Los Angeles Department of Water & Power

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March 28, 2018

The Honorable City Council
c/o Office of the City Clerk
Room 395, City Hall
Mail Stop 160

Attention: Councilmember Nury Martinez
Chair – Energy, Climate Change, and Environmental Justice Committee

Honorable Members:

Subject: Council File No. 16-0243 (Bonin-Krekorian-Wesson-Koretz)
100 Percent Energy Portfolio – Research Partnerships

This correspondence is in response to the August 1, 2017, Energy, Climate Change, and Environmental Justice (ECCEJ) Committee recommendation to instruct the Los Angeles Department of Water and Power (LADWP) to incorporate in its research efforts the following:

1) An analysis by the Ratepayer Advocate on how each scenario fits within our current rate structure, including the impact, if any, each scenario would have on low-income customers.
2) Incorporation of the CalEnviro Screen into each research area, and as the context for any analysis, study, and/or recommendation.
3) The prioritization of environmental justice neighborhoods as the first immediate beneficiaries of localized air quality improvements and greenhouse gas reductions.

An attachment is enclosed to this correspondence providing responses to questions that were raised by ECCEJ Committee members during the hearing on August 1, 2017.

Response

The Power System will work with the Office of Public Accountability to determine the effect of each scenario on the current rate structure, especially on low-income customers. The incorporation of the CalEnviroScreen and the prioritization of

environmental justice neighborhoods as the first immediate beneficiaries of localized air quality improvements and Greenhouse Gas (GHG) reductions will be studied and discussed as part of the comprehensive final report at the conclusion of the City of Los Angeles 100 Percent Renewable Energy Study.

The National Renewable Energy Laboratory (NREL), with LADWP direction, will work with local academic institutions, and the Advisory Group (AG) with the objective of determining what investments should be made to achieve a 100 percent renewable energy portfolio for the LADWP.

Proposed Plan

LADWP has obtained the services of NREL to lead the stakeholder outreach and study efforts. NREL is one of the United States Department of Energy's 17 national laboratories tasked with tackling the critical scientific challenges of our time. These laboratories possess unique instruments and facilities, many of which are found nowhere else in the world. NREL is the only federal laboratory dedicated to the research, development, commercialization, and deployment of renewable energy and energy efficiency technologies. As a federally funded research and development center, NREL is a government-owned entity with a mission to provide credible, science-based, unbiased support to organizations. NREL will be tasked with conducting an objective economic and reliability analysis of options for reaching 100 percent renewable energy. Because of the unique nature of the study – there has never been a comprehensive analysis of an electric grid as large and comprehensive as Los Angeles' power system to reach 100 percent renewable energy—research partnerships will be formed with renowned energy experts to assist in various analyses as necessary.

NREL will use a suite of modeling tools designed to optimize the investment and operation of the LADWP electrical system to explore options for planning and operating for a least-cost, clean, and reliable system. The challenge is to select the best mix of resources that reliably and economically serve the energy needs of LADWP's ratepayers while laying out a no-regrets pathway – in infrastructure planning and new operational practices – towards a sustainable future.

Comprehensive economic and reliability analysis requires the coordinated use of data and modeling tools to create realistic and credible results. NREL has developed and assembled three (3) major power systems planning tools to be applied to this analysis.

1) The first modeling activity, "Planning," is used to determine the development of least-cost and best-fit scenarios for the future power system inclusive of utility-scale and distributed generation, transmission infrastructure, and demand response resources. To this end, NREL will use its Resource Planning Model (RPM), a unit-specific capacity expansion model that optimizes the size, type, and location of new utility-scale generation additions, storage, demand response, and transmission expansions. Although traditional utility planning has focused on

the bulk power system, this "Planning" activity will also include the application of NREL's Distributed Generation (dGen) model, a high-resolution customer adoption model of distributed photovoltaics (PV) and other behind-the-meter technologies that already or are anticipated to play a major role in the Southern California energy mix.

2) The second group of modeling tools, "Production Cost" modeling, aims to simulate the hourly or sub-hourly operation of the power system for prolonged periods of time (i.e., weeks/years). NREL uses several tools, including the PLEXOS® production cost model, to simulate the 5-minute operation of the bulk power system under a variety of system conditions and assess system operating costs, transmission constraints, and several measure of system reliability. NREL has also studied the ability of loads to be controlled in operations to provide system flexibility using PLEXOS®. Just as in the planning domain, bulk power and distributed systems are often separated. NREL has developed the Integrated Grid Modeling System (IGMS) to help bridge the gap between bulk power and distribution modeling in this time domain. IGMS will be used to evaluate distribution system impacts and the interaction of distributed resources with the bulk power system.

3) The third modeling component is "Dynamic/Steady State" analysis. This class of tools is used to understand the alternating current (AC) power flow challenges faced by the system under both steady-state and dynamic conditions. For transmission-scale analysis, NREL utilizes PSLF software, which is commonly used by many utility companies, especially those in the Western Interconnection, for AC power flow and dynamic studies. NREL has developed accurate power flow and a dynamic model of the entire western interconnection through past studies based on the Western Electricity Coordinating Council base cases.

As a final step, the best scenarios for achieving a 100 percent renewable energy portfolio will be determined. A comprehensive analysis using CalEnviroScreen will evaluate the outcome of these scenarios on the communities that are disproportionately burdened by multiple sources of pollution and GHG.

Stakeholder Engagement Process

LADWP convened the first meeting of the 100 percent Renewable Energy AG in June 2017 to launch this multi-year effort. The AG will play an essential role in helping to guide the 100 Percent Renewable Energy Study, providing input and feedback based on the expertise, knowledge and resources of the organizations, institutions and/or constituent groups represented by members. The AG has conducted three additional meetings, in August and November 2017 and February 2018, and will continue to meet on a quarterly basis during the development of the study plan.

The AG is designed to reflect the diverse perspectives and expertise necessary to understand the challenges and possibilities for serving 100 percent of the City of Los Angeles' electricity demand with renewable energy. AG participants have expertise in the topics of:

- Power systems
- Policy
- Transportation
- Economic development
- Energy systems
- Sustainability

Once-Through Cooling (OTC) Study

Under the Federal Clean Water Act, LADWP is required to eliminate the use of OTC at its coastal generating stations, following an extended timeline negotiated with the State Water Resources Control Board. Recognizing the need to reduce all fossil fuel power generation, LADWP is reassessing plans to repower its natural gas generating units until completing a system-wide, in-depth and independent study. On a fast track to be completed in late summer 2018, the OTC Study will analyze the necessity for repowering and identify all viable alternatives that are environmentally responsible while still meeting reliability standards. The OTC Study is being conducted concurrently with the 100 Percent Renewable Energy Study. Progress and results will be shared with the AG.

Study Considerations

LADWP will be directing NREL and the AG to consider the following when developing the various scenarios proposed to reach a 100 percent renewable energy portfolio:

- Maintaining/improving system reliability
- Types, availability, and constructability of clean energy resources
- Role of energy storage, energy efficiency, demand response, and Energy Imbalance Market
- Developing technologies
- Necessary infrastructure upgrades
    - Critical transmission investments
    - Role of LADWP's existing natural gas generating units
    - OTC Study
- Optimization of costs
- Impact to local economy
- Impact to rate payers, especially low-income customers

Conclusion

As part of the 100 Percent Renewable Energy Study, LADWP plans to methodically incorporate all feasible, validated, and approved recommendations into its future Power Strategic Long-Term Resource Plan to meet the City of Los Angeles' future energy needs at the lowest cost and risk, consistent with the prevailing environmental priorities and reliability standards. LADWP will continue to make unprecedented investments to transform its power supply with new and innovative renewable energy resources while significantly reducing its carbon footprint and GHG emissions.

If you have any questions or if additional information is required, please contact me at (213) 367-1338, or you may have a member of your staff contact Ms. Winifred J. Yancy, Director of Legislative and Intergovernmental Affairs, at (213) 367-0025.

Sincerely,

David H. Wright
General Manager

RAK/SZ:ps
Enclosure
c/enc: Councilmember Paul Koretz, Vice Chair, ECCEJ Committee
Councilmember Paul Krekorian, Member, ECCEJ Committee
Councilmember Gilbert A. Cedillo, Member, ECCEJ Committee
Councilmember Mitch O'Farrell, Member, ECCEJ Committee
Councilmember Herb J. Wesson, Jr., President, Tenth District
Councilmember Mike Bonin, Eleventh District
Ms. Maria Espinoza, Legislative Assistant, ECCEJ Committee
Dr. Frederick H. Pickel, Office of Public Accountability
Board of Water and Power Commissioners
Ms. Winifred J. Yancy

RESPONSES TO QUESTIONS RAISED BY COMMITTEE MEMBERS ON AUGUST 1, 2017

QUESTION #1:
We would like to see a report on local solar economic justice issue – what is being done to have more solar power in disadvantaged communities?
(Madam Chair Martinez and Councilman Cedillo)

Executive Summary

The Los Angeles Department of Water and Power (LADWP) has been proactive in addressing the existing solar access disparity and is focused on improving solar equity throughout the City of Los Angeles. In an effort to make local solar accessible to more residential customers, especially those in disadvantaged communities (DACs), LADWP has considered the California Communities Environmental Health and Screening Tool (CalEnviroScreen or CES) in recent program development and program revision efforts. These efforts include targeting areas of low solar penetration, as identified by LADWP, and enhancing the grid benefit of better spreading solar deployment over the distribution grid. Additionally, areas of low solar penetration have significant overlap with DACs as identified by CalEnviroScreen.

In 2017, LADWP launched the Solar Rooftops Program (SRP) as part of its overall Community Solar Program (CSP) effort, prioritizing customers who live in areas with low solar penetration. Also in 2017, LADWP received Board approval to modify the Solar Incentive Program (SIP) and provide higher solar incentives (i.e. rebates) to customers who live in areas of low solar penetration.

In addition to targeting customers in areas of low solar penetration, the existing Utility Built Solar (UBS) program utilizes the IBEW Local 18- and LADWP-developed Utility Pre-Craft Trainee (UPCT) program to support solar deployment with locally developed labor. Finally, LADWP's Feed-in Tariff (FiT) program has seen high adoption in "solar equity hotspots" as studied by the UCLA Luskin School of Public Affairs.

1.0 Background

Despite tremendous growth in the U.S. solar market, traditional business models and regulatory environments have not been designed to provide access to a significant portion of potential photovoltaic (PV) system customers. As a result, economic, environmental, and social benefits of distributed solar are not available to all consumers. This has contributed to the disparity in solar equity within the LADWP's service territory. The development of local solar programs is part of LADWP's equity metrics and will enable customers to help the LADWP meet its renewable energy goals, help reduce overall emissions, support local job creation, and support solar equity in LADWP's service territory.

LADWP has been proactive in addressing the existing solar disparity and is focused on improving solar equity throughout the City of Los Angeles. In an effort to make solar projects available to more residential customers, especially those in neighborhoods with low solar penetration, LADWP has created or modified its local solar programs with equity as a consideration.

1.1 Leveraging the CalEnviroScreen

LADWP leveraged the CalEnviroScreen to better understand and reach DACs with our local solar programs. This allowed us to identify DACs that are most affected by environmental, health, and socioeconomic factors. LADWP defined a solar penetration rating (i.e. low-Group A, medium-Group B, and high-Group C), in order to:

1) Utilize an objective approach for defining program criteria,
2) Provide priority enrollment/incentives to DACs,
3) Focus marketing and outreach efforts, and
4) Install new solar systems to better diversify LADWP's electric grid.

The solar penetration rating is defined as the total Solar Incentive Program capacity (kW) in a zip code divided by the number of LADWP residential accounts in that zip code. Utilizing this approach, the areas of low solar penetration (Group A), was closely correlated to the areas with high CES scores (typically DACs) using the CalEnviroScreen, Version 2.0.

1.2 Workforce Development

In addition, training is an integral part of LADWP's local solar efforts. The LADWP's current workforce is rapidly aging and there is a need to train the next generation of highly skilled employees. IBEW Local 18 and LADWP have developed the Utility Pre-Craft Trainee (UPCT) Program to meet this challenge. Developed with the Joint Training Institute, the program includes 57 training courses provided by Los Angeles Trade Technical College, computer-based training, and on the job training. The program is only open to Los Angeles County residents with a valid driver's license. The program has hired and trained several hundred low skill or disadvantaged workers who have worked to help meet this challenge with locally developed labor.

2.0 Local Solar Programs

LADWP's local solar developments are comprised of the following programs:

1) Community Solar Programs (CSP)
    a. Solar Rooftops Program (SRP)
    b. Shared Solar Program (SSP)
2) Solar Incentive Program (SIP)
3) Feed-In Tariff (FiT) Program
4) Utility-Built Solar (UBS) Program

Each program has its own set of customer targets and metrics which are mentioned in the following sections.

2.1 Community Solar Program

Many customers in LADWP's service territory have not been able to take advantage of traditional solar business models. The current solar industry poses challenges for people who cannot afford to install solar, have low credit ratings to leverage financing, and those who have unsuitable rooftops. The CSP aims to primarily focus on two customer segments 1) homeowners with inadequate solar procurement capabilities and 2) customer without suitable rooftops for solar installations (e.g. renters, condominium owners, etc.). To increase solar access for these customers, LADWP has created the Solar Rooftops Program (SRP) and the Shared Solar Program (SSP) options. The CSP is designed to be an umbrella program that could contain multiple residential programs to actively promote solar equity. The launch of the Community Solar Program is a major initiative of LADWP and the City of Los Angeles; this program will bring communities together and help transform the City of Los Angeles.

2.1.A – Solar Rooftops Program

The target for the SRP is to install up to 1 megawatt (MW) of new solar power in the Los Angeles area that will be connected directly to LADWP's grid. The SRP PV solar systems will be installed on customers' rooftops in exchange for a fixed monthly lease payment (or bill credit) of $30 per month, or $360 per year. There are no up-front costs/fees and no credit checks required to enroll; this helps the program reach disadvantaged communities and helps with environmental justice.

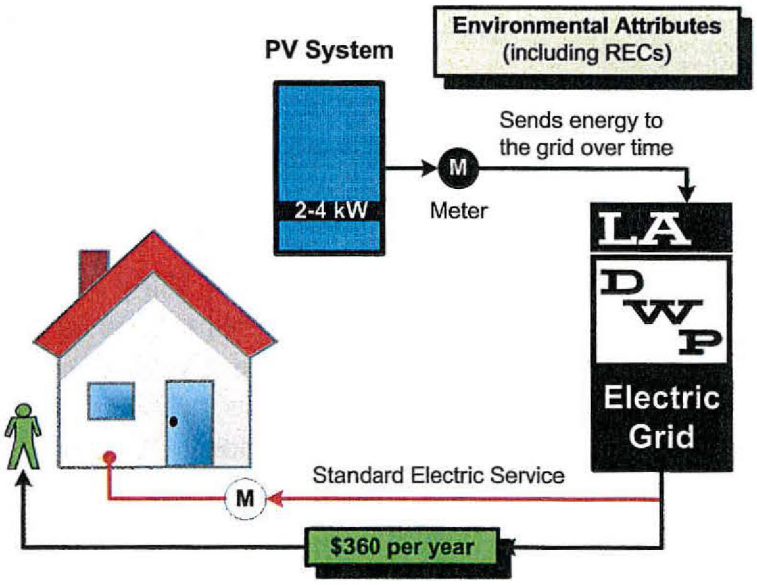


Figure 1 – SRP Overview

The SRP offers an opportunity for LADWP to install 2-4 kilowatt (kW) PV systems and enable customers to help LADWP meet its renewable energy goals, reduce overall greenhouse gas emissions, and support local job creation, see Figure 1.

On November 15, 2016, the LADWP's Board of Commissioners approved the SRP Guidelines and the Solar Rooftops Program Lease Agreement (SRPLA). On December 14, 2016, use of the SRPLA was approved by City Council. To date, the marketing and outreach efforts have been focused on DACs.

2.1.B – Shared Solar Program

The Shared Solar Program (SSP) will enable LADWP to install large-scale PV solar plant(s) in/near the LA Basin and allow customers, especially renters, condominium owners, and those who do not have suitable rooftops for traditional residential PV systems, to subscribe and purchase a portion of the energy produced. Customers would be able to sign up for blocks of energy, in 50kWh increments, up to 200kWh per month. These blocks will allow customers to replace a portion of their home energy use at a fixed rate for the life of the program (up to 20 years). LADWP intends to initially procure up to 2 megawatts (MW) of PV solar for this project. A general Shared Solar Program overview diagram is shown on the next page (see Figure 2). The SSP will launch in 2018 pending required billing system updates.

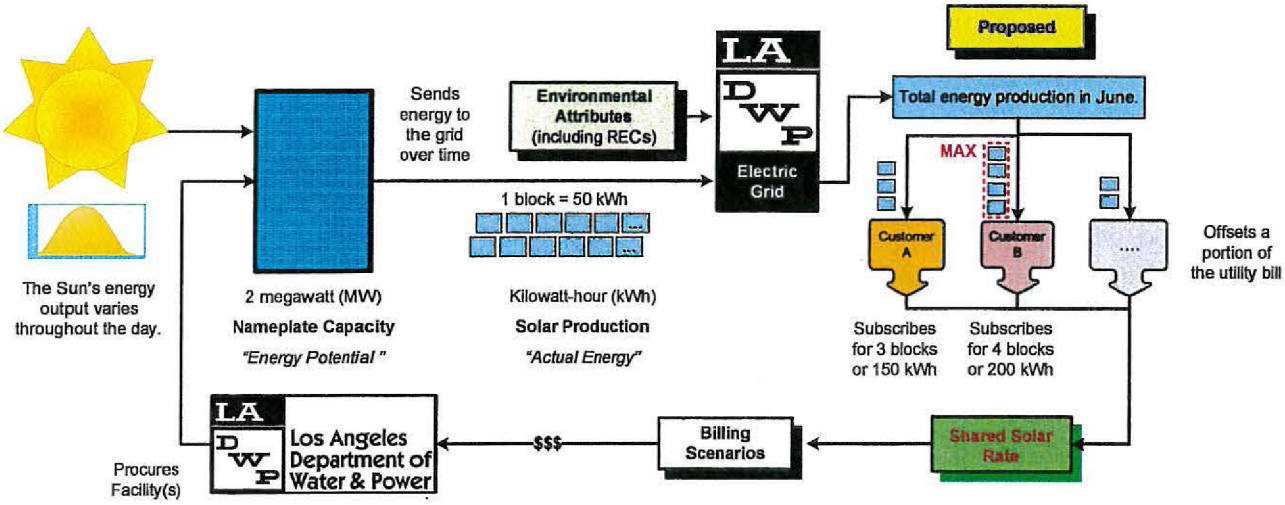


Figure 2 – SSP Overview

2.2 Solar Incentive Program

Since its inception, the LADWP's Solar Incentive Program (SIP) has provided over $307 million to customers that have invested in installing solar PV modules on their own rooftops or property. The SIP has contributed to creating and boosting a vibrant solar industry within the City of Los Angeles, but the overwhelming amount of these incentives have gone to home or business owners of higher economic status. In response LADWP's Solar Programs Development Group in consultation with several advocacy and research institutions redesigned the SIP program to include an additional incentive of $0.15 per watt or $150 per installed kilo-watt (kW) for customers who install solar PV systems in zip codes of low solar PV penetration based on the historic data available. These zip codes generally have high CES scores. Eligibility for this incentive adder will be determined entirely by the customer's zip code and no other documentation is required. The adder is not available to non-residential customers. There are approximately $10 million dollars of Board approved incentives still remaining in the program.

2.3 Feed-In Tariff Program

LADWP's FiT program was launched in 2013 for LADWP customers or third party developers and solar installers that can install systems sized 30 kW – 3 MW on their properties within LADWP service territory. A 150 MW program, FiT was designed to ensure further local solar deployment, create additional local solar jobs and economic development. According to the UCLA Luskin School of Public Affairs, 40% of active FiT projects are located in "solar equity hotspots" (low-income communities that are disproportionately impacted by air pollution) creating several hundred solar jobs and stimulating the local economy.

2.4 Utility-Built Solar

LADWP currently develops designs, installs and operates solar PV projects on its own properties and other city facilities as part of its Utility Built Solar (UBS) program. So far 45 projects have been built comprising 24 MW at various DWP stations, facilities as well as other City Departments. The target of the program is to reach 40 MW by 2025. LADWP is currently working on developing several MOUs for UBS projects on City of Los Angeles facilities, possibly including facilities at Department of Recreation and Parks and the Los Angeles Zoo. The program is crucial to providing LADWP with design, construction, and operational expertise required for integrating high levels of distributed solar into the distribution grid and plays a role in employee development by utilizing the UPCT program.

QUESTION #2:
LADWP indicated that it is installing utility-scale batteries outside the local area (Example: Beacon 20MW). What is the overall loss of energy on Transmission Lines in %? And how does it relate to battery storage? Why are we putting batteries outside the local area if the stored energy will be impacted by transmission line losses? Wouldn't it be better to locate batteries in the local area? We need energy storage in the basin. Such action will help local resiliency. *(Councilmen O'Farrell, Koretz, and Krekorian)*

There are several types of transmission line losses – as a result, measurement of a transmission line loss percentage depends on the type of electric transmission methodology (Alternating Current vs Direct Current), the length of the transmission line, the size of conductors, presence of converter stations (if any), and the type of materials/conductor used on the transmission line. In addition, transmission line losses are independent of electrical energy resources and load consuming electrical equipment such as energy storage.

Typically, High Voltage AC (HVAC) transmission system losses range from 3% to 5%. LADWP operates two long High Voltage DC (HVDC) transmission lines. System losses on HVDC transmission lines are approximately 6%.

Placing energy storage near the renewable generation will allow for storing solar over-generation using batteries in-lieu of curtailing renewable generation. Battery stored solar energy can be used at a later time to serve the system load when solar production is not available due to cloud cover and/or during evening hours - which in turn will lower the need for deploying natural gas fired generation.

Transmitting energy during high load periods can result in slightly increased losses when line loading is higher. As a result, shifting of resources to energy storage is expected to reduce such losses.

In addition, packaging large solar farms with utility scale battery storage provides the necessary cost-effective business model that captures complementary Investment Tax Credits which reduce the overall cost of the project and associated energy.

Within its distribution service territory, LADWP is planning to install energy storage projects at a Distribution Station, LA Zoo, and Recreation and Park facilities. These energy storage facilities will be used to help optimize the distribution system, provide resiliency during local outages, and help integrate distributed solar resources.

QUESTION #3:
What is LADWP's plan for a GHG free scenario? LADWP to work and report on a GHG free scenario with the goal of achieving that perhaps 20 years from now in 2037. *(Councilman Koretz)*

The Los Angeles 100% Renewable Energy Study will consider GHG free scenarios. Under Senate Bill No. 32 (SB32), LADWP is required to reduce Greenhouse Gas (GHG) emissions to 40% below 1990 levels no later than December 31, 2030. LADWP achieved this milestone in 2016 – fourteen (14) years before it is required to do so.

One of the proposed scenarios for the 100% Renewable Energy study will be to extend SB32's requirements to a 100% reduction of GHG emissions. This extension of SB32 will satisfy LADWP's plan for a GHG-free scenario.

QUESTION #4:
For energy storage, where will be the batteries manufactured? We have to be sensitive to the environmental impacts and consequences of manufacturing in city centers. *(Councilman O'Farrell)*

LADWP currently is not conducting any business with utility-scale battery providers that have manufacturing plants near populated areas. LADWP will consider environmental impacts and consequences of battery manufacturing when entering into contracts for energy storage batteries. LADWP is currently procuring the 20 MW Beacon Energy Storage System from Doosan Corporation. Doosan is buying the batteries from Samsung SDI which has two battery manufacturing facilities in China and South Korea.

QUESTION #5:
What is LADWP's protocol for fixing or replacing malfunctioning EV Chargers? Reports were made to LADWP repeatedly on malfunctioning chargers at specific locations and prompt action was not taken. What is the process? Who is in charge? Who is talking to whom? Is there is a communication breakdown? Having chargers is a good thing – however, prompt maintenance of such chargers is equally important. *(Madam Chair Martinez)*

Property owners are responsible for the repair or replacement of malfunctioning EV charging stations at their facilities. If it is an LADWP owned charger, the customer can call 213-367-5228 or email at EVChargerRepair@ladwp.com. Such contact information is clearly displayed on the charging station label.

Once reports are received, LADWP's EV (Electric Vehicle) team will verify if the unit is malfunctioning and will alerts construction to perform repair or replacement of the unit.

In some cases, LADWP has assisted in the installation of EV charging stations on other City properties. After the installation is complete, these units are owned and maintained by the facility owner. This was the case for the Lake Balboa Golf Course charging stations that were installed by LADWP a few years ago. The facility owner of this site is City of Los Angeles, Bureau of Recreation and Parks. Even though the facility owner was responsible to for the charger maintenance, LADWP assisted in getting the malfunctioning unit repaired.

LADWP agrees that prompt maintenance of EV Chargers is critical. Moving forward, LADWP will take steps to improve communication with other City agencies so that responsibility is clearly defined to ensure timely maintenance of City-owned charging stations.

QUESTION #6:
What is LADWP's hiring level (total #, diversity %, gender%, local workforce% in general and under each major Power System program or initiative? Example: PSRP, RPS,...etc. *(Councilman O'Farrell)*

The LADWP Equity Metrics Data Initiative (EMDI) tracks and reports on overall LADWP new hires and promotional demographics. Shown below is ethnic and gender breakdown information for fiscal year 2016-2017.

Figure 1 – Hiring and Promotions by Ethnic Group

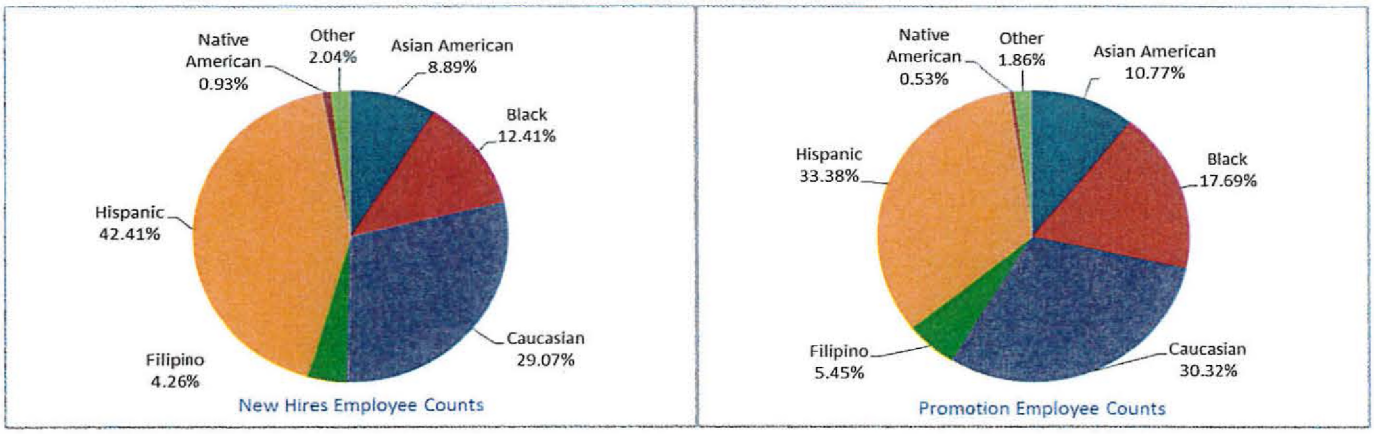


Figure 2 – Hiring and Promotions by Gender

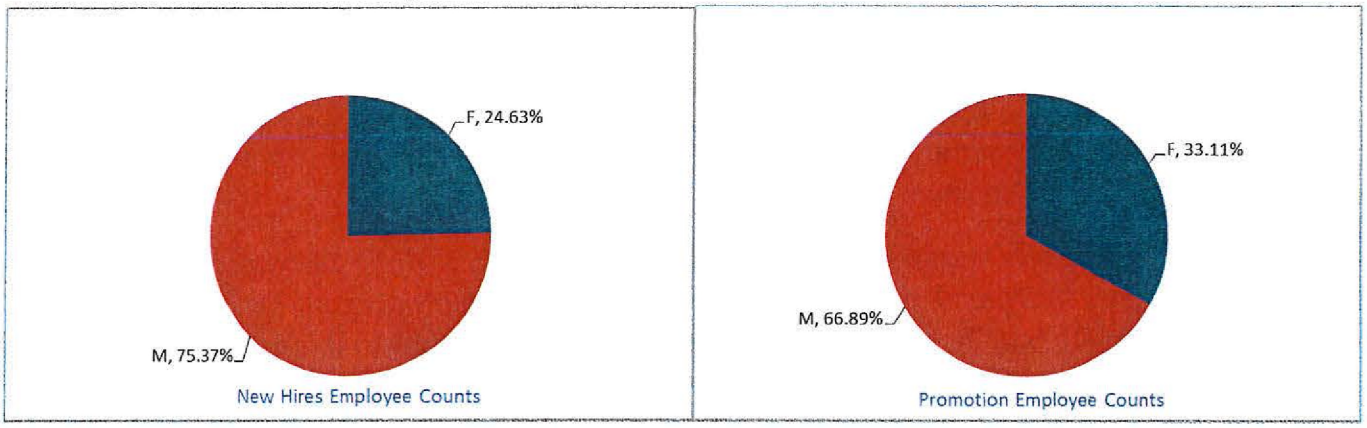
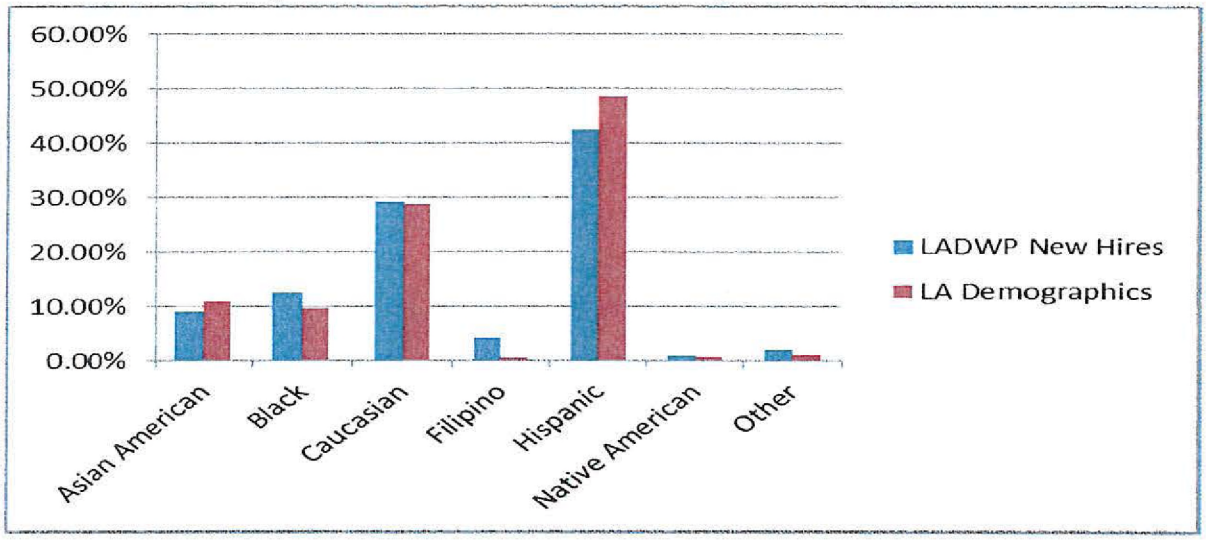


Figure 3 – LADWP New Hires vs. Los Angeles Demographics



The Power System does not have a hiring system that is categorized by various programs and initiatives – hiring is based on the number of vacancies that need to be filled to support and perform multiple responsibilities within the planning, engineering, construction, maintenance, and operations divisions.

Power System is committed to increasing the diversity of its workforce in both traditional and non-traditional fields including expanding its outreach efforts towards underrepresented groups.

SUMMARY OF EECEJ COMMITTEE MEETING ON AUGUST 1, 2017

The ECCEJ Committee recommended and unanimously adopted the following actions/instructions to be incorporated as part of the 100 percent renewable energy research effort:

1. An analysis by the Ratepayer Advocate on how each scenario fits within our current rate structure, including the impact, if any, each scenario would have on low-income customers.
   [Responsible – Office of Public Accountability (RPA)]

2. Incorporation of the CalEnviro Screen into each research area, and as the context for any analysis, study, and/or recommendation. **[Responsible – Power System (PPD)]**

3. The prioritization of environmental justice neighborhoods as the first immediate beneficiaries of localized air quality improvements and greenhouse gas reductions.
   [Responsible – Power System (PPD)]

4. LADWP to report back in **60 days** with updates on the proposed plan and stakeholder engagement process. **[Responsible – Power System (PPD) – Due in September 30, 2017]**

In addition, members of the ECCEJ Committee made the following requests:

a) **(Chair Lady Martinez and Councilman Cedillo)** Would like to see a report on local solar economic justice issue – what is being done to have more solar power in disadvantaged communities?

b) **(Councilmen O'Farrell, Koretz, and Krekorian)** LADWP indicated that it is installing utility-scale batteries outside the local area (Example: Beacon 20MW). What is the loss on Transmission Lines in %? And how does it relate to battery storage? Why are we putting batteries outside the local area if the stored energy will be impacted by transmission line losses? Wouldn't it be better to locate batteries in the local area? We need energy storage in the basin. We are not moving fast on this front. Such action will help local resiliency.

c) **(Councilman Koretz)** What is LADWP's plan for a GHG free scenario? Request was made for LADWP to work and report on a GHG free scenario with the goal of achieving that perhaps 20 years from now.

d) **(Councilman O'Farrell)** For energy storage, where will be the batteries manufactured? We have to be sensitive to the environmental impacts and consequences of manufacturing in city centers.

e) **(Chair Lady Martinez)** What is LADWP's protocol for fixing or replacing malfunctioning EV Chargers? Reports were made to LADWP repeatedly on such malfunctioning chargers at specific locations and nothing has been done for months – actually (at a specific location), it has been more than 7 months since a report was made and still no action. What is the process? Who is in charge? Who is talking to whom? Certainly there is a communication breakdown. Having chargers is a good thing – however, prompt maintenance of such chargers is equally important. We can do better and we should do better.

f) **(Councilman O'Farrell)** **Question to Corporate Performance - Equity Metrics:** What is LADWP's hiring level (total #, diversity %, gender%, local workforce%) in general and under each major Power System program or initiative? Example: PSRP, RPS,...etc.

File No. 16-0243

ENERGY, CLIMATE CHANGE AND ENVIRONMENTAL JUSTICE COMMITTEE REPORT relative to developing and implementing partnerships with appropriate entities to determine what investments should be made to achieve 100 percent renewable energy portfolio.

Recommendations for Council action:

1. INSTRUCT the Los Angeles Department of Water and Power (LADWP) to formally incorporate into its research efforts the following:

    a. An analysis by the Rate Payer Advocate on how each scenario fits within the current rate structure to include the impact, if any, each scenario would have on low income customers.

    b. Incorporation of the CalEnviro Screen into each research area, and as the context for any analysis, study, and/or recommendation.

    c. The prioritization of environmental justice neighborhoods as the first immediate beneficiaries of localized air quality improvements and greenhouse gas reduction.

2. INSTRUCT the LADWP to report in 60 days in regard to the proposed plan and stakeholder engagement process.

Fiscal Impact Statement: None submitted by the LADWP. Neither the City Administrative Officer nor the Chief Legislative Analyst has completed a financial analysis of this report.

Community Impact Statement: Yes

For:
Greater Valley Glen Neighborhood Council
Palms Neighborhood Council

Summary:

On August 1, 2017, your Committee considered a December 1, 2016 LADWP report relative to developing and implementing partnerships with appropriate entities to determine what investments should be made to a achieve 100 percent renewable energy portfolio. According to the LADWP, over the years, it has been leading efforts to address the threat of climate change by taking steps to curb pollution and other greenhouse gases through initiatives that eliminate the use of coal as a generation resource and promote programs for greater reliance on renewable energy. In 2000, the LADWP set out to reduce load growth by 50 percent through the use of behind the meter renewables, energy efficiency, and local solar. In 2010, the LADWP achieved a milestone of delivering 20 percent renewable energy to its customers. Following that, in 2013, the LADWP's renewable portfolio grew to 23 percent of the total power supply and is currently on track to meet 25 percent by the end of 2016 and reach 50 percent on or before 2030.

A key element of the LADWP's renewable energy program is the development of local and utility-scale solar energy projects. Such projects have assisted the LADWP to meet its

utility-scale solar energy projects. Such projects have assisted the LADWP to meet its renewable energy targets and reduce its carbon footprint created by fossil fuel burning power plants while serving as vital catalysts for creating jobs and stimulating the green economy within the greater Los Angeles area. Similarly, in a landmark achievement, the LADWP significantly reduced its greenhouse gas emissions to 19 percent below its 1990 level in 2015 and is expected to achieve 40 percent reduction in greenhouse gas emissions below 1990 levels by 2017, which is 13 years earlier than the State of California's requirement of 40 percent greenhouse gas reduction below 1990 levels by 2030.

The LADWP will develop a plan to manage long-term research partnerships with the region's universities, members of the Southern California Public Power Authority, the California Independent System Operator, neighboring utilities and other stakeholders with the objective of determining what research institutions are currently conducting research and development activities related to 100 percent renewable energy and to provide a framework for partnering with the United States Department of Energy's Mission Innovation initiative. In addition to research and development efforts, the 100 percent renewable energy initiative will include a robust outreach and stakeholder engagement process. Effective engagement will assist the LADWP to anticipate and manage emerging issues, promote productive collaboration, and improve the overall decision making process. Therefore, a wide range of stakeholder interests will be represented as part of the process.

After further consideration and having provided an opportunity for public comment, the Committee moved to recommend instructing the LADWP to: incorporate into its research effort the following:

a. An analysis by the Ratepayer Advocate on how each scenario fits within our current rate structure, including the impact, if any, each scenario would have on low-income customers.

b. Incorporation of the CalEnviro Screen into each research area, and as the context for any analysis, study, and/or recommendation.

c. The prioritization of environmental justice neighborhoods as the first immediate beneficiaries of localized air quality improvements and greenhouse gas reductions.

Also, the Committee recommended instructing the LADWP to report back in 60 dayswith updates on the proposed plan and stakeholder engagement process. This matter is now submitted to Council for its consideration.

Respectfully Submitted,

ENERGY, CLIMATE CHANGE AND ENVIRONMENTAL JUSTICE COMMITTEE

MEMBER	VOTE
MARTINEZ:	YES
KORETZ:	YES

KREKORIAN: YES
CEDILLO: YES
O'FARRELL: YES

ARL
8/1/17

-NOT OFFICIAL UNTIL COUNCIL ACTS-