9.0 GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION[1]

The following information supplement the discussion of growth-inducing impacts presented in the Sunrise DEIR/DEIS, incorporated herein by reference.

9.1 Environmental Setting

Within the SCAG region, "[s]trong population and economic growth continue to be forecasted for the SCAG region, meaning that energy demand will likely continue to increase as well. SCAG forecasts that population will increase 1.4% annually between now and 2025, due to a combination of natural increase and domestic and international in-migration. Natural increase is expected to contribute about 80% of the growth. The regional population in 2025 is currently forecasted to be 22.6 million residents, up form 16.5 million in 2000. These new residents will establish over 2 million new households."[2]

The California Department of Finance projects that Riverside County's population will increase from more than 2.8 million 2000 to nearly 3.9 million by 2020.[3] Projected population, housing, and employment growth within the SANDAG region is outlined in Table 9-1 (Population, Housing, and Employment Growth – San Diego Region).[4]

Table 9-1
POPULATION, HOUSING, AND EMPLOYMENT GROWTH – SAN DIEGO REGION

Growth Factor	Year 2004	Year 2030	2004-2030 Change	
			Numeric	Percentage
Population	2,972,988	3,985,725	1,012,737	34
Housing Units	1,099,071	1,400,136	301,065	27
Employment	1,442,214	1,836,174	393,960	27

Source: San Diego Association of Governments

9.2.1 Generation and Transmission Needs Determination[5]

The documented need for new transmission and new generation already exists within the general area and is neither created nor further exacerbated by the proposed projects. The need exists, independent of the proposed projects, based on reasonably foreseeable population growth, economic expansion, and increasing per capita energy consumption.

As projected by the Edison Electric Institute, despite continued energy-efficiency improvements, electricity consumption is projected to increase by 41 percent between 2005 and 2030.[6]

[1]/ The following information serves, in part, to augment the independent analysis of the growth-inducing impacts and the irreversible and irretrievable commitment of resources associated with the LEAPS and TE/VS Interconnect projects, as presented in Section 3.3.8.2 (Socioeconomic Resources – Growth-Inducing Impacts) and Section 3.4 (Irreversible and Irretrievable Commitment of Resources) in the FEIS, respectively.

[2]/ Southern California Association of Governments, Regional Comprehensive Plan and Guide, Energy, Chapter Update 2002, p. 20.

[3]/ *Op. Cit*., San Diego County Losses Farmland, NR 2004-23, July 8, 2004 (http://www.consrv.ca.gov/index/news/2004%20News%20Releases/NR2004-23_San_Diego_FMMP.htm).

[4]/ San Diego Association of Governments, Final Program Environmental Impact Report for the Regional Comprehensive Plan, SCH No. 2004011141, July 2004, p. 3-8.

[5]/ The following information serves to augment FERC's independent needs determination, as presented, in part, in Section 1.2 (Need for Power and Transmission) and Appendix B (Needs Determination for the Lake Elsinore Advanced Pumped Storage Project's Talega-Escondido/Valley-Serrano 500-kV Transmission Line) in the FEIS.

Locally, as indicated by the DOE: "In its comments to DOE, CAISO noted that load in southern California has been growing at a rate of approximately 1.5 percent annually, which translates into a total of approximately 657 MW of new load that needs to be served each year. CAISO notes that this rate of load growth, combined with the threat of extreme weather conditions, such as a 1-in-10-year heat wave, could mean that by 2015, the loss of a single critical transmission path could necessitate the curtailment of approximately 1,500 MW of load. CAISO notes that the San Diego area is projected to be deficient in overall generation capacity by the year 2010 due to severe import limits."[7] The DOE "has documented the existence of persistent congestion into and within the Southern California Critical Congestion Area, as well as the constraints causing that persistent congestion."[8]

The projects are being proposed by the Applicant in respond to the area's existing and projected electrical transmission and generation needs. If the need for those facilities were not to exist, in the absence of an established and energy-hungry marketplace, the projects could not be feasibly financed and, thus would not be developed. If the projects were not to be developed, none of the impacts attributable to its construction, operation, and maintenance would materialize.

9.2.2 Fossil-Fuel Consumption

The world now consumes about 82 million barrels of oil a day. A barrel is the equivalent of 42 gallons (159 liters). World demand is generally expected to continue to grow at an average annual rate of between one and two percent. It is estimated that the world's original endowment of recoverable oil is no more than about 2,400 billion barrels. Cumulative worldwide consumption exceeded 900 billion barrels by the end of 2003. The United States relies on imported oil for over 60 percent of its domestic needs. [9]

In 1990, approximately 88 percent of the nation's energy was produced through the combustion of fossil fuels. The remaining 12 percent came from renewable or other energy sources such as hydropower, biomass, and nuclear energy. As they burn, fossil fuels emit carbon dioxide (CO_2) due to oxidation of the carbon contained in the fuel. Greenhouse emissions occur when fossil fuel is oxidized. In addition, other greenhouse gases include water vapor, methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFCs), and aerosols. The observed increase of CO_2 in the atmosphere, from about 280 ppm in the pre-industrial era to about 364 ppm in 1997, has come largely from fossil fuel combustion and cement production.[10]

The United States consumed nearly 85 quadrillion British thermal units (BTUs)[11] of energy in 1990, producing an estimated 1,367 million metric tons of carbon. Primary energy consumption in the residential sector nationwide accounted for approximately 17 quadrillion BTUs of energy or about 20 percent of the nation's total consumption. In that same year, the United States

[6]/ Edison Electric Institute, Responsibility, Stewardship, Accountability: The Shareholder-Owned Electric Power Industry's Commitment to the Environment, March 2007, p. 45.

[7]/ *Op. Cit.*, Notice of Opportunity for Written and Oral Comment, Docket Nos. 2007-OE-01 (Draft Mid-Atlantic Area national Corridor) and 2007-0E-02 (Draft Southwest Area National Corridor), p. 163.

[8]/ *Ibid*., p. 162.

[9]/ The Oil Depletion Analysis Center website (http://www.odac-info.org/).

[10]/ Ledley, Tamara S., *et al*., Climate Change and Greenhouse Gases, EOS, Volume 80, Number 39, September 28, 1999, p. 453.

[11]/ A British thermal unit is a unit measurement of heat or energy. One BTU was originally defined as the quantity of heat required to raise the temperature of one pound (0.45 kilograms) of water from 59.5°F (15.3°C) to 60.5°F (15.8°C) at constant pressure of one atmosphere. The BTU has been redefined as equal to 1,055 joules or approximately 0.293 watt-hours.

emitted a total of 1,335 million metric tons of carbon equivalents (MMTCE) from fossil fuel combustion nationwide. By 1996, the United States emitted the equivalent of 1,788 MMTCE[12]. The energy-related activities producing these emissions included space heating, the generation of electricity, steam production for industrial processes, and gasoline consumption in automobiles and other vehicles. Petroleum products across all sectors of the economy accounted for about 44 percent of total nationwide energy-related CO_2 emissions.

According to the USEPA, in the United States, approximately 6.6 tons (almost 15,000 pounds carbon equivalent) of greenhouse gases are emitted per person every year. Emissions per person have increased about 3.4 percent between 1990 and 1997. Most of these emissions, about 82 percent, are from burning fossil fuels to generate electricity and power cars. The remaining emissions are from methane from wastes in our landfills, raising livestock, natural gas pipelines, and coal, as well as from industrial chemicals and other sources. As indicated by the CEC: "Burning fossil fuels is a major contributor to global warming, as carbon monoxide is added to an atmosphere already containing 25% more than it did two centuries ago. Carbon dioxide and other gasses add an insulating layer to the earth that leads to global climate change. California Energy Commission research shows that most of the sectors of the State economy face significant risk from climate change including water resources (from reduced snow pack), agriculture, forests and the natural habitats of a number of indigenous plants and animals. Most scientists recommend that actions be taken to reduce emissions of carbon dioxide and other greenhouse gases."[13]

In a December 2005 report, DOE's Energy Information Administration (EIA) indicated a 2.0 percent increase in GHG emissions in 2004. Since 1990, United States' GHG emissions have increased by 15.8 percent, for an average annual increase of 1.1 percent. The EIA attributed the large growth in 2004 to a surging national economy, which resulted in more energy use.[14] As reported by the United States Intergovernmental Panel on Climate Change (IPCC): "The largest growth in global GHG emissions between 1970 and 2004 has come from the energy supply sector (an increase of 145%). The growth of direct emissions [which do not include emissions from the electricity sector for the electricity consumed or of the emissions from refinery operations supplying fuel] in this period from transport was 120%, industry 65% and land use, land use change, and forestry 40%."[15]

Based on projections given by the IPCC and results from the United Kingdom Hadley Centre's climate model, by 2100, temperatures in California could increase by about 5°F (with a range of 2-9°F) in the winter and summer and slightly less in the spring and fall. Appreciable increases in precipitation are projected, ranging from 20-30 percent (with a range of 10-50 percent) in spring and fall, with somewhat larger increases in winter.[16]

As illustrated in Figure 9-1 (United States Electric Power Industry Net Generation [2004]), nearly one-half of the nation's electrical energy is generated by coal-fired power plants.[17] In contrast, in California, the major fuel type used to generate electricity is natural gas.[18,19] As reported by

[12]/ Presidents Council on Sustainable Development, Towards a Sustainable America, May 1999, p. 21.
[13]/ California Energy Commission, Residential Manual for Compliance with the 2001 Energy Efficiency Standards for Low-Rise Residential Buildings, Report No. P 400-01-022, September 5, 2001, pp. 1-2 and 1-3.
[14]/ United States Department of Energy, Emissions of Greenhouse Gases in the United States 2004, DOE/EIA-0573(2004), Energy Information Administration, December 2005, p. ix.
[15]/ United National Intergovernmental Panel on Climate Change, IPCC Fourth Assessment Report, Summary for Policymakers, May 4, 2007, p. 2.
[16]/ United States Environmental Protection Agency, Climate Change and California, EPA 230-F-97-008e, September 1997, p. 2.
[17]/ *Op. Cit.*, Environmental Impact of Wind-Energy Projects, p. 22.
[18]/ California Energy Commission, 2006 Net System Power Report, CEC-300-2007, April 2007, p. 4.

the CEC: California CO2 emissions largely come from natural gas-fired power generation. In fact, natural gas units account for about one-half of the total in-State generation."[20]

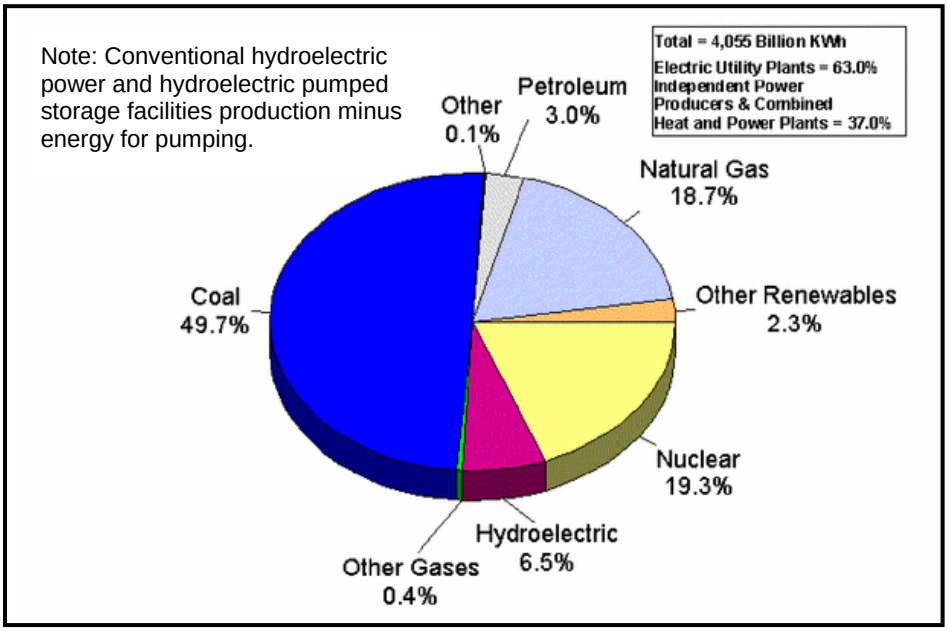

Figure 9-1
UNITED STATES ELECTRIC POWER INDUSTRY NET GENERATION (2004)
Source: Energy Information Administration

Table 9-2 (California Gross-System Power [2006) presents the CEC's estimate of California's gross system power (GSP) for 2006. Variations in output from hydroelectric facilities located in the Pacific northwest (NW), which includes British Columbia, Idaho, Montana, Oregon, Washington, and Wyoming, typically lead to commensurate changes in output by natural gas-fired generators located in California and the desert southwest (SW), which includes Arizona, Colorado, New Mexico, Nevada, Texas (small portion only), and Utah.

The GAO reports "the United States is even more dependent on crude oil and natural gas than it was almost 30 years ago. And, without dramatic change, the nation will become even more reliant on imported oil and natural gas with attendant threats to national security."[21]

9.3 Significant Irreversible Environmental Changes

Irreversible commitments of resources result from management decisions that affect non-renewable resources. Such commitments are considered irreversible when the affected resource deteriorates to the point that renewal can only occur over a long period of time or at great expense or when the resource has been destroyed or removed.

In accordance with the Commission requirements, the structures that are erected will be removed at the end of the federal license period. Each of the sites located on federal lands will

[19]/ Electricity generated from small-scale (less than one MW) facilities is not included in the gross system power calculation. The locations and volumes of electricity generated by many of these facilities are not reported to the CEC (Source: California Energy Commission, 2006 Net System Power Report, CEC-300-2007, April 2007, p. 5).

[20]/ Center for Clean Air Policy, Policy Options for Reducing Greenhouse Gas Emissions from Power Imports, Draft Consultant Report, California Energy Commission, CEC-600-2005-010-D, March 2005, p. 7.

[21]/ *Op. Cit.*, Department of Energy – Key Challenges Remain for Developing and Deploying Advanced Energy Technologies to Meet Future Needs, GAO-07-106, p. i.

be returned to pre-project conditions. As such, the proposed projects' approval would not permanently alter the existing visual setting.

Table 9-2
CALIFORNIA GROSS-SYSTEM POWER (2006)
(gigawatt hours)

Fuel Type	In-State	NW Imports	SW Imports	GSP	GSP Percentage
Coal	17,573	5,467	23,195	46,235	15.7
Large-Hydro	43,088	10,608	2,343	56,039	19.0
Natural Gas	106,968	2,051	13,207	122,226	41.5
Nuclear	31,959	556	5,635	38,150	12.9
Renewables	30,514	1,122	579	32,215	10.9
Biomass	5,735	430	120	6,285	2.1
Geothermal	13,448	0	260	13,708	4.7
Small Hydro	5,788	488	0	6,236	2.1
Wind	4,927	244	199	5,370	1.8
Total	230,102	19,804	44,959	294,865	100.0

Source: California Energy Commission

Since biological resources can, over time, be replaced and wetlands restored, impacts thereupon would not constitute irreversible changes. Similarly, although generally non-renewable, cultural resource and heritage sites can, in certain instances, be preserved, replaced, relocated, reused, and/or suitably documented. Impacts upon existing cultural and hydrological resources are addressed elsewhere in this EIR and are not again addressed herein.

9.3.1 Use of Non-Renewable Resources

During the projects' construction, fossil fuels, generally in the form of gasoline, diesel fuel, natural gas, oils, and lubricants and primarily associated with the operation of internal combustion engines will be directly utilized on and off the projects' site. Fossil fuels are consumed through the operation of equipment: (1) used in the transport of construction equipment, building materials, construction personnel, and fabricated products to and from the projects' site; (2) operated by construction workers and other personnel and utilized in the construction process; and (3) used on and off the site in the fabrication, transport, and assemblage of the equipment, materials, and products that will be used. Once consumed, fossil fuels are permanently expended and, through their consumption, cannot thus be conserved, become unavailable for other future or alternative uses, and produce often detrimental by-products, such as air pollutants.

Construction of the proposed projects cannot currently and feasibly occur except through the use of equipment that will consume fossil fuels. Reasonable controls are already in place governing the handling, storage and disposal of petroleum products and any hazardous wastes that may be generated during and after the facilities' construction.[22]

[22]/ For example, as required under Chapter 6.95, Division 20, Article 1 of the H&SC (Hazardous Materials Release Response Plans and Inventory Law of 1985), businesses are required to develop a "release response plan"

In addition, during construction, a variety of natural resources will be consumed, including water, sand and gravel, clay, asphalt and other petrochemical-based construction materials, metals, and metal products. Once utilized, these materials will be either irretrievably consumed or committed to the site on a relatively long-term basis.

The decision to approve or conditionally approve the proposed projects constitutes a relatively long-term commitment of the projects' sites for that land use. Once a particular property is allocated for a particular use, the site's availability for an alternative use either diminishes or is eliminated during the term of that use. Because the federal license will be for a definite term, at the end of which FERC and the Forest Service can direct that the projects' facilities be removed, the projects' development does not represent an irreversible and irretrievable commitment of finite real property resources.

The operation of the LEAPS project will result in the consumption of more electrical energy (600-MW) than will be created through the facility's operation (500-MW). Since the plant will operate at an efficiency of only >82 percent net at the 500-kV primary levels, for every kilowatt of electricity used in the pumping mode, only >0.82 kW of electricity will be created during the generation mode. In addition, the transmission of electrical energy along the projects' transmission and subtransmission lines will result in "line loss" or "transmission loss" (typically about 1-2 percent) which represents the energy that is consumed by the conductor (wire) generating heat during the transport of power through each line.

9.3.2 Potential for Environmental Accidents

There exist numerous hazards that may be associated, either directly or indirectly, with the proposed projects that could result in accidents, events, or circumstances that might bring injury to workers and to other individuals within and proximal to the projects' facilities, including the potential for dam and dike breaches, fires, electrocutions, drownings, vehicular accidents, blasting hazards, and work-related injuries. In the context of this analysis, however, "environmental accidents" relate only to the on-site discharge into the air, ground, or surface waters of hazardous materials, petroleum products, and pesticides that may be used during the projects' construction, subsequent operation, and on-going maintenance.

During construction and throughout the operational life of the proposed projects, hazardous materials, petroleum products, and pesticides will be stored and/or consumed on the facilities' site. The accidental or uncontrolled release of these materials could produce an environmental accident detrimental to human health and safety, adverse to water quality, and potentially hazardous to on-site and near-site human receptors and other biological resources.

Hazardous materials to be used during construction include gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paints, and paint thinner. The quantities of hazardous materials that will be used during construction are relatively small. Construction personnel will be trained to properly handle the materials. There exist no feasible alternative to the use of these materials during construction.

for hazardous material emergencies if they handle more than 500 pounds, 55 gallons, or 200 cubic yards of hazardous materials. In addition, the business must prepare a "hazardous material inventory" of all hazardous materials stored or handled at the facility over those thresholds and all hazardous materials must be stored in a safe manner.

During construction, stored fuels are required for heavy equipment used during site grading. Fuels are typically stored in either 55-gallon drums or other types of portable tanks, transported to the sites and used with a hand pump or horizontally in a rack. For construction purposes, no underground fuel storage tanks will be installed on any of the sites.

During the facilities' operation, additional hazardous materials, petroleum products, and pesticides will be stored on the projects' sites, including mineral oil. The use of polychlorinated biphenyls (PCBs) is prohibited. In addition, nitrogen gas (N_2) and sulfur hexafluoride gas (SF_6), both inert and non-toxic gases, would be used. N_2 would be used to slightly pressurize oil-filled equipment and SF_6 would be used as an insulator and arc suppresser in circuit breakers. When SF_6 is exposed to electric arcs, a small quantity of solid residue forms that is highly toxic and must be removed to prevent exposure hazards.

Wood utility structures, such as those associated with the 69-kV and 115-kV subtransmission lines, would be treated with pentachlorophenol.[23] Wood preservatives function by exhibiting an acute toxicity to fungi and insects that can destroy wood. All wood preservatives have the ability to create a toxic response if released to the environment in large quantities. The greatest concern with wood preservatives is the possibility of accidental contamination through spills and leaching of chemicals from treated wood products. The release of small quantities of the preservative would be destroyed through natural degradation mechanisms.[24] As in the case of the proposed projects, this potential is eliminated by delivering pre-treated structures to the site.

Since the projects will likely exceed the threshold of 1,320 gallons in total, the projects are subject to compliance with the USEPA's oil spill prevention regulations (40 CFR Part 112).

As indicated by the USEPA, according to United States Census estimates, there are 5,523 facilities in the electric utility industry. The USEPA's 1995 survey data indicates that approximately 48 percent (2,638 facilities) are regulated by the USEPA's spill prevention, control, and countermeasures (SPCC) program. Of these, approximately 92 percent (2,431 facilities) operate at least one substation storing greater than 660 gallons of oil in one tank or piece of equipment or a total of more than 1,320 gallons. Approximately 26 percent (694 facilities) have at least one substation that stores greater than 42,000 gallons of oil. With respect to transformers, approximately 54 percent (1,431 facilities) operate at least one transformer installation storing greater than 660 gallons of oil in one tank or piece of equipment or more than 1,320 gallons in total.[25]

The Applicant's SPCC will evaluated at least once every three years or immediately following a reportable spill event and will be amended after such review if more effective prevention and control technologies will significantly reduce the likelihood of a spill event from the facilities.

Although the potential for environmental accidences cannot be eliminated, compliance with existing federal, State, and local, preventive design, and employee training will reduce the likelihood of such events to the maximum extent feasible.

[23]/ Subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
[24]/ Agency for Toxic Substances and Disease Registry, Toxicological Profile for Pentachlorophenol, 2001.
[25]/ United States Environmental Protection Agency, Analysis of the Applicability of EPS's SPCC Program to the Electric Utility Industry, Results of 1995 Survey of Oil Storage Facilities, July 1996, p. 2.

9.4 Growth Inducement

9.4.1 Foster Economic or Population Growth

For planning purposes, the estimated construction term for the proposed LEAPS project is assumed to take four years. As more thoroughly described in the FLA, the proposed hydropower project is projected to generate about 2,500 man-years of construction employment, of which roughly 55 percent will be skilled trades, 30 percent will be general labor, and 15 percent will be supervisory and support staff. Peak employment at the LEAPS project site will reach about 600 workers. In contrast, the TE/VS Interconnect project can be constructed in about two years, with a maximum labor force of about 250 workers. The two peak employment periods would not overlap. Total construction-term employment is estimated to be about 3,000 man-years. The majority of those jobs would be created within Riverside County.

A substantial portion of the County's economy is driven by construction activities and by the construction trades. As a result, a substantial construction labor pool now exists within the general projects' area. In addition, a large portion of the County's historic growth is attributable to the in-migration of individuals and families who already reside within the larger SCAG region but elect to relocate to Riverside County (and the Inland Empire) based on such factors as comparable housing costs and historic growth in the area's employment opportunities. Based on Statewide averages, an estimated six percent of those new residents are already in the construction industry. In Riverside County, an estimated 12 percent of the County's labor force is in the construction industry. Construction unions are active throughout Riverside and San Diego Counties and provide employment and training opportunities within each of the requisite area of specialization.

During the construction period, it can, therefore, be concluded that no significant number of workers would need to in-migrate to the projects' area merely as a result of the proposed projects. The existing areawide work force is generally sufficient to accommodate the projects' construction-related needs. A limited number of specialty construction contractors (e.g., earth boring machine operators and support personnel) may, however, relocate to the general area from elsewhere. A substantial portion of any in-migration would be associated with workers already within the SCAG region.

Once operational, overall projects-related employment demands will diminish substantially. Of the majority of the twenty individuals required to operate and maintain the proposed projects, with the exception of management personnel the associated experience and skill level required for the projects' ongoing operations is readily available for the area's existing and projected labor force.

The precise number of individuals in-migrating to the projects' area cannot be reasonably predicted but would be expected to be so small, particularly in the context of existing domestic and international in-migration into the County, as not be to produce a significant localized impact.

9.4.2 Demand for Additional Housing

The CGC links housing with the provision of proximal employment opportunities. As indicated in Section 65890.1 of the CGC: the State Legislature "finds and declares that: (a) State land use

patterns should be encouraged that balance the location of employment-generating uses with residential uses so that employment-related commuting is minimized. (b) Balance in employment and residential land use patterns reduces traffic congestion and may contribute to improvement of air quality in urban area. (c) Balancing of employment-generating land uses and residential land uses improves economic and housing opportunities and reduces loss of economic productivity caused by transportation delay. (d) The attainment of a more balanced land use pattern requires the cooperation of government agencies with the private sector to assure that public and private decisions affecting land use take into consideration the need to seek balance in the location of employment-generating land uses and residential land uses. (e) Local agencies and State agencies should cooperate to facilitate the balancing of employment-generating land uses and residential land uses and provisions of transportation to serve these uses. (f) Local governments have the primary responsibility to plan for local land use patterns, within the parameters established by State law to achieve statewide needs. (g) Housing must be provided for the estimated 3 million new workers and their families expected to be added to the California economy in the 1990's. (h) It is the intent of the Legislature to move toward the goal that every California worker have available the opportunity to reside close to his or her jobsite."

Job growth in the Inland Empire has not kept pace with housing. Because of the relatively lower cost of housing and high single-family housing production, there has been a worsening of traffic congestion and longer commutes to jobs in Orange and Los Angeles Counties for residents of the Inland Empire. This has contributed to a jobs/housing imbalance.[26] SCAG notes that between 1980 and 1996 (most recent data available), while the number of households increased by 24 percent, vehicle miles traveled (VMT) increased by more than 82 percent. The fact that VMT is increasing at a greater rate than households suggests an increase in miles driven for employment. Commuters in the Inland Empire drive greater distances and spend more money per month commuting than any other residents of the region.[27]

SCAG defines the relationship between jobs and housing (jobs-housing balance) as the distribution of employment relative to the distribution of workers within a given geographic area. The geographic area is considered "balanced" when these distributions are approximately equal and when available housing choices complement the earning potential of available jobs. When achieved, a jobs-housing balance theoretically results in an adequate supply of housing (and workers) being located within a reasonable commute distance of compatible employment opportunities. A ration of 1:1 indicates that there is one job for every one household. When the ratio is below 1.0, the area is considered to have a jobs deficit and housing surplus, referred to as "housing rich." Conversely, when the ratio is above 1.0, the area is considered to have a housing deficit and jobs surplus, referred to as "jobs-rich." SCAG indicated that the "ideal" regional average ratio of jobs to households in southern California is 1.25.

The overall jobs-housing ratio for the six-county SCAG region is 1.34. In western Riverside County, the jobs-housing ratio is 0.98, meaning that by the regional standard, the subregion has a housing surplus and a job deficit. The practical result of this statistic is morning and evening traffic congestion as local residents travel to outlying counties (Orange, Los Angeles, and San Diego) for employment. According to SCAG, most freeways connecting Riverside County to other surrounding counties are at least 25-50 percent congested in the morning peak period.

[26]/ Southern California Association of Governments, Housing in Southern California: A Decade in Review, January 2001, pp. 17-18.
[27]/ *Ibid.*, pp. 14-15.

Forty-two percent of the 348,473 households in western Riverside County contain at least one individual who commutes outside of the county for employment.[28]

Projects that promote the attainment of the regional jobs-housing balance would conform to regional plans and serve to promote the attainment of regional goals. As indicated by the WRCOG, jobs-housing balance addresses more than just economic concerns but environmental and quality of life matters as well. Achieving an ideal geographic relationship between jobs and housing in western Riverside County can produce a "multitude of measurable and perceived benefits for the subregion as a whole." Those benefits include: (1) reduced vehicle trips and commute times; (2) air quality benefits; and (3) economic and fiscal benefits.[29] Since the projects involves jobs formation and has no associated housing component, because Riverside County is already "housing rich," the project would not result in the creation of new housing to accommodate the proposed projects' employees.

9.4.3 Removal of Obstacles to Population Growth

As indicated in the EVMWD's "Distribution System Master Plan," beyond the 0.1-million gallon (mg) capacity of the existing Skymeadows Reservoir, an additional 0.5 mg of additional potable water storage is recommended for the area of Rancho Capistrano (Morrell Potero), identified as Pressure Zone 3300 (Skymeadows), in order to adequately address the operational, fire, and emergency storage needs of that area. At the base of the Elsinore Mountains, in proximity to Grand Avenue, other identified system improvements include: (1) a new 12-inch suction pipeline extending southward from Grand Avenue to the Adelpha Pump Station; and (2) replacement of the existing 0.2-mg Adelpha Reservoir with a new 0.6-mg reservoir.

Although not required for the construction or operation of the LEAPS project, subject to funding by the EVMWD, the Applicant has included these water system upgrades into that hydropower project. The intent of these improvements is not to increase development capacity but to add additional fire-response and emergency storage to available water supplies within in-forest land holdings and other urban-interface areas. Improvements to existing fire-response systems are primarily intended to improve public safety and not to accommodate additional growth.

In addition, as indicated in the CAISO's conforming tariff: "A participating TO or any other market participant may propose a transmission system addition or upgrade. The ISO will determine that a transmission addition or upgrade is needed where it will promote economic efficiency or maintain system reliability."[30] Without precluding the projects' eligibility as economically driven projects, the projects satisfies the CAISO's reliability criteria.

As indicated by the CEC: "Experts expect California's population to grow by 20 million people between 2000 and 2050. Such growth will severely tax already constrained energy resources and the associated infrastructure and challenge the State's ability to provide the energy that new communities, homes, schools, industry, and other workplaces will require."[31] The projects are proposed in response to existing and projected regional electrical generation and transmission needs. As such, the projects seek to respond to those documented needs rather that to create surplus capacity available to unplanned and unforeseeable demand.

[28]/ *Op. Cit*., Workers Ahead: The Balance between Jobs and Housing in Western Riverside County, pp. 2-3.
[29]/ *Ibid*., pp. 87-89.
[30]/ California Independent System Operation, California ISO Conformed Tariff, Section 3.2.1.
[31]/ *Op. Cit.*, 2006 Integrated Energy Policy Report Update, p. E-7.

The CEC acknowledges that no specific State mandate requires that local agencies' general plans include an energy element and "only some 10 percent of California's general plans do so. The lack of energy consideration on the part of land use decision-making authorities and developers in their planning processes today is apparent."[32] In southern California, continued areawide residential and non-residential growth is not dependent upon the proposed projects. If the projects are not developed, energy from other sources would be provided by the area's investor-owned utilities and/or from other sources. The area's primary electricity service providers are required to accommodate existing electricity demand as well as anticipated future demand. As such, no direct growth constraints would be removed as a result of the proposed projects' implementation.

The CEC notes: "In general, power plants do not, in and of themselves, induce growth in the area where they are built. This is because the electricity generated by a power plant is usually sold and dispersed into a broad regional market consisting of numerous states and parts of Canada and Mexico. Thus, the additional generation usually has no effect on local electricity supply." As such, the potential growth-inducing impact are "too speculative for evaluation because it is impossible to predict exactly where the electricity will go."[33]

[32]/ *Op. Cit.*, 2006 Integrated Energy Policy Report Update, p. E-8.
[33]/ California Energy Commission, Final Staff Assessment – Otay Mesa Generating Project, Application for Certification (99-AFC-5), San Diego County, October 2000, p. 369.

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