

PG&E Corporation

# BUSINESS UPDATE

March 17, 2017

# Forward-Looking Statements

Statements contained in this slide presentation regarding PG&E Corporation's projected rate base and dividend growth, electric vehicle-related growth opportunities, planned investments, projected capital expenditures, weighted average rate base, dividend policy, potential tax reform, and other statements and assumptions that are not purely historical constitute forward-looking statements that reflect management's current expectations and are based on management's judgments and opinions. These statements are necessarily subject to various risks and uncertainties, the realization or resolution of which may be outside management's control. PG&E Corporation and the Utility are not able to predict all the factors that may affect future results. Factors that could cause actual results to differ materially include, but are not limited to:

- the timing and outcomes of the 2017 GRC, the TO rate case, the cost of capital proceeding, and other ratemaking and regulatory proceedings;
- the amount and timing of costs related to Butte fire litigation, the extent to which such costs can be recovered through insurance, and whether additional investigations and proceedings in connection with Butte fire will be opened;
- the timing and outcomes of (i) the CPUC's investigation of communications between the Utility and the CPUC that may have violated the CPUC's rules regarding ex parte communications or are otherwise alleged to be improper, or a potential settlement in connection with this proceeding, and (ii) the U.S. Attorney's Office in San Francisco and the California Attorney General's office investigations in connection with communications between the Utility's personnel and CPUC officials;
- the terms of probation and the monitorship imposed in the sentencing phase of the Utility's federal criminal trial, the timing and outcomes of the debarment proceeding, the SED's unresolved enforcement matters relating to the Utility's compliance with natural gas-related laws and regulations, and other investigations that have been or may be commenced relating to the Utility's compliance with natural gas-related laws and regulations, and the ultimate amount of fines, penalties, and remedial and other costs and remedial measures that the Utility may incur as a result;
- the outcomes of the SED's investigations of potential violations identified through audits, investigations, or self-reports;
- the Utility's ability to control its costs within the authorized levels of spending, and successfully implement a streamlined organizational structure and achieve project savings, and the extent to which the Utility incurs unrecoverable costs that are higher than the forecasts of such costs;
- changes in cost forecasts or the scope and timing of planned work resulting from changes in customer demand for electricity and natural gas or other reasons;
- the impact that reductions in customer demand for electricity and natural gas have on the Utility's ability to make and recover its investments through rates and earn its authorized return on equity, and whether the Utility is successful in addressing the impact of growing distributed and renewable generation resources, changing customer demand for natural gas and electric services, and an increasing number of customers departing for community choice aggregators;
- whether the Utility can continue to obtain insurance and whether insurance coverage is adequate for future losses or claims, especially following a major event that causes widespread third-party losses;
- disruptions and delays, if any, in nuclear fuel supply and related services by our sole source of nuclear fuel assemblies Westinghouse Electric Company, LLC ("WEC"), delays in connection with the Diablo Canyon outage and refueling, and adverse changes in contracts with WEC, if any;
- the ability of PG&E Corporation and the Utility to access capital markets and other sources of debt and equity financing in a timely manner on acceptable terms, and the amount and timing of additional common stock and debt issuances by PG&E Corporation;
- changes in estimated environmental remediation costs, including costs associated with the Utility's natural gas compressor sites;
- the impact of the corporate tax reform considered by the new federal administration and the outcome of federal or state tax audits and the impact of any changes in federal or state tax laws, policies, regulations, or their interpretation;
- the impact of changes in GAAP, standards, rules, or policies, including those related to regulatory accounting, and the impact of changes in their interpretation or application; and
- the other factors disclosed in PG&E Corporation and the Utility's joint Annual Report on Form 10-K for the year ended December 31, 2016 and their other filings with the Securities and Exchange Commission.

*The statements in this presentation are made as of March 17, 2017 and PG&E Corporation undertakes no obligation to update information contained herein. This presentation was attached to PG&E Corporation's Current Report on Form 8-K that was furnished to the Securities and Exchange Commission on March 17, 2017 and is also available on PG&E Corporation's website at www.pgecorp.com.*

# Well-positioned to Deliver Strong Returns

## A Strengthened Company

- Significant safety, reliability and operational improvements
- Improved customer satisfaction

## Key Advantages

- One of the greenest utilities in the country
- Constructive regulatory and policy environment
- Multiple infrastructure investment drivers

## Robust Growth Profile

- State policies support strong cap ex and ratebase growth
- Resumed dividend growth

**Healthy 3-year growth profile**

- ~6.5-7% ratebase growth
- Above average dividend growth

*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# Agenda

A strengthened company

Key advantages

Robust growth profile

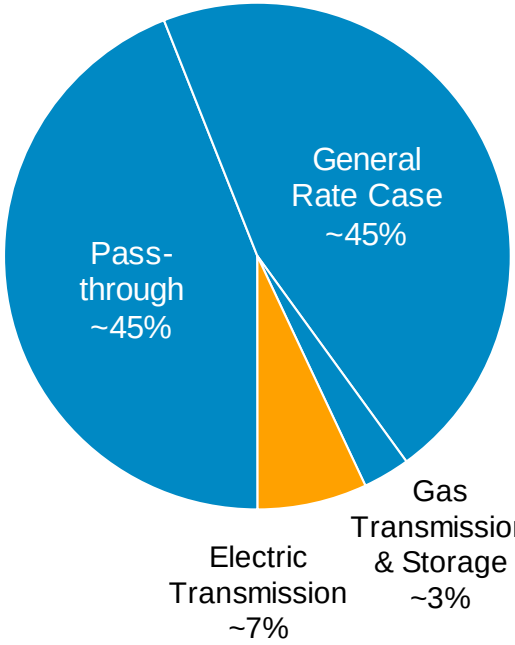






# PG&E System At a Glance

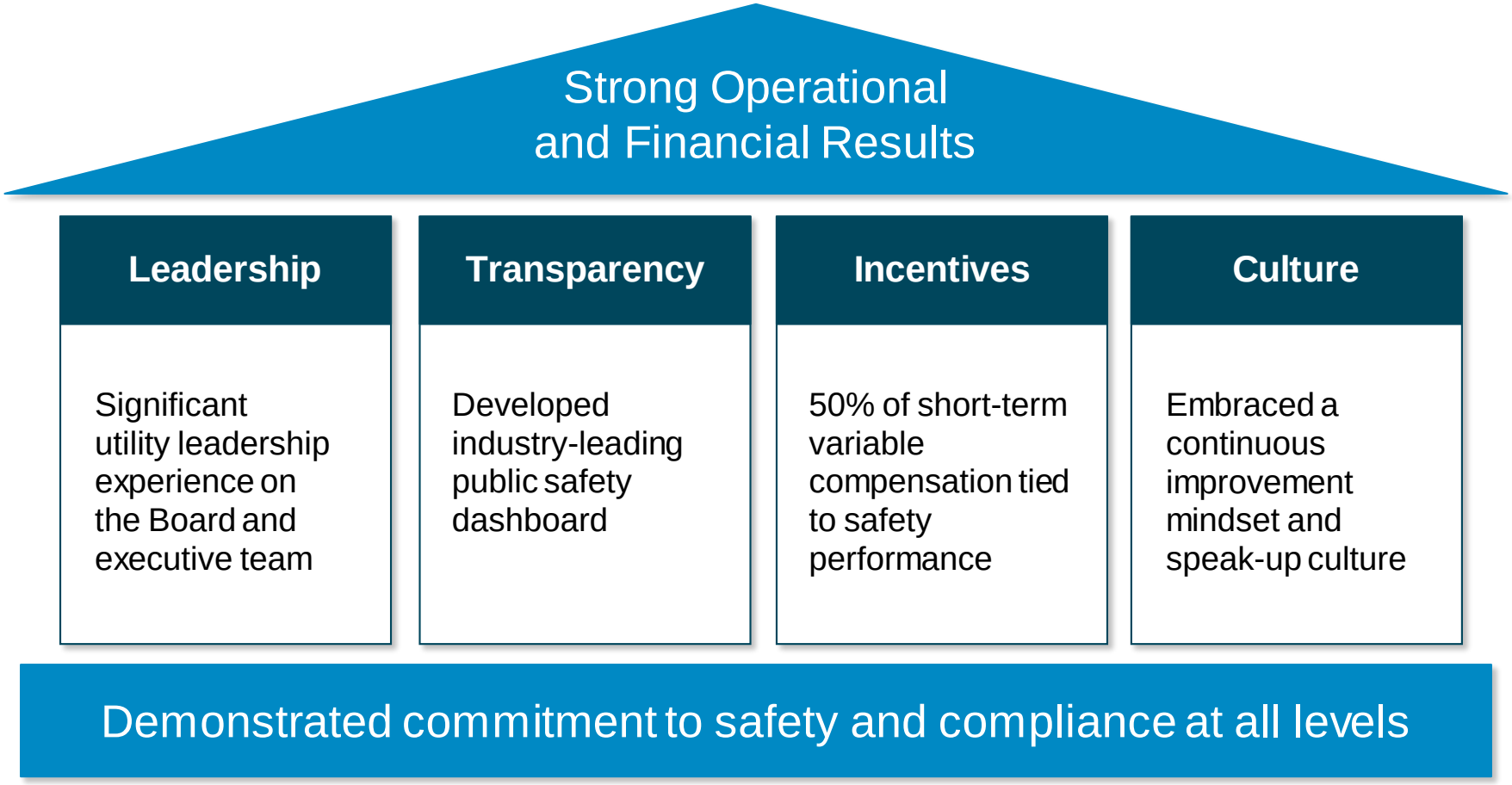
## 2016 Revenue Sources




## Key Highlights

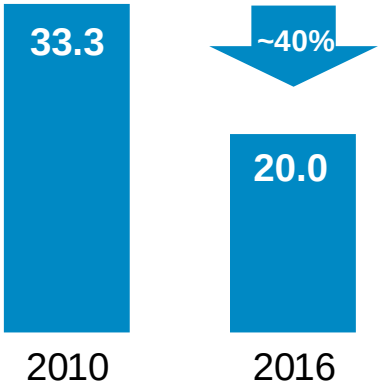
| | |
|---|---|
| Employees | ~24,000 |
| Californians served | ~16M |
| Net income (2016) | ~$1.4B |
| Ratebase (2016) | ~$32.4B |
| Miles of electric lines | ~160,000 |
| Miles of natural gas pipelines | ~50,000 |
| MW utility-owned generation | ~7,700 |
| GWh electricity generated and procured | ~68,500 |
| Carbon-free and renewable energy delivered | ~70% |

# Safety Forms the Foundation of Operational and Financial Success

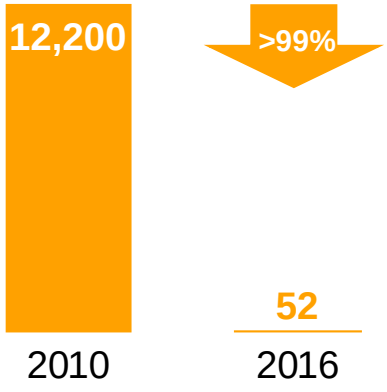


# Improved Safety and Reliability
# Gas Metrics

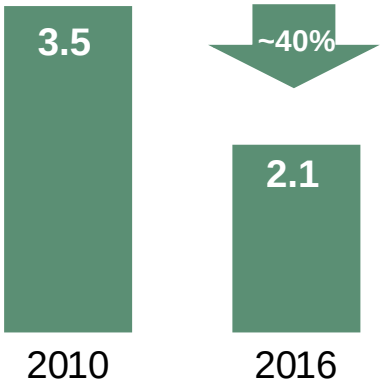
**~40% Reduction in Emergency Response Time[1]**




**>99% Reduction in Leak Backlog[2]**




**40% Reduction in Dig-ins[3]**





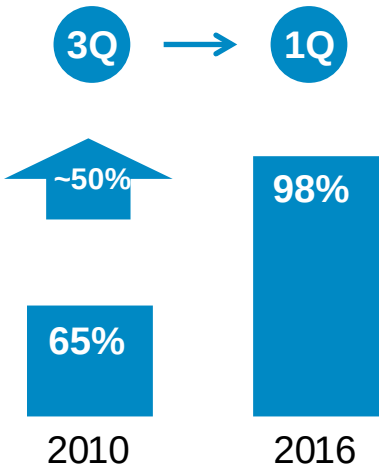

**Major Progress from 2010-2016:**

- Achieved **international certifications** in gas safety excellence programs
- Replaced **645+** miles of transmission and distribution pipeline
- Hydrotested **835+** miles of transmission pipeline
- Made **750+** miles transmission pipeline capable of in-line inspection
- Installed **268** automated valves

(1) Emergency response time recorded in minutes; (2) Open Grade 2 and 2+ leaks; (3) Third party damages per 1,000 Underground Service Alert (USA) tickets.

# Improved Safety and Reliability Electric Metrics

### 911 Emergency Response[1]




### System Average Interruption Duration Index[2]




### Customer Experiencing Multiple Interruptions[3]



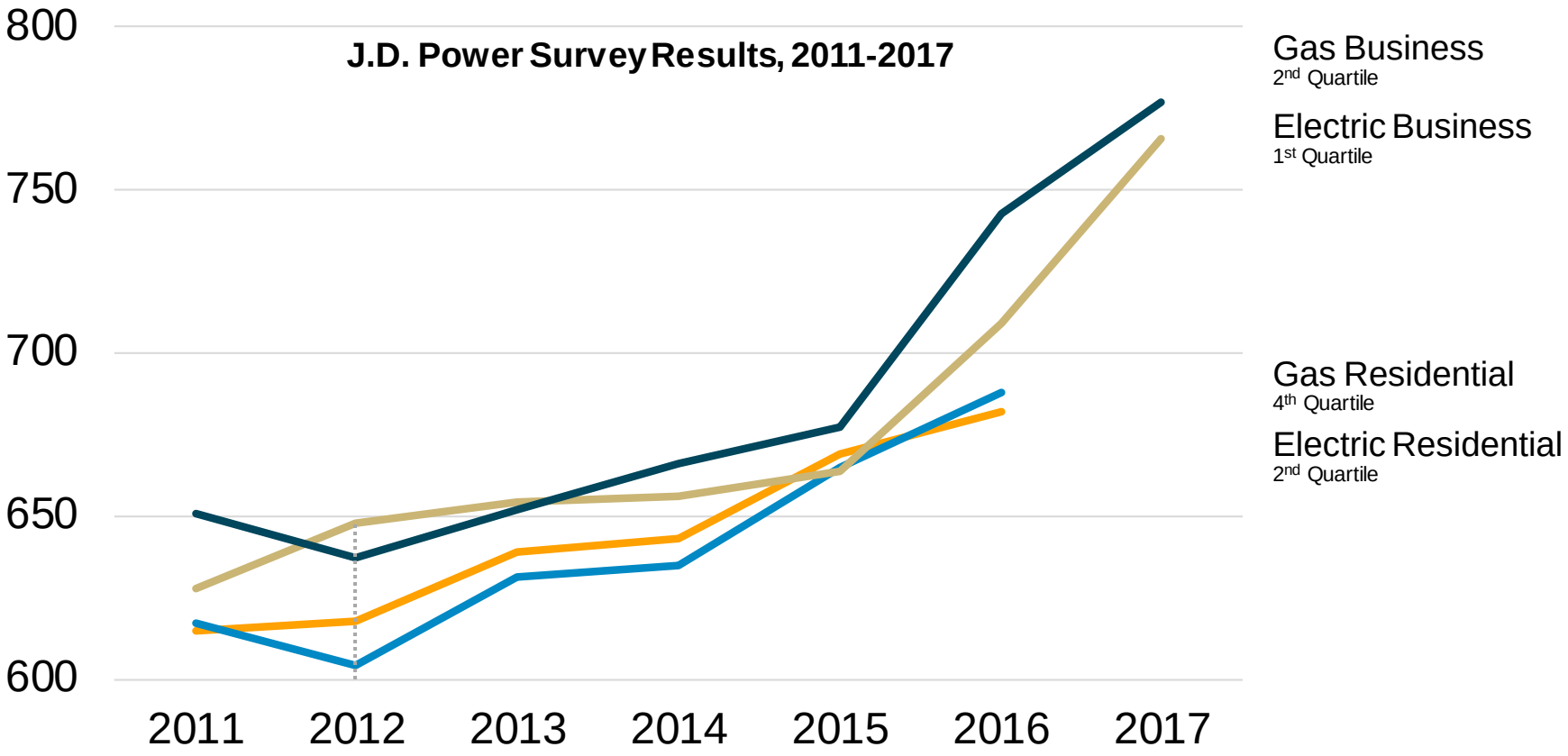



**Major Progress from 2010-2016:**

- Delivered **6 Years** of record-setting electric reliability
- **~$14 billion** investment in transmission and distribution asset enhancements
- Completed deployment of **~10 million** SmartMeters
- Upgraded **~80%** of our targeted circuits

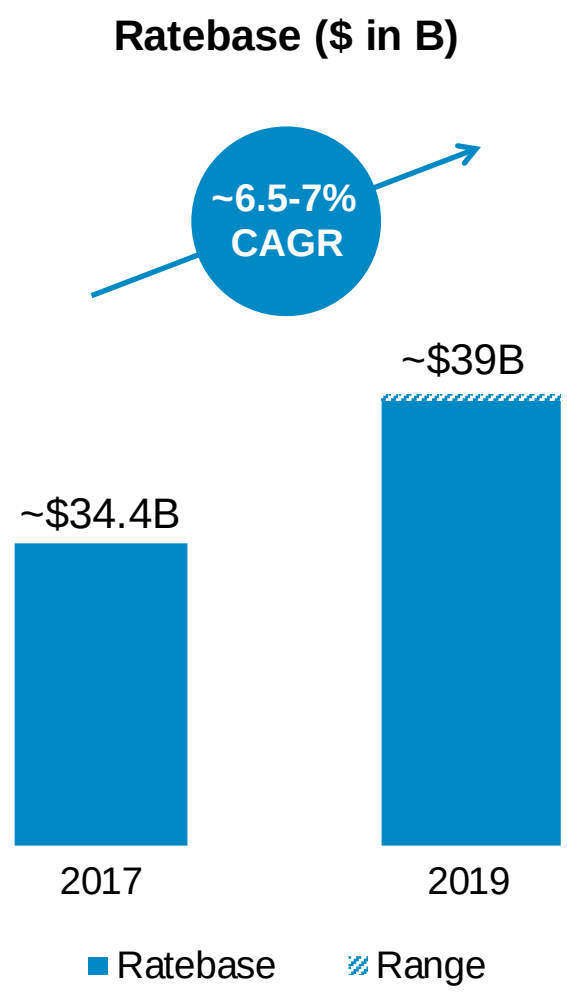
(1) Percentage of time PG&E personnel are on-site within 60 minutes of receiving a 911 electric-related call; (2) Average outage duration experienced by all customers served measured in minutes; (3) Percentage of customers experiencing 5 or more sustained interruptions over the past rolling 12 months (includes both planned & unplanned outages).

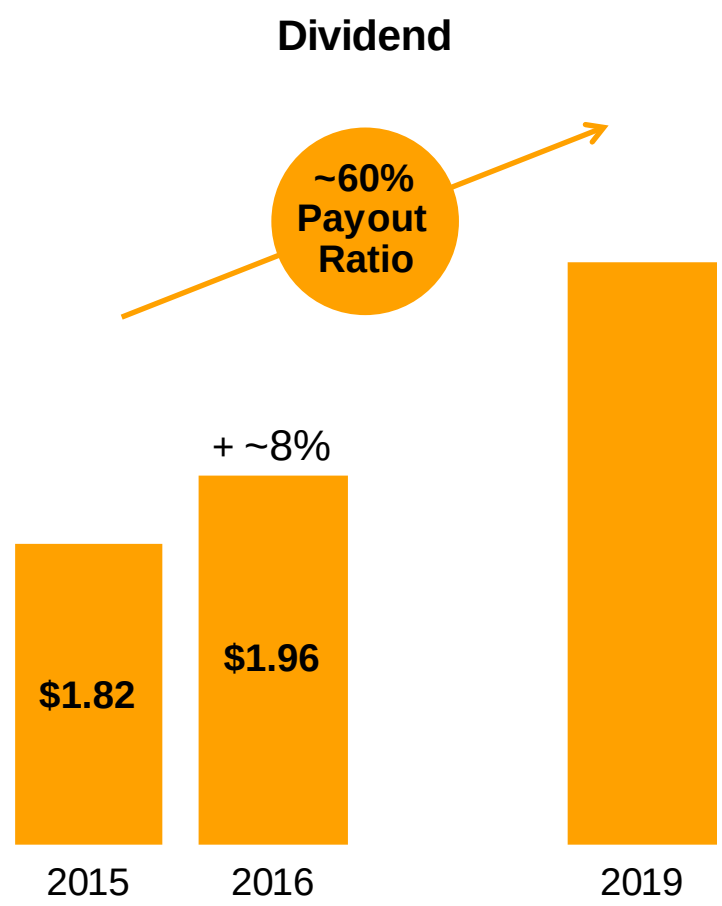
# Customer Satisfaction has Improved Each Year Since 2012




Unwavering commitment to customer satisfaction

# Projected Strong Growth




*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# Agenda

A strengthened company

Key advantages

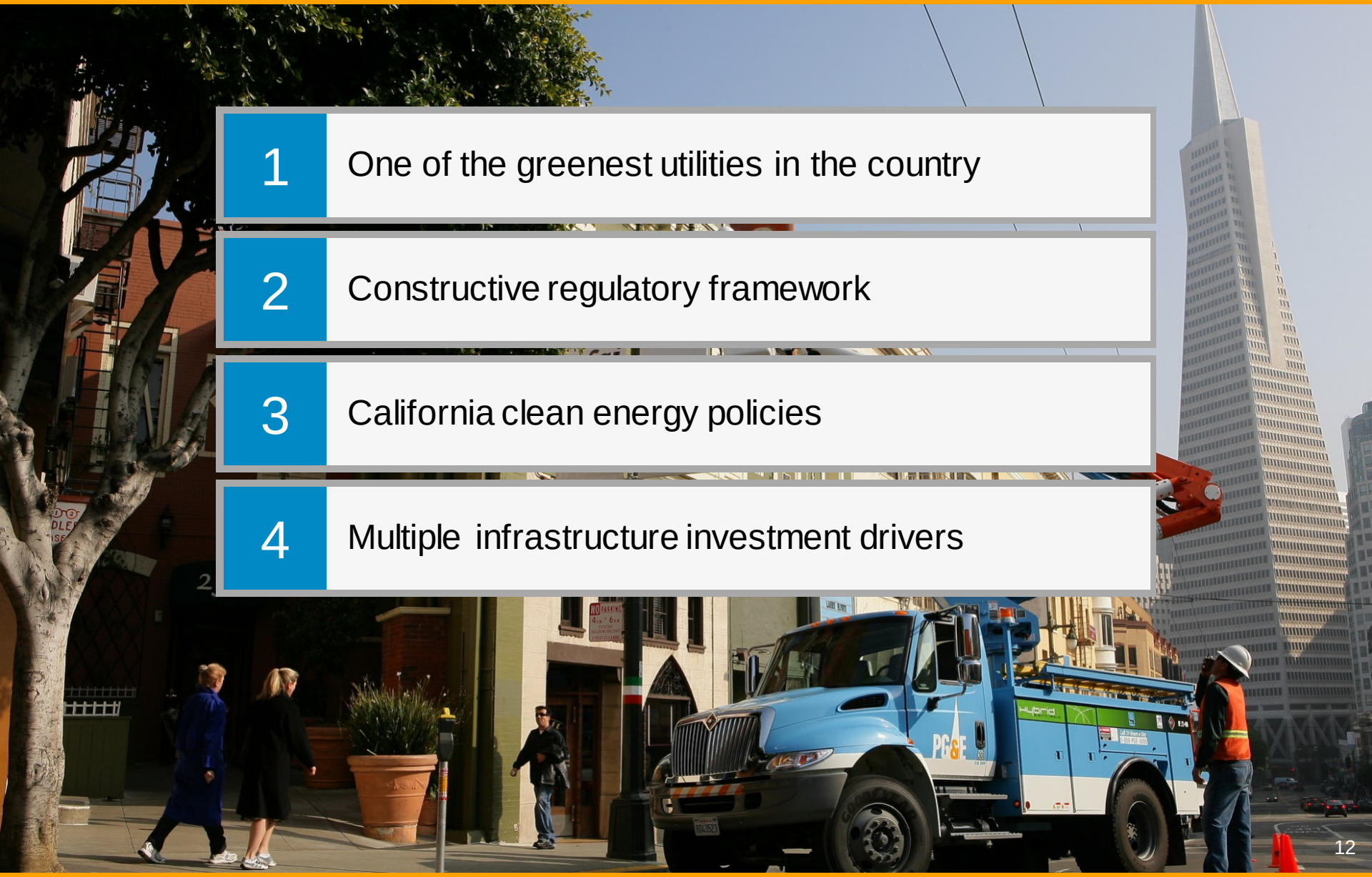
Robust growth profile







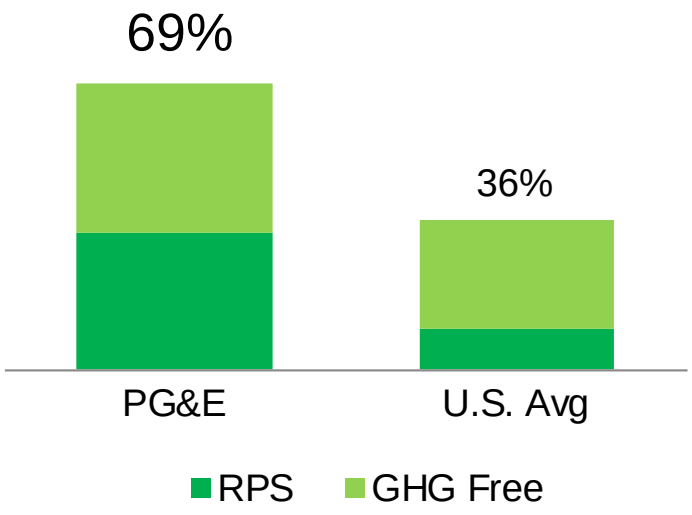
# Key Strengths



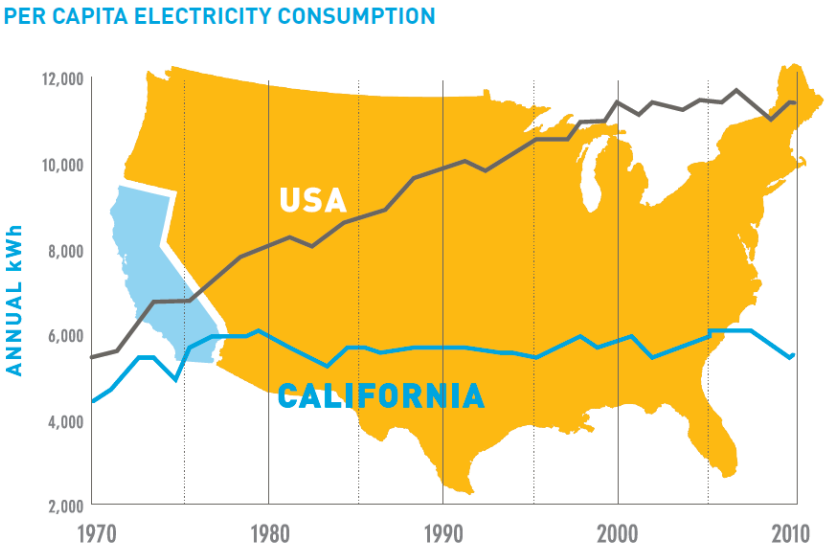
1. One of the greenest utilities in the country
2. Constructive regulatory framework
3. California clean energy policies
4. Multiple infrastructure investment drivers

# Focused on Sustainability

## Nearly 2x More Carbon Free and Renewable Energy Than The U.S. Average in 2016




## Shaping California Model for Energy Efficiency




*Source: US Energy Information Administration

## PG&E Customers Lead the Nation in Clean Technology Adoption

**>280,000 solar customers**

Ranked #1 with ~25% of all U.S. rooftop solar

**More than 100,000 electric vehicles**

Ranked #1 with ~20% of all U.S. vehicles

**~800 GWh/yr of efficiency savings**

Ranked #2 among U.S. utilities

# California's Regulatory Mechanisms

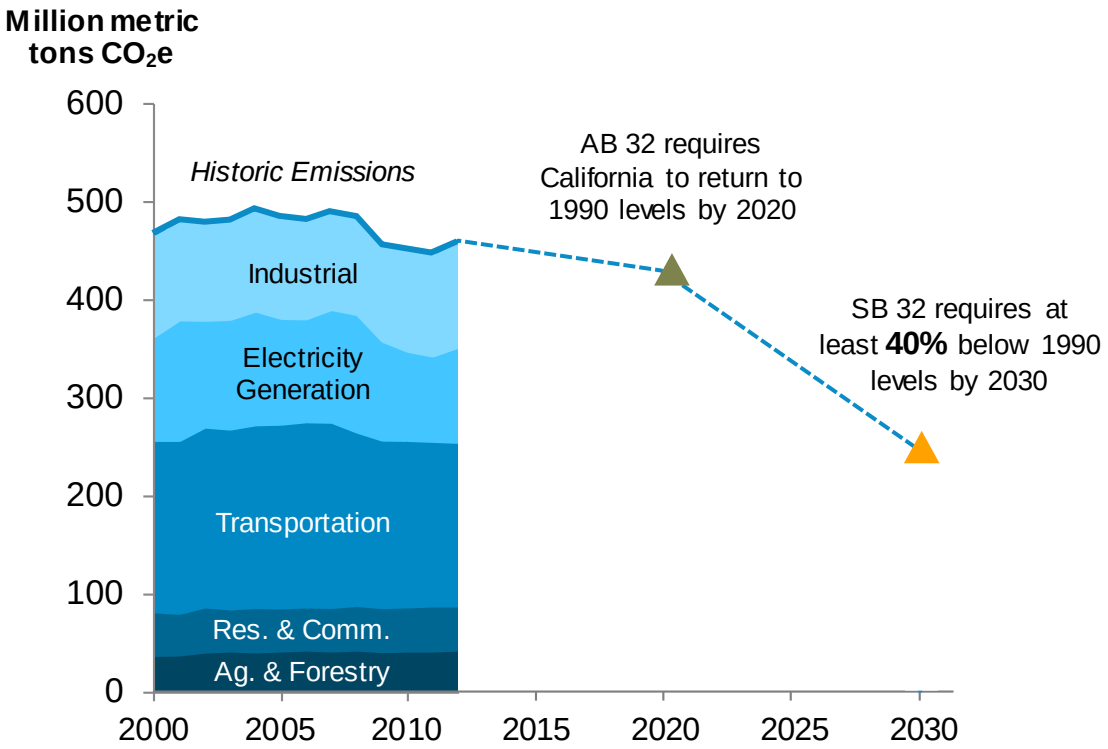
- Revenues decoupled from sales
- Balancing accounts reduce cost volatility
- Forward-looking test year rate cases
- Risk-informed rate making
- Separate cost of capital proceeding




PG&E's industry-leading risk management aligns with CPUC safety focus

# California's Climate Goals

## California Greenhouse Gas Reduction Goals and Historic Emissions*




## California is Targeting:



**50%**
renewables by 2030



**2X**
energy efficiency in existing buildings by 2030



**1.5M**
electric vehicles by 2025

PG&E is a critical partner in achieving California's clean energy goals

*Source: California Air Resources Board

# Electric Vehicles Present Growth Opportunities

## Projected EV Landscape



**600K**

EVs on PG&E's grid in 2025 if California meets zero-emission vehicles goal




**4:1**

Ideal ratio of EVs to public and workplace chargers to enable access

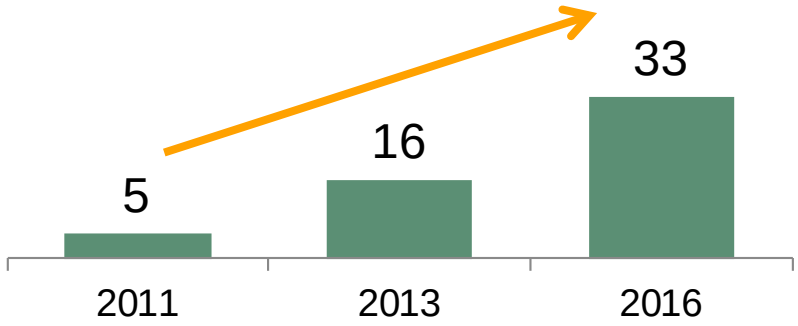


**50%**

The average EV consumes about half the electricity of a typical home each year

## EV Options Continue to Grow

**Number of Electric Vehicle Models**




## EV Infrastructure Investments

**$109M in spend over 3 years**

Largest utility deployment in US supporting light-duty vehicles

**Up to $211M over 5 years**

Pending request to support medium and heavy-duty electrification and public charging

**Continued EV adoption creates sustainable growth opportunities**

*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# California Policies Drive Infrastructure Investment

**Safety and Reliability**



- Gas investments (e.g., pipeline replacement, in-line inspection capability)
- Electric investments (e.g., substation upgrades, cable upgrades)
- Generation asset upgrades

**Enabling California's Clean Energy Economy**



- Grid modernization
- Renewable integration projects
- Energy efficiency programs
- Energy storage options
- Electric vehicle infrastructure
- State infrastructure modernization (e.g., rail and water projects)

**Sustained Investments**

# Agenda

A strengthened company

Key advantages

Robust growth profile







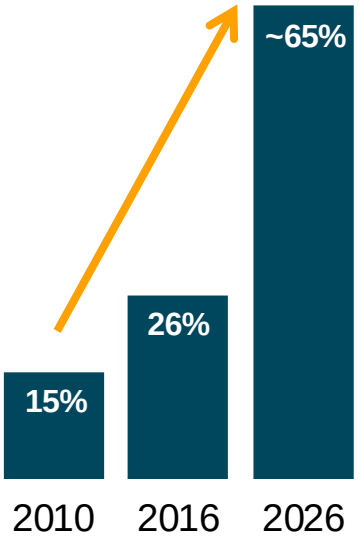
# Focus Areas for Growth

| | |
|---|---|
| 1 | Enhance safety and reliability |
| 2 | Enable California's clean energy economy |
| 3 | Ensure customer affordability |

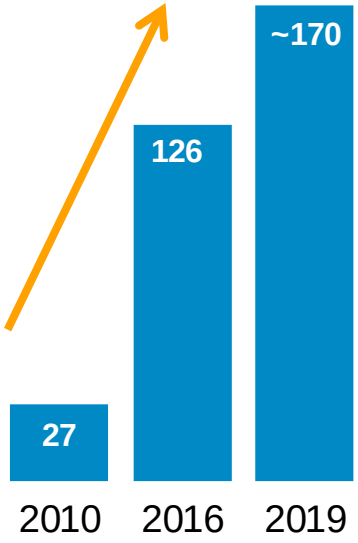
PG&E's operating plan provides a strong foundation for future success

# Continue to Upgrade Our System

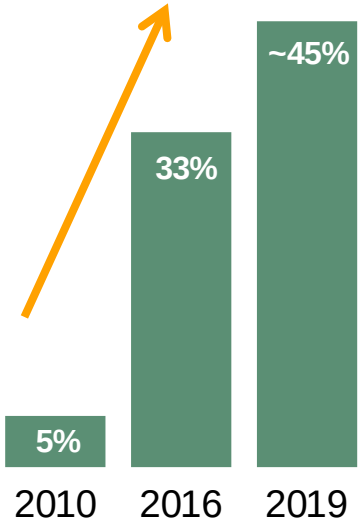
**% of Gas Transmission System Piggable**



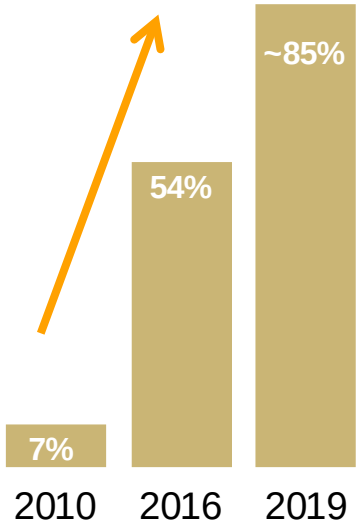

**Annual Projected Miles of Gas Distribution Main Replacement**




**% Penetration of Automated Switches in Urban Areas**




**% of Urban Substations Upgraded**




Investments to systematically modernize infrastructure

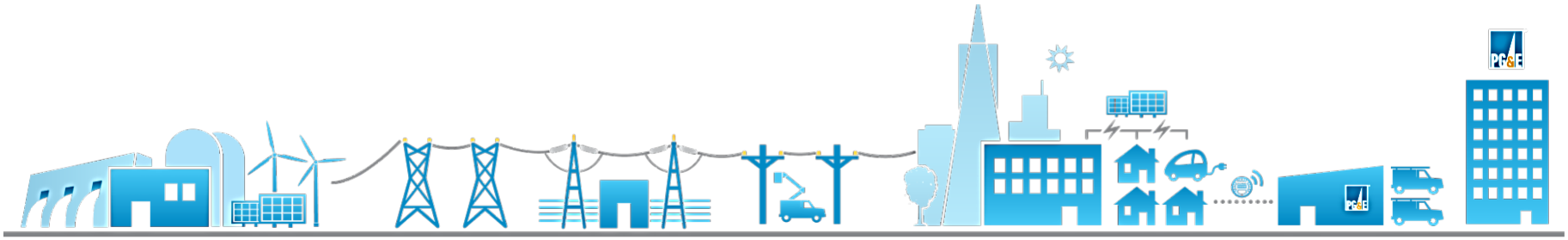
*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# Grid Modernization Will Require Significant Investment

### Grid Control and Monitoring
- Increased remote control and sensor technology reduce outages and enable self-healing grid

### Distributed Energy Resources
- Bi-directional energy flows and voltage fluctuations require integration investments

### Grid Data Analytics
- Advanced analytics enhance decision making, improve operations and reduce cost



### Grid Storage
- Enables renewable integration

### Electric Vehicles
- Requires expanded infrastructure for light, medium, and heavy-duty EVs

### Increased Renewables
- Requires transmission integration

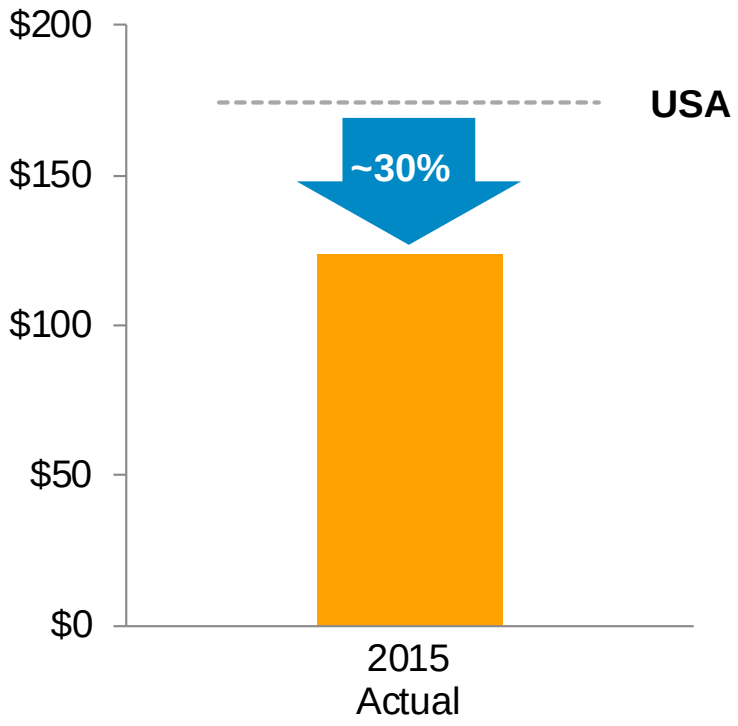
### Energy Efficiency and Demand Response
- Help manage customer costs

**Over $1 billion in planned grid modernization investments through 2020**

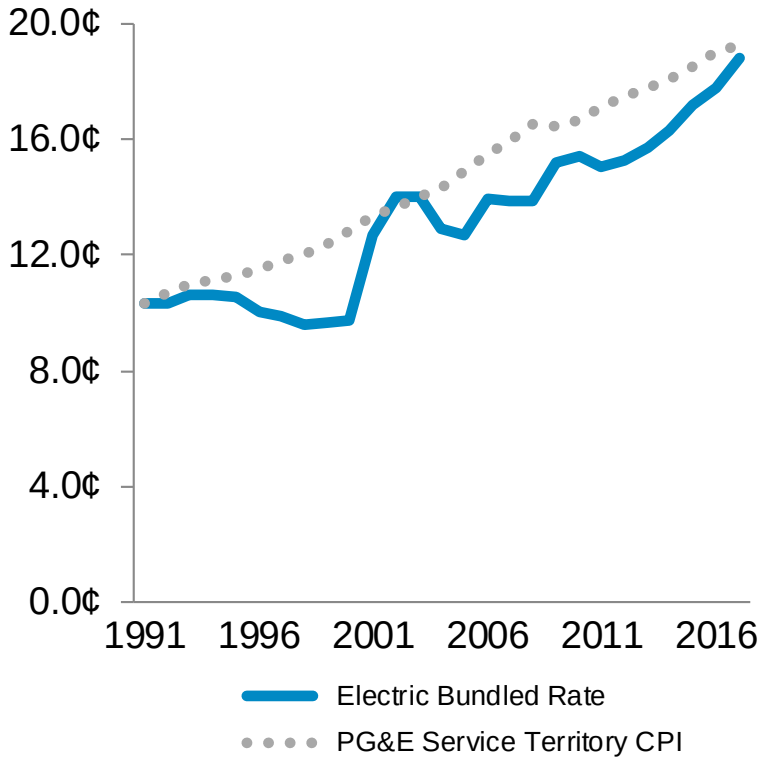
*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# PG&E Bills Lower Than the National Average

## PG&E Average Residential Bills Are 30% Below National Average



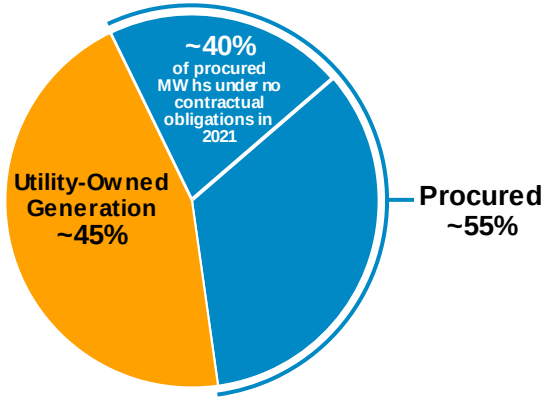

## PG&E's Electric Bundled Rates Have Grown In Line With Inflation




Continued focus on keeping customer bills affordable

# Strategies to Manage Declining Load

## Flexible Electric Portfolio




## Constructive Regulatory Mechanisms

- ☑ Revenues decoupled from sales
- ☑ Cost allocation mechanisms for departing customers

## Modernizing Rate Structures

**CPUC Distributed Energy Resources Action Plan**

| Residential Rate Design | Time of Use Rates | Fixed/ Demand Charges | Net Energy Metering |
|---|---|---|---|

## Focus on Continuous Improvement



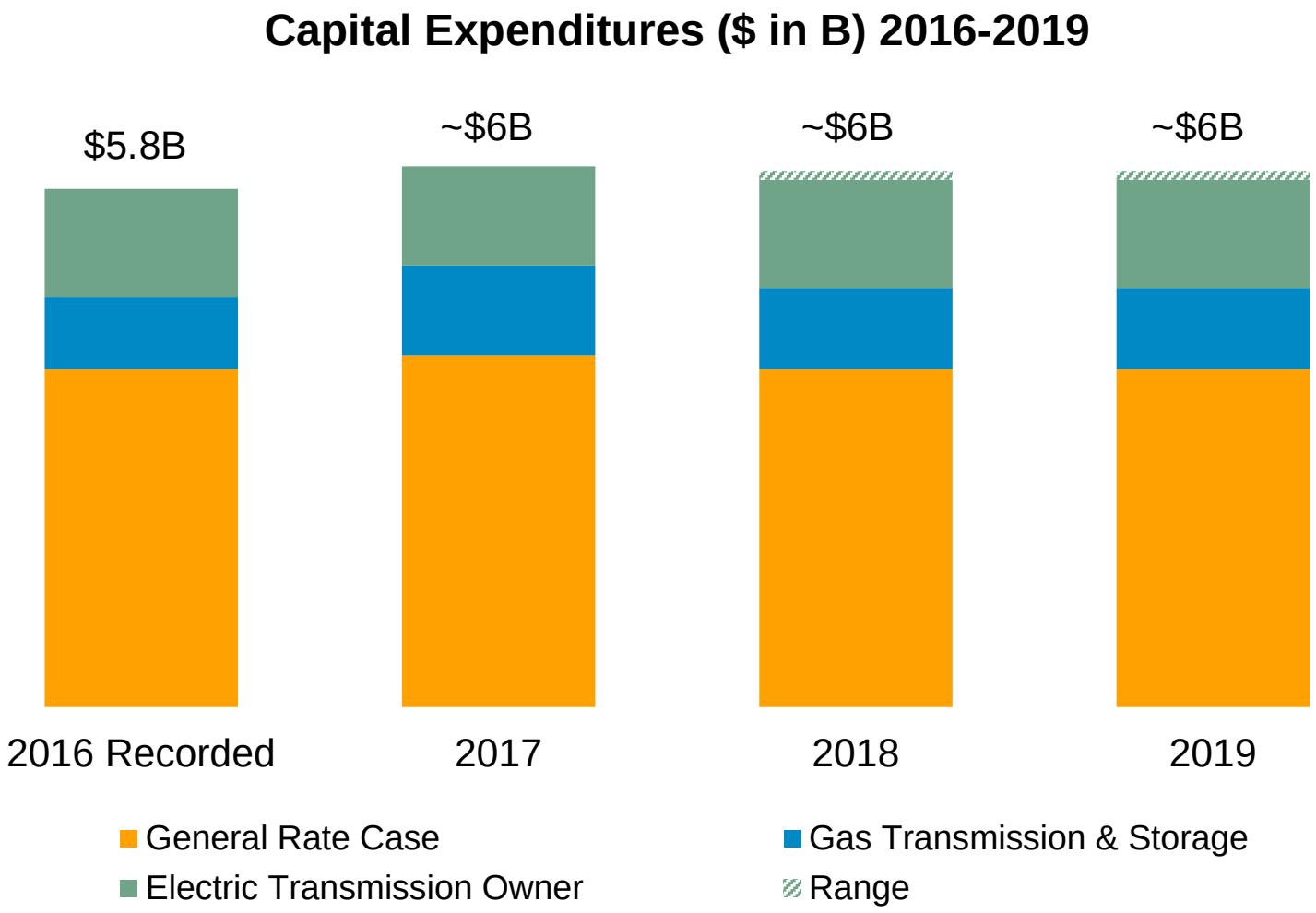
# Well-Positioned for Industry Changes

| Industry Changes | PG&E Strategies |
| --- | --- |
| **Decarbonized Economy** | • Integrate renewables and distributed energy resources<br>• Enable electric vehicle adoption<br>• Expand energy storage options<br>• Enhance energy efficiency programs |
| **Customer Choice** | • Flexible procurement portfolio<br>• Constructive regulatory mechanisms<br>• Modernize rate structures<br>• Sustainable efficiencies |

# Three-year Financial Outlook

| | |
|---|---|
| 1 | Cap ex growth |
| 2 | Ratebase growth |
| 3 | Dividend growth and policy |

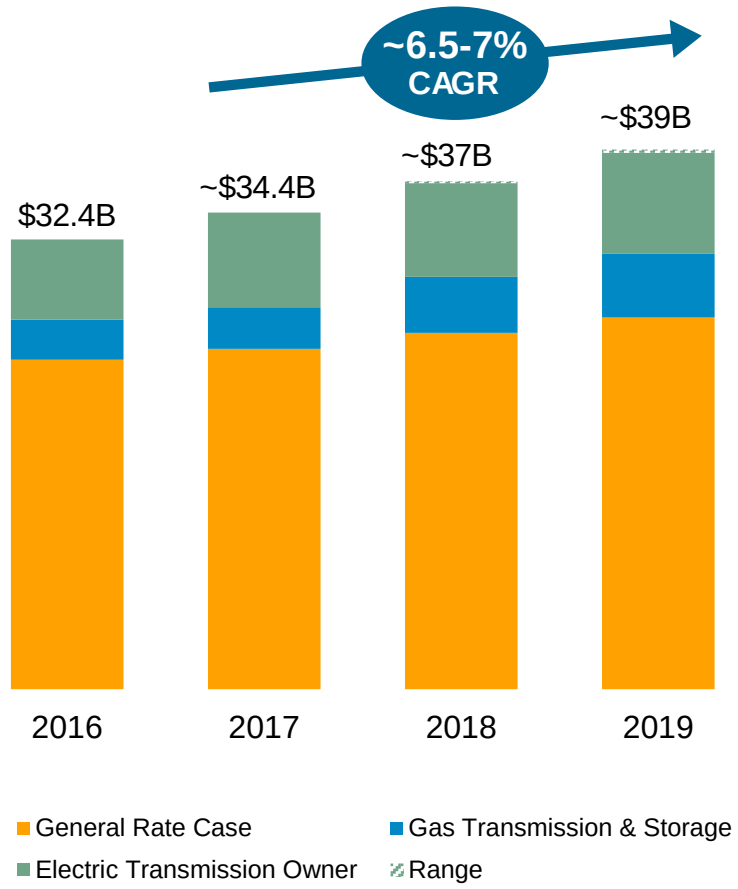
# Robust Cap Ex Supports Strong Returns




*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# Ratebase Supports Strong Returns

## Weighted Average Ratebase ($ in B) 2016-2019




## Base Case Assumptions

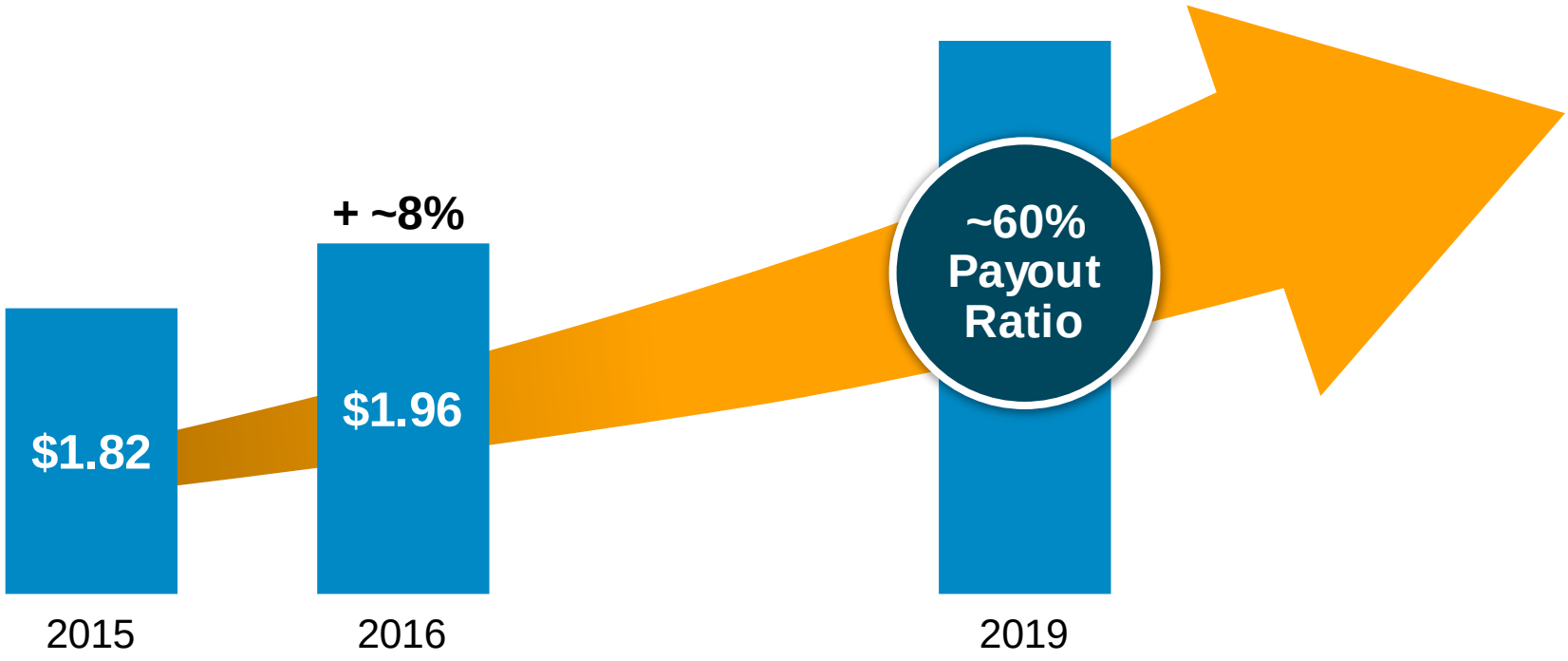
- 2017 General Rate Case settlement through 2019
- 2015 Gas Transmission & Storage rate case
  - Phase 2 decision through 2018; flat in 2019
  - ~$400M for 2011-2014 spend subject to audit added in 2018
- Transmission Owner rate case
  - High end: TO18 filing held flat through 2019
  - Low end: TO17 settlement held flat through 2019
- Electric Vehicle Infrastructure decision in December 2016

## Potential Future Updates

- 2019 Gas Transmission & Storage rate case
- 2018 and 2019 Transmission Owner rate cases
- Future competitive transmission opportunities
- State infrastructure modernization (e.g., rail and water projects)
- Future storage opportunities
- Future transportation electrification (e.g., January 2017 medium and heavy duty vehicle filing)
- New gas storage regulations

*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# Dividend Policy Supports Strong Total Shareholder Return




Targeting 55-65% payout ratio over time

*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

IN SUMMARY

# Solid Growth Strategy Positions PG&E for Success

## A Strengthened Company

- Significant safety, reliability and operational improvements
- Improved customer satisfaction

## Key Advantages

- One of the greenest utilities in the country
- Constructive regulatory and policy environment
- Multiple infrastructure investment drivers

## Robust Growth Profile

- State policies support strong cap ex and ratebase growth
- Resumed dividend growth

**Healthy 3-year growth profile**

- ~6.5-7% ratebase growth
- Above average dividend growth

*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*



PG&E Corporation

# Appendices

# Table of Contents


| | |
|---|---|
| Appendix 1: Leadership Bios | Slides 32 – 38 |
| Appendix 2: Supplemental Material on Tax Reform | Slide 39 |
| Appendix 3: Overview of Key Regulatory Cases | Slides 40 – 48 |
| Appendix 4: Breakdown of 2016 Total Revenue Requirement | Slide 49 |
| Appendix 5: Description of Gas System Certifications | Slide 50 |
| Appendix 6: Credit Metrics and Ratings | Slide 51 |

# Geisha J. Williams



**Geisha J. Williams**
**Chief Executive Officer (CEO) and President**
**PG&E Corporation**

Geisha J. Williams was elected CEO and President of PG&E Corporation, effective March 1, 2017. Williams has more than three decades of experience in the utility industry.

Williams and her team are responsible for the end-to-end delivery of safe, reliable, affordable and clean electricity and gas to 16 million people in northern and central California. Her focus on renewables integration, grid modernization and smart grid technologies has resulted in PG&E customers benefitting from the best electric reliability in company history while also receiving energy that is nearly 70 percent greenhouse gas free. Williams previously was the Utility's President, Electric (August 2015 – February 2017) and Executive Vice President, Electric Operations (June 2011 to August 2015). In her role as President, Williams led all aspects of the Utility's electric business, including power generation, nuclear operations, transmission, distribution, and substation operations, asset management and strategy, energy procurement and customer care.

Before joining PG&E, Williams worked at Florida Power and Light (FPL) for 24 years. She served in a number of roles during her tenure there including Vice President of Power Systems, Electric Distribution. In this role, she was responsible for all aspects of the electric distribution infrastructure serving FPL's 4.4 million customers, including asset management and planning, engineering, construction, maintenance and restoration. During her time at FPL, she considers the company's restoration and recovery efforts in response to seven hurricanes that made landfall in a 15-month period as one of her proudest accomplishments.

Williams is a director at the Edison Electric Institute, the Institute of Nuclear Power Operations, and the Association of Edison Illuminating Companies. She also serves as the board chair for the Center for Energy Workforce Development and is an active participant in Executive Women in Energy.

Her involvement with the community includes serving as a trustee of the California Academy of Sciences and a member of the University of Miami President's Council. She is a five-time recipient of the Bay Area Most Influential Women in Business Award, and in 2014 she was honored with Leadership California's Trailblazer Award.

Williams holds a bachelor's degree in engineering from the University of Miami and a master's degree in business administration from Nova Southeastern University.

She lives in the Bay Area with her family.

# Nick Stavropoulos



**Nick Stavropoulos**
**President & Chief Operating Officer**
**Pacific Gas and Electric Company**

Nick Stavropoulos serves as President and Chief Operating Officer of Pacific Gas and Electric Company and has more than 35 years of experience in the U.S. and international energy industry. He oversees a diverse workforce of more than 23,000 employees across electric, gas, generation and nuclear operations as well as corporate support functions. He also serves on the utility's board of directors.

Today, he and his team are responsible for the end-to-end delivery of safe, reliable, affordable and clean electric and gas service to 16 million people across PG&E's 70,000 square mile service area in northern and central California. PG&E's energy portfolio is one of the cleanest in the nation with more than 60 percent of its portfolio coming from carbon-free energy sources.

Stavropoulos is a passionate advocate for workplace safety and safety culture. Under his leadership, PG&E's gas business has earned or qualified for international certifications including ISO 55000; PAS 55001; API RP 1173; and RC 14001. PG&E is the only North American utility to currently hold these third party certifications.

Prior to joining PG&E, Stavropoulos served as Executive Vice President and Chief Operating Officer for National Grid, an electricity and natural gas delivery company serving nearly seven million customers in the Northeast United States. As COO, he was responsible for all aspects of its U.S. gas distribution business. Throughout his career, he held a number of senior leadership positions with successive levels of responsibility, including Chief Financial Officer, at Keyspan's predecessor companies – Colonial Gas Company and Boston Gas.

Stavropoulos is an internationally sought after speaker on the topics of leadership and safety culture. In recent years, he has delivered keynote speeches at the International Atomic Energy Agency; National Safety Council's Campbell Institute; Institute of Engineering and Technology/The Institute of Asset Management Conference; International Safety Culture Symposium; and Global Safety Culture Conference.

Stavropoulos is a member of the Board of Directors for the American Gas Association, Gas Technology Institute as well as a member of the Advisory Board for Underwriters Laboratory's Integrated Health and Safety Institute. He holds a bachelor's degree in accounting from Bentley College and a master's degree in business administration from Babson College. He sits on the board of his alma mater Bentley University and has served on multiple public and not-for-profit boards including chairing audit committees. A native New Englander, he lives in San Francisco and is an avid Soul Cycler.

# Anthony F. Earley, Jr.



**Anthony F. Earley, Jr.**
**Executive Chair**
**PG&E Corporation**

Anthony F. Earley, Jr., is Executive Chair of the Board of PG&E Corporation. Earley joined PG&E in September 2011 as Chairman, Chief Executive Officer, and President after 17 years at DTE Energy, where he served as Executive Chairman, Chairman, and Chief Executive Officer.

Since joining PG&E, Earley has spearheaded major initiatives related to safety culture, operational excellence, long-term integrated planning, and workforce development. Under Earley's leadership, PG&E has experienced the highest reliability in its over 150-year history. PG&E also continues to grow its environmentally friendly generation portfolio, with more than 50 percent of its assets having no carbon emissions.

As former chairman of the Edison Electric Institute (EEI), the trade association of investor utilities, Earley was directly involved in the development of national policies on energy, the environment, and climate change issues. In 2014, Earley received EEI's Distinguished Leadership Award for his decades of contributions to the electric power industry. He also served as chair of the Nuclear Energy Institute.

Earley earned a Bachelor of Science degree in physics, a Master of Science degree in engineering, and a law degree at the University of Notre Dame, where he serves on the advisory council of the College of Engineering. After graduating from Notre Dame, Earley went on to serve as an officer in the United States Navy nuclear submarine program, where he was qualified as a chief engineer officer. He joined DTE Energy as president and chief operating officer in March 1994. Prior to joining DTE Energy, Earley served in various capacities at Long Island Lighting Company, including president and chief operating officer. He was also a partner at the Hunton & Williams law firm.

Earley serves on the executive committees of the Edison Electric Institute and the Nuclear Energy Institute and is a board member of the Electric Power Research Institute. He is also on the board at Ford Motor Company.
His commitment to the community includes memberships on the boards of United Way Bay Area, The Exploratorium, a science, arts, and human perception museum based in San Francisco, and the Bay Area Council. Earley was named 2015 Philanthropic CEO of the Year by the American Red Cross of the Bay Area. His community service was also recognized by readers of The Detroit News, and in 2003 he was selected as one of the several Michiganians of the Year.

# Jason P. Wells



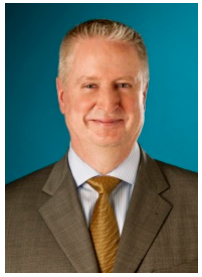
**Jason P. Wells**
**Senior Vice President and Chief Financial Officer**
**PG&E Corporation**

Jason P. Wells is Senior Vice President and Chief Financial Officer for PG&E Corporation. Wells oversees the financial activities of the $50 billion company including accounting, treasury, tax, risk, business and financial planning, and investor relations.

Wells began his career at PricewaterhouseCoopers, LLC, where he was most recently a senior manager. In 2007, Wells joined PG&E as the Director of technical accounting and was promoted to Senior Director and Assistant Controller of corporate accounting in 2008. In 2011, Wells became Vice President, Finance. He assumed his current position on January 2016.

He earned his bachelor's and master's degrees in accounting from the University of Florida. Wells is a Certified Public Accountant in the state of Florida. He currently serves as the Treasurer and on the board of Habitat for Humanity Greater San Francisco.

# Patrick M. Hogan



**Patrick M. Hogan**
**Senior Vice President of Electric Operations**
**Pacific Gas and Electric Company**

Patrick M. Hogan is Senior Vice President of Electric Operations at Pacific Gas and Electric Company.

Hogan oversees PG&E's electric transmission and distribution system, which delivers safe and reliable energy to more than 16 million people throughout Northern and Central California. In addition to his electric responsibilities, Hogan has enterprise-wide responsibility for PG&E's Transportation Services organization, managing over 14,000 vehicles and pieces of equipment.

Prior to his promotion to Senior Vice President of Electric Operations in 2016, Hogan served as Vice President of Electric Strategy & Asset Management where he oversaw the company's electric transmission and distribution assets. Hogan also led the development and deployment of technology into PG&E's electric system.

Before joining PG&E in 2013, Hogan held leadership and officer roles in transmission, distribution, operations, engineering and asset management at British Columbia Hydro, National Grid, and KeySpan.

Originally from New York, Hogan holds a bachelor's and master's degree in electrical engineering from Manhattan College and a master's degree in business administration from Hofstra University. His community involvement includes serving on the board of the San Francisco Ballet, and he currently resides in San Francisco.

# Jesus Soto Jr.



**Jesus Soto Jr.**
**Senior Vice President, Gas Operations**
**Pacific Gas and Electric Company**

Jesus Soto Jr. is the Senior Vice President of Gas Operations for Pacific Gas and Electric Company. He is responsible for overseeing and executing the day-to-day operations of the second largest natural gas system in the United States. PG&E's natural gas system provides safe, reliable, affordable and clean gas service to 16 million people in northern and central California.

Soto is passionate about public and employee safety and PG&E's Gas Operations earned ISO 55000 and PAS 55001 international certifications for the company's enhancements in gas asset management. PG&E is the only North American utility to currently hold these third party certifications. Through his leadership, PG&E was the first utility to deploy a state-of-the-art leak detection technology that is 1,000 times more sensitive than conventional leak detection tools. Soto's commitment to safety has led to a significant reduction in the time it takes PG&E to respond to gas odor calls.

Most recently, Soto served as Vice President of Operations Services for El Paso Corporation's Pipeline Group in Houston, TX. He led the technical services and support functions for pipeline operations and oversaw measurement, compression, reservoir and pipeline systems and Department of Transportation compliance. He was also responsible for risk and integrity management, public awareness and emergency response. Prior to that, Soto was vice president of engineering and construction, leading the engineering and construction programs for ANR Pipeline, El Paso Natural Gas, Colorado Interstate Gas, Southern Natural Gas and Tennessee Gas Pipeline for onshore and offshore facilities.

Soto holds a Bachelor of Science in civil engineering from the University of Texas at El Paso, a master's degree in civil engineering from Texas A&M University, and a Master of Business Administration degree from the University of Phoenix.

# David S. Thomason



**David S. Thomason**
**Vice President and Controller**
**PG&E Corporation**

**Vice President, Chief Financial Officer and Controller**
**Pacific Gas and Electric Company**

David S. Thomason is Vice President and Controller of PG&E Corporation, as well as Vice President, Chief Financial Officer and Controller of Pacific Gas and Electric Company.

Thomason joined PG&E in 2001 as a senior accounting analyst after starting his career with Arthur Andersen in Portland. During his 16 years at PG&E, he has held a multitude of roles, growing as a leader and gaining additional responsibilities with each new position. Functional areas he has overseen include external financial reporting, revenue forecasting, planning and analysis, corporate accounting and more.

Thomason received a Master's degree in Business Administration from University of California, Berkeley, and a Bachelor's degree in Accounting from University of Oregon, Eugene. He holds registrations as a Certified Public Accountant in the states of California and Oregon.

# Tax Reform Helps Affordability and Creates Potential for Future Investments

| | 1. Lower Corporate Tax Rate | 2. Loss of Interest Expense Deduction | 3. Full Expensing of Capital Expenditures |
|---|---|---|---|
| **Utility** | • Excess deferred taxes flow back to customers<br>• Lower net cost of service revenues going forward | • Higher costs borne by customers | • Minimal near-term impact given net operating loss<br>• Reduced ratebase growth in the future |
| **Holding Company** | • Reduction in deferred tax asset – shareholder impact | • Limited impact due to low outstanding debt balances | |

| **Net Deferred Tax Liability (Asset)** (millions, pre-tax) as of December 31, 2016 | | Utility | | Holding Company |
|---|---|---|---|---|
| Property-related and other | $ | 12,110 | $ | (50) |
| Operating loss carryforward | | (1,600) | | (250) |
| Net deferred tax liability (asset) | $ | 10,510 | $ | (300) |

*See the Forward Looking Statements for factors that could cause actual results to differ materially from the guidance presented and underlying assumptions.*

# Separate Rate Cases Maintain Focus on Specific Assets

| | General Rate Case | Gas Transmission and Storage Case | Transmission Owner Case |
|---|---|---|---|
| Regulatory Jurisdiction | CPUC | CPUC | FERC |
| Time Period of Current Rate Case | 2017-2019 | 2015-2017 | 2017 |
| Revenue Requirement | $8.0B (1) | $1.3B | $1.7B (2) |
| ROE (2017) | 10.4% | 10.4% | 10.9% (3) |
| Key Next Steps | Final decision anticipated in Q2 2017 | Implementation of GT&S decisions | FERC Settlement Conferences |

(1) All-party settlement agreement
(2) Requested amount
(3) FERC TO cases have typically been settled blackbox without an explicit ROE; FERC ROE is inclusive of 50 basis points adder. PG&E's objective is to earn the CPUC authorized 10.4% ROE across the enterprise

# 2017 CPUC General Rate Case

- September 1, 2015 – Filed CPUC application requesting 2017 - 2019 revenues
- August 3, 2016 – Filed all-party settlement agreement
- February 27, 2017 – ALJ issued proposed decision adopting the settlement agreement with modifications

| Revenue Requirement ($ millions) | Settlement Agreement Increase/(Decrease) | Proposed Decision Increase/(Decrease) | Difference (Decrease) |
|---|---|---|---|
| 2017 | $ 88 | $ 86 | ($ 2) |
| 2018 | $ 444 | $ 444 | $ 0 |
| 2019 | $ 361 | $ 361 | $ 0 |
| 2020 | $ 361 | N/A | N/A |

- Modifications to the settlement included:
  - A broader tax memorandum account to track any differences between forecasted income tax expense and actual income tax expense
  - A $24 million increase in capital expenditures to fund Rule 20A undergrounding work
  - A requirement that PG&E submit a stand-alone application to recover customer outreach and other costs incurred as a result of rate reform implementation
- The PD also would deny the third attrition year and the proposed new balancing account for gas leak management requirements, arguing that both should be considered in other proceedings
- Comments on the PD are due March 20, 2017, and reply comments are due March 27, 2017; the earliest the CPUC to issue a final decision is April 6, 2017

Assigned Commissioner: Picker
Administrative Law Judge: Roscow

# 2015 CPUC Gas Transmission and Storage Rate Case

- December 1, 2016 – CPUC voted out a final Phase 2 decision consistent with proposed decision

| Revenue Requirement ($ millions) | Utility Requested Revenue Requirement | Phase 2 Decision Revenue Requirement | Difference (Decrease)* |
|---|---|---|---|
| 2015 | $ 1,263 | $ 815 | ($ 448) |
| 2016 | $ 1,346 | $ 1,061 | ($ 285) |
| 2017 | $ 1,488 | $ 1,125 | ($ 363) |
| 2018 | $ N/A | $ 1,230 | $ N/A |

Assigned Commissioner: Peterman
Administrative Law Judge: Dudney

*Difference compares Utility Requested Revenue Requirement to Phase 2 Decision Revenue Requirement

# FERC Transmission Owner Rate Case

## TO18 (2017 Revenues)

- July 29, 2016 – Filed TO18 with FERC requesting $1.7 billion revenue requirement, a $400 million increase over approved TO17
  - ROE (inclusive of 50 basis points adder) 10.90%
  - Cap ex ~$1.3B
  - WAVG Ratebase ~$6.7B

## TO19 (2018 Revenues)

- TO19 case expected to be filed in mid to late summer

# Distributed Resources

## Distributed Energy Resources (DER) Action Plan

- In December 2016, the CPUC adopted a DER Action Plan which is intended to be a roadmap to coordinate the development of DER policy across proceedings in three areas:
  - Rates and tariffs
  - Distribution grid infrastructure, planning, interconnection and procurement
  - Wholesale DER market integration and interconnection

## Distribution Resources Plan (DRP)

- DRP proceeding is about integrating cost effective DERs into the utility's planning, operations, and investment decisions; the DRP proceeding is evaluating criteria for grid modernization investments, a framework for how to incorporate DER solutions into our distribution capital plans, as well as DER adoption forecasting processes

- In February 2017, the CPUC authorized pilot projects to test and evaluate the ability of DERs to operate at high penetration and achieve locational benefits

## Integrated Distributed Energy Resources (IDER)

- The IDER proceeding is examining how to create sourcing options that encourage DER deployment to areas and times of most value to the grid, and is considering DER valuation and cost-effectiveness in addition to piloting a utility incentive mechanism

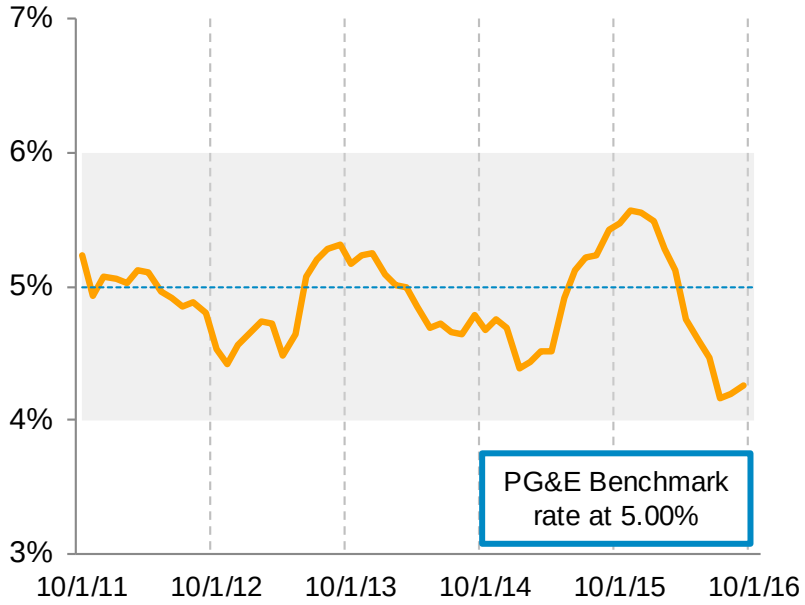
- In February 2017, the CPUC staff issued a paper proposing methodologies for applying a "societal cost test" to the utilities' various DER programs; PG&E and others will comment by the end of March

# CPUC Cost of Capital

## Structure and Cost

| | Capital Structure | 2017 Cost | 2018-19 Cost (1)(2) |
|---|---|---|---|
| Common Equity | 52% | 10.40% | 10.25% |
| Preferred Stock | 1% | 5.60% | TBD (3) |
| Long-Term Debt | 47% | 5.52% | TBD (3) |
| **Weighted Average Cost of Capital** | | **8.06%** | **TBD** |

## Trigger Mechanism
## Moody's Baa Utility Index




- On February 7, 2017, PG&E, the other California IOUs, TURN, and ORA jointly filed a petition to modify our 2018 and 2019 cost of capital and extend the deadline for filing our next application; the petition is pending
- Under the terms of our agreement, the trigger mechanism would be suspended through 2018
- Should the extension be approved, the next cost of capital application is expected to be filed in April 2019

(1) The 2018-2019 cost of common equity is pending approval at the CPUC
(2) 2019 is subject to trigger mechanism
(3) The long-term debt and preferred stock cost will be reset later in the year to reflect actual embedded costs as of the end of August 2017 and forecasted interest rates for the new long-term debt scheduled to be issued for the remainder of 2017 and all of 2018

# Electric Vehicle Infrastructure

## Light Duty Electric Vehicle Infrastructure

- December 15, 2016 – CPUC voted out a final decision authorizing $130M of spend ($109M capital, $21M expense)

## Medium to Heavy-Duty Transportation Electrification

- January 20, 2017 – Filed CPUC application requesting approval of up to $253M in costs ($211M capital, $42M expense) for 3 programs to support transportation electrification for medium to heavy-duty vehicles and public fast charging

| Capital Investment ($ millions) (1) | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total |
|---|---|---|---|---|---|---|
| Electric Vehicle Infrastructure | $32 | $32 | $40 | $47 | $60 | $211 |

(1) Annual proposed breakdown results may vary

# Energy Storage

## Energy Storage RFO

- CPUC Storage Rulemaking (R.10-12-007) established 1,325 MW target for all IOUs (580 MW target for PG&E) by 2024 with up to 50% utility ownership of transmission and distribution projects; first projects expected to come on line in May 2017
- CPUC's Decision establishes biennial procurement targets, including 4 solicitations
- December 1, 2016 – Second solicitation was issued, targeting 120 MWs:
  - Transmission 65 MW
  - Distribution 40 MW
  - Customer 15 MW

## AB 2868

- California Legislature passed AB 2868, which allows for an incremental 500 MW of storage, allocated equally across the three IOUs
- Legislation authorizes additional storage and allows for utility ownership

# Residential Rate/NEM Decisions

## Residential Rate Design OIR Decision

- The CPUC reviewed residential rate structure and issued a decision in July 2015 which:
  - Transition from 4 to 2 tiers by 2019, with 1:1.25 ratio; Currently at 2 tiers, with 1:1.38 ratio
  - "High Usage Surcharge" added in 2017 for consumption at or above 400% of baseline
  - No fixed charges in near-term, but adopts a $10 minimum bill for non-CARE customers
  - Requires the IOUs to file TOU rate proposals by January 2018, with pilots in 2016

## NEM 2.0

- The CPUC largely left NEM 1.0 rates in place, although its decision requires NEM 2.0 customers to take service under one of PG&E's current TOU rates and to pay non-bypassable charges and small interconnection fees
- In December 2016, PG&E passed its NEM cap
- The CPUC has stated it will review NEM in 2019

## Time of Use Rates

- In the DER Action Plan, the CPUC affirmed its intention to implement default TOU rates for all residential customers in 2019
- Currently, PG&E has an opt-in TOU rate schedules available to customers; the peak for one is 4pm - 9pm, and the other is 3pm - 8pm transitioning to 4pm - 9pm in 2020
- PG&E will file our default TOU rate proposal, with a number of TOU options, with the CPUC by January 1, 2018; the peak period for default rates in 2019 is expected to be from 4-9 pm

# Breakdown of 2016 Total Revenue Requirement

| Revenue Requirement Component | | 2016 Revenue Requirement ($ in M) |
|---|---|---|
| General Rate case (Distribution and Generation)<br>Gas Transmission and Storage<br>Electric Transmission | **56% Base**<br>• Includes costs to own and operate our assets<br>• Earning the authorized rate of return depends on ability to manage costs within rate case outcomes | **~$9,900 M** |
| Purchased Gas Costs<br>Energy Resource Recovery Account | **31% Procurement**<br>• Pass Through | **~$5,500 M** |
| Public Purpose Programs and Other | **13% Public Purpose Programs**<br>• Pass Through | **~$2,250 M** |
| | | **~$17,650 M** |



2016 Revenue Requirement

APPENDIX 5

# Description of Gas System Safety Recognition

## ISO 55001

ISO (International Organization for Standardization) 55001 enables the development of an effective asset management system so that an organization can achieve its objectives consistently and sustainably over time. ISO consists of members from the national standards bodies of 162 countries and has published more than 19,500 international standards.

## PAS 55

PAS (Publicly Available Specification) 55 is a rigorous specification for optimized management of physical assets with widespread recognition among utilities, transport, mining, process and manufacturing industries worldwide. PAS 55 was developed by the Institute for Asset Management and published by the British Standards Institution.

## RC 14001

RC (Responsible Care) 14001 is the chemical industry standard issued through the American Chemistry Council (ACC) for process and product safety; community communications; security and safety, health, environmental (SHE) practices. A third party audit reviewed end-to-end safety processes at the company, ultimately approving PG&E as the first utility to secure the certification.

## API 1173

API RP (American Petroleum Institute Recommended Practice) 1173 outlines specific best practices for safe and effective pipeline operations underpinned by a healthy safety culture. PG&E joined other gas pipeline organizations, along with the National Transportation Safety Board and the Pipeline and Hazardous Materials Safety Administration to help co-author the standard.

# Credit Metrics and Ratings

| | Fitch | Moody's | S&P |
|---|---|---|---|
| **Pacific Gas and Electric Company** | | | |
| Senior Unsecured Debt | A | A3 | BBB+ |
| Short-term Debt | F2 | P-2 | A-2 |
| Outlook | Stable | Positive | Positive |
| **PG&E Corporation** | | | |
| Senior Unsecured Debt | A- | Baa1 | BBB |
| Short-term Debt | F2 | P-2 | A-2 |
| Outlook | Stable | Positive | Positive |