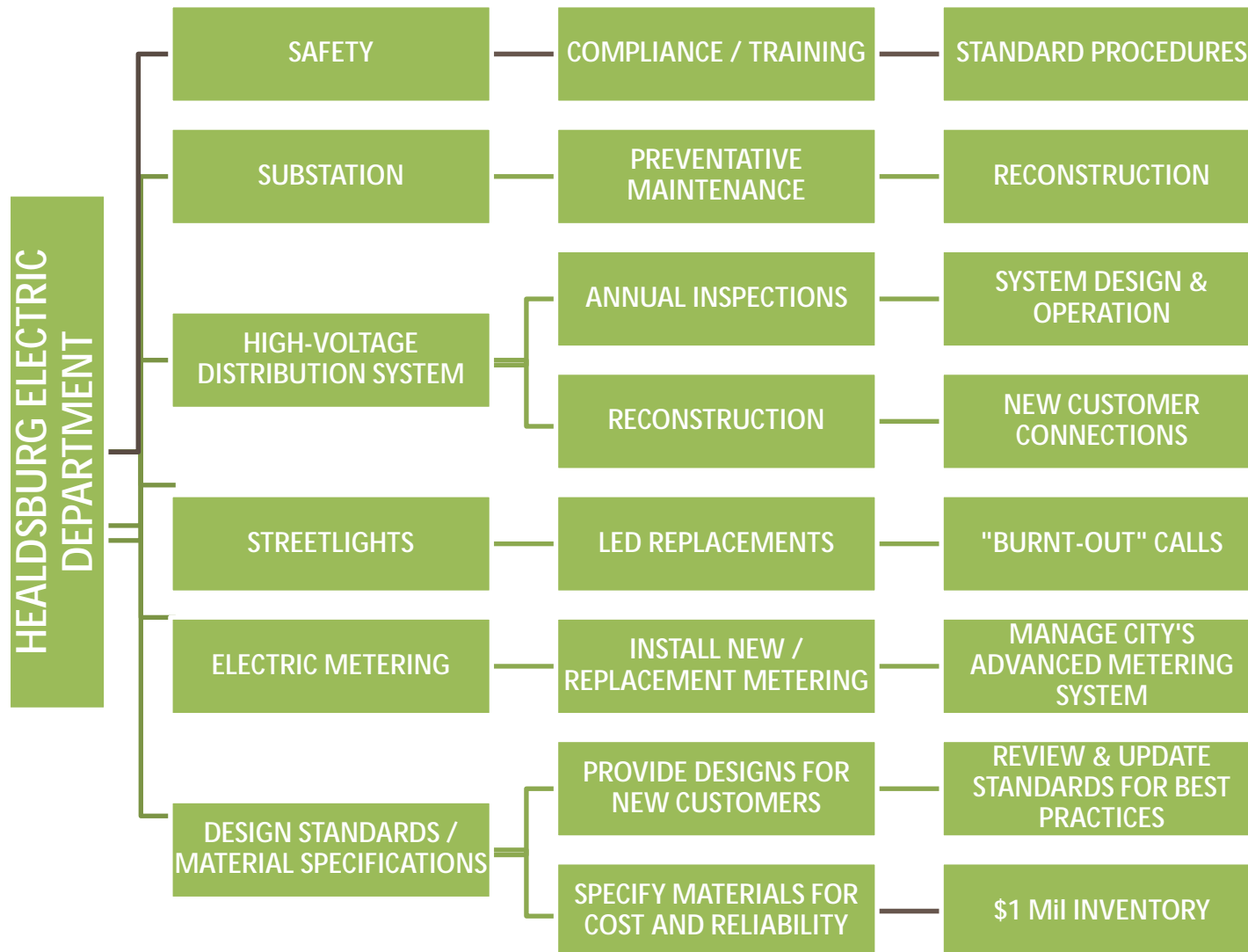
March 8, 2017

Organization Overview



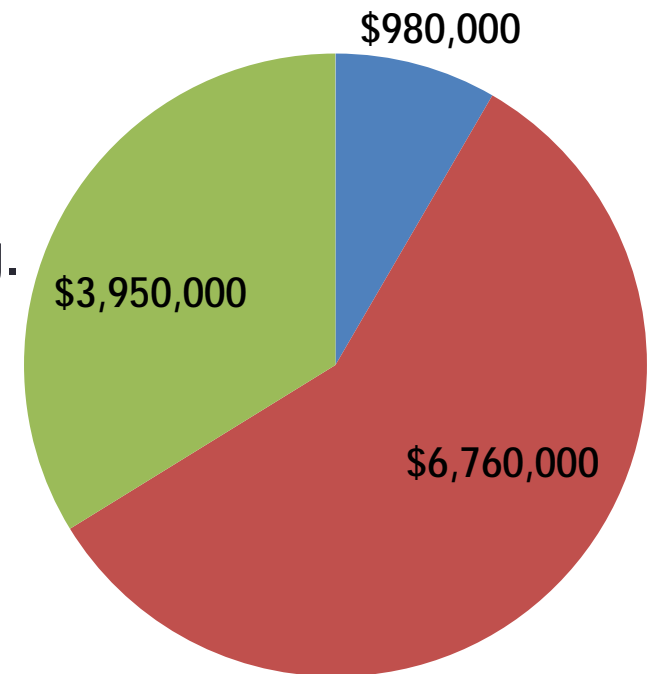
- **Current approved staffing is 13 fulltime employees, down from 18 in FY2006.**
- **In recent years, added a Conservation Analyst and Electric Field Coordinator.**
- **Eliminated the Substation Tech Position and will contract for this work.**

Functional Areas



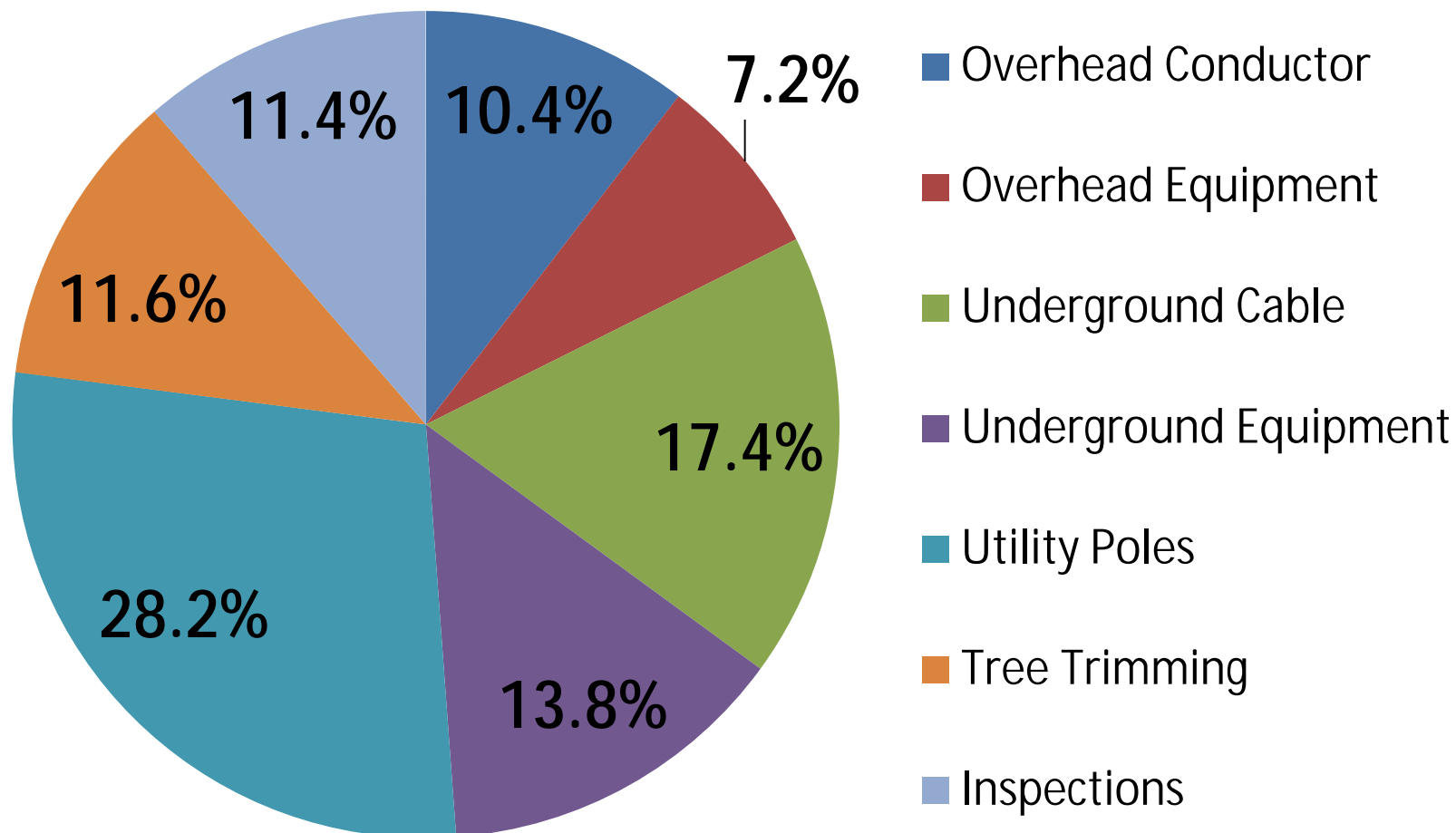
Program Dollars

- Total Operations budget for the Electric Department is \$11.7 million
- The Electric Department's three main areas are: Operations / Maintenance, NCPA, and Administration & Engineering.
- Generation, transmission and NCPA management services represent the largest portion (58%)
- Operations and Maintenance costs are related to the City's distribution system



■ Admin/Engr ■ NCPA ■ Ops & Maint.

Maintenance Cost Areas



System Inspections

- The California Public Utilities Commission (CPUC) General Order 165 and 174 set the minimum requirements for system inspections
- Inspection cycles are intended to maintain the safe and reliable operation of California's Electric Utilities.
- A summary system inspections are required as follows:

Inspection Type	Interval	Quantities
Annual Visual	1 Year	59 Miles / year
Overhead Detailed	5 Years	6 miles / year
Underground Detailed	3 Years	250 boxes / 10 miles
Intrusive Pole Testing	10 Years	125 poles / yr

Oversight, Compliance, & Standards



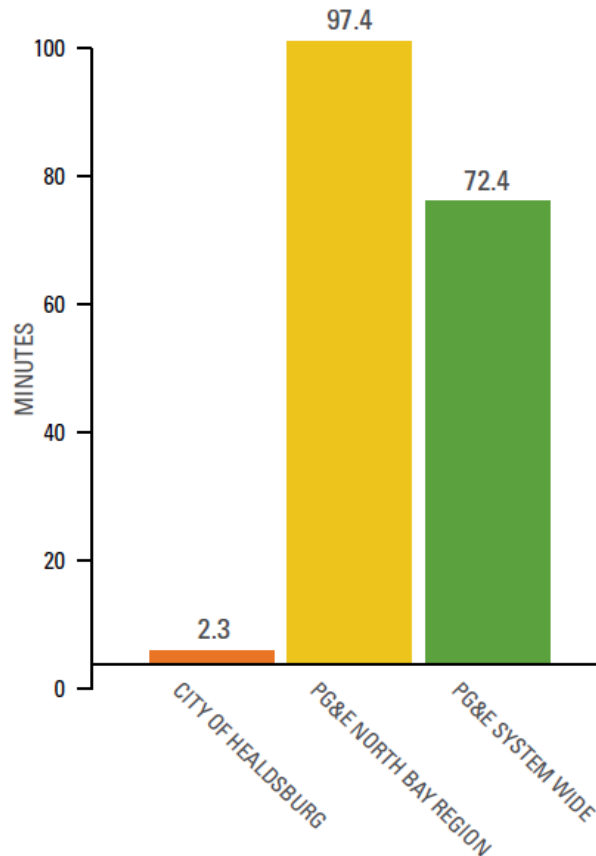
COMPLIANCE = RELIABILITY = HIGH CUSTOMER SERVICE

System Reliability

Ongoing inspections, preventative maintenance, and the use of industry best practices results in system reliability.

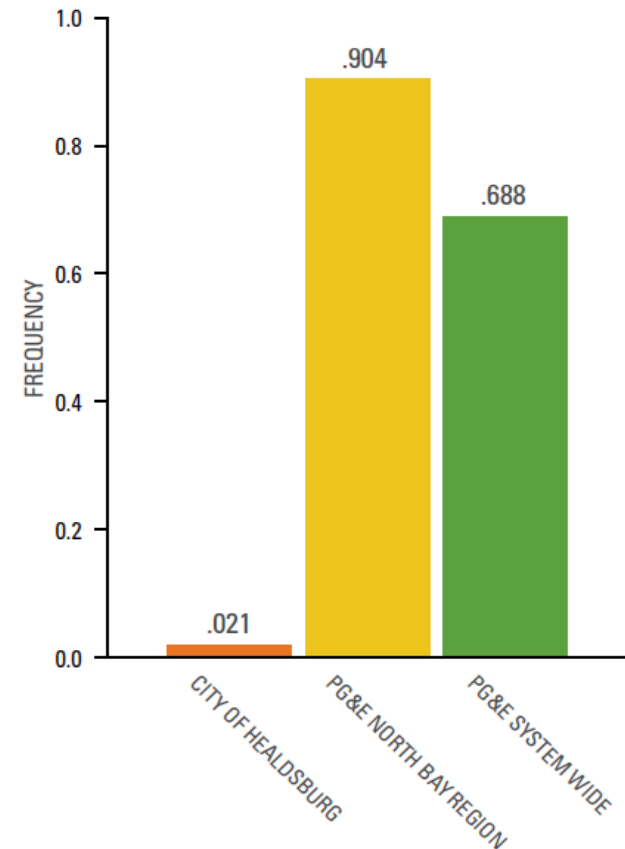
AVERAGE INTERRUPTION DURATION (SAIDI)

The average interruption index represents the average total outage minutes per year a customer experiences.



AVERAGE INTERRUPTION FREQUENCY (SAIFI)

The average frequency index represents each customer's average number of outages per year.



LOWER NUMBERS = BETTER SYSTEM PERFORMANCE

Areas of Continued Focus

- **Advanced metering;**
 - 10,000 metering points, currently reading 90% of electric meters remotely.
 - Meter Database and Utility Billing Improvements
- **Geographical Information System**
 - Currently in the process of updating data and moving to a standardized model
 - Moving toward a mobile workforce
- **Implementing Automation of field equipment (SCADA)**
 - Working to complete automation at substation
 - Working to deploy automation for field equipment
- **Improve System Efficiency**
 - Completing citywide conversion of streetlights
 - Upgrading system equipment & configuration

Power Content Label / Power Supply

- The table below illustrates the types of energy the City supplies its electric customers. Data is for calendar year 2015.

ENERGY BY TYPE	HEALDSBURG POWER CONTENT	STATEWIDE POWER CONTENT
Renewable	41%	22%
Biomass & Biowaste	0%	3%
Geothermal	41%	4%
Eligible hydroelectric	0%	1%
Solar electric	0%	6%
Wind	0%	8%
Coal	0%	6%
Large hydroelectric	9%	5%
Natural Gas	37%	44%
Nuclear	0%	9%
Unspecified Power (kWh)	12%	14%

Questions?