



## CASE STUDY: Saving Energy at ARCO Service Stations



### PROJECT HIGHLIGHTS

- » Achieved 40% lighting energy cost reduction
- » Integral ballast dimming used to help achieve savings
- » Lamp lumen maintenance improved
- » No sacrifice of light quality or patron safety
- » Investment payback in < 2 years



Going Green NRG is an electrical contracting firm headquartered in Laguna Hills, CA. In addition to performing professional electrical installation services, the company assists customers in identifying opportunities to save money through reductions in energy consumption.

As the company website notes: "lighting accounts for approximately 20% to 30% of the total energy consumed by most businesses and simple, but profound, changes can help **cut those costs by 30% to 60%.**"

Donny Martin of Going Green NRG approached the owner of several Arco service stations in Southern California with the proposition that, by replacing the magnetic ballasts in the canopy and pole lighting with Empower Electronic ballasts, it would be **possible to achieve cost savings of more than 40%** without sacrificing light quality. Further, he helped arrange financing of the project through a combination of utility rebates and on-bill financing programs.

Specifically, Going Green NRG recommended replacement of all magnetic ballasts with Empower's electronic ballasts, downsizing of metal halide canopy lamps from 320 to 200 watts and pole lamps from 400 to 200 watts. Additionally, they suggested that Empower's integral computer dimming be utilized and programmed such that all station lights would operate on a nightly schedule of full power for the first six hours, 50% of full power for the next 5 hours and full power for the last hour of operation.

Annual energy savings for one 29-lamp station is in excess of 26,000 kWh which represents operating costs **savings of approximately \$3,900 per year.** Project payback will be achieved in less than two years!

Sourcing the Empower ballasts through Graybar Electric while coordinating the details of the desired dimming schedule with Empower Electronics, Going Green NRG performed this installation in less than one day and within three days of the placement of the order for ballasts and lamps with Graybar.

This is indeed an example of a simple, but profound change that cuts costs by 30 – 60%!

### OUR COMMITMENT

*Empower Electronics developments and manufactures microprocessor-based controls that replace core and winding magnetic ballasts and improve the performance and efficiency of new and existing High Intensity Discharge (HID) lighting.*

### HEADQUARTERS

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