

City of Beaumont, California

Sustainability Through LED Street Lighting

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Project Summary:

The City of Beaumont has developed a comprehensive Sustainability Plan in hopes of reducing the size of its carbon footprint. Through this program outdoor lighting was identified as an area where energy could readily be saved. In examining the various ways to save energy on outdoor lighting the City of Beaumont determined that the following two solutions would serve as the best options to save energy and provide a safe public environment. There are two solutions defined due to the fact that differing technologies perform better at different mounting heights. Solution one is to use LED lights mounted at 16' specially designed by King Luminaire to light the downtown area of Beaumont. 160 of these 78W (78W Actual Usage) LED lights are to be installed replacing 100W (117W Actual Usage) HPS fixtures. This reduces the annual cost of operation for these lights by nearly 30%. This translates into an annual savings of 15 tons of CO₂ emissions. The second solution is to use 150W (150W

Actual Usage) digital induction lights mounted between 30' and 36' to light major roadways throughout Beaumont. 80 of these lights will replace 200W (247W Actual Usage) HPS lights and are to be installed initially saving the City 40% annually on energy bills and 22.5 tons CO₂. In addition to the energy savings the Police Department has observed that the quality of light from the more efficient fixtures is better. The light is whiter than traditional High Pressure Sodium lighting and renders colors more true to daylight, thus articles of clothing, eye color, and identifying marks are more easily discerned. The traffic control officer for the City of Beaumont noted that the light was more effective and visually pleasing than similar, lower efficiency fixtures in the same area. The City is very pleased with the results of the initial study and is considering retrofitting all of the City's 2000 street lights in the coming years.