

# California Regulation: Uncertain Outlook

Balanced Regulatory Environment Likely To Continue Despite Recent Uncertainty  
Special Report

**Balanced Policy to Continue:** Fitch Ratings believes that the California regulatory compact will continue to support solid investment-grade credit quality for investor-owned utilities (IOUs) in the near-to-intermediate term, notwithstanding uncertainties that have emerged in recent years. A balanced regulatory compact is a key factor supporting the mid-to-high investment-grade credit ratings that Fitch has assigned to the California IOUs. Adverse changes in California regulation could lead to future credit rating downgrades.

**Growing Uncertainty:** The Consumer Protection and Safety Division's (CPSD, now the Safety and Enforcement Division) recommendation in the penalty phase in the California Public Utilities Commission's (CPUC) orders instituting investigation (OIs) into Pacific Gas and Electric's (PG&E) role in the San Bruno pipeline tragedy has, in Fitch's opinion, rekindled investor uncertainty regarding regulation in California. Fitch notes that neither the administrative law judges (ALJs) in the OIs nor the CPUC are bound by the CPSD's recommendation. ALJ rulings are scheduled later this month and a final CPUC decision is expected in the first quarter of 2014.

**Delays and Changes:** Other factors contributing to modest, perceived deterioration of the regulatory compact and enhanced sense of investor uncertainty, in Fitch's view, include: the political rancor, duration, headline risk and uncertainty associated with the San Bruno OIs; significant delays in recent general rate cases (GRCs); lower authorized returns on equity; the 2011 change in gubernatorial administration; and the appointment of several new CPUC commissioners in recent years.

**CoC Decision:** The final CPUC cost-of-capital (CoC) decision in December 2012 significantly lowered authorized returns on equity (ROE) for California's largest investor-owned utilities. On average, the CPUC lowered authorized ROEs for PG&E, San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SCG) and Southern California Edison Company (SCE) by 88 basis points, narrowing the risk premium historically authorized by the CPUC.

**Large Capex:** Continuation of a balanced regulatory compact in California is central to the IOUs' credit ratings, in Fitch's opinion, given their large projected capital budgets. Fitch calculates based on public filings that combined capex for PG&E, SDG&E, SCG and SCE ranges from \$31 billion to \$37 billion with a mean of \$34 billion during 2013–2015.

**Effective Cost Recovery Mechanisms:** Regulatory mechanisms adopted by the CPUC ameliorate cost recovery risk associated with the IOUs' large infrastructure investment programs, in Fitch's opinion. Relevant tariff and recovery mechanisms include: revenue decoupling; forward-looking test years and attrition rate increases in GRCs; pre-approval of capex; single issue rate cases; and use of deferred accounting and balancing accounts to recover costs such as fuel and purchase power outside of GRCs.

**Earned Versus Authorized Returns:** Authorized ROE is, in Fitch's view, an important aspect of a utility's regulatory compact. More important still is the ability of a utility to earn its authorized ROE. With the exception of PG&E since 2010, utilities in California have consistently earned at authorized levels, which are mostly above the industry average.

**Reasonable GRC Outcomes:** While significant delay in adjudicating GRCs in recent years is a concern, final decisions in those proceedings have been, for the most part, well balanced in Fitch's view.

## Related Research

EEl 2013 Wrap Up: Tip of the Iceberg (Slow Growth and Emerging Technology Challenge the Status Quo) (November 2013)

Power Down II: Efficiency Gains Short Circuit kWh Sales (U.S. Residential Electricity Consumption Leads Broad Declines Across All Sectors) (October 2013)

Fitch Fundamentals Index — U.S. Index Trend Analysis 3Q13 (October 2013)

## Analysts

Philip W. Smyth, CFA  
+1 212 908-0531  
philip.smyth@fitchratings.com

Julie Jiang  
+1 212 908-0708  
julie.jiang@fitchratings.com

Glen Grabelsky  
+1 212 908-0577  
glen.grabelsky@fitchratings.com

### Balanced Regulatory Environment

Appendix 2 of this report includes graphs summarizing earned versus authorized returns on equity (ROE) for PG&E, SCE, SCG and SDG&E. As indicated in the graph, the large California IOUs have been able to consistently earn at-or-above their authorized ROEs, with the recent, notable exception of PG&E. The utilities' ability to earn their authorized ROEs is due, in Fitch's opinion, to the forward-looking and balanced approach to ratemaking adopted and implemented by the CPUC since the energy crisis of 2000–2001. PG&E's earnings and financials have been pressured by incremental San Bruno-related costs that are not being recovered in rates of more than \$1.8 billion through the third quarter 2013.

The CPUC has long used projected test years in GRC filings, which are usually filed every three years. Attrition rate increases in the two years following the test year are also permitted to recover anticipated, rising operating costs due to inflationary pressures. Cost-of-capital issues are bifurcated from GRC proceedings.

In addition, California is one of the few jurisdictions to implement revenue decoupling for both electric and gas utilities. Purchase power and fuel costs are recovered outside of base rate cases, through balancing accounts. Major capital projects are pre-approved either through the GRC process or single-issue proceedings before the commission. Enactment of Assembly Bill (A.B.) 327 earlier this year provides the commission with authority to set residential rates and address net metering issues, including a monthly fixed charge.

These regulatory mechanisms collectively provide California-based IOUs with a reasonable opportunity to earn their authorized ROEs and are reflected in Fitch's credit ratings. That is unlikely to change, in Fitch's opinion, notwithstanding concerns regarding San Bruno-related investigations, significant delays in recently adjudicated GRCs and the CPUC's final 2012 CoC decision, which significantly lowered authorized ROEs.

### A.B. 327

In October 2013, Governor Jerry Brown signed into law A.B. 327. Fitch believes enactment of A.B. 327 is a constructive development from a credit point of view. The legislation shifts residential rate design authority from the legislature to the CPUC, removing legislatively imposed restrictions on certain customer rates and setting milestones for the commission to address net metering issues and set appropriate incentives to meet California renewable portfolio standards (RPS). It also provides the CPUC with the flexibility to exceed the current 33% RPS target, without changing the current RPS target level. The commission under the legislation is required to develop a new net-energy-metering (NEM) program for implementation on July 1, 2017, while grandfathering existing NEM customers.

A.B. 327 authorizes the CPUC to implement fixed charges of up to \$10 per month per residential account to recover IOU fixed residential costs. The ultimate implementation of a fixed charge to recover grid costs and avoid cost shifting among residential customers is, in Fitch's opinion, a constructive development supporting current IOU credit quality.

Under AB1X, which was enacted in 2001, residential consumers were separated into tiers based on usage to encourage conservation. Rates for low-usage customers in tiers one and two were frozen through 2008 and, since 2009, subject to modest rate hikes linked to the consumer price index. As a result, Tier 3 and Tier 4 residential customers have borne the brunt of rising costs associated with IOU's large capex programs. Tier 3 and Tier 4 residential customer class rates for PCG, SCE and SDG&E have risen significantly since 2001 and range from \$0.27 to \$0.37 per kilowatt hour.

The tiered rate structure in concert with NEM subsidies has made it economic for high-use residential customers to leave the grid for savings that, based on a recent study conducted for the commission, will ultimately be paid for by non-NEM residential customers. A.B. 327 provides authority to the CPUC within certain limitations to adjust rates to remedy cost shifting between residential customer classes.

Fitch notes that the number of customers participating in NEM programs is very small currently, but is growing rapidly. Based on EIA data for 2012, California accounts for 159,708 NEM customers or 48% of the nationwide tally of 331,276 NEM customers. Competing distributed technologies supported by federal and state incentives represent a nascent challenge for California IOUs and the broader utility industry in the context of the regulatory compact. Nonetheless, similar feed-in-tariff mechanisms have been problematic in the past, both in the U.S. and in parts of the Eurozone, perhaps most notably Spain. More serious, in Fitch's view, is the potential threat from meaningfully lower distributed generation costs due to continued technological gains in the long term.

### San Bruno Impact

Fitch expects PCG subsidiary PG&E will be hit with a large penalty and fine by the CPUC for its role in the September 2010 San Bruno pipeline explosion that resulted in eight deaths, injuries and property damage. The company has reserved \$200 million in anticipation of a final decision in the pending San Bruno Olls. In its June 2013 amended reply brief, the CPSD is recommending penalties totalling \$2.25 billion, including a minimum \$300 million fine.

If the CPSD recommendation in the Oll is adopted in a final ALJ/CPUC decision, total San Bruno-related fines, penalties, operating and other costs to PCG would exceed \$4 billion, more than double PG&E's gas transmission rate base. In this scenario, PG&E's earnings power would be limited by unrecovered pipeline safety enhancement investment and operating costs at least through 2014.

PCG and PG&E's Issuer Default Ratings (IDRs) were lowered by Fitch one notch in December 2011 to 'BBB+' and affirmed Oct. 31, 2013. The IDRs discount the anticipated financial impact of the San Bruno pipeline disaster. PG&E's earnings and financials have been pressured by incremental San Bruno-related costs that are not being recovered in rates of more than \$1.8 billion through the third quarter 2013.

The CPSD's Oll recommendation is not binding on the ALJs or the CPUC. In a reasonable worst-case decision, Fitch believes PCG and PG&E will ultimately resolve San Bruno-related challenges within their current 'BBB+' rating categories. Fitch assumes continued PCG access to equity capital in sufficient amounts to absorb unrecoverable costs and penalties and maintain the utility's statutory 52% equity ratio. Equity contributions from PCG to PG&E have totalled more than \$2.3 billion in 2010–2013.

Offsets to higher San Bruno-related operating costs incurred by PG&E include GRC-mandated tariff increases, deferred tax benefits and significant common equity issuance at PCG and infusions into PG&E. With a final decision in the Olls likely during the first quarter of 2014, Fitch expects PCG and PG&E's credit metrics to begin to recover during 2013–2015 in a reasonable worst-case outcome. Fitch believes PG&E will be able to resolve San Bruno-related issues within its current rating category. However, a more punitive outcome in the pending San Bruno Olls could lead to further erosion of PCG and PG&E's credit ratios and future credit rating downgrades for both companies. Key San Bruno-related proceedings before the CPUC are listed in the table below.

## Summary of Key San Bruno-Related Natural Gas Pipeline Proceedings

Proceeding	CPUC Final Decision	Brief Description
Gas Pipeline Safety OIR	Issued 12/20/2012 <sup>a</sup>	Proceeding to improve natural gas pipeline safety and establish regulatory mechanisms for the recovery of related costs for PG&E, SDG&E, SCG and Southwest Gas.
Recordkeeping OIR	Final decision in OIR a penalty/fine expected to be issued	Focuses on PG&E's safety record keeping practices for its entire natural gas pipeline system.
Class Location OIR	1Q 2014.	Examines PG&E's practices with regard to operation of pipelines in high population density areas.
Gas Pipeline OIR		Broad investigation to determine if PG&E violated applicable law, rules, orders, requirements and industry safety standards in connection with the San Bruno accident.

<sup>a</sup>PG&E Pipeline Safety Enhancement Plan (PSEP) decision only.

Source: Company filings, Fitch Ratings.

### Reasonable GRC Outcomes

GRCs in California have been subject to lengthy delay, with the CPUC taking, for example, approximately twenty-nine months to reach a final decision in SCG's 2012 GRC. The uncertainty caused by the delays in the most recent SCE, SDG&E and SCG GRCs, however, is mitigated by the fact that the rate increases authorized by the CPUC were retroactive to the beginning of the test year.

Appendix 1 summarizes the most recent general rate cases for PG&E, SCE, SDG&E and SCG as well as summary data regarding PG&E and SCE's pending 2014 GRC and 2015 GRC, respectively. Final CPUC rate increases approved in the companies' 2011 and 2012 GRCs approximated 54% of the aggregate requested amount and, importantly, SCE, SCG and SDG&E have been able to earn their authorized returns.

In Fitch's view, the delays have been a function of the heavy workload shouldered by the commission, not problems inherent in the filings. In addition to the San Bruno-related rulemakings and investigations, SCE and Sempra Energy subsidiaries, SDG&E and SCG, filed their 2012 GRCs around the same time in the same year and the IOUs' CoC proceeding was adjudicated as well, with a final ruling issued in December 2012. Fitch expects the CPUC review process in GRCs will shorten considerably once the San Bruno proceedings are behind.

PG&E filed its 2014 GRC with the CPUC in November 2012 and Fitch expects the CPUC will issue a final decision around the middle of next year. In Fitch's view, a final decision issued consistent with this timeline would be a marked improvement to recent experience. In its 2014 GRC filing, PG&E initially supported a \$1.28 billion increase in test-year revenues and attrition year rate increases of \$492 million and \$504 million in 2015 and 2016, respectively. PG&E subsequently updated its revenue request to reflect the lower returns on equity adopted by the CPUC in its December 2012 cost of capital (CoC) decision. As a result, the utility currently supports revenue requirement increases of \$1.16 billion, \$436 million and \$486 million, respectively, in 2014, 2015 and 2016.

SCE filed its 2015 GRC with the CPUC in November 2013, requesting a \$206 million test year revenue increase and attrition rate increases of \$318 million and \$317 million in 2016 and 2017, respectively.

### CoC Proceeding

With current interest rates and market return expectations materially lower than those prevailing at the time of the previous cost of capital (CoC) proceeding, it is unsurprising that the CPUC lowered authorized ROEs for the California IOUs in its December 2012 final decision. Nonetheless, the magnitude of the reduction was significant and is a modest negative credit

development, in Fitch's view. While higher than industry average when the final decision was issued in December 2012, the final CPUC decision meaningfully narrows the premium historically accorded the California utilities. The CPUC lowered authorized ROEs for PG&E, SCE, SDG&E and SCG, on average, 88 basis points to 10.31% from 11.19%. The actual change in ROE and capitalization is delineated in the table below for the four largest California utility operating companies.

The CPUC also approved an unopposed stipulation in March 2013 allowing PG&E, SCE, SDG&E and SCG to continue to operate under automatic CoC adjustment mechanisms. Under the mechanism, authorized returns would be reviewed annually and changed only if a specified index of utility bond yields had increased or decreased more than one percent from the base year. In Fitch's opinion, the bifurcation of CoC proceedings from GRCs and the automatic adjustment mechanism are constructive regulatory constructs from a credit point of view.

### Cost of Capital Overview

(%)	ROE			Equity Capital		
	Authorized	Request	Previous	Authorized	Request	Previous
Pacific Gas & Electric	10.40	11.00	11.35	52	52	52
Southern California Edison	10.45	11.10	11.50	48	48	48
San Diego Gas & Electric	10.30	11.00	11.10	52	52	49
Southern California Gas	10.10	10.90	10.82	52	52	48

Source: Company filings; Fitch Ratings; Regulatory Research, an SNL company.

### SONGS

Fitch believes that SCE and SDG&E's investment in the San Onofre Nuclear Generating Station (SONGS) will most likely prove to be recoverable in rates and that regulatory rulings regarding the plant's permanent retirement and related cost recovery will not trigger future adverse rating actions. Recoveries from SCE and SDG&E ratepayers are expected by Fitch to be net of third-party recoveries. However, large, unexpected SONGS disallowances by the CPUC could weaken SCE and SDG&E's credit metrics and pressure future creditworthiness.

Regulatory proceedings regarding recovery of SCE's net investment and costs related to the permanent retirement of SONGS are a source of some uncertainty for the utility. In October 2012, the CPUC issued an OII for the SONGS outages. The OII consolidates all SONGS proceedings and will determine appropriate recovery for all SONGS-related costs, including steam generator project, market power, capital expenditures, operations and maintenance and seismic studies. SONGS costs incurred from January 1, 2012 will be tracked in a SONGS OII memorandum account (SONGSMA) and are subject to refund.

In June 2013, SCE announced plans to permanently retire SONGS Units 2 and Unit 3. At the time of the announcement by SCE management, SONGS had been out of service since January 2012, when a heat transfer tube leak was discovered in the plant's steam generators. Fitch believes precedent in California supports full recovery of SONGS in rates. SCE in its August 2012 testimony filed in Phase 2 of the four-phase SONGS OII supports recovery of and on its investment in SONGS. Proceedings in the OII are likely to continue into next year with final decisions in all four phases of the proceeding expected by year-end 2014.

SONGS is operated by SCE, which owns a 78.21% interest in the plant. Sempra Energy subsidiary SDG&E owns a 20% interest in the nuclear generating station and the remaining 1.79% is owned by the City of Riverside. SCE replaced the steam generators in Units 2 and 3 in 2010 and 2011 and the CPUC approved of up to \$665 million of costs, subject to prudence

review, related to the steam-generator replacement project (based on SCE's 78% ownership share of the plant). SCE incurred costs totaling approximately \$602 million related to the steam-generator replacement project, not including inspection, testing and repair costs related to the steam generator tube leak.

SCE is seeking recovery of certain SONGS-related costs incurred due to the failure of the steam generators through binding arbitration with Mitsubishi Heavy Industries (MHI), the manufacturer of the replacement steam generators. SCE submitted its request for arbitration with the Chamber of Commerce supporting up to \$4 billion of claims against MHI for damages that the SONGS owners have incurred. The claim includes costs related to the new steam generators, replacement power, lost revenue, inspection, repair and other related costs.

In addition, SONGS carries accidental property damage and accidental outage insurance issued by Nuclear Electric Insurance Limited (NEIL) and SCE has placed NEIL on notice of claims under both policies. NEIL policies are subject to exclusions and limitations that may reduce or eliminate coverage. SCE has disclosed that it expects NEIL to make a coverage determination by the end of the first quarter of 2014.

### Commission Overview

The CPUC is composed of five, full-time commissioners that are appointed to staggered six-year terms by the governor. Governor Brown was elected in 2010 and is serving a four-year term through January 2015. Current commissioners are listed in the table below. All CPUC commissioners currently serving, with the exception of Michael Peevey, were appointed by Governor Brown. Individual commission terms are set to expire between January 2015 and January 2019, with Peevey and Ferron's terms ending in January 2015. Sandoval and Florio's terms run through January 2017 and Governor Brown's latest appointment, Carla Peterman, will serve through January 2019.

---

### CPUC Overview

Name	Title	Appointed	Term Ends
Michael R. Peevey	President	March 2002	January 2015
Michael P. Florio	Commissioner	January 2011	January 2017
Catherine J.K. Sandoval	Commissioner	January 2011	January 2017
Mark J. Ferron	Commissioner	March 2011	January 2015
Carla J. Peterman	Commissioner	December 2012	January 2019

Source: CPUC, Fitch Ratings.

---



## Appendix 1

## Past General Rate Cases

	Request (\$ Mil.)	Authorized (\$ Mil.)	Percent of Request
<b>Pacific Gas and Electric 2011 GRC</b>			
<i>Electric and Gas Combined</i>			
2011 Test Year	1,065	450	42
2012 Attrition Year Rate Increase	276	180	65
2013 Attrition Year Rate Increase	344	185	54
<b>Total 2011-2013</b>	<b>1,685</b>	<b>815</b>	<b>48</b>
<b>Southern California Edison 2012 GRC</b>			
<i>Electric</i>			
2012 Test Year	809	272	34
2013 Attrition Year Rate Increase	445	358	80
2014 Attrition Year Rate Increase	574	356	62
<b>Total 2012-2014</b>	<b>1,828</b>	<b>986</b>	<b>54</b>
<b>Southern California Gas Co. 2012 GRC</b>			
<i>Gas</i>			
2012 Test Year	239	85	36
2013 Attrition Year Rate Increase	98	87	89
2014 Attrition Year Rate Increase	98	90	92
2015 Attrition Year Rate Increase	98	90	92
<b>Total 2012-2015</b>	<b>533</b>	<b>352</b>	<b>66</b>
<b>San Diego Gas &amp; Electric 2012 GRC</b>			
<i>Electric and Gas Combined</i>			
2012 Test Year	239	123	51
2013 Attrition Year Rate Increase	48	43	90
2014 Attrition Year Rate Increase	48	44	92
2015 Attrition Year Rate Increase	48	44	92
<b>Total 2012-2015</b>	<b>383</b>	<b>254</b>	<b>66</b>

Source: Company reports; Fitch Ratings; Regulatory Research Associates, an SNL company.

## Pending General Rate Cases For Southern California Edison and Pacific Gas and Electric

	Request (\$ Mil.)	Request (\$ Mil.)	
<b>Pacific Gas and Electric 2014 GRC</b>		<b>Southern California Edison 2015 GRC</b>	
<i>Electric</i>		<i>Electric — Notice of Intent</i>	
2014 Test Year	796	2015 Test Year	206
2015 Attrition Year Rate Increase	305	2016 Attrition Year Rate Increase	318
2016 Attrition Year Rate Increase	344	2017 Attrition Year Rate Increase	317
<i>Gas</i>			
2014 Test Year	486		
2015 Attrition Year Rate Increase	187		
2016 Attrition Year Rate Increase	160		
<i>Electric and Gas Combined</i>			
2014 Test Year	1,282 <sup>a</sup>		
2015 Attrition Year Rate Increase	492 <sup>a</sup>		
2016 Attrition Year Rate Increase	504 <sup>a</sup>		

## Key Filing Milestones and Dates

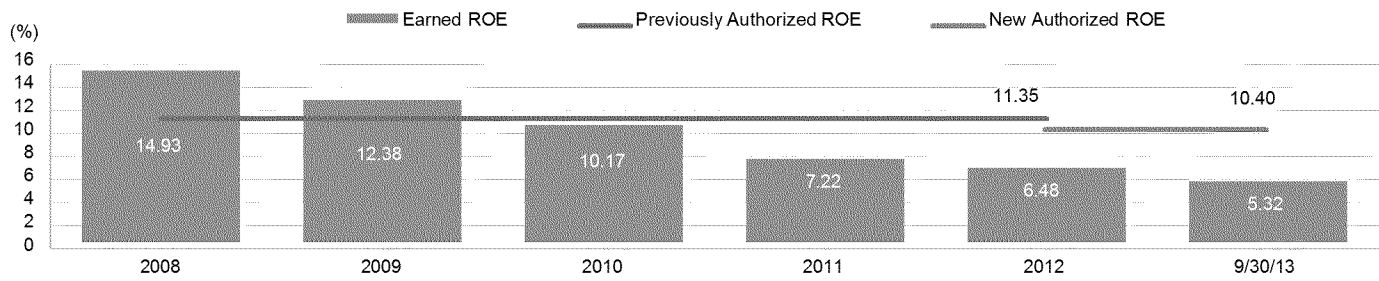
Event	Date	Event	Date
NOI	July 2012	NOI	July 2013
Rate Case Filed With CPUC	Nov. 2012	Rate Case Filed With CPUC	Nov. 2013
ALJ Proposed Decision Expected	1Q14	ALJ Proposed Decision Expected	TBD
CPUC Final Decision Expected	1H14	CPUC Final Decision Expected	TBD

<sup>a</sup>Subsequently adjusted to support revenue requirement increases of \$1.16 billion, \$436 million and \$486 million, respectively, in 2014, 2015 and 2016. TBD - To be determined.

Source: Company reports; Fitch Ratings; Regulatory Research Associates, an SNL company.

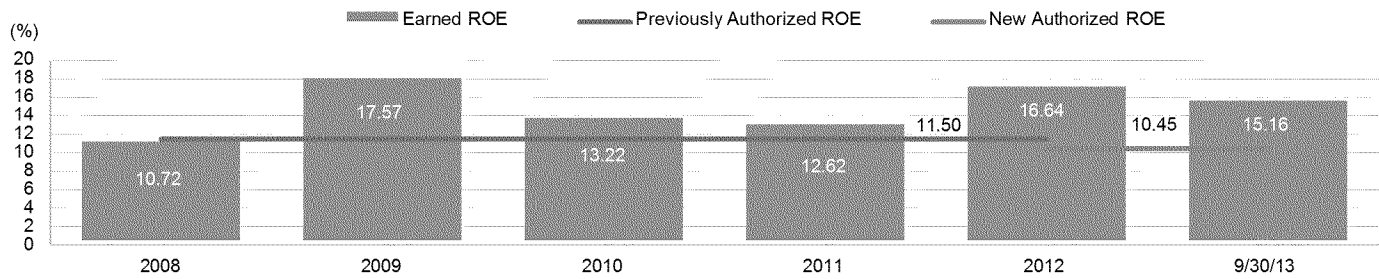
Appendix 2

**PG&E Corp.: BBB+**  
(Years Ended Dec. 31)



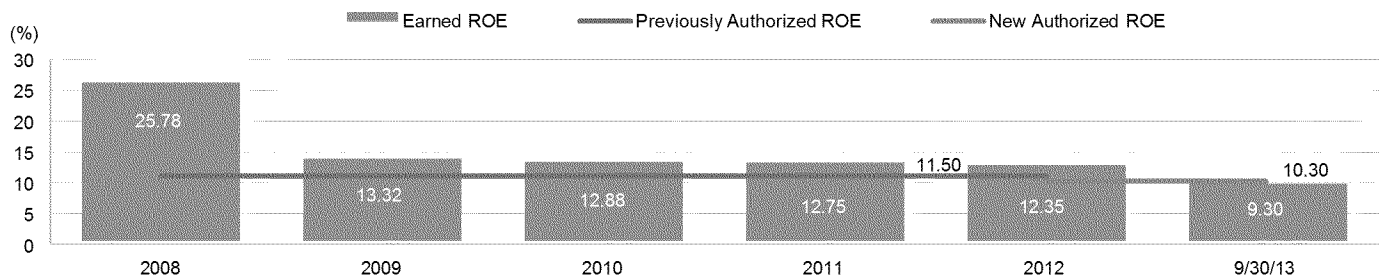
Source: Company reports, Fitch Ratings.

**Southern California Edison Co.: A-**  
(Years Ended Dec. 31)



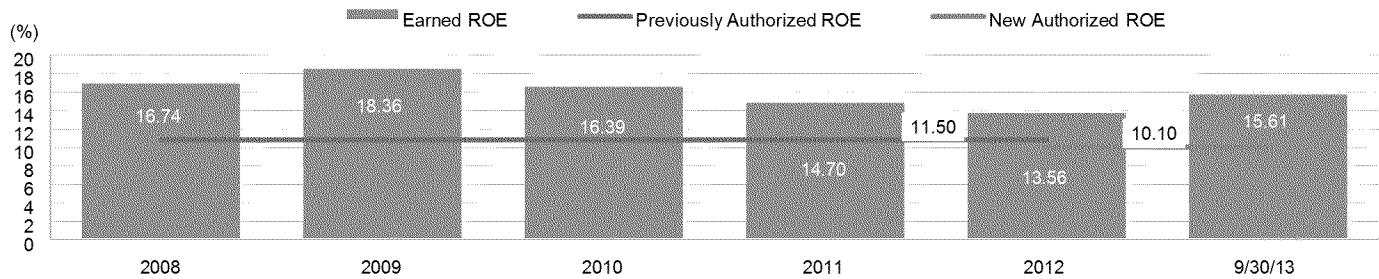
Source: Company reports, Fitch Ratings.

**San Diego Gas & Electric: A**  
(Years Ended Dec. 31)



Source: Company reports, Fitch Ratings.

**Southern California Gas Co.: A**  
(Years Ended Dec. 31)



Source: Company reports, Fitch Ratings.



ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: [HTTP://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS](http://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS). IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE AT [WWW.FITCHRATINGS.COM](http://WWW.FITCHRATINGS.COM). PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

Copyright © 2013 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. One State Street Plaza, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion is based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.