Developing an Energy Efficiency Program

Greenhouse gases from human activities are the most significant driver of observed climate change since the mid-20th century (IPCC 2013). According to the EPA, “From 1990 to 2015, the total warming effect from greenhouse gases added by humans to the Earth’s atmosphere increased by 37 percent (EPA 2017). The warming effects associated with carbon dioxide (CO2) alone increased by 30 percent.” When considering the residential sector alone, it is responsible for 22% of U.S. primary energy consumption and CO2 emissions annually, stressing the importance of building energy efficiency (Ketchman, Khanna, Riley, & Bilec, 2016).

This paper offers insight on the development of an Energy Efficiency Program for the City of Encinitas, located in San Diego County. In 2018, the City adopted an updated Climate Action Plan (CAP) with ambitious goals, strategies, and actions. One of the strategies in the CAP is the reduction of building energy consumption by requiring existing residences to perform an energy assessment. The purpose of the program is to address this strategy whereby assisting in the implementation of the City’s CAP in order to reduce greenhouse gas (GHG) emissions.

Because the City’s CAP did not address how energy assessments would be implemented, the development of a specific program was necessary. The program established how energy assessments would be submitted, tracked and evaluated. The program also addressed cost impacts to the community and staff resources and provided alternatives for consideration. As part of the development of the program, a public outreach plan would be developed whereby increasing awareness about the program and to educate the community about the benefits. Several strategies have been developed to address cost impacts, public outreach, other options for consideration, and how to effectively communicate the benefits of the program as well as the City’s role in climate change.

Overall, the main objective in the development of the program is to help the City meet the GHG reduction targets outlined in its CAP, while balancing the needs and expectations of all stakeholders, in order to gain the City Council’s support.

The development of an Energy Efficiency Program provides an opportunity to successfully lead and implement change in the context of sustainability within local government. Once adopted, it will serve as a model for other jurisdictions, which will help the region progress towards a thriving resilient future.