

High Value Research Sweet Sixteen

Energy Management Program for SDDOT

SD2008-07



Daris Ormsher
SDDOT
Office of Research
July 16, 2013

AASHTO RAC
and TRB State
Representatives
Annual Meeting
Baton Rouge, Louisiana



Objectives

1. Evaluate existing energy management strategies
2. Investigate the feasibility and benefits of implementing a comprehensive, centralized Energy Management Program at SDDOT.
3. Develop an agency-wide Master Energy Management Plan.





Comprehensive Energy Management Program

1. Energy Management Program
2. Master Energy Management Plan



Master Energy Management Plan



1. Phased implementation
 - a. Easy-to-implement
 - b. Higher intensity
 - c. Advanced





1.Phase I

- a. Energy and cost savings of 5%
- b. Payback in two years or less

2.Phase II

- a. Energy and cost savings of 15%
- b. Payback in six years or less

3.Phase III

- a. Energy and cost savings of 25 %
- b. Payback in 10 years or less





1. Phase I

1. Energy audits (self assessment)
2. Measurement and Verification
3. Conduct Energy Audits

2. Phase II

1. Advanced self-energy audits
2. Smart building controls
3. HVAC improvements

3. Phase III

1. Utilize renewable technologies
2. Energy audits
3. Aggressive new construction energy standards

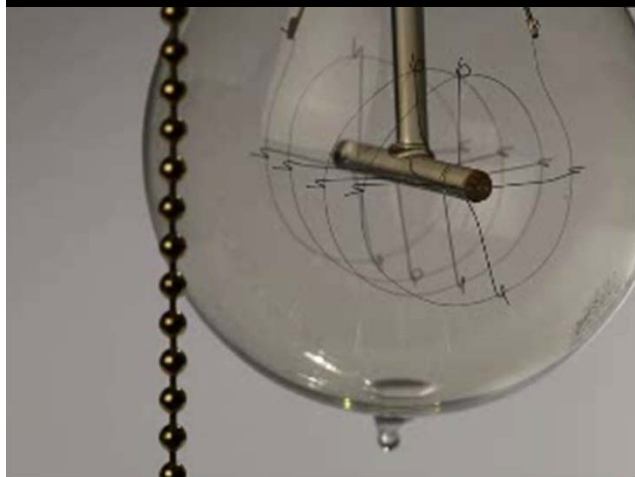
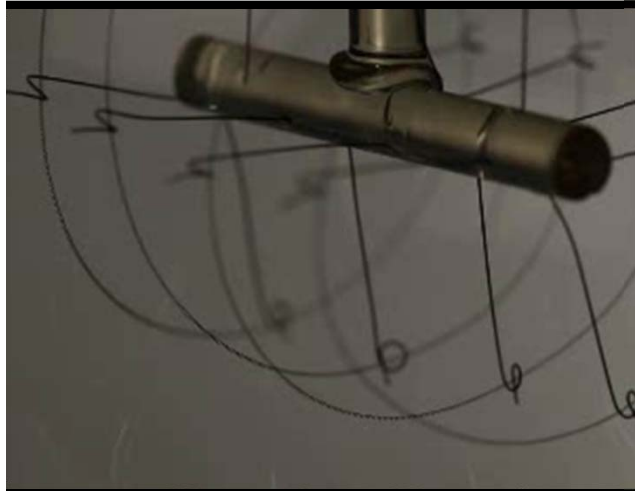




Current Status

1. Formed Energy Management Team
2. Appointed Energy Manager
3. Draft Energy Management Program





**“We now
know a
thousand
ways not
to build a
light bulb”**

Thomas Alva Edison