

2005 Integrated Energy Policy Report

Integrated Energy Policy Report Committee:

Commissioner John L. Geesman, Presiding Member
Commissioner James D. Boyd, Associate Member

Primary Authors

Melissa Jones, Advisor

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Energy Report Process

Public Resources Code 25300 et seq.

Integrated policy development

- **Policy recommendations will be made based on an in depth and integrated analysis of energy issues facing the state. (Pub. Res. Code 25302(b))**

Common information base for energy agencies

- **The state's energy agencies will use the information and analyses contained in the report to carry out their energy-related duties. (Pub. Res. Code 25302(f))**

Timing

- **A policy report that includes an in depth assessment and forecasts of all energy sectors will be adopted by the Energy Commission every two years, and a supplement to the previous energy report on specific issues will be adopted in the off years.**



2005 Energy Report Proceeding

- Collaboration with federal, state and local agencies
- 50+ Committee hearings and workshops
- 30,000+ pages of docketed materials
- More than 50 staff and consultant papers and reports
- 100+ comment letters on Committee Draft reports
- Three Committee Final Reports
 - ❖ ***2005 Energy Report***
 - ❖ ***Strategic Transmission Investment Plan***
 - ❖ ***Transmittal Report to CPUC***



Procurement Recommendations

- CPUC should require IOUs to procure enough energy/capacity to meet net short positions and provide for retirement of aging plants by 2012.
- By the end of 2006, the CPUC should develop coming/going rules for departing load.
- The Energy Commission and CPUC should establish transparent resource planning and procurement processes for all-source and renewable resources, and eliminate confidential procurement review groups.
- The Energy Commission and CPUC should develop transparent and standardized methods for addressing least-cost best-fit criteria and consistently apply a renewable “rebuttable-presumption” to all procurement.



Combined Heat & Power (CHP)

- The Energy Commission and the CPUC should establish annual utility procurement targets by the end of 2006.
- The CPUC should require IOUs to purchase electricity from these facilities at prevailing wholesale prices.
- The CPUC should explore regulatory incentives that reward utilities for promoting customer and utility-owned CHP projects.
- The CPUC should require IOUs to provide CA ISO scheduling services for these facilities and be compensated.



Nuclear

- The federal government should return some portion of funds paid by California ratepayers for a permanent waste repository to pay for interim storage at California reactor sites.
- The Legislature should develop a framework to review costs and benefits of nuclear power plant license extensions.



Energy Efficiency/Demand Response

- The CPUC and Energy Commission should monitor IOUs energy efficiency programs to ensure peak savings are captured in their efficiency portfolios.
- The CPUC, DWR, Energy Commission, local water agencies and other stakeholders should assess efficiency improvements in hot/cold water use in homes/businesses, and include these improvements in the 2006-08 programs.
- The Energy Commission should establish (consistent with SB 1027) reporting requirements for POUs to ensure efficiency goals are comparable to those of the IOUs.
- The CPUC and Energy Commission must vigorously pursue actions to ensure the state's demand response goals are met.



Renewable Resources

- The Energy Commission should ensure that POUs meet the same RPS targets for eligibility and compliance as the IOUs
- By the end of 2006, the CPUC and Energy Commission should establish a joint proceeding to develop a simpler/more transparent RPS process.
- The CPUC and Energy Commission should closely monitor the 2005 renewable procurement cycle to determine the potential value of greater contract standardization.
- To prevent under-procurement, the CPUC should require IOUs to procure a prudent contract-risk margin, starting at 30%.
- The CPUC should quickly develop new standardized wind re-powering contracts to more efficiently harness wind resources and reduce bird deaths.



Transportation

The state should:

- Simultaneously reduce petroleum fuel use, increase fuel diversity/security, and reduce air emissions/greenhouse gases.
- Implement a public goods charge to establish a funding source for a transportation program that includes infrastructure, technology/fuels research, analytical support, and incentive programs.
- Continue to work with other states to pressure the federal government to double vehicle fuel efficiency standards and enact fleet procurement requirements that include super-efficient gasoline/diesel vehicles.
- Establish non-petroleum diesel fuel standard so that all diesel fuel sold in California contains a minimum of 5% non-petroleum content that would include biodiesel, ethanol, and gas-to-liquid.
- Establish a state renewable gasoline fuel standard so that all gasoline sold in California contains a minimum of 10% renewable content.
- Investigate how IOUs can help to develop equipment/infrastructure to fuel electric and natural gas vehicles.
- For its fleet of vehicles, establish a minimum fuel economy standard and a procurement requirement for alternative fuels/vehicles, and examine the use of re-refined and synthetic oils.



Transmission

- The Legislature should expeditiously transfer transmission permitting to the Energy Commission using the Warren-Alquist Act's power facility and siting certification process as a framework.
- The Energy Commission, CPUC, and the CA ISO should collaborate to investigate changes to the CA ISO tariff to encourage construction of transmission for renewable generation interconnections.
- The Legislature should assign the Energy Commission the statutory authority to establish a statewide corridor planning process and designate future corridors.
- The Energy Commission should actively participate in the corridor planning processes under the Federal Energy Act of 2005.



Petroleum Infrastructure

- The Energy Commission should develop petroleum infrastructure permitting guidelines based on a “best practices” approach following the inter-agency evaluation.



Natural Gas

- The state must make certain that existing infrastructure is maintained and retained.
- The state needs to continue to evaluate the need for additional pipeline capacity to meet customer demand during winter's coldest days or when there are interstate pipeline disruptions.



Global Climate Change

Although more specific recommendations must await Governor Schwarzenegger's Climate Action Team Report due in January 2006, the Energy Commission recommends:

- Setting a greenhouse gas performance standard for utility procurement no higher than emission levels from new combined cycle natural gas turbines.
- Additional consideration is needed before determining what if any role greenhouse gas emission offsets should play in complying with such a standard.



Border Energy

- The Energy Commission believes the state should work to establish a cross-border bi-national policy to coordinate energy planning and development and address environmental concerns in the border region.



Special Business Meeting on the *2005 Integrated Energy Policy Report*

Public Comment

**To comment by phone, call
1-888-823-5065.**

**When asked, please answer
"Business Meeting and Mr. Jerome Lee"**



2005 Strategic Transmission Investment Plan

Primary Authors

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Strategic Plan

SB 1565 (Bowen) added PRC section 25324

- Energy Commission shall adopt a strategic plan for the state's electric transmission grid
- The plan shall identify and recommend transmission investments that:
 - Ensure reliability
 - Relieve congestion
 - Meet future load growth in load and generation, including but not limited to: renewable resources, energy efficiency, and other
 - demand reduction



Criteria for Inclusion of Transmission Projects in the Strategic Plan

- Near term (on-line date by 2010)
- In need of siting approval
- Meets the PRC section 25324 guidelines (noted on previous slide)
- Consistent with 2003 and 2004 Energy Report recommendations (e.g., provides strategic benefits)
- Conforms to SB 2431 (1988) legislative findings encouraging efficient use and expansion of existing right-of-way



Final Recommended Projects

#15 Palo Verde-Devers No. 2 500 kV Project

- Provides access to lower-cost generation
- Provides insurance against abnormal system conditions
- Reduces market power concerns
- Increases operating flexibility for California grid operators

#7 SDG&E Sunrise Powerlink 500 kV Project

- Provides significant near-term system reliability benefits
- Reduces system congestion (and resultant congestion costs)
- Provides interconnection to Imperial Valley renewable resources
- Strengthens the CA ISO grid



Final Recommended Projects

#16 Tehachapi Phase 1 (Antelope Transmission Project)

- Crucial to development of wind resources in Tehachapi region
- Supports achievement of RPS goals

#17 Imperial Valley Transmission Upgrade Project

- Provides access to valuable renewable resources
- Supports achievement of RPS goals
- Provides significant near-term system reliability benefits

#3 Trans-Bay DC Cable Project

- Needed for reliability after 2011
- However, the 2009 in-service date provides reliability insurance benefits that outweigh the net cost to CA ISO ratepayers



Recommendations to CPUC to Facilitate Project Development

- Ensure that permitting processes for PVD2 and Tehachapi Phase I are effective and timely.
- Ensure that long-term strategic benefits are fully addressed for vital projects.
- Assign great weight to need assessments submitted by the CA ISO.



Other Recommendations to Facilitate Project Development

- CA ISO should ensure that results from its new transmission planning process are available by Jan. 2006, and should include an examination of strategic benefits for the SDG&E Sunrise Powerlink Project.
- The Legislature should establish a designation process for transmission corridors and grant authority to the Energy Commission to designate corridors for electric transmission facilities.



Planning and Permitting Recommendations

- Establish a comprehensive statewide transmission planning process.
- Transfer transmission permitting to the Energy Commission.
- The CPUC should extend the length of time for rate basing IOU corridor investments.
- Investigate changes to the CA ISO transmission expansion tariff.
- Investigate regulatory changes to support clustered development of renewable resources.



Renewables Recommendations

- State should support formation of stakeholder-based groups to address operational integration issues and transmission expansion plans.
- State should address key intermittent renewable issues
 - Minimum load issues
 - Improvement in forecasts of resource availability



Public Interest Energy Research (PIER) Recommendation

State should continue to support the research and development of new transmission technologies via the Energy Commission's PIER program.



Special Business Meeting on the 2005 Strategic Transmission Investment Plan

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**COMMITTEE FINAL TRANSMITTAL OF
2005 ENERGY REPORT
RANGE OF NEED AND POLICY
RECOMMENDATIONS
TO THE CALIFORNIA PUBLIC UTILITIES
COMMISSION**

Primary Author
Kevin Kennedy



Coordination with the CPUC

- Energy Commission and the CPUC coordinating the 2005 Energy Report proceeding with the upcoming CPUC 2006 procurement proceeding
- September 2004 ACR issued by CPUC President Peevey identifying 2005 Energy Report proceeding as forum for developing range of need for the 2006 procurement proceeding
- March 2005 Peevey ACR and Energy Report Committee Order reinforced the earlier ACR and provided more detail
- *Transmittal Report* being developed to provide recommendations to the CPUC for use in the 2006 procurement and related proceedings, including developing and documenting the range of need for the three largest investor-owned utilities



Transmittal Report
General Overview

- General procurement policy recommendations
- Construction of the 'Range Of Need'
- Electricity Energy and Peak Demand Forecasts
- Resource Plans and Range of Need
- Natural Gas Forecasts
- Transmission Project Recommendations



Transmittal Report

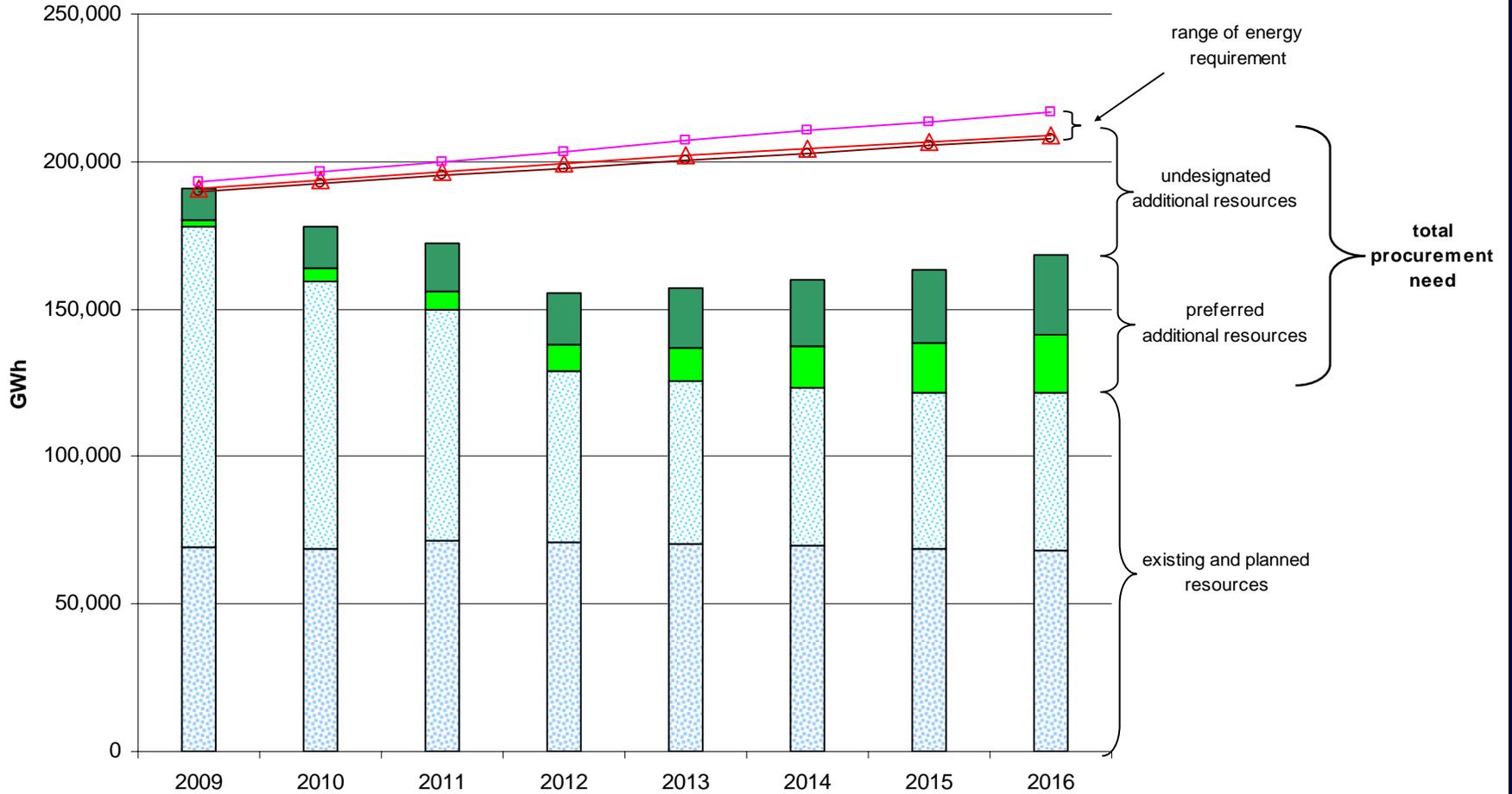
Procurement Policy Recommendations

- Need for Long-Term Contracts
- Renewable and Combined Heat and Power Resources
- Portfolio Performance and Least-Cost, Best-Fit Criteria
- Greenhouse Gas Performance Standard
- Transparency in Energy Planning and Procurement
- Departing Load



Transmittal Report

Combined IOU Annual Energy Range of Procurement Need



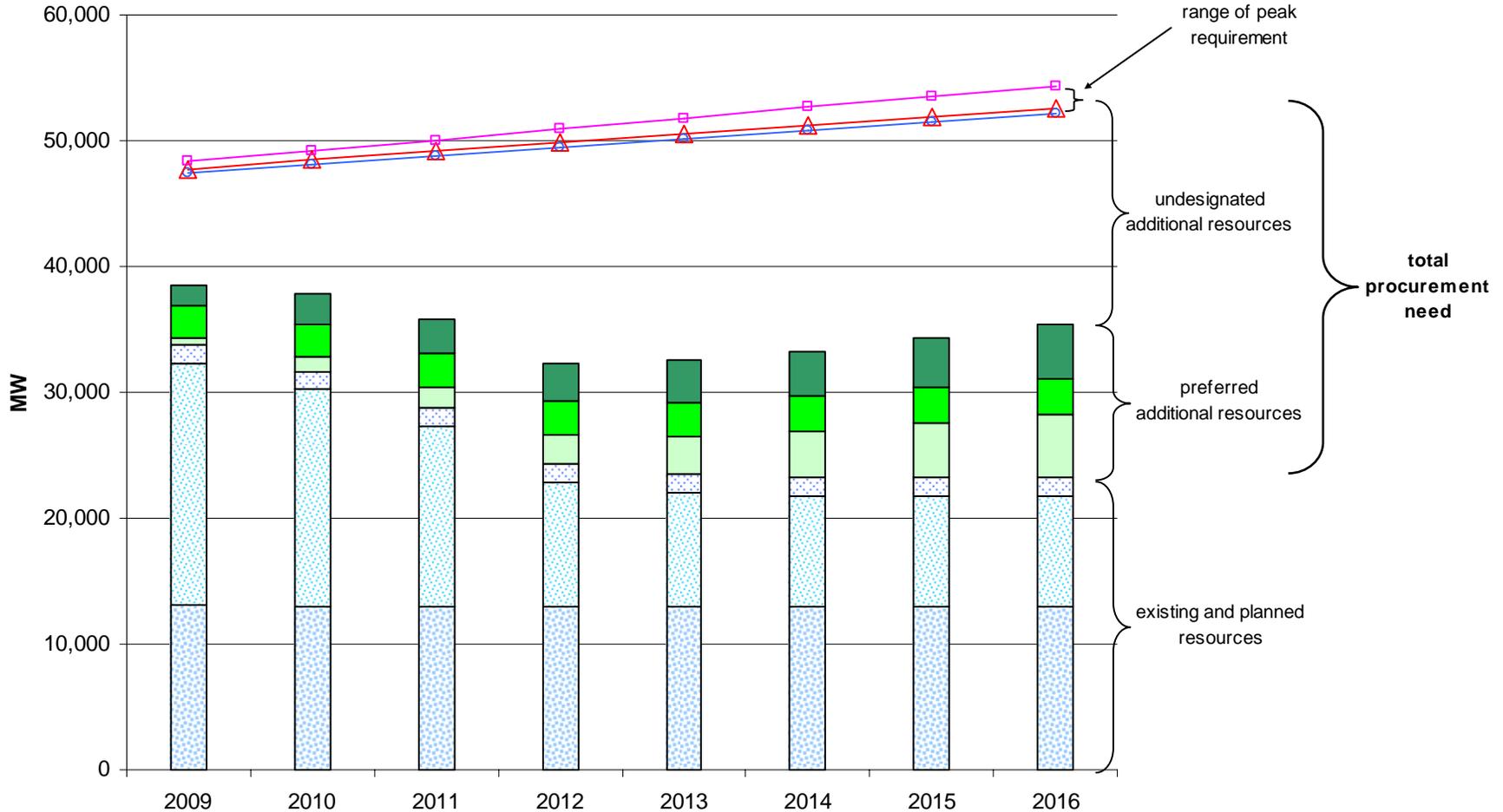
aging plant replacement (GWh): 6,226 12,452 18,677 24,903 24,903 24,903 24,903 24,903

Existing Physical Resources Existing Contractual Resources Preferred Energy Efficiency Preferred Renewables
 Total Energy Requirement (low) Total Energy Requirement (base) Total Energy Requirement (high)

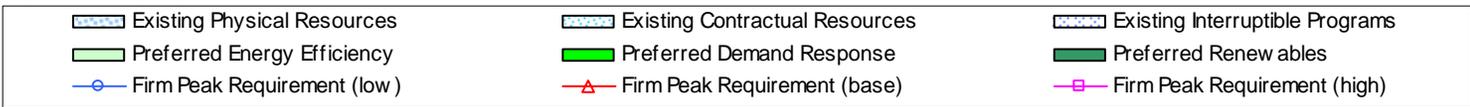


Transmittal Report

Combined IOU Annual Capacity Range of Procurement Need

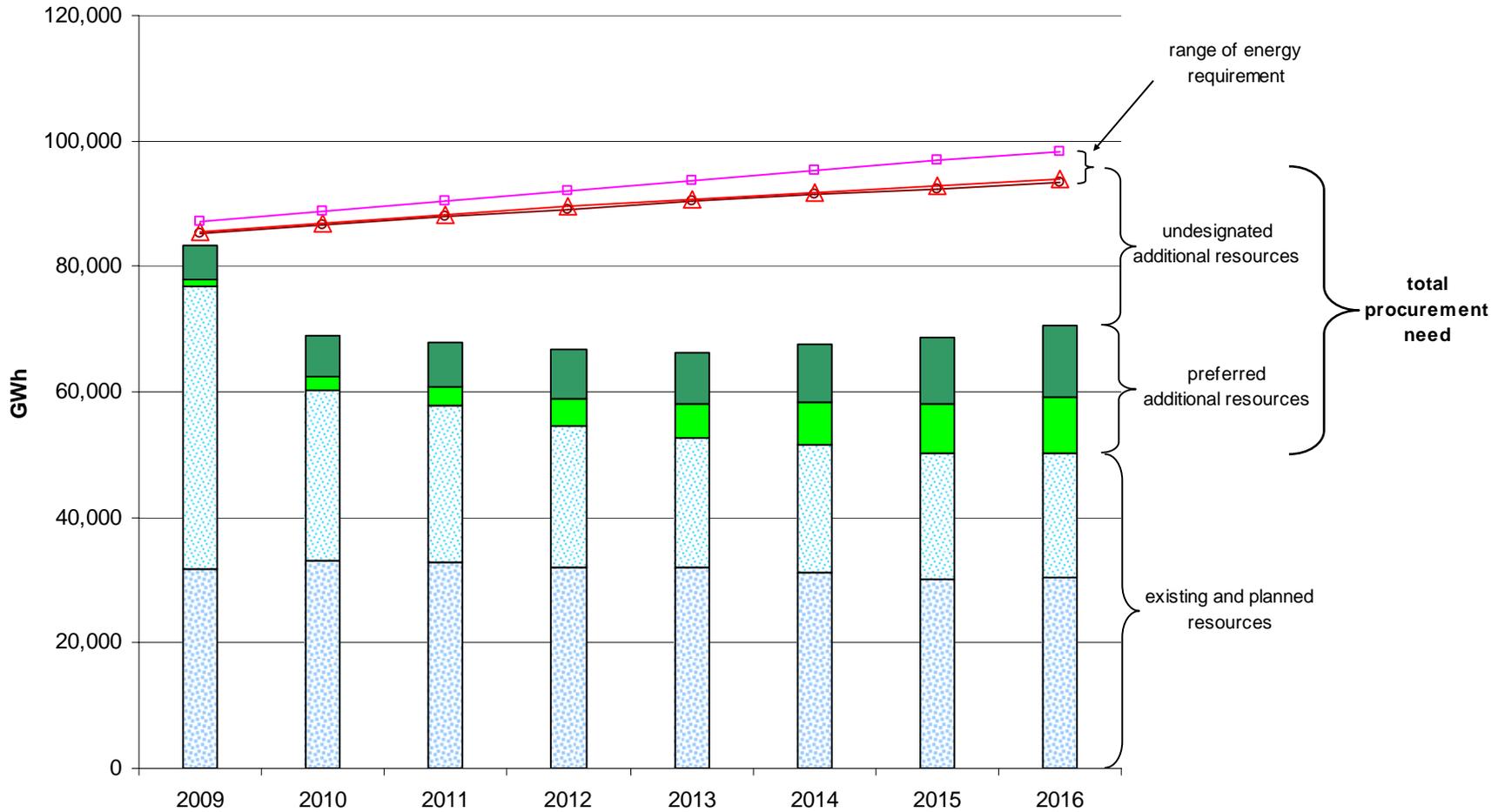


aging plant replacement (MW): 3,652 7,304 10,955 14,607 14,607 14,607 14,607 14,607



Transmittal Report

PG&E Annual Energy Range of Procurement Need



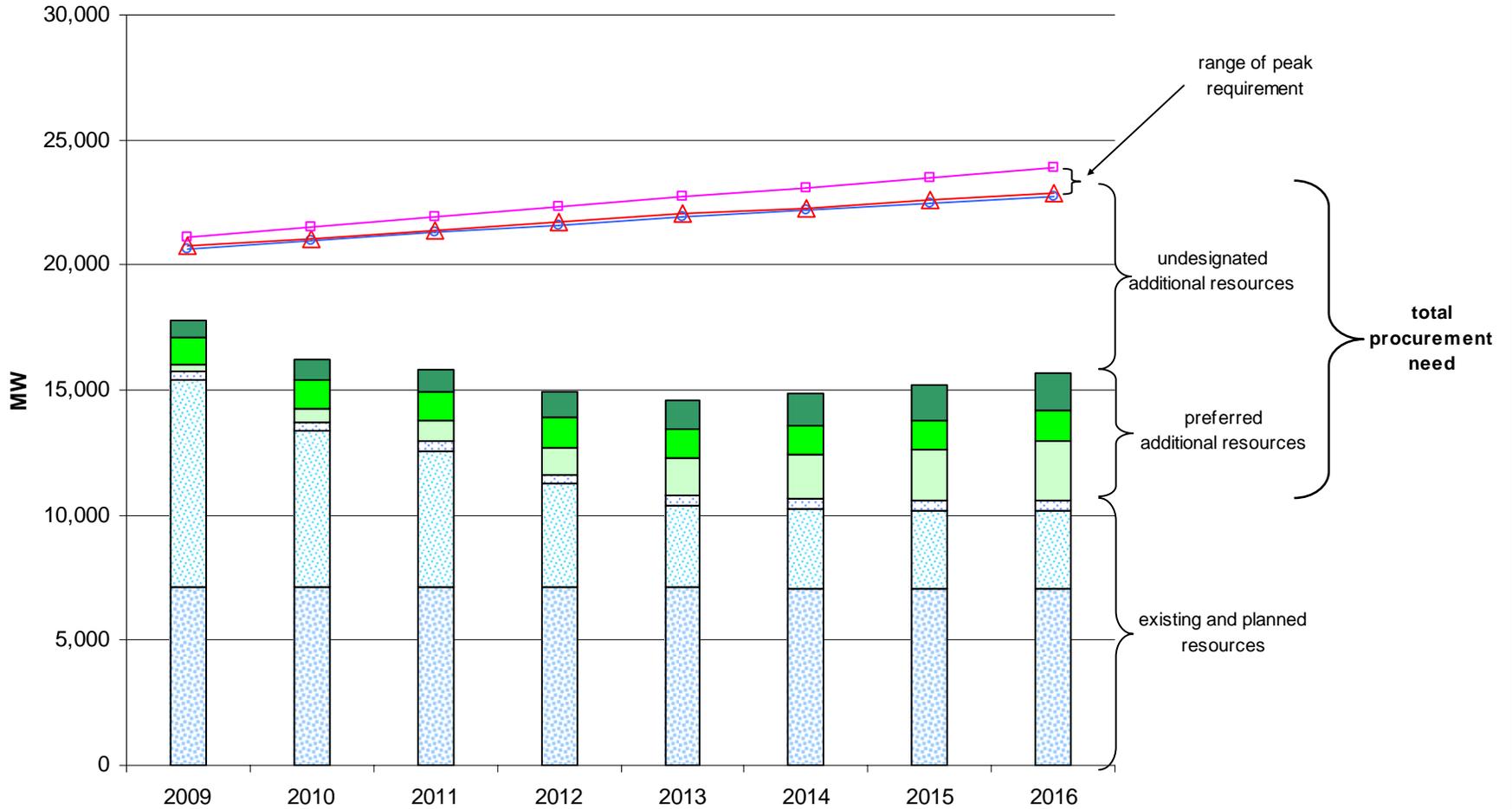
aging plant replacement (GWh): 1,992 3,985 5,977 7,969 7,969 7,969 7,969 7,969

- Existing Physical Resources
- Existing Contractual Resources
- Preferred Energy Efficiency
- Preferred Renewables
- Total Energy Requirement (low)
- △ Total Energy Requirement (base)
- Total Energy Requirement (high)



Transmittal Report

PG&E Annual Capacity Range of Procurement Need



aging plant

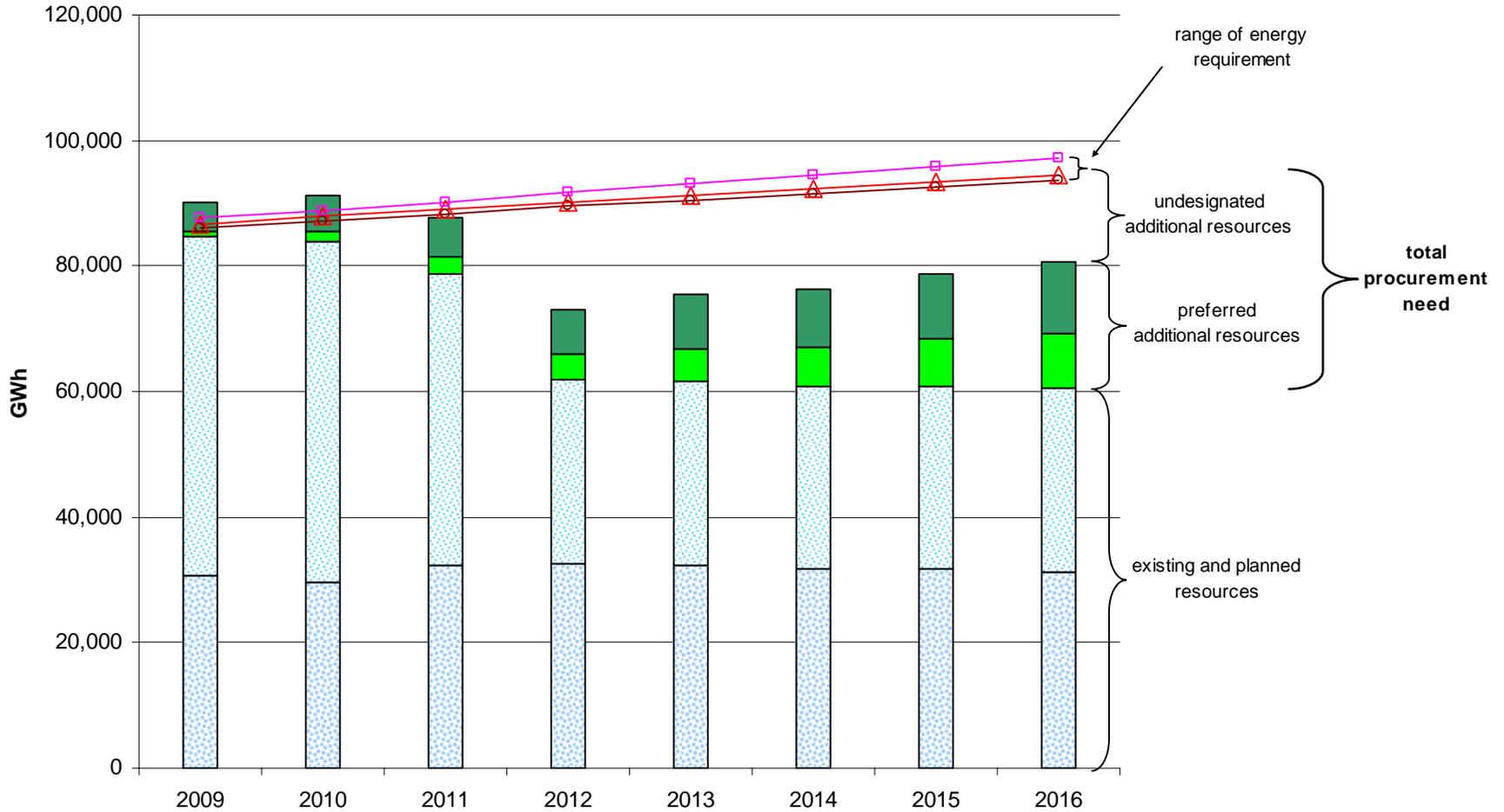
replacement (MW): 1,225 2,450 3,675 4,900 4,900 4,900 4,900 4,900

- Existing Physical Resources
- Preferred Energy Efficiency
- Firm Peak Requirement (low)
- Existing Contractual Resources
- Preferred Demand Response
- Firm Peak Requirement (base)
- Existing Interruptible Programs
- Preferred Renewables
- Firm Peak Requirement (high)



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SCE Annual Energy Range of Procurement Need



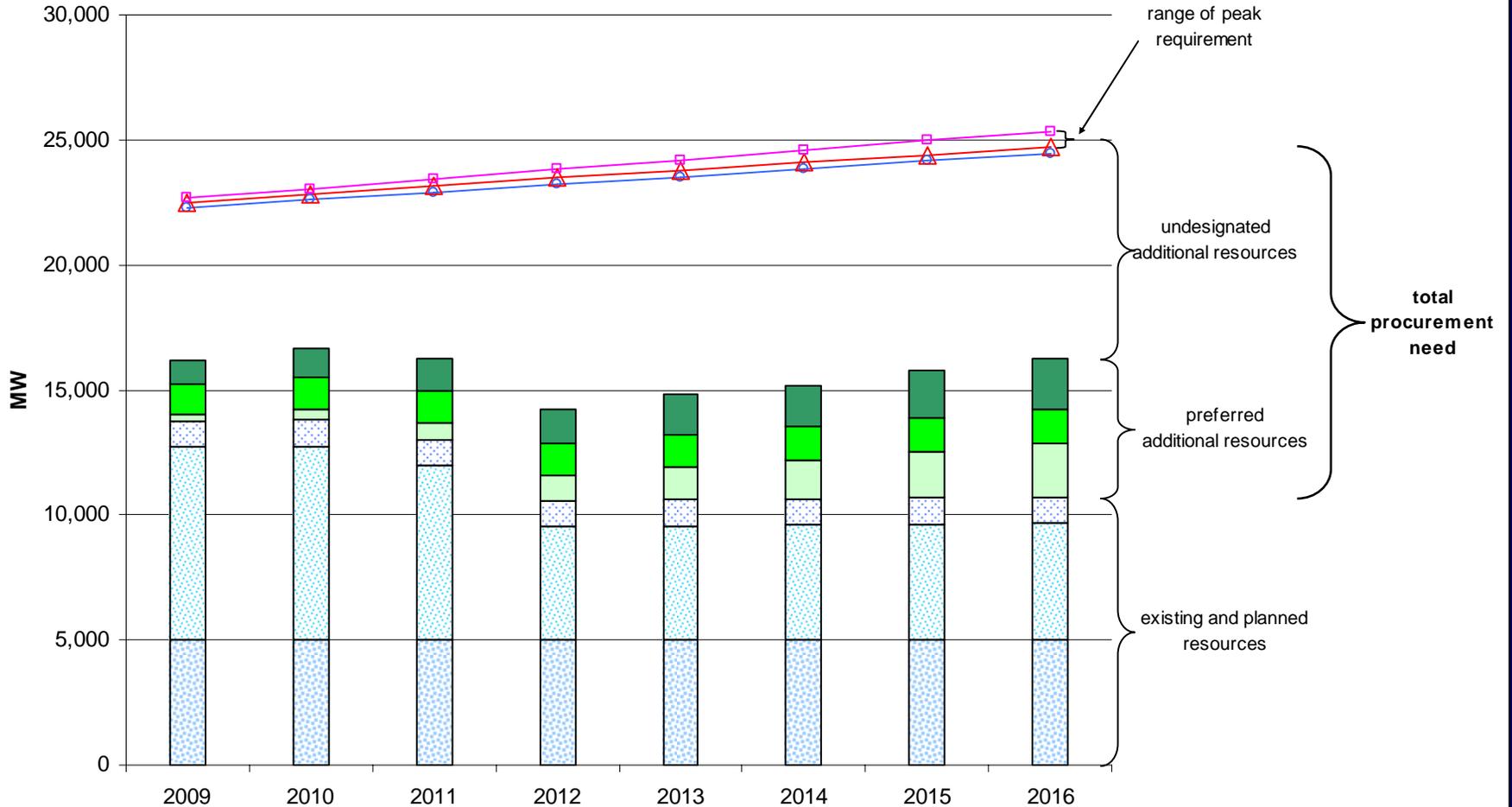
aging plant replacement (GWh): 3,138 6,276 9,413 12,551 12,551 12,551 12,551 12,551

Existing Physical Resources
 Existing Contractual Resources
 Preferred Energy Efficiency
 Preferred Renewables
 Total Energy Requirement (low)
 Total Energy Requirement (base)
 Total Energy Requirement (high)



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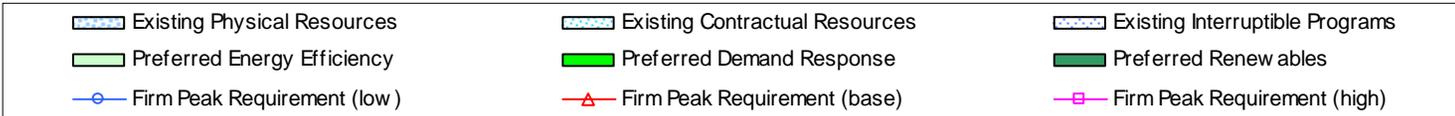
SCE Annual Capacity Range of Procurement Need



aging plant

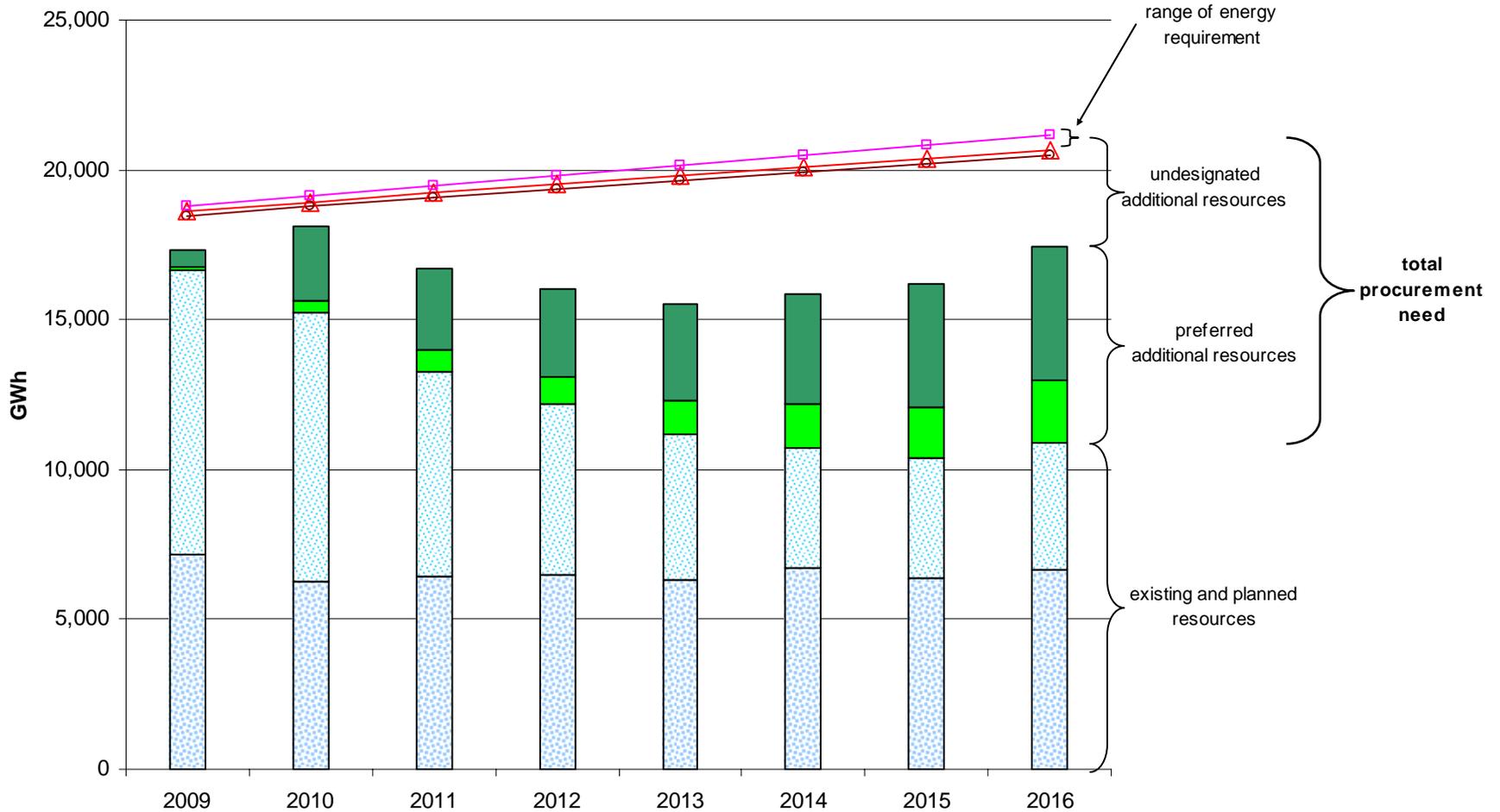
replacement (MW):

2009	2010	2011	2012	2013	2014	2015	2016
2,022	4,044	6,066	8,088	8,088	8,088	8,088	8,088



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SDG&E Annual Energy Range of Procurement Need



aging plant

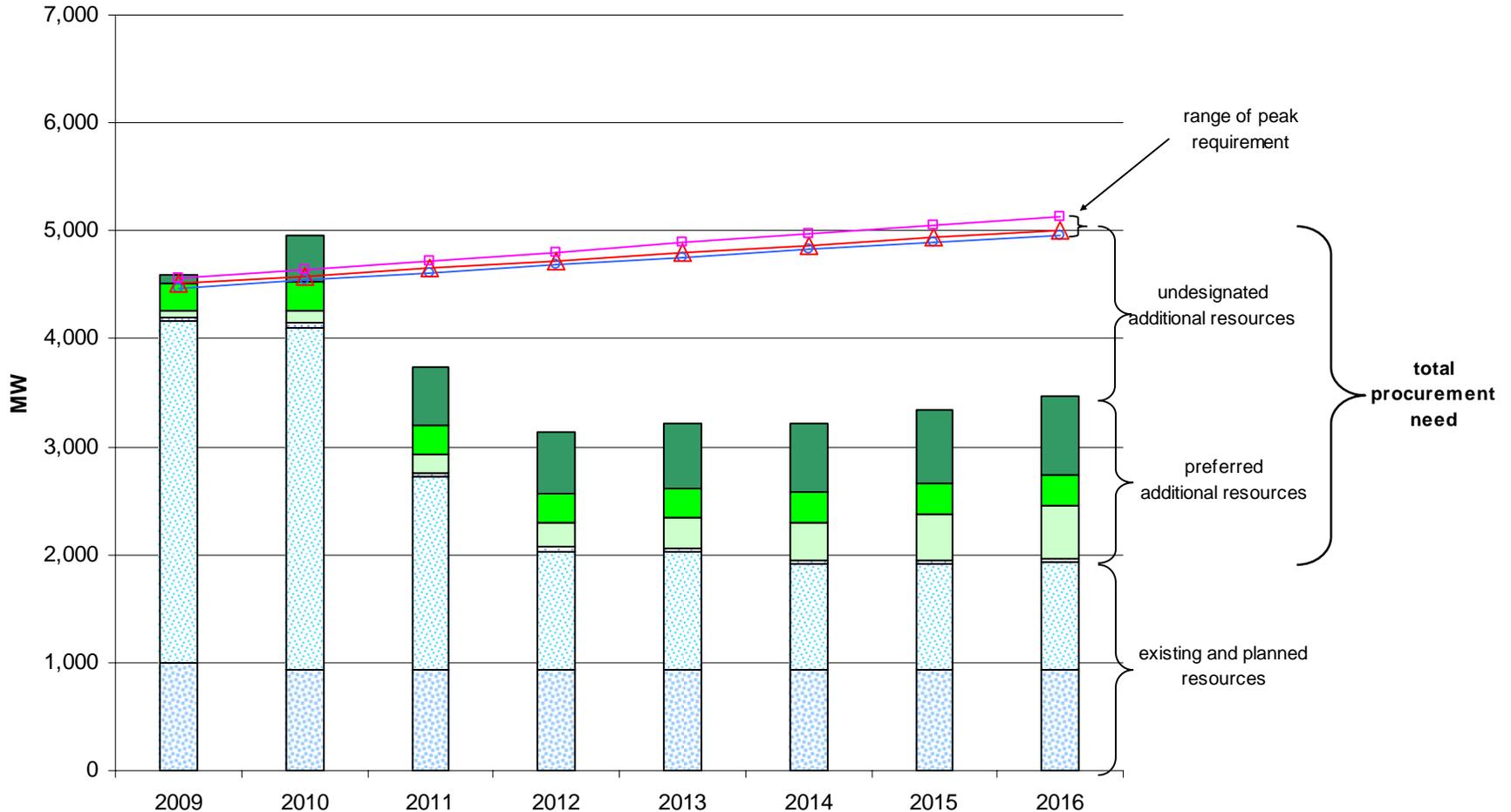
replacement (GWh): 1,096 2,192 3,287 4,383 4,383 4,383 4,383 4,383

- Existing Physical Resources Existing Contractual Resources Preferred Energy Efficiency Preferred Renewables
- Total Energy Requirement (low) Total Energy Requirement (base) Total Energy Requirement (high)



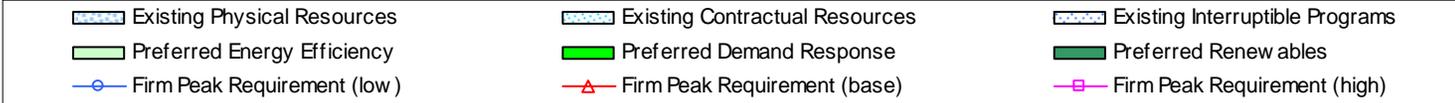
Transmittal Report

SDG&E Annual Capacity Range of Procurement Need



aging plant

replacement (MW): 405 810 1,214 1,619 1,619 1,619 1,619 1,619



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