



Assembly Committee on Utilities and Commerce

Assemblymember Steven Bradford, Chair

California Legislature

Briefing Paper for Oversight Hearing **Diversity in the Energy Workforce Boards, Executives, and Management** May 19, 2014

- **What is the status of diversity in the energy industry workforce?**
- **What are the successes to achieving diversity, particularly at the Board of Director, Executive, and Management levels?**
- **What are the challenges with and suggestions for improving diversity at the Board of Director, Executive, and Management levels?**

I. SUMMARY

Workforce diversity is critically important to keeping California at the forefront of the energy industry, which includes new types of energy companies and entities along with the traditional utility service providers. A diversity of backgrounds in the workforce ensures a diversity of ideas and spurs innovation. It promotes inclusiveness, reduces discrimination, and improves corporate relations with increasingly diverse customers.

U.S. and California corporate workforce data, however, indicate that women, Hispanics/Latinos, Blacks/African Americans, and Native Americans are underrepresented in board, executive, and management positions. For instance, a recent survey of 43 Bay Area companies found that only eight have a Black/African American director (less than 25%). Based on a limited Committee workforce diversity survey, the trend also seems hold true in California's energy sector.

The purpose of this hearing is to examine:

- The value of diversity in the workforce
- State, federal, and energy sector workforce diversity data, especially those related to boards, executives, and management
- Successes in achieving diversity in the boards, executives, and management of the California energy workforce
- Challenges to achieving diversity in the boards, executives, and management in the California energy workforce

Furthermore, the hearing will gather comments and suggestions on types of assistance needed, if any, to diversify the energy workforce.

II. THE VALUE OF DIVERSITY IN THE WORKFORCE

Diversity has been described as an environment where the talents and differences of all employees are respected and valued for professional and mission success.¹ Aside from ensuring the generation of diverse ideas that spur creativity and innovation, a diverse workforce can increase staff retention and productivity by promoting inclusiveness and reducing discrimination. It can improve responsiveness to the diverse world of customers, expand relations with communities, and enhance the company's ability to cope with change.

President Obama issued Executive Order 13583 in August 2011, directing the Office of Personnel Management to issue a Government-wide Diversity and Inclusion Strategic Plan, stating:

"Our Nation derives strength from the diversity of its population and from its commitment to equal opportunity for all. We are at our best when we draw on the talents of all parts of our society, and our greatest accomplishments are achieved when diverse perspectives are brought to bear to overcome our greatest challenges."²

III. FEDERAL AND STATE EMPLOYMENT LAWS

Federal law prohibits employment discrimination based on race, color, sex, religion, national origin, age, disability, and genetic information.³ These laws, enforced by the U.S. Equal Employment Opportunity Commission (EEOC), forbid discriminatory practices in any aspect of employment, including hiring, firing, pay, job assignments, promotions, layoff, training, fringe benefits, and any other term or condition of employment. Also afforded is protection from harassment and retaliation. Relief includes but is not limited to back pay, hiring, promotion, and reinstatement.

California state law is relatively consistent with but supplemental to federal law, prohibiting harassment and discrimination in employment because of race, color, religion, sex, gender, gender identity, gender expression, sexual orientation, and physical disability.⁴

These laws are designed to protect workers from harmful discrimination. Limited positive actions based on factors such as race or sex – i.e., affirmative action – are briefly discussed in the next section.

IV. AFFIRMATIVE ACTION AND WORKFORCE DIVERSITY

¹ <http://energy.gov/diversity/services/diversity-and-inclusion>

² Executive Order 13583. <http://www.whitehouse.gov/the-press-office/2011/08/18/executive-order-establishing-coordinated-government-wide-initiative-prom>

³ Title VII of the Civil Rights Act of 1964, the Equal Pay Act of 1963, the Age Discrimination in Employment Act of 1967, Sections 501 and 505 of the Rehabilitation Act of 1973, Titles I and V of the Americans with Disabilities Act of 1990, Title II of the Genetic Information Non-discrimination Act, and the Civil Rights Act of 1991.

⁴ Government Code 12940-12951

While the focus of this hearing is directly upon the successes and challenges related to workforce diversity in the California energy sector, the complex and sometimes controversial practice of affirmative action is undeniably a significant element in this discussion.

Affirmative action was shaped in part by Executive Order 10925, signed by President John F. Kennedy on March 6, 1961. The order required that government contractors "not discriminate against any employee or applicant for employment because of race, creed, color, or national origin" and "take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin."⁵

These practices may be used by institutions or organizations to actively engage in efforts to improve opportunities for historically excluded groups. Examples include the limited use of factors or preferences such as race, ethnicity, or sex in workforce hiring or school admissions decisions. Affirmative action is a politically-charged social justice issue, with many potential benefits, drawbacks, and challenges. The National Conference of State Legislatures (NCSL) outlines the major arguments from both supporters and opponents of affirmative action.⁶

The California Constitution, as amended in 1996 by the voter-approved Proposition 209, prohibits the State from discriminating against, or granting preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.⁷ This measure has withstood legal scrutiny and was the basis for a similar amendment in Michigan, upheld 6-2 by the U.S. Supreme Court on April 22, 2014. This decision held that states have the right to ban the practice of racial and gender preferences and/or affirmative action in education if they chose to do so through the electoral process.

In the private sector, the U.S. Supreme Court has upheld the use of limited preferences based on race, ethnicity, and sex, if an employer can point to a "manifest imbalance" in a "traditionally segregated job category."⁸

Many U.S. companies have voluntarily adopted affirmative action policies for reasons related to the value of diversity in the workforce. The ACLU notes that more than sixty leading Fortune 500 companies, including 3M, Coca-Cola, General Electric, Hewlett-Packard, Intel, Johnson & Johnson, Kraft Foods, Microsoft, Nike, Pepsi, Procter & Gamble, Reebok, and Xerox came out in support of affirmative action in 2003.⁹ In addition, Harvard University, Brown University, the University of Chicago, Dartmouth College, Duke University, the University of Pennsylvania, Princeton University, and Yale University joined together in 2003 to voice their support.

⁵ Executive Order 10925. <http://www.eeoc.gov/eeoc/history/35th/thelaw/eo-10925.html>

⁶ <http://www.ncsl.org/research/education/affirmative-action-overview.aspx>

⁷ California Constitution, Article I, Section 31.

⁸ *United Steelworkers v. Weber*, 443 U.S. 193 (1979) <http://supreme.justia.com/us/443/193/case.html> and *Johnson v. Transportation Agency*, 480 U.S. 616 (1987), <http://supreme.justia.com/us/480/616/>

⁹ ACLU. Who supports affirmative action? https://www.aclu.org/files/images/asset_upload_file670_37287.pdf

V. DIVERSITY IN THE NATION'S WORKFORCE AND LEADERSHIP

Recent events have drawn considerable attention to diversity and its implications for social justice and equality. The racially-charged comments made by the Los Angeles Clippers owner Donald Sterling, aside from uniting much of the nation under a commitment to diversity and condemnation of intolerance, prompted an article related to the demographics of major sports leagues.¹⁰ It highlights the dramatic differences between the diversity of athletes in the NBA, NFL, and MLB and the diversity of team owners. Amongst the 92 basketball, football, and baseball teams, there is only one black principal owner (Michael Jordan of the NBA's Charlotte Bobcats), one Southeast Asian owner (Shahid Khan, the Pakistani-born owner of the NFL's Jacksonville Jaguars), and one Latino owner (Arturo Moreno of the MLB's Los Angeles Angels of Anaheim). Even coaching positions are not fully representative of the athlete populations. The Berkeley-based Greenling Institute has called upon the NBA to (1) conduct a detailed diversity survey; (2) create a Diversity Council reporting directly to the Commissioner; and (3) release all of the diversity data, recommendations, and progress reports in an annual public report.¹¹

Also mired in diversity-related challenges is the U.S. science, technology, engineering, and math (STEM) workforce. Advances in STEM have long been central to our nation's ability to manufacture better and smarter products, improve health care, develop cleaner and more efficient domestic energy sources, preserve the environment, safeguard national security, and grow the economy. Unfortunately, although underrepresented populations account for almost 40% of K-12 students in the U.S., they only earn 17% of the bachelor's degrees and 6.6% of the doctorates in the natural sciences and engineering. Women make up nearly 50% of the U.S. workforce and a majority of college students, but hold less than 25% of STEM jobs.¹² Many others have examined underrepresentation in the STEM workforce.¹³

Related to STEM, a recent report on diversity among U.S. technology workers found that 6% are African American, 7% are Latino, and 15% are Asian American.¹⁴ Furthermore, a two year CNN investigation has drawn attention to the appalling lack of diversity information for the Silicon Valley workforce.¹⁵ In 2011, CNN asked 20 tech companies for their diversity data. Only three replied. For the remaining 17, CNN filed Freedom of Information Act requests for employee diversity data. Five companies – Apple, Google, Hewlett-Packard, IBM, and Microsoft – successfully petitioned the Department of Labor (DOL) for their data to be excluded on the basis that releasing it would cause "competitive harm." Data for another 10 companies (Amazon, Facebook, Groupon, Hulu, LinkedIn, LivingSocial, Netflix, Twitter, Yelp, and Zynga) could not be released by DOL. The survey found that the few firms willing to share diversity data (Cisco, Dell, eBay, Ingram Micro, and Intel) have mostly white and Asian males in their ranks, with minorities and women particularly underrepresented in

¹⁰ Five Thirty Eight. Three Leagues, 92 Teams And One Black Principal Owner. <http://fivethirtyeight.com/datalab/diversity-in-the-nba-the-nfl-and-mlb/>

¹¹ <http://greenlining.org/issues/2014/advocates-challenge-nba-take-real-action-diversity/>

¹² Federal Science, Technology, Engineering, and Mathematics (STEM) Education Strategic Plan. 2013.

¹³ National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. 2011. Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads.

¹⁴ <http://www.sfgate.com/politics/joegarofoli/article/Former-NAACP-President-Ben-Jealous-coming-to-5286469.php>

¹⁵ <http://money.cnn.com/2013/03/17/technology/diversity-silicon-valley/>

management roles. Intel, in stark contrast to the rest of the tech industry, makes its employment information public, and Google recently agreed (this month) to release its workforce diversity data.¹⁶

In 2010 the Dodd-Frank Wall Street Reform and Consumer Protection Act established an Office of Minority and Women Inclusion (OMWI) within the U.S. Securities and Exchange Commission (SEC). OMWI is responsible for all matters related to diversity in management, employment, and business activities at the SEC.¹⁷ OMWI has been directed to develop standards to assess the diversity policies and practices of SEC-regulated entities. Interagency standards will assess organizational commitment to diversity and inclusion, workforce profile and employment practices, procurement and supplier diversity, and practices to promote transparency of organizational diversity and inclusion. The comment period on these standards closed on February 7, 2014. The SEC commitment to inclusion is further demonstrated by a March 2013 statement by Commissioner Luis A. Aguilar, entitled "Inclusion is a Strength: Corporate America and the SEC Should Reflect America".¹⁸ The piece describes the diversity of the SEC workforce along with that of the U.S. corporate world.

Regarding diversity on corporate boards, U.S. Senator Robert Menendez (D-NJ) performed a survey in 2011 of women and minority representation among the senior management of Fortune 500 companies.¹⁹ A total of 219 Fortune 500 companies participated, including 71 Fortune 100 companies, making this survey one of the largest related to women and minority representation in corporate leadership. The study found:

"...minorities to represent a total of 14.5% of directors on corporate boards and overall have less representation on executive teams than they do on corporate boards. Hispanics are least proportionately represented on boards and fared even worse on executive teams. They comprise 3.28% of board members and 2.90% on executive teams, about one-fifth of the 15% they represent in the U.S. population. Among minority groups, African Americans have the highest representation on boards compared to their population, but saw greatest decline in representation from boards to executive management teams, from 8.77% to 4.23%. Women on the other hand fared better on executive teams than on corporate boards, with 18.04% and 19.87% of representation respectively, but these figures still represent less than one-half of their proportion of the national population."

A summary of recommendations to improve diversity made by Sen. Menendez's report on Fortune 500 diversity for corporations is presented in Appendix D.

More recent studies took censuses of women board directors and executive officers at Fortune 500 companies.²⁰ Only 17% of Fortune 500 board seats were held by women in 2013, and 10% of the companies had no women directors. Furthermore, merely 14% of executive officer positions were held

¹⁶ <http://www.todayonline.com/world/americas/google-release-workforce-diversity-data-leading-silicon-valley>

¹⁷ <http://www.sec.gov/omwi/about-omwi>

¹⁸ http://www.sec.gov/News/PublicStmnt/Detail/PublicStmnt/1365171515498#.U3KIAM6a_5E

¹⁹ <http://www.menendez.senate.gov/newsroom/press/results-of-menendezs-major-fortune-500-diversity-survey-representation-of-women-and-minorities-on-corporate-boards-still-lags-far-behind-national-population>

²⁰ 2013 Catalyst Census: Fortune 500 Women Board Directors, and 2013 Catalyst Census: Fortune 500 Women Executive Officers and Top Earners. <http://www.catalyst.org>

by women in 2013, and an astounding 27% of Fortune 500 companies had no women in executive officer positions.

These anecdotes, data, and pending federal standards highlight the magnitude and complexity of the challenges faced by the nation in achieving and maintaining diversity in leadership positions within its workforce. Equal opportunity is unfortunately not always available to individuals or populations, due to an assortment of factors. Briefly, these may include but are not limited to cultural (social expectations for different groups), structural (historical laws and regulations that barred entry of certain populations into education and employment), and institutional barriers (discriminatory policies and practice).²¹

VI. DIVERSITY IN CALIFORNIA'S WORKFORCE AND LEADERSHIP

Similar to the nation, the state of California faces challenges in relation to workforce diversity.

The UC Davis Graduate School of Management performs an annual "Study of California Women Business Leaders".²² The study is an annual benchmark for gender diversity in the executive positions and boardrooms of the 400 largest public companies headquartered in California, including Apple, Chevron, Intel, Visa, Google, Hewlett-Packard and Oracle. Key findings of the 2013–2014 study include: women hold just 10.9% of board seats and highest-paid executive positions; more than a quarter – 107 (26.8%) – of the California 400 have no women among their directors and highest-paid executives; and a mere thirteen (3.3%) of the 400 companies have a woman serving as CEO.

The Legislature has weighed in on this topic. Senate Concurrent Resolution 62 (Jackson, Chapter 127 of 2013) encourages equitable and diverse gender representation on corporate boards. Specifically, it urged every publicly held corporation in California, depending on its number of directors, to have a minimum number of women on its board (every publicly held corporation in California with 9 or more director seats is called upon to have a minimum of 3 women on its board; those with 5 to 8 director seats, a minimum of 2 women on its board; and those with fewer than 5 director seats, a minimum of one woman on its board).

Director and executive data specific to other historically underrepresented populations in California are limited. A recent survey of 43 Bay Area companies found that only eight have an African American director (less than 25%).²³ This is in comparison to a study that found 75 of the Fortune 100 public companies have at least one African American director (75%).

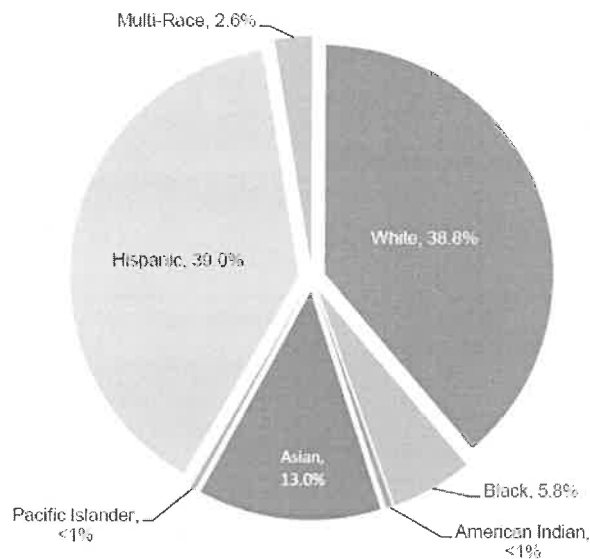
These data are disconcerting considering the diversity of California's population. The Governor's budget predicted that by March 2014 the Latino population will edge past the non-Hispanic White population to become the largest race or ethnic group in the state.

²¹ Tsui L. 2007. Effective Strategies to Increase Diversity in STEM Fields: A Review of the Research Literature. *J. Negro Educ.*, 76: 555-581.

²² <http://gsm.ucdavis.edu/uc-davis-annual-study-california-women-business-leaders>

²³ <http://www.bizjournals.com/sanfrancisco/blog/2014/02/veteran-director-calls-for-diversity.html?page=all>

Figure 1: Race and Ethnicity Distribution, July 2014²⁴



VII. DIVERSITY IN THE CALIFORNIA ENERGY WORKFORCE AND LEADERSHIP

The California energy industries provide a significant number of jobs and economic opportunity to its residents. According to the California Economic & Workforce Development through the California Community Colleges (COECCC), utilities and energy efficiency companies accounted for over 461,200 jobs and nearly \$115 billion in sales revenue in 2010.²⁵

The California energy sector has had some successes with workforce diversity but also faces many of the same recurring challenges as the non-energy sectors. The PUC supplier diversity program is arguably a respectable accomplishment, with procurement from diverse businesses increasing every year. However, similar to other sectors of the workforce, women and minorities are typically underrepresented (compared to their numbers in the general population) at the board/director, executive, and management levels. These successes and challenges are further discussed below.

A. PUC Supplier Diversity Program

In 1986, AB 3678 (Moore) codified the requirement that each electrical, gas, and telephone corporation with gross annual revenues exceeding \$25 million annually submit a detailed and verifiable plan for increasing Women-Owned and Minority-Owned Business Enterprise (W/MBE) procurement. It also required the PUC to establish guidelines.

²⁴ Governor's Budget Summary, 2014-2015. <http://www.ebudget.ca.gov/2014-15/pdf/BudgetSummary/FullBudgetSummary.pdf>

²⁵ http://www.coeccc.net/documents/dwm_sector_energy_13.pdf

In response, the PUC created General Order (GO) 156, a voluntary procurement program that encourages participation of the investor-owned utilities (IOUs) to procure or contract goods and services from women-, minority- and disabled veteran-owned business enterprises (WMDVBE).²⁶ Procurement goals are currently set at 21.5% (15% from minority-owned, 5% from women-owned, and 1.5% from disabled veteran-owned businesses), and IOUs report annually on procurement. There is no penalty for failing to meet the goals.

Participating utilities have established a joint clearinghouse to certify women- and minority-owned suppliers. Disabled veteran-owned business enterprises are certified by the Office of Small Business & Disabled Veteran Business Enterprise Services at the California Department of General Services. A utility contracting with uncertified suppliers may not list those expenditures in the utilities' annual reports.

The 2013 Supplier Diversity Program reports show that of the more than 30 companies participating, four energy IOUs were ranked in the top 6 in terms of WMDVBE procurement:²⁷

1. Verizon: \$114 million, or 50.4%
2. AT&T: \$1.02 billion, or 44.7%
- 3. Southern California Gas Company: \$428 million, or 45.4%**
- 4. San Diego Gas & Electric: \$453 million, or 44.9%**
- 5. Pacific Gas & Electric Company: \$2.3 billion, or 42.1%**
- 6. Southern California Edison: \$1.4 billion, or 41.0%**

Each IOU designs and implements its programs. For example, SCE provides a mentorship program offering technical assistance to diverse firms that have the capacity to be suppliers, but need help developing an ongoing business relationship with SCE. It includes coaching and feedback, one-on-one technical assistance, sponsorships to attend top-tier business programs, and focused workshops on various business topics.

At the March 18, 2014 hearing by the Senate Energy, Utilities, and Communications Committee, PUC President Peevey reported on the PUC's own supplier diversity procurement: "In 2013, the CPUC procured \$18.5 Million (15.84%) from Small Businesses and \$1.5 Million (1.28%) from Disabled Veteran Business Enterprises." Data on WMDVBE contracts were not included in the PUC's presentation. The Department of General Services Annual Report²⁸ on state contracting with WMDVBE reports that the PUC awarded more than \$89 million in contracts, with 13.4% of these contracts awarded to minority businesses. The PUC has also required utilities to enter into sole-source contracts to the California Center for Sustainable Energy to perform ratepayer-funded energy efficiency and renewable energy program implementation. It is not clear the extent to which the PUC has directed other contracts outside of the state contract process or whether these contracts are also included in the annual report prepared by the Department of General Services.

²⁶ PUC General Order 156. <http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/GRAPHICS/171157.PDF>

²⁷ PUC 2013 WMDVBE Press Release. <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M055/K538/55538046.PDF>

²⁸ <http://www.documents.dgs.ca.gov/pd/smallbus/ReportsPage/FY2011-12AnnualReport.pdf>

B. Workforce diversity at the IOUs, publicly-owned utilities (POUs), and other energy providers

Lacking publicly available data or reports for some of these entities, the Committee performed a limited survey to gather workforce data for the IOUs, POUs, and other energy providers. All entities under this umbrella responded to the survey.

Company	Type of Company	Survey
PG&E	IOU	Responded
SCE	IOU	Responded
SDG&E	IOU	Responded
SMUD	POU	Responded
CAISO	Independent system operator	Responded
Calpine	Independent power producer	Responded
CMUA	Organization of municipal utilities	Responded

The standardized survey form was not returned in every case; therefore, data could not be easily compared. Raw data is shown in Appendix A. In general, it seems that these entities face similar challenges to other sectors of the workforce – that is, women and minorities are underrepresented in director, executive, and management positions. Numbers seem comparable to those for the U.S. and California utility sectors (see Appendices B and C).

The Committee does commend these entities for willingly sharing their workforce data. It is important to be open and transparent in these discussions as California helps to ensure opportunities for advanced careers are accessible to its diverse populations.

California utilities have adopted diversity policies, and recruit through organizations representing students with diverse backgrounds and other programs to increase workforce diversity. PG&E, SCE, and SDG&E were among the top 4 utilities across the nation in the DiversityInc Top 7 Utilities survey that examined 180 factors related to Talent Pipeline, Equitable Talent Development, CEO/Leadership Commitment, and Supplier Diversity.²⁹

C. Diversity in the Renewable Energy and Energy Efficiency Workforce

In the late 1970s California became a world leader in requiring mandatory building and appliance energy efficiency standards. The initial programs were funded through a trust account known as the Petroleum Violation Escrow Account. This account was established by federal courts after a settlement with oil companies who were found to be overcharging customers. As the settlement funds reduced over time, new funding sources came from California ratepayers.

Beginning in the early 1980s California became a world leader in promoting the use of renewable energy. California created tax credits and rebate programs for utility-scale, commercial, and renewable energy generation. These early programs were phased out and later replaced with

²⁹ <http://www.diversityinc.com/top-7-utilities/>

programs that mandated utility procurement³⁰ or provided rebates and incentives for commercial and residential customers³¹ and research, development, and demonstration programs.³²

Despite decades of programs to develop and establish renewable energy and energy efficiency businesses in California, very little data is collected on workforce diversity at these businesses. It is also difficult to research diversity at these kinds of businesses because they are not separately accounted for in publicly available EEOC documents.

California has enacted several laws aimed to provide training and preparation for careers in renewable energy. Among them, SB1x1³³ (authored by Senator Steinberg in 2011) allocated funds to support high school training programs. Legislative intent for this law stated: "Clean technology jobs and renewable energy jobs ("green collar jobs") can provide underserved communities with a pathway out of poverty, a new and inspiring focus for educational institutions, and significant statewide economic and environmental benefits." Through the Federal American Recovery and Reinvestment Act of 2009, California allocated \$20 million to a Clean Energy Workforce Training Program which was leveraged with \$49.5 million from the California Energy Commission's Alternative and Renewable Fuels Program and \$8 million from the Workforce Investment Act.³⁴

A 2011 study by Environment California,³⁵ regarding the building of a "green energy workforce", assessed training programs in California and found:

"There are at least 298 green job training programs in California, offered by 130 institutions. These programs include multi-year apprenticeships, community college programs for career entry, and short-term certification-preparation courses for unemployed or underemployed workers. They include programs focused on energy efficiency, renewable energy construction and maintenance, alternative transportation fuels, and electric vehicle-related design and maintenance jobs. **However, this total excludes many other programs—such as programs in architecture or engineering—that are relevant to the clean energy economy,** but that train workers for non-energy related work." [emphasis added]

Further, this study found enrollment information concerning 111 of these programs, in which 12,600 to 15,100 students are enrolled annually.

These policies and programs should be helping to build a diverse and thriving workforce of qualified available personnel to work at all levels of renewable energy companies, including engineering, design, legal, finance, and management. These types of positions are more likely to lead to board and executive positions.

³⁰ Renewable Portfolio Standard

³¹ Net metering, the Emerging Renewable Program, the Self-Generation Incentive Program, the California Solar Initiative, the New Solar Home Partnership, State Treasurer's Office financing and manufacturers' sales tax exemption

³² Public Interest Energy Research Programs for electricity and natural gas and the Electric Program Investment Charge

³³ http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120121SB1&search_keywords=

³⁴ http://www.energy.ca.gov/recovery/documents/PROGRAM_SUMMARY.PDF

³⁵ <http://www.frontiergroup.org/sites/default/files/reports/Building-a-Clean-Energy-Workforce-web.pdf>

A January 2014 review by The Solar Foundation did not provide data on diversity among solar company boards, executives, and management.³⁶ There are, however, jobs in sales and construction work, and the report states the average wage paid for installation work is \$23.63/hour. According to the report, Latino/Hispanic and Asian/Pacific Islander ethnic groups are strongly represented in this area of the solar industry and women and African Americans are underrepresented. The same report states that 19% of all solar workers are women and one-in-six workers are Latino/Hispanic. Again, it is not clear what percentages of board, executive, and management positions are occupied by persons of diverse backgrounds.

To gather more information on workforce diversity in board, executive, and management positions, the Committee surveyed several leading renewable energy and energy efficiency companies in California and invited testimony on successes, challenges, and what help the state could provide.

The Committee commends those willing to share their workforce data, as transparency is the first step toward a meaningful dialogue. Below is a table summarizing the results of the survey for these entities, with raw data presented in Appendix A.

Company	Type of Company	Survey
Cadmus	Energy efficiency technical consultant	Responded
California Center for Sustainable Energy (CCSE)	Energy efficiency and renewable program manager	Responded
DNV-Kema	Energy efficiency technical consultant	No response
EDF Renewable Energy	Renewable energy developer	Responded
Itron	Energy efficiency and renewable energy technical consultant	No response
Navigant	Energy efficiency and renewable energy technical consultant	Responded
Recurrent	Renewable energy developer	Unwilling to return survey
SolarCity	Renewable energy developer	Responded

Various companies invited to testify (Itron, Recurrent, SolarCity) presented barriers to their participation (either unwilling or unavailable to testify).

Standardized survey forms were not returned in every case; therefore, data could not be easily compared between entities and the California and nation's workforce. Many of these entities again seem to face challenges when it comes to women and minorities in board, executive, and management positions.

D. What might be needed?

³⁶ The Solar Foundation. National Solar Jobs Census 2013.

<http://www.thesolarfoundation.org/sites/thesolarfoundation.org/files/TSF%20Solar%20Jobs%20Census%202013.pdf>

The Committee may wish to examine whether workforce diversity data for renewable energy and energy efficiency companies should be made publicly available.

In addition, the Committee may wish to examine whether training programs should be focused on career areas that will lead to an increase in available diverse candidates for board, executive, and management positions.

Finally, the Committee may wish to examine the PUC rules for selecting Renewable Portfolio Standard contracts that include diversity and determine whether they are sufficient.

APPENDIX A: Workforce Diversity Data Survey Results

California Independent System Operator (CAISO)

Job Category	White	Black or African American	Hispanic or Latino	Asian	Native Hawaiian or Pacific Islander	American Indian or Alaskan Native	Two or more races	Female	Male	Disabled veteran
Board Officers/Directors	4	0	0	1	0	0	0	1	4	
Exec/Sr Officials & Mgrs	15	0	0	0	0	0	1	5	11	
First/Mid Officials & Mgrs	61	0	5	11	0	0	2	23	56	
Professionals	202	15	19	111	6	2	12	118	249	
Technicians	56	2	14	4	2	0	2	11	69	
Admin/Support Workers	26	2	5	1	0	0	0	32	2	
Craft Workers	0	0	0	0	0	0	0	0	0	
Operatives	0	0	0	0	0	0	0	0	0	
Laborers & Helpers	1	0	1	0	0	0	0	0	2	
Service Workers	0	0	0	0	0	0	0	0	0	

CAISO does not track disabled veterans.

Cadmus

Job Group Description	Race Code	Gender Code
2014		
SENIOR PROFESSIONALS	HISPANIC	F
OFFICE SUPPORT	WHITE	F
PROFESSIONALS	WHITE	F
PROFESSIONALS	WHITE	F
PROFESSIONALS	ASIAN	F
SENIOR PROFESSIONALS	BLACK	F
SENIOR PROFESSIONALS	ASIAN	F
SENIOR PROFESSIONALS	WHITE	F
SENIOR PROFESSIONALS	WHITE	M
SENIOR PROFESSIONALS	WHITE	F
SENIOR PROFESSIONALS	UNKNOWN	M
SENIOR PROFESSIONALS	WHITE	M
SENIOR PROFESSIONALS	WHITE	M
OFFICIALS AND MANAGERS	WHITE	M
OFFICIALS AND MANAGERS	WHITE	M
SENIOR PROFESSIONALS	WHITE	F
OFFICIALS AND MANAGERS	WHITE	M
OFFICIALS AND MANAGERS	WHITE	M
OFFICIALS AND MANAGERS	WHITE	M
SENIOR PROFESSIONALS	WHITE	M
OFFICIALS AND MANAGERS	WHITE	M
OFFICIALS AND MANAGERS	WHITE	M
PROFESSIONALS	WHITE	M
PROFESSIONALS	WHITE	M
OFFICIALS AND MANAGERS	WHITE	M

Data were provided as such to the committee and includes California employees only.

California Center for Sustainable Energy (CCSE)

Workforce Diversity - By Ethnic Group As of November 2013								Gender	
Job Category	White	Black or African American	Hispanic or Latino	Asian	Native Hawaiian or Pacific Islander	American Indian or Alaskan Native	Two or More Races	F	M
Exec/Sr Officials & Mgrs	1								1
First/Mid Officials & Mgrs	15		1	4			1	12	9
Professionals	3		1	1	1		1	3	4
Technicians									
Admin/Support Workers	36	1	8	2		1	3	29	22
Craft Workers									
Operatives									
Laborers & Helpers									
Service Workers									

CCSE works with policy makers, public agencies, local governments, utilities, business and civic leaders and individuals to transform California's energy marketplace and beyond. Data regarding board officers/directors were not provided to the committee.

California Municipal Utilities Association (CMUA)

Job Category	White	Black or African American	Hispanic or Latino	Asian(2) /East Indian (1)	Native Hawaiian or Pacific Islander	American Indian or Alaskan Native	Two or more races	Female	Male	Disabled veteran
Board Officers/Directors	13	1		3				3	14	
Exec/Sr Officials & Mgrs	1								1	
First/Mid Officials & Mgrs	2		1					1	2	
Professionals	1								1	
Technicians										
Admin/Support Workers	2							2		
Craft Workers										
Operatives										
Laborers & Helpers										
Service Workers										

CMUA is a non-profit association of community-owned electric utilities and water agencies in California. All of the members are local government entities, and are governed by locally elected or appointed Boards. Designation of white Board Officers based on surnames. Board members serve without compensation from CMUA.

Calpine

3/1/2014

Affirmative Action for California: Calpine

Count of Ethnicity	Column Labels							Note	
Job Category	American Indian/Alaskan Native	Asian	Black or African American	Hispanic or Latino	Two or more races	White	Female		
Administrative Support Workers		1		2		17	18		
First/Mid-Level Officials and Managers	3	8	1	7		113	24	108	
Laborers and helpers						3	0	3	
Operatives						4	0	4	
Professionals	1	8	1	12	1	55	23	55	
Technicians	6	15	11	36	4	302	9	365	
Grand Total	10	32	13	57	5	294	74	537	

Data were provided as such to the committee and includes California employees only.

EDF Renewable Energy

❖ Current Workforce Analysis by Race

- White: 86.37%
- Black: 1.79%
- Hispanic: 9.37%
- Asian: 4.14%
- American Indian: 0.55%

❖ Current Workforce Analysis by Job Group

- Executive – Senior Officials & Management:
 - 22.22% Female
 - Availability 31.60%
 - 13.33% Minority
 - Availability 14.93%
- First/Mid Level O&M
 - 25.19% Female
 - Availability 27.27%
 - 12.21% Minority
 - Availability 17.13%
- Professionals
 - 42.77% Female
 - Availability 35.75%
 - 25.30% Minority
 - Availability 17.48%
- Administrative Support Workers
 - 58.33% Female
 - Availability 65.90%
 - 19.44% Minority
 - Availability 20.44%
- Craft Worker
 - 0% Female
 - Availability 19.96%
 - 27.27% Minority
 - Availability 26.84%
- Operatives
 - 0.33% Female
 - Availability 2.18%
 - 15.61% Minority
 - Availability 16.34%

Availability data is sourced through the 2000 U.S Census EEO Special File

Data were provided as such to the committee and did not include board officers/directors.

Navigant

Job Category	White	Black or African American	Hispanic or Latino	Asian	Native Hawaiian or Pacific Islander	American Indian or Alaskan Native	Two or more races	Female	Male	Disabled veteran
Board Officers/Directors										
Exec/Sr Officials & Mgrs										
First/Mid Officials & Mgrs	27	0	0	4	0	0	0	12	19	0
Professionals	90	5	9	41	1	0	1	51	96	0
Technicians										
Admin/Support Workers	8	5	1	1	0	0	0	12	3	0
Craft Workers										
Operatives										
Laborers & Helpers										
Service Workers										

Data includes California employees only. Data were not provided regarding board officers/directors.

Pacific Gas & Electric (PG&E)

Job Category	White	Black or African American	Hispanic or Latino	Asian	Native Hawaiian or Pacific Islander	American Indian or Alaskan Native	Two or more races	Female	Male	Disabled veteran
Board Officers/Directors	10	1	1	1				2	11	
Exec/Sr Officials & Mgrs	44	2	6	11	0	0	0	16	47	
First/Mid Officials & Mgrs	1129	68	121	266	2	7	21	519	1095	
Professionals	4153	407	831	1596	30	62	114	2504	4689	
Technicians	1037	60	235	279	3	28	29	308	1363	
Admin/Support Workers	1278	436	881	470	20	31	53	2367	802	
Craft Workers	4414	320	1149	404	17	152	66	262	6260	
Operatives	173	19	43	30	3	7	3	36	242	
Laborers & Helpers	409	61	186	50	5	18	25	50	704	
Service Workers	218	6	64	17	0	6	8	36	283	

Board Officers as of 12/31/13. Other job categories listed are from most recent (07/01/13) annual Employer Information Report (Consolidated Report - Type 2) for Equal Employment Opportunity. Regarding Disabled Veterans, the information is voluntary (self-disclosure) and only used in accordance with appropriate affirmative action and EEO regulations.

Sacramento Municipal Utilities District (SMUD)

D. EMPLOYMENT DATA AS OF JUNE 30												FUNCTION TYPE 12
(Do not include elected/appointed officials. Blacks will be counted as zero)												
1. FULL-TIME EMPLOYEES (Temporary employees are not included)												
JOB CATEGORIES	ANNUAL SALARY (In thousands 000)	TOTAL COLUMNS B-K)	MALE					FEMALE				
			NON-HISPANIC ORIGIN		HISPANIC	ASIAN OR PACIFIC ISLANDER	AMERICAN INDIAN OR ALASKAN NATIVE	NON-HISPANIC ORIGIN		HISPANIC	ASIAN OR PACIFIC ISLANDER	AMERICAN INDIAN OR ALASKAN NATIVE
			WHITE	BLACK				WHITE	BLACK			
		A	B	C	D	E	F	G	H	I	J	K
Officials and Administrators	1. \$0.1-15.9	0	0	0	0	0	0	0	0	0	0	0
	2. 16.0-19.9	0	0	0	0	0	0	0	0	0	0	0
	3. 20.0-24.9	0	0	0	0	0	0	0	0	0	0	0
	4. 25.0-32.9	0	0	0	0	0	0	0	0	0	0	0
	5. 33.0-42.9	0	0	0	0	0	0	0	0	0	0	0
	6. 43.0-54.9	0	0	0	0	0	0	0	0	0	0	0
	7. 55.0-69.9	0	0	0	0	0	0	0	0	0	0	0
	8. 70.0 Plus	103	66	2	1	9	0	17	2	1	4	1
Professionals	9. \$0.1-15.9	0	0	0	0	0	0	0	0	0	0	0
	10. 16.0-19.9	0	0	0	0	0	0	0	0	0	0	0
	11. 20.0-24.9	0	0	0	0	0	0	0	0	0	0	0
	12. 25.0-32.9	0	0	0	0	0	0	0	0	0	0	0
	13. 33.0-42.9	0	0	0	0	0	0	0	0	0	0	0
	14. 43.0-54.9	0	0	0	0	0	0	0	0	0	0	0
	15. 55.0-69.9	22	0	1	0	1	0	3	1	3	8	0
	16. 70.0 Plus	708	325	25	40	74	3	156	17	23	45	0
Technicians	17. \$0.1-15.9	0	0	0	0	0	0	0	0	0	0	0
	18. 16.0-19.9	0	0	0	0	0	0	0	0	0	0	0
	19. 20.0-24.9	0	0	0	0	0	0	0	0	0	0	0
	20. 25.0-32.9	0	0	0	0	0	0	0	0	0	0	0
	21. 33.0-42.9	0	0	0	0	0	0	0	0	0	0	0
	22. 43.0-54.9	1	0	0	0	0	0	0	0	1	0	0
	23. 55.0-69.9	33	14	1	4	2	0	7	4	0	0	1
	24. 70.0 Plus	115	55	6	9	13	0	13	3	2	2	0
Protective Service Workers	25. \$0.1-15.9	0	0	0	0	0	0	0	0	0	0	0
	26. 16.0-19.9	0	0	0	0	0	0	0	0	0	0	0
	27. 20.0-24.9	0	0	0	0	0	0	0	0	0	0	0
	28. 25.0-32.9	0	0	0	0	0	0	0	0	0	0	0
	29. 33.0-42.9	0	0	0	0	0	0	0	0	0	0	0
	30. 43.0-54.9	25	15	3	1	4	0	0	1	1	0	0
	31. 55.0-69.9	11	5	3	0	1	0	1	1	0	0	0
	32. 70.0 Plus	5	3	1	1	0	0	0	0	0	0	0

A sampling of the data provided to the committee is displayed.

Sempra Energy (SDG&E and SoCalGas)

SEU WORKFORCE DEMOGRAPHICS

	As of Feb. 2014		As of Feb. 2009	
	Female	Minorities	Female	Minorities
	%	%	%	%
TOTAL SEU	30%	57%	30%	55%
1-Officials & Managers	26%	43%	25%	39%
2-Professionals	41%	52%	40%	47%
3-Technicians	5%	47%	8%	45%
5-Office & Clerical	61%	72%	57%	68%
6-Craft Workers	3%	60%	4%	56%
7-Operatives	6%	65%	7%	58%
8-Laborers	6%	48%	2%	66%
9-Service Workers	0%	75%	0%	100%

SEMPRA ENERGY BOARD OF DIRECTORS as of March 5, 2014

	Female	Minorities
	%	%
Sempra Energy Board of Directors	23%	31%

Data were provided as such to the committee.

Southern California Edison (SCE)

Job Category	White	Black or African American	Hispanic or Latino	Asian	Native Hawaiian or Pacific Islander	American Indian or Alaskan Native	Two or more races	Female	Male	Disabled veteran
Board Officers/Directors	62%	8%	15%	15%	0%	0%	0%	23%	77%	unk
Exec/Sr Officials & Mgrs	70%	7%	12%	10%	0%	0%	1%	32%	68%	0.00%
First/Mid Officials & Mgrs	56%	7%	24%	11%	0%	1%	2%	24%	76%	0.68%
Professionals	41%	7%	27%	22%	1%	1%	3%	43%	57%	0.47%
Technicians	47%	7%	32%	12%	0%	0%	1%	14%	86%	0.52%
Admin/Support Workers	30%	14%	44%	6%	1%	1%	3%	63%	37%	0.00%
Craft Workers	52%	5%	38%	3%	0%	1%	1%	0%	100%	0.06%
Operatives	42%	7%	46%	2%	0%	1%	2%	1%	99%	0.00%
Laborers & Helpers	30%	17%	46%	5%	0%	2%	0%	8%	92%	0.75%
Service Workers	50%	16%	24%	5%	1%	0%	3%	11%	89%	8.86%

Workforce data is as of 12/31/13 and includes all regular full-time and part-time employees. Temporary, contingent and employees on paid leave are excluded.

Other notes

Companies unwilling to publicly disclose data

- **SolarCity.** Data submitted to the committee were labeled "confidential", and as such, will not be provided. In addition, although SolarCity was asked to be a witness, a representative was not available for this hearing date.

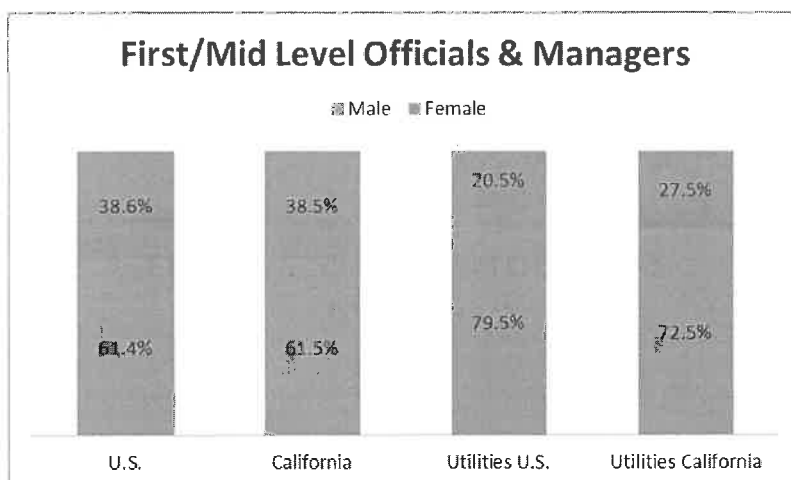
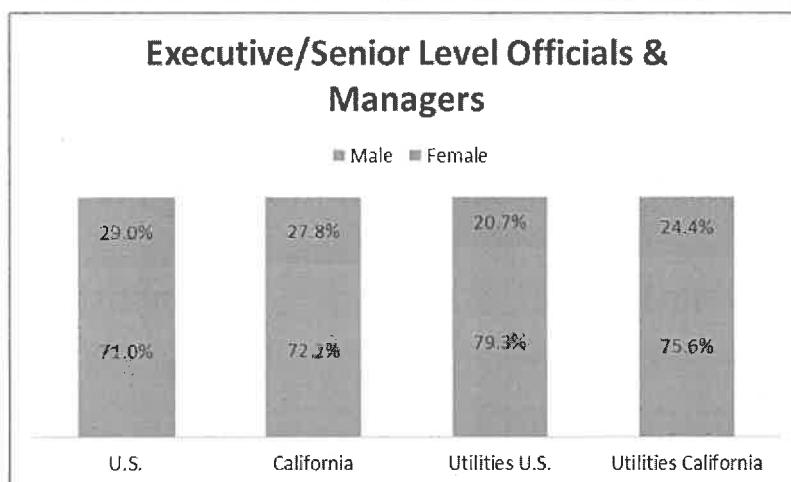
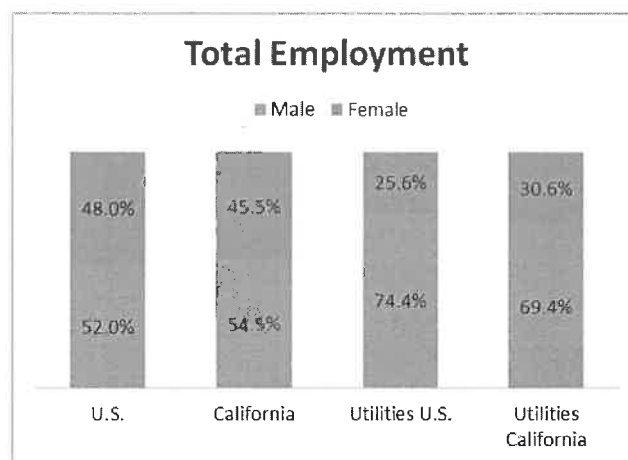
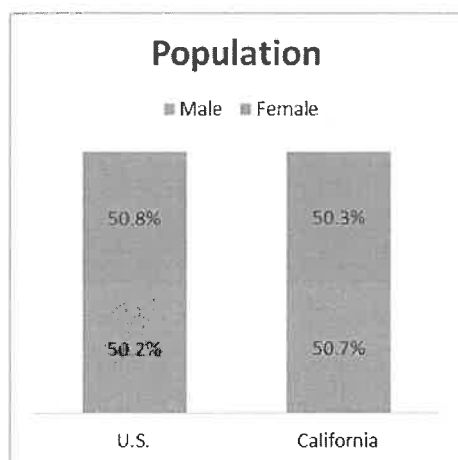
Companies unwilling to submit data

- **Recurrent** was unwilling to return data to the committee. In addition, Recurrent did not plan to send a witness to the hearing.

Companies not returning survey

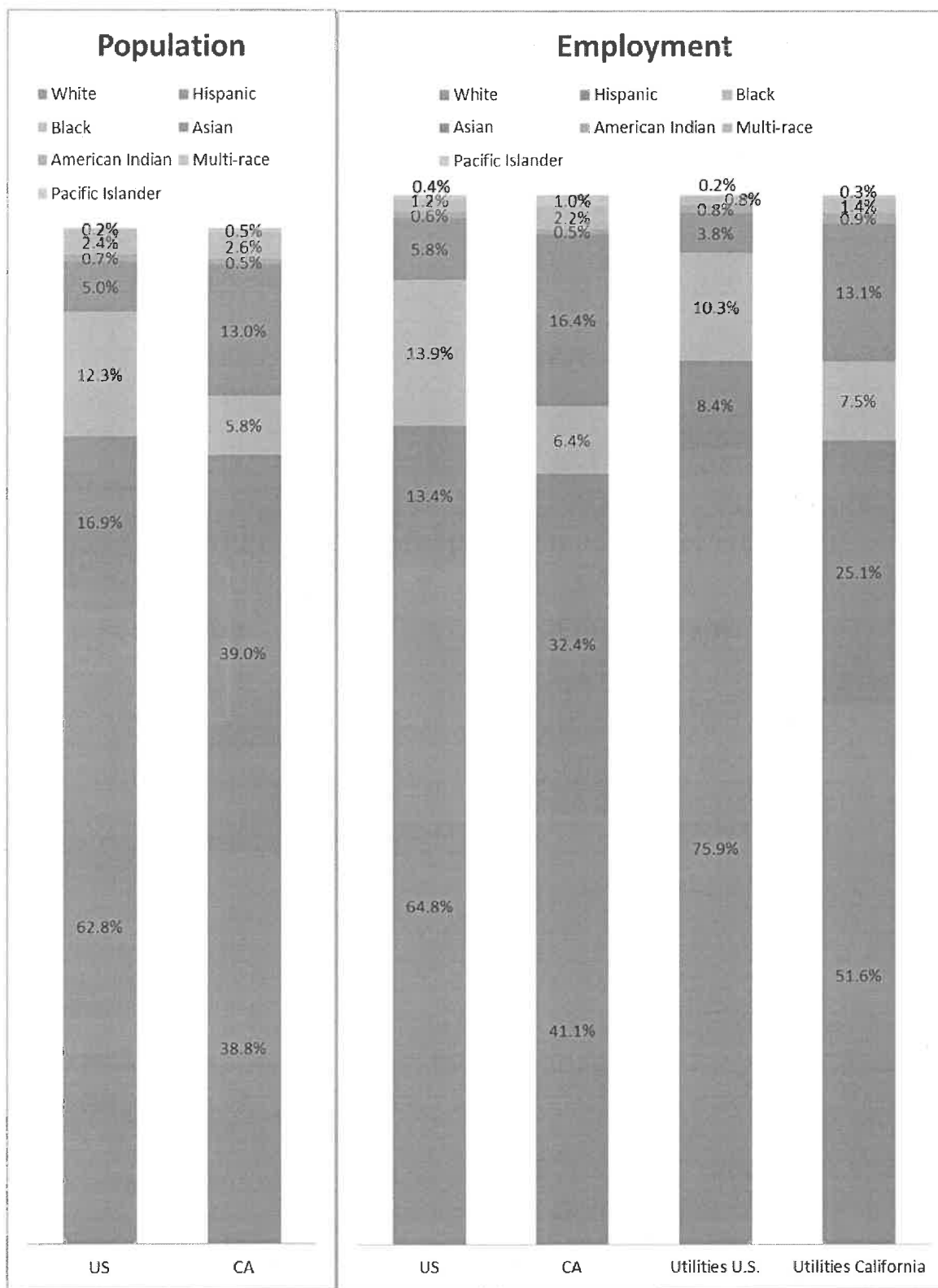
- **DNV-Kema** did not return data to the committee despite repeated inquiries.
- **Itron** did not return data to the committee despite repeated inquiries. In addition, Itron declined to participate as a witness in the hearing, as they felt they did not "fit the profile."

APPENDIX B: Employment data (gender)³⁷

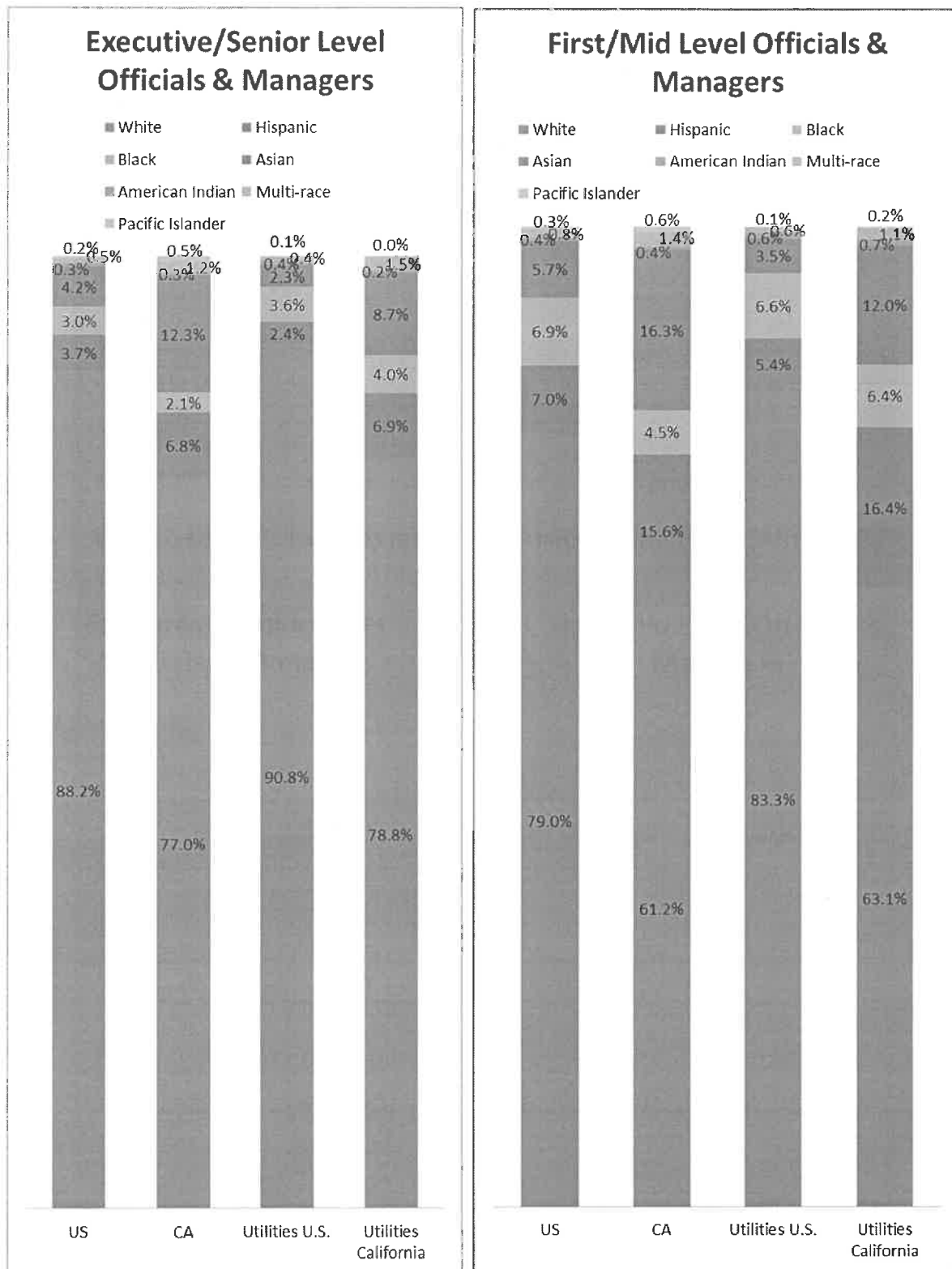


³⁷ EEOC 2012 Job Patterns for Minorities and Women in Private Industry (EEO-1).
<http://www1.eeoc.gov/eeoc/statistics/employment/jobpat-eeo1/2012/index.cfm>

APPENDIX C: Employment data (race/ethnicity)



APPENDIX C: Employment data (race/ethnicity) continued...



APPENDIX D: RECOMMENDATIONS BY MENENDEZ (D-NJ) REPORT³⁸

The following is a summary of recommendations made by Sen. Menendez's report on Fortune 500 diversity for corporations serious about improving diversity at the top:

Develop relationships with expert organizations outside of traditional networks. Nominating committees should never use the excuse that they cannot find a qualified minority or a woman to nominate to their Board. This was a common response over the course of this survey.

Do not recruit solely at Ivy League schools. Expanding recruitment from Ivy League schools to other top schools can be another way to get qualified diverse candidates into the corporate pipeline.

Utilize executive search firms with expertise in diverse communities or require them to seriously consider diversity. The survey showed that a discussion of diversity when using executive search firms did not necessarily correlate with improved diversity. Therefore, steps should be taken beyond just a simple discussion. All search firms should be obligated to look for and provide companies with diverse, qualified candidates rather than simply pulling from traditional pools of candidates.

Interview at least one diverse candidate when filling board or leadership positions. Similar to the National Football League's self-imposed "Rooney Rule," where at least one minority candidate is interviewed for head coaching and senior football operations opportunities, at least one minority candidate should be interviewed when looking to fill leadership positions. These interviews should be done in a serious and meaningful manner, not simply to check a box.

Link success with diversity to bonuses. Corporations should link diversity among each business department to the bonuses and annual performance reviews of business leaders, as the survey found that corporations doing this tend to have better diversity among their workforce and top leadership.

Hire chief diversity officers from diverse communities. It is crucial that diversity chiefs at a company come from the communities they are recruiting from and working with. These individuals are more likely to have ties to the communities they represent and can use those relationships to recruit.

Hold more than Human Resources and the Chief Diversity Officer accountable for diversity. Diversity should be a goal in every aspect of a company's operations not only in the areas of procurement, Board and senior management levels, but also in a company's treasury office where financial oversight lies. Diversity should be considered among brokerage fees that extend to professional services like legal fees, mergers and acquisitions, pension fund management, and other services. Many times the budget for these types of services significantly exceeds that for suppliers.

Create external diversity advisory councils. Councils should be composed of outside community leaders that have extensive networks with these communities. A separate council should be created for each diverse group, i.e. women, Asians, etc., and each should report to the CEO.

³⁸ <http://www.menendez.senate.gov/newsroom/press/results-of-menendezs-major-fortune-500-diversity-survey-representation-of-women-and-minorities-on-corporate-boards-still-lags-far-behind-national-population>

Be clear on the difference between U.S. and foreign employees when filling leadership positions. Foreign nationals should be considered separately from the levels of diversity for U.S. employees.

Groom senior employees for top positions. It is critical that corporations implement meaningful succession planning, whether in the form of a mentoring program or other similar mechanism, for senior employees of a company who can be groomed for top leadership positions in the future. Such a program should require a significant time investment from the CEO and his or her leadership team.

Track supplier diversity so it becomes a priority. The IOUs in California are performing admirably with regards to supplier diversity. In general, however, the lack of data shared regarding diverse suppliers, specifically in terms of a breakdown by ethnic/racial category, proves that this is an area that needs work.

Philanthropy is good, but not enough. The survey showed two things, among others: that there is much philanthropy, but less diversity. Although philanthropy is good and should be part of a corporation's diversity plan, philanthropy alone is simply not enough. Diversity at all levels should be made a priority not only because it is the right thing to do, but because it is a good business decision.

Opportunities for board diversity when companies go public. Some companies have been bought by private equity firms that will take them public very soon. In the process, companies will have to rename an entirely new Board of Directors. This provides a prime opportunity to seek the most diverse, qualified candidates for Director positions.

Do not rely solely on written diversity plans. While corporations with written plans are more likely to have better diversity among their leadership as well as with suppliers, the gains were only slight. Therefore, corporations should not rely solely on written diversity plans, but should also implement more far-reaching changes that can have an even greater impact. Implementing some of the aforementioned recommendations should be a step in the right direction.