

# Proposition 39: What's in it for you?

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## Panelists:



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# Introduction



- Moderator: **Charlotte Doepker**, *Assistant Vice President*, Keenan
- **Paul Whitelaw**, *Senior Vice President*, Willdan Energy Solutions
- **Greg Hayes**, *Communications Director for Senator Kevin de León* (D-Los Angeles)
- **Tim Marsh**, *Administrative Director of Facilities Support Services*, Newport-Mesa Unified School District (NMUSD)
- **Chikezie Nzewi, PE, CEM, CBCP, LEED AP**, *Energy Efficiency Engineer*, Willdan Energy Solutions

# Agenda



- **What is Proposition 39?**
  - Greg Hayes
- **How Proposition 39 benefits you**
  - Tim Marsh
- **Developing your project/program plan and leveraging other program funds**
  - Paul Whitelaw
- **Tips for successful implementation**
  - Chikezie Nzewi

# What is Proposition 39?



- **Proposition 39: 2012 legislation increases income tax for multi-state businesses**
  - Closes previous tax loophole, requires multi-state businesses to determine tax liability using California sales percentage
- **Generates estimated \$1 billion annually**
  - Dedicates \$550 million annually for five years from anticipated revenue increase to fund “energy efficiency and clean energy jobs” in California
  - \$2.5 billion estimated revenue over the life of initiative

# What is Proposition 39?

*(continued)*



- **Targets funds for K-12 schools and community colleges**
  - Public schools often rely on ballot initiatives, bond measures, or other types of windfall funding to fund energy efficiency (EE) projects
  - 89% for K-12 schools
  - 11% for community colleges
- **Districts apply for funds and obtain approval prior to receiving funds**
  - Energy Commission will develop simple application and approval process

# What is Proposition 39? *(continued)*



- **Fund allocation will be based on:**
  - 85% — Average Daily Attendance (ADA)
  - 15% — free school meal eligibility
  - Minimum grant amounts range from \$15,000 to \$100,000
- **Annual \$28 million revolving loan fund will finance assistance for continued energy savings investment**

# What is Proposition 39? *(continued)*



- **Large school districts will be required to invest at least half of eligible funds in projects valued at \$250,000 or more**
- **Small school districts will be allowed to bundle two years' worth of funds into the first year to make larger projects feasible**

# How does Proposition 39 benefit you?



- **Direct funding source for school EE planning and implementation**
  - Reduce energy operating costs
  - Free funds for other capital improvements
  - Improve healthy learning environments
- **Current school budgets may not have room for EE projects — leverage Prop 39 funds to expand current EE projects for greater savings**
- **Combine Prop 39 funding with existing utility rebate or incentive programs**
  - Stretch dollars farther and maximize energy savings



# Energy Efficiency Project Impacts



- **Newport-Mesa Unified School District participated in the Southern California Edison Public Schools Energy Efficiency Program, implemented by Willdan Energy Solutions**
- **33 schools in NMUSD received EE upgrades — installed various lighting retrofits and occupancy sensors**
- **NMUSD now saves **227** kilowatts and **1,457,227** kilowatt hours per year**
- **Annual energy cost reduction = **\$247,728\*****
  - *\*Calculated using an SCE-suggested utility rate of \$0.17/kWh for schools*

# Energy Efficiency Project Acceptance



- **Even the most financially-attractive EE projects (“no-brainers”) must be presented properly to gain district acceptance**
- **District politics may play a role in selecting EE projects to implement**

# Developing your Project & Program Plan



- **Comprehensiveness**
- **Phased approach**
- **“Persistent Energy Savings” project identification**
- **Staff and occupant behavioral training**
- **Audit practices and procedures**

# Implementing Energy Efficiency in Schools



- **Comprehensive approach – electricity, gas and water**
  - **Electrical:** lighting, control, window film, HVAC, refrigeration, pool pumps
  - **Gas:** kitchen-fume hoods, hot-water heaters, boilers
  - **Water:** faucet aerators, low-flow showerheads and toilets, sprinkler heads
- **Time horizon: consider developing phased approach**
  - **Phase 1:** lighting, controls, faucet aerators, low-flow showerheads, sprinklers
  - **Phase 2:** HVAC, fume hoods, pool pumps, central plant if applicable

# Implementing Energy Efficiency in Schools

*(continued)*



## Persistent Energy Savings

### ■ Materials/equipment

- Select measures that have sustained savings over time such as lighting, refrigeration and HVAC retrofits
- Controls – HVAC and lighting

### ■ Training

- Facilities management: procurement (“cut sheets”), controls operations
- Results in behavioral change for facility staff and students

# Implementing Energy Efficiency in Schools

*(continued)*



## Suggested Audit Practices/Procedures:

### ■ Walk-through Survey

- Record existing equipment (types and quantities)
- Use electronic recording system
- Analyze, determine and prioritize retrofit upgrades
- Strive for comprehensiveness
- Use standardized equipment lists/measures (DEER)
- Provide minimum equipment standards and warranty requirements

# Leveraging Other Funds



## Utility Incentives and Rebates

- **Example: 100 interior linear lighting fluorescent retrofits**
  - Replace four T-8 lamps (four ft.) with two T-8 Lamps (four ft.)
  - \$0.03/kWh incentive from utility
  - 15,417 kWh in savings after implementation
  - Gross project cost: \$4,829
  - Net project cost: \$4,366
  - 10 percent leverage obtained

# Leveraging Other Funds *(continued)*



- ***Example: air conditioner economizer repair***
  - Repair economizer unit on a five-ton package HVAC unit
  - \$35.00/ton of cooling incentive from utility
  - 1,080 kWh in savings after implementation
  - Gross project cost: \$1,000
  - Net project cost: \$825
  - 21 percent leverage obtained



# Leveraging Other Funds



## ■ Utility direct-install program

- 100 percent funding for materials and labor for select measures
- Use Prop 39 funding to expand project comprehensiveness
- Utility “emerging technology” incentives
- Incentives for up to 50 percent of project costs for emerging technologies

# Leveraging Other Funds

*(continued)*



- **On-Bill Financing**
  - Varies by utility
  - May have project cost minimum and maximum limits (for So Cal Edison, government and institution projects must have a minimum cost of \$5,000 and may not exceed \$250,000)
  - No-interest project funding repaid through energy savings
- **AB 78 and SB 73 provide \$28 million for low and no-cost financing**
- **Performance contracting**

# Tips for Successful Implementation



- **Effects on daily operations**
- **Communication during project implementation**
- **Consider lighting levels**
- **Safety**
- **Quality**

# Implementing Energy Efficiency in Schools



## Minimal installation disruption of daily operations

- Scheduling around the school day



- Michelle Montoya Laws



# Implementing Energy Efficiency in Schools

*(continued)*



## Communication during implementation

- Facility staff
- Principal, superintendent
- Teachers, faculty
- Students, parents



# Implementing Energy Efficiency in Schools

*(continued)*



## Lighting levels

- Pre- and post-installation lighting measurements
- Ensure sufficient lighting levels for teachers, students, management and executives



# Implementing Energy Efficiency in Schools

*(continued)*



## Safety

- Installation crew quality
- Training (helps develop workforce)
- Post-installation cleanup
- Coordination with class schedules and after school activities



# Implementing Energy Efficiency in Schools

*(continued)*



## Installation Quality

- Materials quality
- Installation inspection(s)
- Implementer and oversight agency post-inspections
- Healthier learning environments





# Summary



- **Comprehensiveness and healthier learning environments**
- **Good record keeping and audit procedures required for accurate reporting**
  - Energy saved, jobs created
- **“Persistence of Energy” savings, increased cost savings**
- **Training and behavior modification**
- **Materials and equipment standards affect quality and safety**
- **Leverage other programs and funding**



# Questions and Answers?

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participation!

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