

**Appendix R**

**Manufacturing Segment Optimization Plan**

**2011-2012**

# Manufacturing Segment Optimization Plan

2011- 2012

## BACKGROUND

California's industrial manufacturing sector is a major consumer of electricity, consuming about 22% of California's annual electricity needs. It is capital-intensive, so profitability is tied to efficient production and distribution; on average, electricity represents 35% of the operating costs. Additionally, the industry faces stringent regulations, tax issues and, increasingly, global competition.

### Quick Facts

#### Petroleum

- Electricity represents a relatively small portion of a refinery's energy consumption – making up only about 3 percent
- Refiners depend on energy in their production process; they are particularly sensitive to energy costs as it erodes profit margins
- Availability of uninterrupted electricity is critical to refineries which are exploring options of cogeneration, mitigation technologies, power protection systems, and more
- California is in the Top Three for Petroleum Refining
- Petroleum refiners are the largest users of electricity in California manufacturing sector

#### Plastics

- The California plastics industry is the third largest manufacturing industry in the U.S.
- 1,500 businesses in California are involved with plastic and plastic products manufacturing
- Because of the plastics industry's enormous size and use of energy, even small increases in efficiency can have a significant financial impact
- Of the 99 establishments in California engaged in plastic material and resin manufacturing
  - 34 are located in Los Angeles County and 7 in Riverside County
- Facilities that manufacture plastic resins or raw materials are industrial buildings that are usually built on a larger scale.
- Plastics manufacturing uses various chemical, heating and cooling processes that require special equipment and technology.
  - Because plastics are made from petrochemicals, their manufacturing facilities are often located near refineries to maximize efficiency of supply or "feedstocks."

#### Minerals, metals, chemicals

- California ranks fourth in terms of nonfuel mineral production in the U.S. California's \$3.6 billion is about 6.3 percent of the national industry value
  - Principal minerals from California include sand and gravel, cement, boron minerals, stone and soda ash
  - Mineral product manufacturers include establishments that make bricks, refractories, ceramic and glass
  - Other products from the minerals subsector include: cement and concrete products; lime, gypsum and other nonmetallic mineral products including abrasive products, ceramic plumbing fixtures, statuary, cut stone products, and mineral wool