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Industrial Assessment Center (IAC) Service in California

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IEPR Commissioner Workshop to Accelerate
Industrial Decarbonization

August 3, 2021

Industrial Assessment Center (IAC)

- IAC is a US DOE Program, continuous since 1976
- There are 32 IACs in the country
- Two Centers in California, covering majority of industrial areas of the State
- We have served the industrial establishments for 30 years
- Services:
 - Perform energy and water assessment of manufacturing and process industries
 - Training energy engineers



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Industrial Assessment Center (IAC)

- We have served about 1200 plants (majority small to medium size) in California
- Our recommended projects include,
 - Electrical and gas (NG and propane) measures
 - Renewable energy measures
 - Cogeneration (CHP) measures
 - water saving measures
- About 60% of the recommended projects are implemented!
- Majority of plants we have served are food processors



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Example of Crystal Creamery – Modesto, CA

- A large dairy processing facility (over 500 million pound production)
- Annual Electrical Consumption 47,700,000 kWh
- Average Maximum Demand 6,600 kW
- Annual Natural Gas Consumption 282,000 MMBtu
- No. of Energy Conservation Measures 16 (4 NG and 12 Elect)



Crystal Creamery Implementation

	Recommended	Implemented
Energy Conservation Measures	16	8
Water Conservation Measures	1	1
Electrical Energy Savings	11%	8%
Natural Gas Savings	5%	5%
Water Savings	11%	11%
Cost Saving	\$665,000	\$354,000
Simple Payback	Immediate – 3.6	Immediate – 2.7



From IAC Experience

- There are major opportunities for energy savings in in the industrial sector.
- There are opportunities for renewables (mostly PV).
- There are opportunities for heat recovery and electrification especially in replace gas-source hot water equipment.
- Major challenges exist for conversion of high temperature large gas consuming equipment such as large boilers and ovens.



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