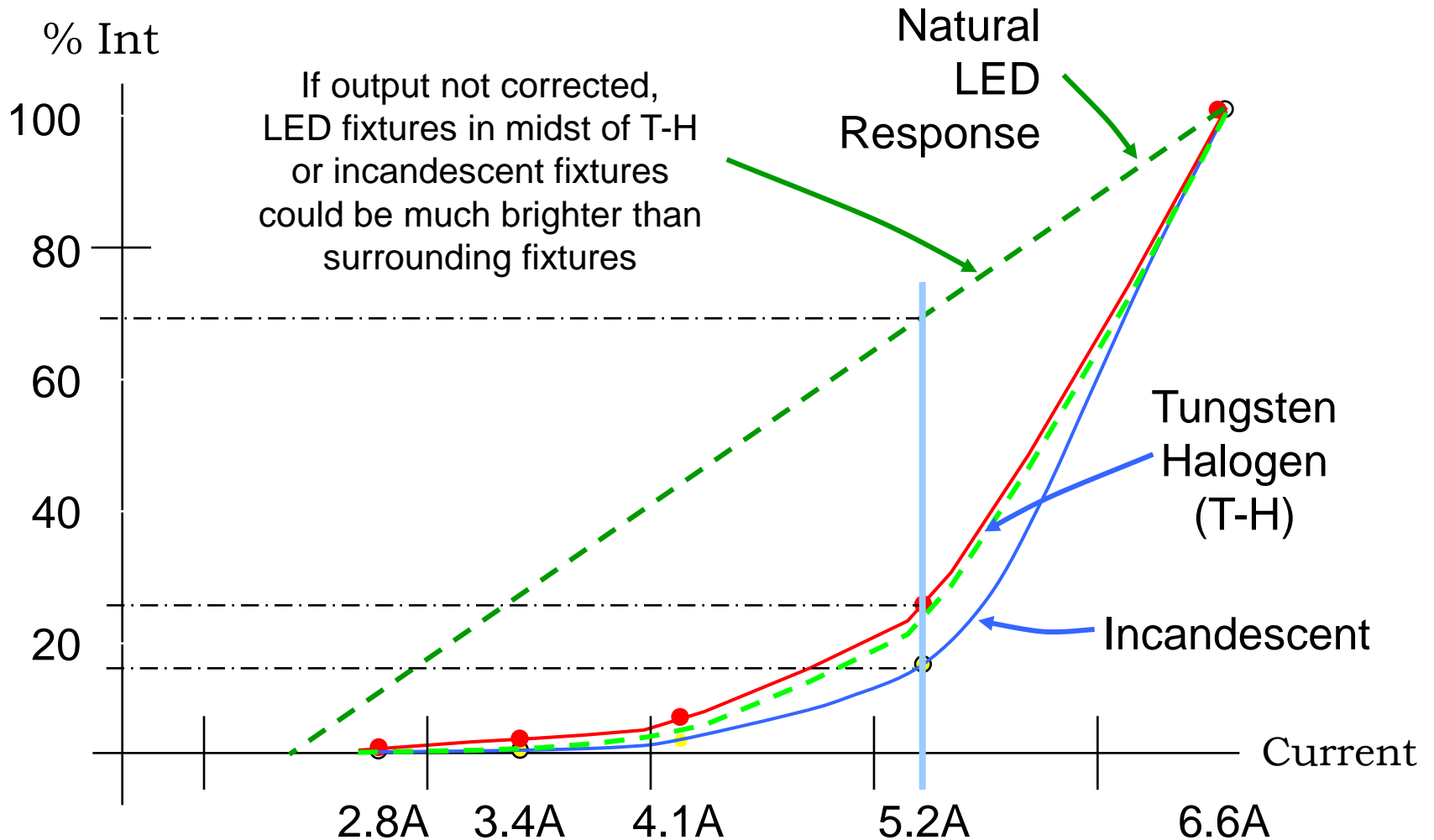


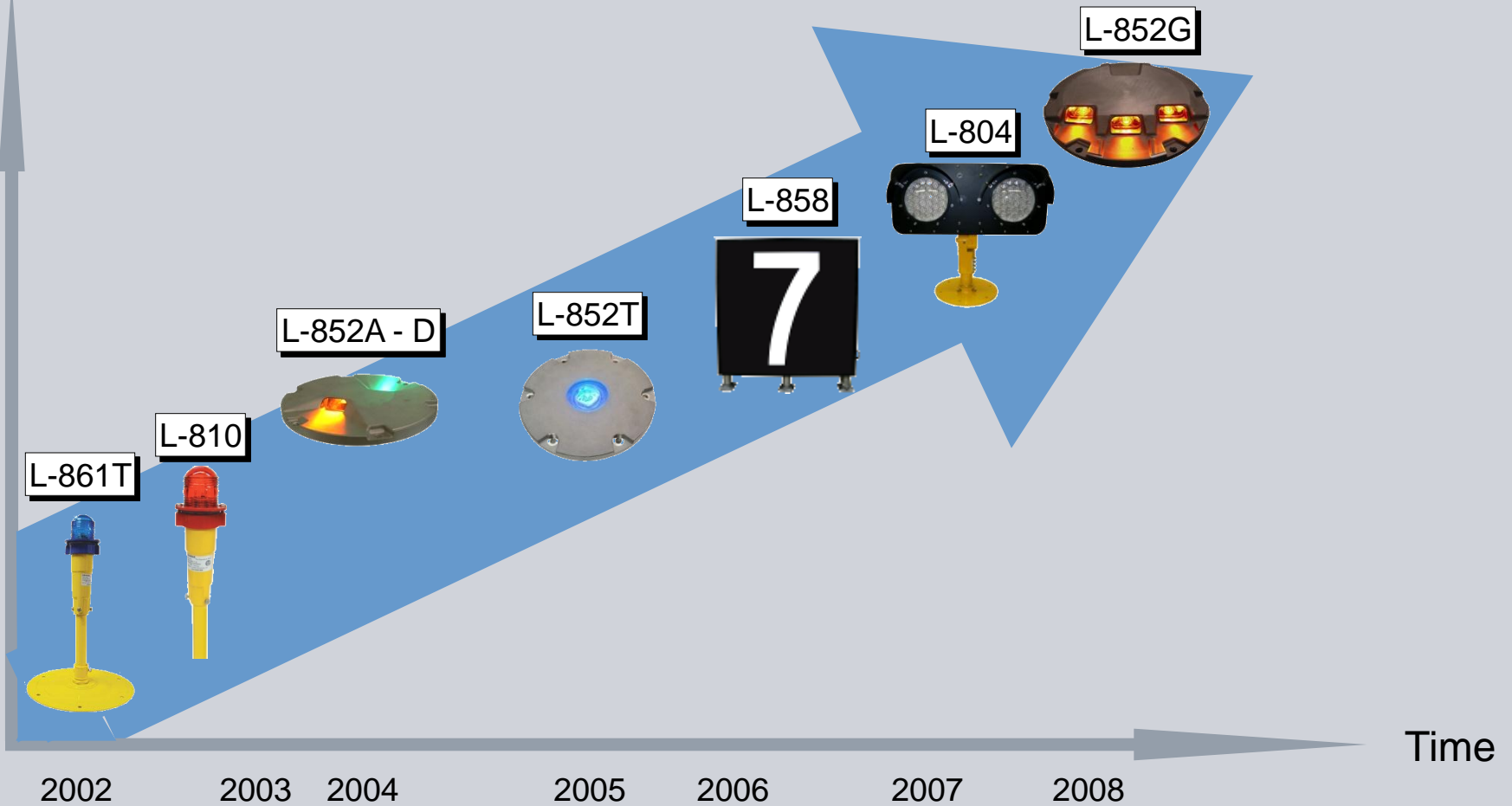
Taller de Ayudas Visuales para La Aero Navegacion, Nuevas Tecnologias

Ing. Alfredo J. Moleiro
Abril 2012
Lima, Peru



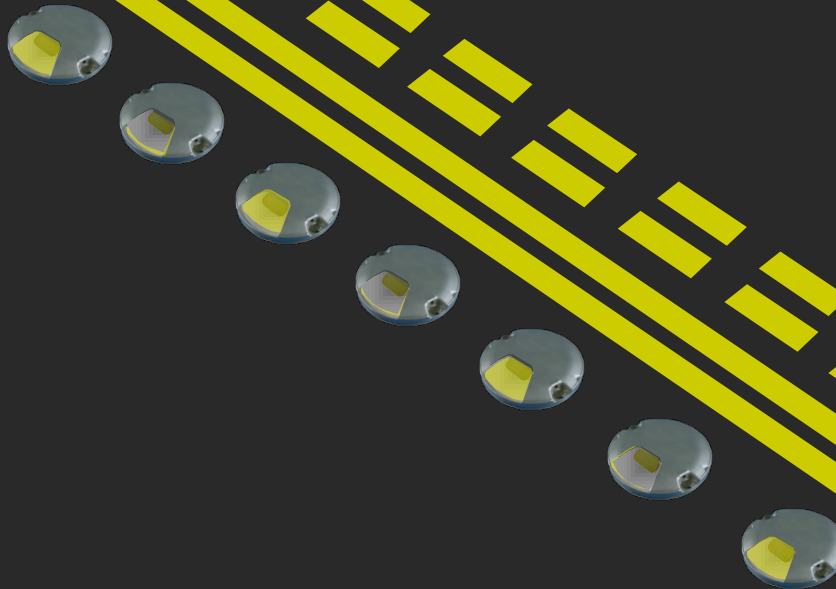
Evolution of LEDs on Airfields

Intensity



In-pavement RGL

- Even-numbered lights are on simultaneously. As they extinguish, the odd-numbered lights pulse simultaneously.
- Each fixture pulses at the rate of 30-32 flashes per minute
- Power is applied alternately to each set of fixtures for 50%, $\pm 0.5\%$ of the total cycle



Runway In-pavement RGL Fixtures

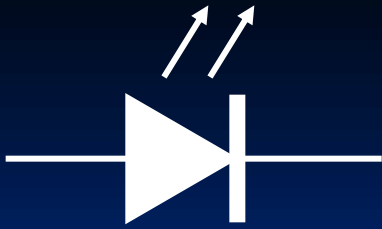
- ETL Certified and ICAO compliant
- Style 3, (<0.25 in.)
- 12"
- Can be used to replace all lights within a continuous Runway Guard Light (RGL) bar
- Reduced energy consumption and on going maintenance re-lamping costs
- Eliminates color shift which occurs with Tungsten-Halogen lamps in lower CCR steps



L-852G

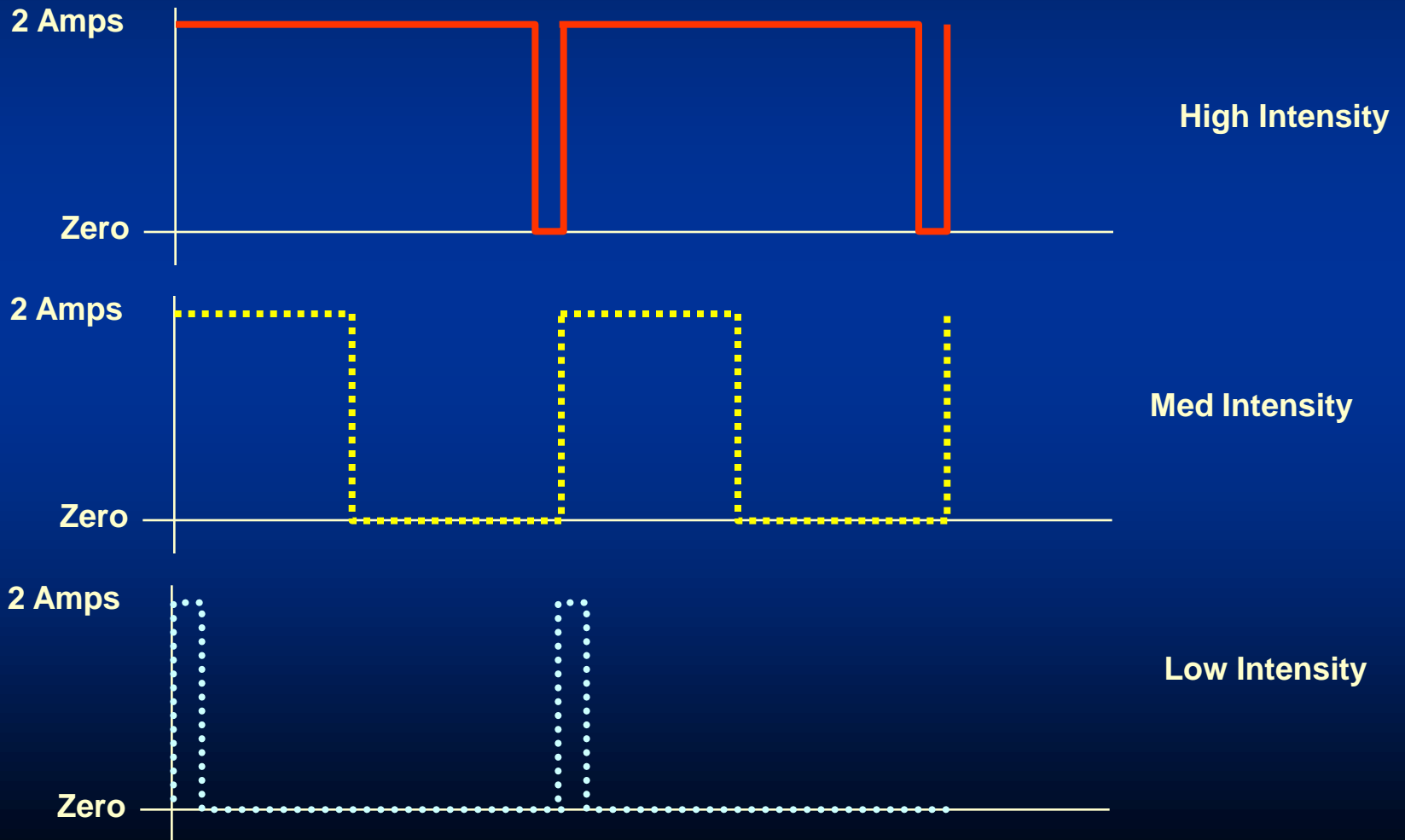


L-852G LED Test Installation at Atlanta- June 2008

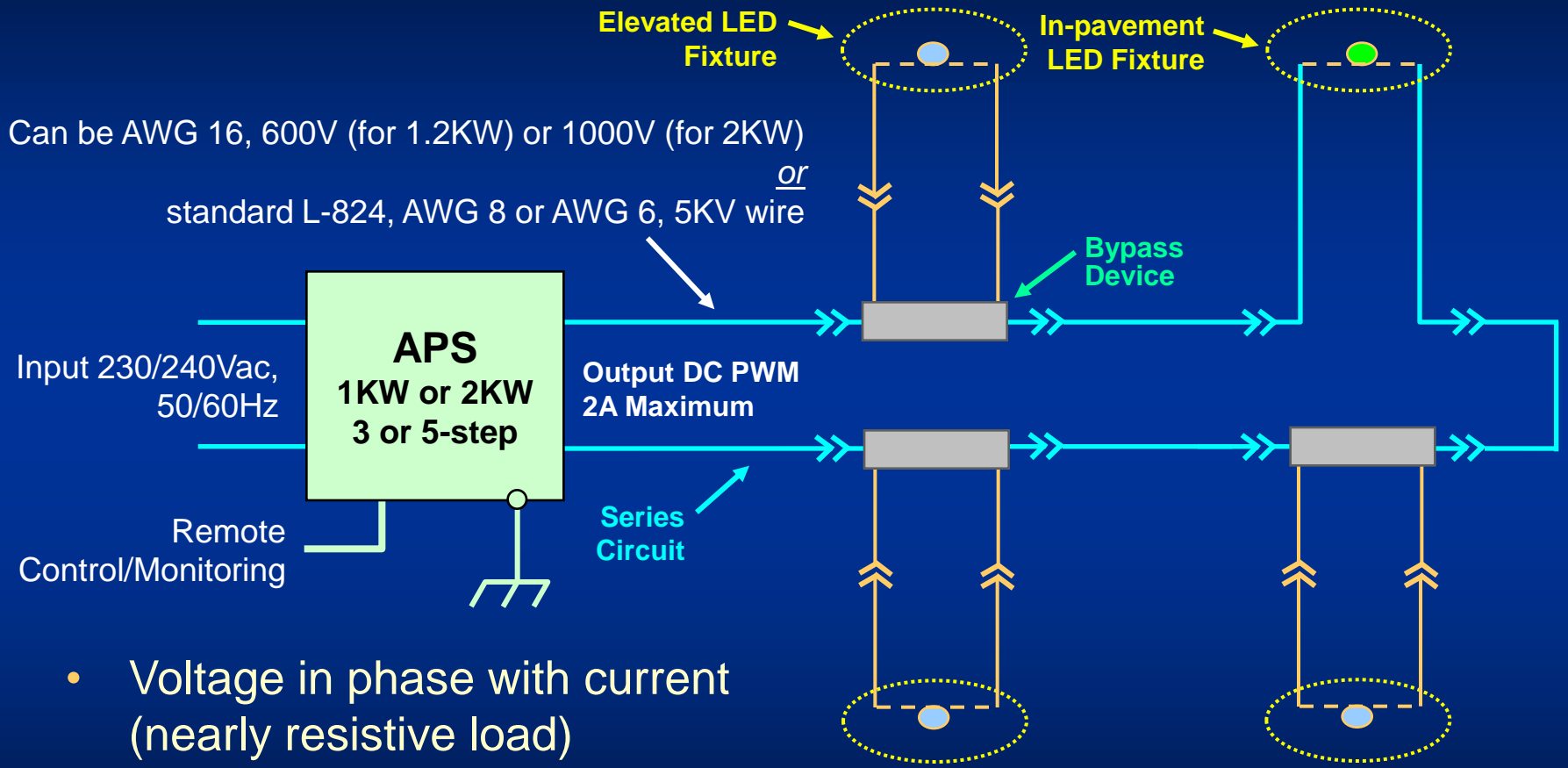


What is PWM?

- PWM: Vary width of ON time, but (when ON) current is at nominal level



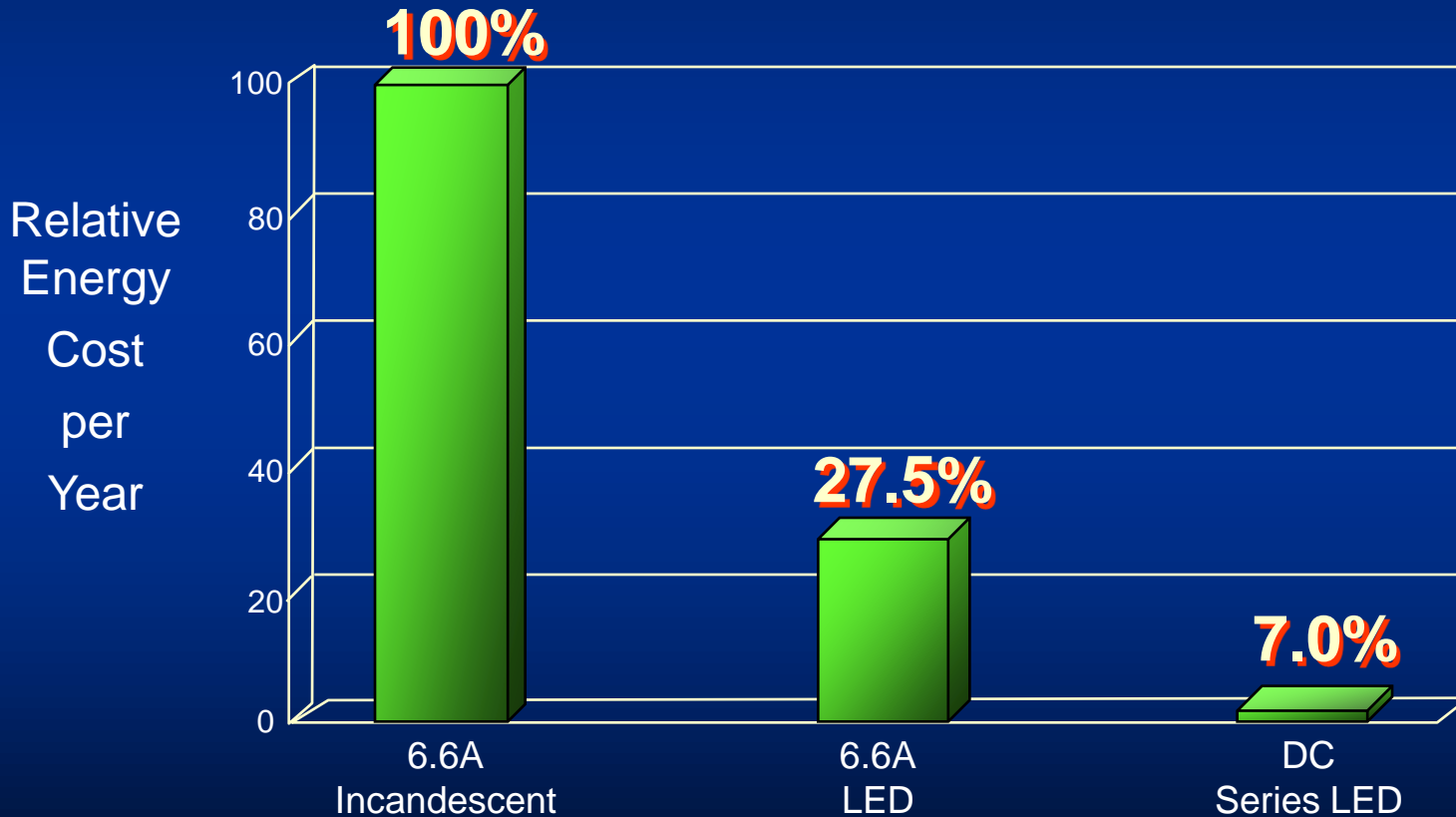
DC PWM Series Circuit LED Power System



- Voltage in phase with current (nearly resistive load)
 - Load PF ~1.0
- Max voltage 600V or 1000V

System Energy Use Comparison

- Based on average energy use for 100 elevated taxiway edge fixtures



STANDARD PRODUCT LINE



Solar Aviation Wireless Light
(SAWL)



Solar Aviation Taxiway & Obstruction Light
(SATO)

Preguntas