

memorandum

DATE: June 17, 2013

TO: Board of Building and Fire Code Appeals

FROM: John Cheng, Secretary/Assistant Community Development Director
By: Carol-Ann Coates, Senior Administrative Analyst

SUBJECT: Update on the 2012 Uniform Solar Energy Code

RECOMMENDATION

The purpose of this report is to introduce the 2012 Uniform Solar Energy Code (USEC), which is adopted by the City. Staff will return to the Board with a detailed report and draft ordinance in fall 2013 for the Board's recommendation.

BACKGROUND

The first USEC was published in 1978 by the International Association of Plumbing and Mechanical Officials (IAPMO), the same organization that oversees publication of the California Plumbing and Mechanical codes.

The purpose of USEC is to provide a set of regulations for the installation of safe and functional solar energy systems that are used for space heating or cooling, water heating, or swimming pool heating.

Photovoltaic cells are what most people imagine when solar energy is discussed, but solar thermal energy is another type of system. The two systems are similar but they differ in the way they collect energy. Photovoltaic cells collect and convert energy into direct current electricity through semiconductors. Solar Thermal cells work on an older concept of steam power where a solar collector heats the water passing through it for distribution to the house or a pool.

The City adopts this code on a triennial basis to supplement state Plumbing and Electrical codes regulating thermal energy systems. Federal, state and local energy conservation goals are promoting the use of renewable sources of energy, such as solar, and this adoption gives us a code to facilitate the plan checking, permitting and inspection of solar thermal systems. Solar photovoltaic systems are regulated under the California Electrical Code (CEC).

DISCUSSION

Staff proposes to adopt all the chapters in the 2012 USEC except for Chapter 10, the chapter on photovoltaic systems, which are covered by the CEC. The USEC provides standards for the plan review, permitting and inspection of solar thermal energy systems.

FISCAL IMPACT

Anticipated City costs for implementing new regulations consist of staff training and enforcement. Enforcement costs may rise slightly while staff and builders familiarize themselves with code revisions.

CONCLUSION

This City adopts provisions of the USEC for the regulation of solar thermal energy installations as a supplement to the California Electrical and Plumbing codes.