EXECUTIVE SUMMARY

THE LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) HAS SET AMBITIOUS RENEWABLE ENERGY GOALS that it is currently falling far short of achieving. Recently Los Angeles Mayor Antonio Villaraigosa set the goal of producing 150 mega-watts of local solar power as part of a broader set of renewable strategies. In response, LADWP proposed a local solar program—known as a feed-in tariff. This report shows that neither LADWP's proposed feed-in tariff nor Southern California Edison's existing feed-in tariff will effectively contribute to these ambitious renewable energy goals. The purpose of this report is to provide guidance on how to design an effective feed-in tariff that is tailored to the needs of Greater Los Angeles.

A feed-in tariff is a policy that requires a utility to buy solar power that residents, businesses and public organizations produce by installing solar on their roof-tops, parking lots and vacant land. Based on the proven success of feed-in tariffs in other jurisdictions, the benefits of an effectively designed program are:

1. Produces significant number of in-basin high-wage jobs,
2. Quickly generates energy to meet renewable energy goals,
3. Taps the unused solar generation capacity of homes, businesses and parking lots,
4. Reduces utilities' out-of-basin transmission costs and peaking costs,
5. Signals a commitment to developing a local green-technology sector.

While a well-designed feed-in tariff policy can be a powerful tool for economic development that also yields a co-benefit of renewable power, the solar power that it produces is an expensive type of renewable energy to generate. So in the many places around the U.S. and world where feed-in tariff policies are adopted, policy makers place a priority on creating local high-wage jobs, supporting local green businesses and expeditiously meeting their renewable energy goals.

Section 1 of this report explains how a feed-in tariff works and describes the current challenges to owning solar power in Los Angeles. Although Los Angeles has abundant sunshine, there are many barriers to solar ownership including economic, regulatory and technical barriers. The current solar policy in Los Angeles is based on net metering programs. Net metering seeks to reduce the amount of power each building consumes from the grid (by encouraging the owner to install only enough solar to off-set their own energy needs). These policies often cause solar owners to undersize their installations, leaving much usable roof and parking space without solar panels. In contrast, a well-designed feed-in tariff will create incentives for people to maximize the solar capacity of their roofs and parking lots by transforming them into solar power plants that supply Los Angeles with clean, green power.

Section 2 reviews the lessons learned from jurisdictions in the U.S. and around the world that have implemented feed-in tariffs. Cases reviewed here include programs implemented in the Sacramento Municipal Utilities District, Gainesville Regional Utilities, the State of Vermont, the Province of Ontario, Germany and Spain. Some programs have been very successful in generating renewable energy and creating green jobs while others have not. Those places that have successful programs have set their tariffs based on the actual cost of installing and operating solar plus a reasonable rate of return. A second feature of larger successful programs is that the feed-in tariff policy is used to achieve the dual goals of renewable energy generation and economic development.

Section 3 assesses whether the feed-in tariff of Southern California Edison and the policies proposed by the LADWP will generate renewable energy and local green jobs. The likely effects of these policies on small scale residential rooftops, medium size commercial rooftops and parking lots, and large scale commercial rooftops are analyzed. Three findings stand out. First, neither LADWP's nor Edison's feed-in tariff policies will induce significant additional in-basin solar power as currently designed and at current prices for energy and solar technologies. Second, large-scale public (e.g., LAUSD, LACCD) and commercial solar sites are likely to produce the most cost-effective in-basin solar—which will minimize the burden placed on rate-payers. Third, effectively designed policies would enable the region to take advantage of tax benefits and subsidies from state and federal solar programs which would result in a significant flow of financial resources into the region. (In contrast, utility installed in-basin solar power is not eligible for these state and federal incentives and so it is probably more costly to install per unit.)

Section 4 presents the important design elements of feed-in tariffs and discusses how alternative designs for each element affect the performance of the policy. The speed with which feed-in tariffs will generate renewable power and jobs depend most importantly upon a) the basis for calculating the tariff and b) the administrative requirements for participating. Cost-based tariffs and simple, cost-less application and grid inter-connection procedures will generate the most renewable power and jobs in the shortest time period. The size of the program cap determines how much power will be generated, how many jobs will be created and the amount of investment attracted. The other design elements of feed-in tariffs, such as customer or project caps and differentiated tariffs, simply determine which segments of the in-basin market (residential, medium and large scale public and commercial projects) will most benefit from the policy.

Section 5 concludes by discussing the follow-up study that will be released as part of this project. This study will estimate the quantity of solar power and jobs that will be produced within sub-regions of Los Angeles under alternative feed-in tariff designs and rates as well as the ratepayer burden associated with each type of policy.