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"To enrich lives through effective and caring service"

February 20, 2014

To: Each Supervisor

From: Jim Jones
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Subject: **ENERGY & ENVIRONMENTAL POLICY REPORT #15**

This is the 15th semiannual report to your Board to discuss ongoing work by the Internal Services Department (ISD), including its County Office of Sustainability (COS), in support of the County's Energy and Environmental Policy.

Nearly all of the former ARRA programs, which were discussed in detail in the last report to your Board, will be continued through calendar year 2014 using funds received from the California Public Utilities Commission (CPUC). These programs were authorized by the CPUC and ordered to be made available directly within the County's buildings and throughout the Southern California region. The County, through ISD, was named as the administrator of the newly established Southern California Regional Energy Network (SoCalREN). In January 2013, your Board authorized ISD to accept funds from the CPUC to administer and implement programs under the SoCalREN.

Below are updates on various programs and initiatives overseen by ISD, as described in the following sections:

I. REPORT OVERVIEW

Programs for Los Angeles County, Southern California, and Beyond

A. Programs for Internal County Operations
B. Programs for Public Agencies
C. Programs for Residents
D. Programs for Contractors
E. Programs for Businesses
F. "Big Picture" Programs

II. DETAILED PROGRAM DESCRIPTIONS

A. Programs for Internal County Operations

1. Energy Management

ISD's Energy Management Division provides project implementation and other support services for County departments as detailed below.

ISD continues its highly successful building retro-commissioning program, which "tunes up" heating, ventilating, and air conditioning (HVAC) systems. By ensuring that HVAC equipment and systems perform optimally, departments' utilities spending is decreased and energy is utilized efficiently. Retro-commissioning projects are currently taking place at four Sheriff's stations, the Los Padrinos Juvenile Hall, and three health centers.

ISD has completed the installation of efficient chillers and ancillary equipment at the LAC+USC Medical Center central plant. ISD is currently in the preliminary stages of an additional project at LAC+USC to improve the energy efficiency of the chilled water delivery system to each building served by the existing power plant. These projects are expected to save the facility approximately 1.8 million kilowatt-hours (kWh) and $250,000 annually. Funding for these projects derives from a 2007 settlement with the Los Angeles Department of Water and Power (LADWP).

ISD continues to install high-efficiency fluorescent lamps in Probation Camps, Sheriff Detention Facilities, and various other County sites by utilizing the Energy Investment Program (EIP) approved by your Board in 2012. The EIP is a "revolving loan fund" program. Departments are able to implement energy efficiency projects by utilizing ARRA seed funds, and then replenish these funds through their utility savings until the projects are repaid.

ISD is currently developing scopes of work for several library facilities to install energy efficiency measures, including solar, that will reduce energy usage by a minimum of 20 percent and, where possible, generate as much energy annually as the facilities consume. This broader development and implementation of this "zero net energy" strategy is being investigated by ISD for more widespread adoption.

ISD is now working with the Department of Public Works (DPW) to solicit bids to engineer and install an optimum fixed-flow hydropower pressure-reducing turbine at one of DPW's water pumping stations. This turbine will provide green, sustainable power and will offset electrical consumption at the pumping station by a minimum of 425,000 kWh per year.

ISD is currently retrofitting older emissions reduction systems at both the Civic Center and Pitchess Cogeneration Plants, which will also provide operating efficiencies by increasing plant electrical output. Upgrades at the Pitchess Plant will increase safety at the facility by eliminating the usage of hazardous chemicals. Upgrades at the Civic Center Cogeneration Plant to its steam turbine generator and cooling tower water pumps will increase electric output and create more efficient operations. These two projects will save over $1 million in annual operating costs.

ISD is currently coordinating with DPW, the Department of Parks and Recreation, and the Sheriff's Department on lighting upgrades and potential solar and efficient pool pump retrofit projects.

ISD is currently supporting Department of Health Services' Capital Projects program to replace old, inefficient boilers at Rancho Los Amigos Rehabilitation Center. This project comports with new mandatory South Coast Air Quality Management District emissions restrictions.

2. Fleet and Transportation

ISD continues to assist other departments in reducing the greenhouse gas (GHG) emissions generated by County fleet and transportation generally, as detailed below.

ISD assisted the Sheriff's Department in obtaining $7 million of grant funding from the South Coast Air Quality Management District. The funding consists of two Carl Moyer Program grants, which will enable the Sheriff's Department to offset the costs of replacing 37of its 82 Prisoner Transportation Buses with ultra-low emission diesel buses that produce less than 2% of the nitrogen oxide emissions and particulate matter than the older buses. All 37 new buses will produce fewer emissions combined than one single older bus. Sixteen of the 37 green buses are now in service. Eight additional buses are planned for delivery by July 2014. At present, ISD is assisting the Sheriff's Department with project management and ongoing grant reporting requirements.

As co-lead with the LADWP, ISD, along with 21 other agencies, received an $840,000 award from the California Energy Commission (CEC) to install Electric Vehicle (EV) charging infrastructure throughout the County. ISD is working with six County departments to install 93 chargers at 30 County locations. Last month, ISD conducted site walks and ordered necessary equipment. The first EV installations are expected to be completed by April 2014.

ISD and the Chief Executive Office (CEO) assisted several County departments in applying for more than $3 million in Mobile Source Air Pollution Reduction Review

Committee (MSRC) grant funding for bicycle rack installations, bicycle path improvements, compressed natural gas refueling stations and trucks, and EV infrastructure (see also the "Healthy Design Workgroup" discussed below). The MSRC has already approved these grants; contracts are forthcoming. ISD/CEO will formally request Board acceptance in the coming months.

3. Green Buildings

As part of continued efforts to support efficiency improvements to existing County buildings, ISD has developed a County Green Building Program that offers other departments Leadership in Energy and Environmental Design (LEED) certification services, LEED feasibility assessments, technical support for departments seeking to perform their own LEED certification, and other green building measures implementation support. All of these services complement ISD's existing Energy Management services and other sustainability policies adopted by the Board.

ISD has developed a reporting tool – The Green Building Dashboard – to complement the Green Building Program. The Dashboard enables County building managers to monitor energy usage and other sustainability measures in selected facilities. ISD has linked the Dashboard to the Green L.A. County website (green.lacounty.gov) where building managers can easily access it.

ISD continues to maintain and update the Green L.A. County website with environmental and energy efficiency news and information, articles, links to other departmental sustainability programs, and links to valuable related resources. Some recent additions to the website include content related to the severe state drought and water conservation programs and resources. ISD also completed and posted a "Drought Tolerant Landscape" handbook.

4. Green Leadership Awards

ISD participates annually in reviewing and scoring Green Leadership Awards submissions in a contest administered by the CEO's Quality and Productivity Commission. This program recognizes outstanding efforts by individuals and organizations in fulfilling innovative strategies to improve our environmental sustainability. ISD will begin reviewing applicant submissions in late February.

5. Healthy Design Workgroup

COS actively participates in the County's Healthy Design Workgroup (HDW) – a consortium of high-level representatives from several County departments, including the Arts Commission; Beaches and Harbors; CEO; the Community Development

Commission; Fire; Parks and Recreation; Public Health (group lead); DPW; and Regional Planning. The HDW meets regularly to develop and implement strategies for designing and building healthy environments within the County. The inter-departmental nature of this effort aligns with County strategic planning efforts and Supervisor Knabe's 2014 goals as Chair of the Board of Supervisors to encourage collaboration across County departments.

B. Programs for Public Agencies

As discussed in detail in prior reports to your Board, "Energy Upgrade California" is a State initiative to help Californians take action to save energy and conserve natural resources, reduce demand on the electricity grid, and make informed energy management choices at home and at work. It is supported by an alliance of the CPUC, the California Energy Commission, utilities, regional energy networks, local governments, businesses, and nonprofits to help communities meet State and local energy and climate action goals. EUC Programs are described in further detail in this report beginning with programs for public agency buildings below.

1. Southern California Regional Energy Center (SoCalREC)

ISD has developed the SoCalREC program to support the implementation of energy efficiency projects in public agency buildings and facilities throughout Southern California. Now marketed under the name, "The Energy Network," its sub-programs are described below.

a. Clean Energy Workforce

One of SoCalREN's objectives is to build a local workforce for the clean energy jobs of the future. A collaborative effort between the County, Citibank Community Development, and Emerald Cities Collaborative trains low and moderate-income residents for future jobs in greening public buildings. As part of SoCalREN's workforce development efforts, the County recently held a green economic summit to promote clean energy jobs.

b. Community Energy Efficiency Project Management System (CEEPMS)

This program will provide a few pilot cities with the capability to identify energy efficiency projects through an online permit tracking system, which prioritizes and expedites the permitting process. The software will match permits applied for against incentives available to ensure that each project owner is aware of them.

c. EEMIS Expansion

The Enterprise Energy Management Information Systems (EEMIS) was developed by ISD to provide a cost-effective means to monitor, analyze, and benchmark facility energy usage and costs utilizing a single energy management software tool for County buildings. EEMIS functions as a robust data warehouse which offers several services, including: energy consumption and financial bill archiving; online tracking, reporting and analysis; automated facility benchmarking tools; energy consumption and cost management tools; and energy efficiency project and identification support.

EEMIS has been made available to other local governments to provide energy management services. Participating agencies pay an incremental portion of ISD's EEMIS operating costs to join (which is a fraction of the cost of purchasing their own system) and ISD receives revenues for administration, implementation and technical support. To date, over 70 cities have signed up for EEMIS.

d. Master Lease Financing

Master Lease Financing provides lease financing to implement energy projects to all public agencies. The SoCalREC has prequalified a set of financial institutions to provide this financing and has also developed a simplified, standardized agreement which may be executed by the participating agency and financial institution. This financing will help public agencies implement a greater number of energy projects.

e. Public Agency Building Retrofits

This turnkey project provides public agencies with access to centralized, standardized, and streamlined energy retrofit services such as: financing, solicitation, project management, auditing, engineering, construction, and technical assistance, all delivered through cooperatively-procured contracts using competitively bid pools of pre-qualified energy consulting firms and contractors. These services complement services provided by the utilities (e.g., initial audits and incentives processing).

This innovative project mitigates the need for public agencies to develop comprehensive, in-house resources to assess and implement projects. It also accomplishes several goals including: encouraging collaboration among all stakeholders; increasing energy savings; delivering improved quality products and services at a lower cost; and completing whole building, street lighting, and water/wastewater retrofits at an accelerated rate.

The project launched in September 2013 and the first retrofit was completed in December 2013 - a lighting retrofit in a Culver City owned parking structure. To date,

27 public agencies are enrolled. Public agencies may opt to take advantage of the entire slate of services offered, or only selected ones. The Turnkey Project goal is to achieve 29,675,000 kWh and 400,409 therms in annual energy savings by December 2014.

f. Water/Energy Nexus

The Water/Energy Nexus pilot program is a collaboration among the County, the Metropolitan Water District, and several water utilities to quantify the energy savings achieved by conserving water in water system operations and in upgrading water utilities buildings and facilities. Because handling water is energy intensive, emphasizing certain water system enhancements in wholesale delivery, retail delivery, and wastewater treatment has a dual societal benefit in conserving both water and energy. ISD plans to compile and disseminate its findings for broader acceptance and usage statewide.

C. Programs for Residents

1. Assessment Vouchers & Discount Coupons

This program provides assessment vouchers and discount coupons to homeowners interested in pursuing EUC Advanced Home upgrades. Vouchers and coupons help homeowners pay for either a portion or the entire amount, respectively, of the home energy assessment cost, which constitutes the first step of an EUC upgrade. As such, this program incentivizes homeowners to participate in EUC upgrades.

2. Community Champions

Community Champions is a marketing and outreach program geared towards building community awareness of EUC and SoCalREN program offerings. More specifically, SoCalREN works directly with 'Community Champions' – supportive and engaged community organizations in targeted communities – to leverage their networks to increase awareness of and encourage participation in these program offerings.

3. Community Home Energy Retrofit Project (CHERP)

CHERP is a volunteer-based education and outreach strategy to develop sustainable delivery channels for EUC programs and offerings by developing a core group of supporting citizens within the community. CHERP helps promote residential energy efficiency upgrades at a city level in engaged communities.

4. Energy Champions

Energy Champions utilizes non-profit community organizations such as universities and alumni associations that have organized networking sources within their respective communities to promote EUC and generate project leads. When participating organizations secure leads that result in completed projects, they can receive financial incentives.

5. Green Building Labeling

The Green Building Labeling (GBL) program educates real estate professionals about green building certifications and the value of conducting green home upgrade projects, including energy efficiency upgrades. Through workshops and other modes of outreach and training, GBL impresses upon realtors that green homes are more marketable – both for homeowners looking to sell and those looking to buy. To date, 151 realtors have undergone training.

6. Home Upgrade & Advanced Home Upgrade

Home Upgrade and Advanced Home Upgrade provide incentives for comprehensive, single-family home energy efficient retrofits by promoting interactive whole-home combinations of measures such as: insulation; HVAC equipment replacement; duct replacement/repairs; air sealing; radiant barriers; and hot water systems, etc.

7. Low-income Single Family Rehabilitation Program

The Low-income Single Family Rehabilitation pilot program seeks to develop and implement a business process that connects County Community Development Commission (CDC) program clients to EUC via outreach and coordination of the respective programs' requirements.

The CDC Home Improvement Program (HIP) assists low income, owner-occupied single family homes with rehabilitation financing of up to $15,000. The low-income program educates interested clients about EUC measures for which they are eligible and about how best to integrate those measures into the rehabilitation work.

Program administrators encourage CDC-qualified contractors to also train to become EUC Home Upgrade qualified contractors such that they can best inform their customers about available programs.

8. Multi-Family Home Upgrade

Similar to the Home Upgrade and Advanced Home Upgrade programs for single-family homeowners, this program provides incentives to multi-family building owners to assess and implement comprehensive, interactive energy measures. The Multifamily Home Upgrade Program also promotes energy upgrades for portions of buildings where utilities are paid by both the tenants and landlord.

9. Single Family Home Financing

EUC utilizes Matador's Credit Union to provide single family homeowners with financing for their EUC Home Upgrade projects. Matador's Credit Union provides three loan options to qualified buyers, including a 4.99%, 5-year term loan; a 5.99%, 10- year term loan; or a 6.99%, 15- year term unsecured loan of up to $50,000 to qualified borrowers. In order to generate initial program participation with competitive terms and conditions, the program uses a loan loss reserve credit enhancement, which helps protect lenders against losses stemming from defaulted loans.

10. Social Media

EUC utilizes several social media outlets to promote programs to targeted audiences across the Southern California region. Social media offers ways to encourage program participation, publicize energy-saving tips and environmentally friendly news stories, and build a strong connection between EUC contractors and potential participants.

D. <u>Programs for Contractors</u>

1. Co-op Marketing

This program provides matching fund reimbursements to participating EUC contractors who conduct their own marketing and advertising. The contractor marketing and advertising materials must satisfy EUC brand guidelines to receive these funds.

2. Cool Comfort Program

The Cool Comfort program provides low cost financing to residential customers for HVAC and other retrofits through Matador's Credit Union. Under this program, qualified single family homeowners may finance projects for up to $50,000 under either 5 or 10 year term loans at a 4.99% or 5.99% interest rate, respectively. Cool Comfort incentivizes residents to adopt higher levels of equipment efficiency and supports the contractor community by yielding more retrofit jobs.

E. Programs for Businesses

1. Non-residential Property Assessed Clean Energy (PACE) Financing

ISD and the Treasurer & Tax Collector (TTC) are working together to administer a countywide PACE financing program for non-residential properties. The program provides financing through County-issued bonds for private sector energy projects, which are then paid back through assessments placed on the building owners' property tax statements. The program also provides marketing, education, recruitment, and technical support to property owners. The program's first PACE assessment was funded in July of 2013 and has an active application pipeline of over 40 projects.

On January 28, 2014, the Hilton Universal City hosted a ribbon cutting ceremony to announce project completion of its $7 million PACE energy upgrade. Los Angeles Mayor, Eric Garcetti, and Los Angeles County TTC, Mark Saladino, attended the ceremony, which was heavily covered by television and print media. The project is the second PACE-funded building upgrade in the County and the largest project in the nation. There are currently 39 projects in the PACE development pipeline, and the County PACE team is working with property owners and financers to move them forward.

F. "Big Picture" Programs

Alliance of Regional Collaboratives for Climate Adaptation (ARCCA)

ARCCA is a statewide consortium of climate adaptation organizations comprised of representatives from San Diego, Los Angeles, Sacramento, and the Bay Area, of which ISD is an active member. In mid-December, ARCCA members met to share high-value projects and best practices as well as news on upcoming legislative developments, conferences, and technical reports, and also discussed climate adaptation efforts throughout the State. In mid-January, ARCCA hosted a webinar with Climate Central to detail its new California sea-level rise tool. In early February, ARCCA joined a discussion with the Office of Planning and Research to learn about, discuss and comment upon California's "Environmental Policies and Goals Report." In the coming months, ARCCA will focus on: selecting high priority projects to work on for the year; drafting recommendations for President Obama's Task force on Climate Preparedness; and providing recommendations for the California Natural Resources Agency's update to the 2009 Climate Adaptation Strategy (now named, the "Safeguarding California Plan").

AmeriCorps

ISD participated in the planning process for the Governor's Initiative Program, of which the AmeriCorps Program is a part. AmeriCorps seeks to link talented young workers to local governmental entities to collaborate on regional sustainability projects. As such, AmeriCorps will provide training and guidance for future environmental leaders; bring crucial resources to local governments; and advance environmental sustainability projects throughout the County. ISD is leading a regional effort to apply for and obtain AmeriCorp workers to work in County and regional GHG reduction programs later this calendar year.

County Strategic Plan Revision

At the County strategic planning conference in early January, ISD/Regional Planning/Public Works jointly presented an environmental sustainability goal for the County's Strategic Plan . All County department heads were present, and the audience was receptive to this revision, which will lay the groundwork for more comprehensive and organized sustainability planning in the County and state.

Energy Atlas Project with UCLA

ISD has been heavily involved in contract negotiations with UCLA's Institute of the Environment and Sustainability for the development of an Energy Atlas to support countywide energy efficiency planning by local jurisdictions. The contract is nearly finalized and ISD will request authorization from your Board in March 2014 to execute the contract.

Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC)

ISD serves as the County's representative to the LARC. LARC is an organization committed to supporting climate mitigation and adaptation initiatives by convening representatives from local government, non-profits, academia, and industry to define meaningful approaches to reaching collective climate and sustainability goals. Current LARC efforts include the following:

- Holding its first "3rd Month Forum" with USC's Sea Grant to discuss: key findings from USC's Sea Level Rise Vulnerability Study for the City of Los Angeles; a new regional sea level rise planning initiative to inform Local Coastal Programs; and the Draft Sea Level Rise Policy Guidance document.
- Re-launching its website, LARegionalCollaborative.com, to be more user-friendly and to serve as an informational umbrella for regional sustainability activities.

- Reviewing and reconciling data in the Regional Greenhouse Gas Inventory report and evaluating how best to disseminate this information to the public.
- Applying for a Strategic Growth Council grant with the County to create and carry out a curriculum targeted towards interest groups regarding the basics of sustainable land use and planning.
- Co-hosting the Safeguarding California public comment session in Irvine.
- Planning the Green Cities California conference in late February in San Diego as well as the California Adaptation Forum in late August in Sacramento.

Senate Select Committee on Climate Change and AB 32 Implementation

In early December, ISD attended the Senate Select Committee's hearing on "Opportunities to Build Resilient Communities, Cut Pollution, and Create Jobs through AB 32," which was hosted at UCLA's School of Law. The Select Committee heard testimony from an Atmospheric and Oceanic Sciences professor about the state of the climate, particularly in Southern California; a regulatory representative about AB 32 implementation throughout the State; and community leaders about opportunities to invest in jobs, pollution reduction, and resilient communities.

State and Federal Legislation

In conjunction with legislative consultants in Sacramento and Washington D.C., ISD continues to monitor and track pertinent legislative activities, especially those which support local government and regional greenhouse gas reduction programs and projects. Among the key legislation that ISD will continue to monitor is the implementation of AB 32 and Proposition 39 funds as discussed in detail in the last report to your Board.

ISD has also been working with the California Air Resources Board (CARB) in understanding the rollout of the State's Cap & Trade Emissions Market as mandated under AB32. Under Cap & Trade, large emitters in various industry sectors must reduce their GHG emissions and/or procure allocations for the emissions they produce ("capped entities"). The County's cogeneration plants at Civic Center and Pitchess meet the threshold established by CARB. As capped entities, these plants must comply with emissions reduction targets through 2020. ISD will review these impacts to the plants as part of the Fiscal Year 2015-16 Utilities Budget.

The Local Government Sustainable Energy Coalition (LGSEC)

The Local Government Sustainable Energy Coalition unites California cities and counties to leverage resources and work together in energy policy action and innovation

as well as climate action. More specifically, it shapes regulatory policy and utility programs by giving member governmental entities one strong voice before regulatory agencies (including the CPUC, the California Energy Commission, and CARB; stays informed and effective on energy issues; learns and shares best practices from experts and member governmental entities; and develops long-term energy strategies.

LGSEC also continues to monitor and officially respond to several regulatory matters at the CPUC, including: statewide energy efficiency programs development/energy data usage issues; energy efficiency financing; and long-term utility resource procurement planning. In early February 2014, LGSEC hosted its quarterly Energy Manager's meeting as well as its General Members meeting, where it discussed, among other things, updates on regulatory and legislative developments, PACE, the Regional Energy Networks, and Community Choice Aggregators; and strategies surrounding the 2015 CPUC planning cycle. At its recent Policy Committee meeting, LGSEC identified the following policy platform: Climate Change and Adaptation, Resource Management, Alternative Fueled Vehicles, and Innovation. As LGSEC Board Chair, COS plays a central role in these activities.

More detailed description about each of these programs described in this report, and other energy and environmental programs that are administered by other departments within the County and throughout the region, can be found at the County's comprehensive energy and environmental website: http://green.lacounty.gov.

If you have any questions, please contact me at (323) 267-2101 or Howard Choy at (323) 267-2006.

JJ:JC

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