


AGENDA REPORT

TO: Joe Tait, Interim City Manager 

FROM: Nasser Abbaszadeh, Public Works Director

SUBJECT: Consideration of an Ordinance Establishing Mandatory Solar Photovoltaic Requirements.

RECOMMENDATION:

By motion, approve the introduction and first reading of an ordinance establishing mandatory solar photovoltaic requirements.

SUMMARY AND RECOMMENDATION

On December 18, 2007, the City Council adopted a sustainability charter, and adopted a green building and temporary solar energy incentive programs. In adopting the sustainability charter, the City Council expressed their desire in the City meeting its current environmental, economic and social needs without compromising the ability of future generations to do the same. The City Council finds that solar photovoltaic systems are readily available, and the use of these systems will promote the City's commitment to become a sustainable city.

Staff recommends that the City Council approve first reading and introduction of an ordinance adding Chapter 16 to Title 8 of the San Juan Capistrano Municipal Code establishing mandatory solar photovoltaic requirements.

BACKGROUND:

San Juan Capistrano is part of the great Los Angeles County Basin, which climate and topography are known to trap air pollutants that are known to be harmful to human health; and solar photovoltaic power generation consumes no fossil fuels, generates no air pollution and will therefore increase energy efficiency and will reduce air pollution and Greenhouse gases in the Orange County Basin and San Juan Capistrano.

California Health and Safety code, section 13146 requires local jurisdictions to enforce the California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code. The California Health and Safety Code, section 17958 (a) allows local jurisdictions to establish more restrictive building standards than those contained in the California Building Standards Code, if the amendment is reasonably necessary because of local climatic, geologic, or topographic conditions energy efficiency is an important part of a sustainable San Juan Capistrano.

Solar photovoltaic power generation consumes no fossil fuels, generates no air pollution and will therefore increase energy efficiency, reduce greenhouse gases and reduce air pollution in the Los Angeles Basin and in San Juan Capistrano.

The proposed ordinance requires subdivisions and commercial/industrial developments in the City to provide 25% of their energy demand through solar photovoltaic panels. The ordinance provides various alternatives in cases where such system cannot be implemented. The result of this ordinance will not just reduce the energy demand and greenhouse gases, but will also lower the utility bills, hence providing a financial incentive to these developments over the long term.

COMMISSION/BOARD REVIEW AND RECOMMENDATIONS:

N/A

FINANCIAL CONSIDERATIONS:

The proposed ordinance does not have immediate financial impact on the City's finance.

The City has an established permit system for inspection of the installation of solar photovoltaic system, with an established fee structure. This ordinance does not affect the fee structure.

NOTIFICATION:

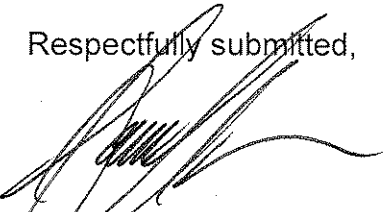
Building Industry Association of Southern California

RECOMMENDATION:

By motion, approve the introduction and first reading of an ordinance establishing mandatory solar photovoltaic requirements.

Respectfully submitted,

Prepared by,

For 
Nasser Abbaszadeh, PE
Public Works Director

For 
Ziad Mazboudi, PE, LEED AP, CPSWQ, CPESC
Senior Civil Engineer

Attachment(s): 1. Solar Photovoltaic Ordinance

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN JUAN CAPISTRANO, CALIFORNIA, ADDING CHAPTER 16 TO TITLE 8 OF THE SAN JUAN CAPISTRANO MUNICIPAL CODE ESTABLISHING MANDATORY SOLAR PHOTOVOLTAIC REQUIREMENTS.

WHEREAS, on December 18, 2007, the City Council adopted a sustainability charter, and adopted green building and solar energy incentive programs; and

WHEREAS, in adopting the sustainability charter, the Council committed to become a sustainable city that continues to meet its current environmental, economic and social needs without compromising the ability of future generations to do the same; and

WHEREAS, the City Council finds that solar photovoltaic systems are readily available, and the use of these systems will promote the City's commitment to become a sustainable city; and

WHEREAS, San Juan Capistrano is part of the great Orange County Basin, which climate and topography are known to trap air pollutants that are known to be harmful to human health; and

WHEREAS, solar photovoltaic power generation consumes no fossil fuels, generates no air pollution and will therefore increase energy efficiency and will reduce air pollution and Greenhouse gases in the Orange County Basin and San Juan Capistrano; and

WHEREAS, the City Council of the City of San Juan Capistrano desires to establish a mandatory solar photovoltaic requirement for building construction projects.

NOW THEREFORE, the City Council of the City of San Juan Capistrano, California, DOES HEREBY ORDAIN as follows:

SECTION 1. Based on the foregoing recitations and findings, Chapter 16 of Title 8 of the San Juan Capistrano Municipal Code is hereby established to read as follows:

CHAPTER 16. SOLAR PHOTOVOLTAIC SYSTEMS

- §8-16.01 Definitions.
- §8-16.02 Photovoltaic System Requirement.
- §8-16.03 Alternatives.
- §8-16.04 Inspections.

§8-16.01 DEFINITIONS.

Terms defined herein shall have the following meanings when used in this Chapter:

“City” shall mean the City of San Juan Capistrano.

“Director” shall mean the Community Development Director of the City of San Juan Capistrano or his or her designee.

“Gross Floor Area” shall mean the floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

“Solar Photovoltaic System” shall mean the total components and subsystems that, in combination, convert solar energy into electrical energy suitable for connection to a utilization load, consistent with, and subject to, Article 690 of the 2007 California Electrical Code.

“Valuation” shall have the same meaning as established in Section 8-2.02(i) of this Code.

§8-16.02 REQUIREMENT.

(a) Individual building construction. All new buildings of 10,000 square feet or more of gross floor area, additions equal to 10,000 square feet or more of gross floor area, and renovations to existing buildings of 10,000 square feet or more of gross floor area shall be equipped with a solar photovoltaic system or such other alternative method authorized under Section 8-16.03, such that at least 25% of the new building's or the building addition's or the renovated part of the building's projected energy demand is met by such photovoltaic system or alternative.

(b) New subdivisions. New single family dwelling residential subdivisions of five or more parcels shall be designed to provide solar photovoltaic systems such that a minimum of 25% of their projected energy demand is met through the use of photovoltaic systems based on the total dwelling units. All institutional, commercial and industrial subdivisions may comply with the requirement of subdivision (a) for each building, or alternatively, for all the buildings within the subdivision collectively based on the total gross floor area of the same.

(c) Except as otherwise expressly provided in this chapter, this Section shall not apply to construction of individual single family and/or two-family dwellings.

(d) For qualifying projects, the number of panels required for any given system, shall be the total required energy demand of the project, divided by the energy production capability of a single panel as specified on the project. When calculating the number of panels required, fractional panels equal to or greater than one half panel shall be rounded up to the nearest whole number; fractional panels less than one half shall be rounded down to the nearest whole number.

§8-16.03 ALTERNATIVES.

Upon the written approval of the Director, an applicant who is unable to install the required solar photovoltaic system due to the configuration of the proposed construction project may meet the requirements of this chapter as follows:

(a) **Alternative Technology.** Notwithstanding the ability of an applicant to install a solar photovoltaic system due to the configuration of the proposed construction project, subject to the reasonable satisfaction of the Director, an applicant may comply with the requirement of this Chapter by utilizing an alternative technology or design shown to have achieved equal or better energy savings as that provided by a photovoltaic system required by this Chapter.

(b) **Efficiency Increase.** An applicant may reduce the proposed energy demand of a new building by 25% through various energy conservation measures, such as more efficient equipments, glazing, roofing, or other available options to meet the requirements of this chapter. If the project is an addition, then the same applies, to meet 25% of the addition's energy demand. The applicant could propose to perform energy conservation improvements to the addition or to the entire building to reach the 25% demand reduction of the addition. If the project is a renovation, then the applicant could propose to perform improvements to the renovated portion of the building or to the entire building to reach the 25% energy demand reduction of the renovated area. The reduction of energy demand may include a combination of a solar photovoltaic system, alternative technology, and/or alternative design.

(c) **Alternate Location.** An applicant may install a photovoltaic system equivalent to the system required by this Chapter on another building located in San Juan Capistrano owned by the applicant.

(d) **In-lieu Fee.** An applicant may pay an in-lieu fee in an amount equal to the cost of the solar photovoltaic system required pursuant to this Chapter. Fees generated from in-lieu payments pursuant to this Section shall be appropriated and disbursed only for solar photovoltaic designs and installations on City or public buildings and facilities, or for alternative energy conservation measures as approved by the City Council. The City may use these funds for citywide energy audits or energy conservation educational programs and related activities. The City Council may adopt policies to provide for the distribution of funds to assist in the installation of solar photovoltaic systems on buildings owned and operated by nonprofit agencies. The amount and process for the

collection and utilization of fees permitted by this Section shall be established by resolution of the City Council.

§8-16.04 INSPECTIONS.

No final inspection shall be approved for a construction project subject to the requirements of this Chapter, nor shall a certificate of occupancy be issued for such project, prior to the installation of the solar photovoltaic system being completed, inspected and fully operational, unless an alternative pursuant to Section 8-16.03 has been implemented and approved.

SECTION 2. California Building Standards Law Findings.

Pursuant to the provisions of the California Building Standards Law, California Health and Safety Code §§ 18941.5, 17958, 17958.5 and 17958.7, the City Council hereby finds that the amendments to the State Building Standards and Housing Laws, more particularly the California Building and Energy Codes, adopted herein are necessary because of climatic, geological or topographical conditions of property in the City's jurisdiction, and as more specifically described as follows:

A. Energy efficiency is an important part of a sustainable San Juan Capistrano, and San Juan Capistrano is part of the great Orange County Basin, which climate and topography are known to trap air pollutants that are known to be harmful to human health; and

B. Solar photovoltaic power generation consumes no fossil fuels, generates no air pollution or Greenhouse gases and will therefore increase energy efficiency and will reduce air pollution in the Orange County Basin and San Juan Capistrano.

SECTION 3. Effective Date. The regulations adopted by this ordinance shall not apply to construction for which a valid permit has been issued as of the effective date of this ordinance.

SECTION 4. SEVERABILITY. If any section, subsection, clause or phrase of this Ordinance or any part thereof is for any reason held to be invalid, unconstitutional or unenforceable by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portion of the Ordinance. The City Council declares that it would have passed each section, subsection, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, sentence, clause or phrase would be declared invalid, unconstitutional or unenforceable.

SECTION 5. CERTIFICATION. The City Clerk shall certify to the adoption of this Ordinance and cause the same to be posted at the duly designated posting places within the City and published once within fifteen (15) days after passage and adoption as required by law; or, in the alternative, the City Clerk may cause to be published a

summary of this Ordinance and a certified copy of the text of this Ordinance shall be posted in the Office of the City Clerk five (5) days prior to the date of adoption of this Ordinance; and, within fifteen (15) days after adoption, the City Clerk shall cause to be published the aforementioned summary and shall post a certified copy of this Ordinance, together with the vote for and against the same, in the Office of the City Clerk.

PASSED, APPROVED, AND ADOPTED this ____ day of _____, 2009.

MAYOR

ATTEST:

CITY CLERK
