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Reaching Future Customers Through K-12 Outreach

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Presentation Outline

- E SOURCE research on K-12 outreach
- Why focus on kids?
- School outreach case studies
- Recommendations



Why focus on kids?

- Kids are future utility customers
- Kids can influence their family
- Kids can influence their school
- Kids can influence their community



Goals of K-12 Outreach

- Enhance or create a positive image in the community
- Save energy
- Educate future customers



If your goal is to...

...**Enhance or create a positive image in the community**, your initiative should be:

- Visible
- A good experience
 - For parents, kids, teachers, and administration



PV Demonstrations



PG&E celebrates PV installations with a community festival at each school.

Courtesy: Pacific Gas & Electric

PV Demonstrations

Considerations:

- 1.2 kW vs 12 kW
- Pole or ground vs roof-mounted
- Ongoing maintenance
- Design and construction approvals
- Standard design for multiple installations
- Monitoring software
- Sponsor or create related curriculum and events



PV Demonstrations

Considerations:

- Design
- Maintenance
- Approvals
- Monitoring software
- Related curriculum and events



Contests

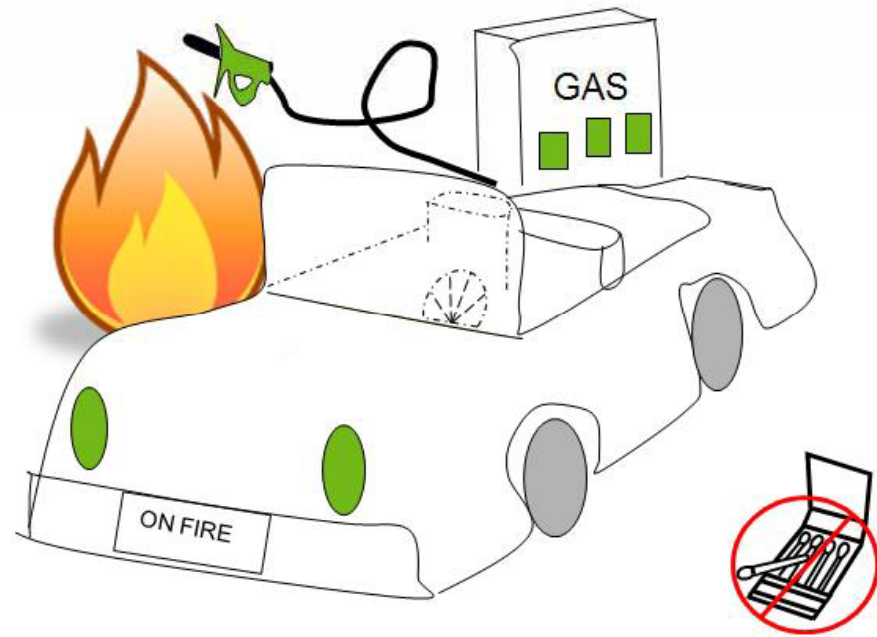
Examples:

- **Roseville Electric** - Calendar art
- **Snohomish PUD** – Calendar art, photography and essay contests
- **Kissimee Utility Authority** – Calendar art
- **BC Hydro** – “Invent the Future” video or essay contest
- **FirstEnergy** – “It’s Watt You Know” multi-media contest (video, PowerPoint)



Calendar Contests

How would you draw “energy safety”?



Source: E SOURCE

Contests

Considerations:

- Provide supporting curriculum
- Link to other programs or events
- Contest theme should fit format
 - Drawing Contests for **Environmental** themes
 - Science Fair for **Technical** themes
 - Essay Contest for **Policy** themes



If your goal is to...

...**Save energy**, your initiative can:

- Link energy curriculum to energy retrofit opportunities
- Involve students and teachers in finding ways to save energy
- Engage students and teachers to take action



Student Ambassadors



Bacon Elementary students give tours of their school's energy efficient design features.

Source: E SOURCE
(Amelia Tantila)

Student Audits and Patrols

Examples:

- **Hillsborough School District**
 - Student “Energy Teams”
- **Southern California Edison**
 - “Green Schools” (Alliance to Save Energy)
 - LivingWise® home audits (Resource Action Programs)
- **BC Hydro**
 - “School Campaigns”



Student Audits and Patrols

Considerations:

- Focus on behaviors or choices that students can impact
- Student safety
 - Access to mechanical equipment and meters
 - Transport of light bulbs
- The “pester factor”



If your goal is to...

... **Educate future customers**, you can:

- Create or sponsor development of unique curriculum
- Purchase materials for classrooms
 - Energy safety, energy fundamentals, energy efficiency, renewable energy
- Sponsor teacher training



Curriculum



- [TXU Energy Solar Academy - HOME](#)
- [About the Program](#)
- [Solar Installations and School PV Data](#)
- [Solar Curriculum and Weblinks](#)
- [Teacher Training and Registration](#)
- [Contact Us](#)

[En Español](#)



Solar Curriculum and Weblinks

TXU Energy provided a grant to NEED to sponsor over 240 sets of classroom curriculum and hands-on kits for participating teachers. Teachers are invited to register for a workshop in their community and will have the opportunity to select grade appropriate Science of Energy Kits and TXU Energy Solar Academy Kits for their classroom. This contribution provides over \$800 of materials to participating teachers.

The NEED Science of Energy Kit teaches about the forms of energy – heat, light, motion, chemical – and energy transformations. The TXU Energy Solar Academy Kits teach the properties of radiant energy and the ways in which we capture the power of the sun. Participants also receive a class-set of NEED Energy Infobooks (student readers) for the classroom.

Teachers participating in the program receive a full portfolio of NEED materials and curriculum guides. NEED guides are updated annually and are designed for use at the appropriate grade level. Teachers may find that they wish to use materials for older or younger students based on the capabilities of their students.

Primary

[→ The Sun and Its Energy](#)

Elementary

[→ Energy from the Sun – Teacher Guide](#)

[→ Energy from the Sun – Student Guide](#)

Intermediate

[→ Exploring Solar Energy - Teacher Guide](#)

[→ Exploring Solar Energy – Student Guide](#)

Secondary

[→ Photovoltaics – Teacher Guide](#)

[→ Photovoltaics – Student Guide](#)

For All Grades

[→ Schools Going Solar Guide to Using the PV System](#)



K-12 outreach initiatives benefit from supporting curriculum.

Assemblies



Captain Conservation
Florida Power & Light

**Use trained
performers
for
consistent
delivery.**



Energy Hog
Alliance to Save Energy &
Energy Outreach Colorado

Curriculum

Considerations:

- Curriculum requirements & test standards are key
- Teachers have limited time
 - Provide workbooks, checklists, spreadsheets
 - Provide complete lesson plans
 - Offer online downloads, ordering and booking
- One teacher or school can help many



Summary Recommendations

- Align curriculum with academic and testing standards
- Simplify lesson planning and delivery
- Find a champion
- Use online tools
- Take your message beyond the classroom
- Well-timed and personalized communications support program uptake



For More Information

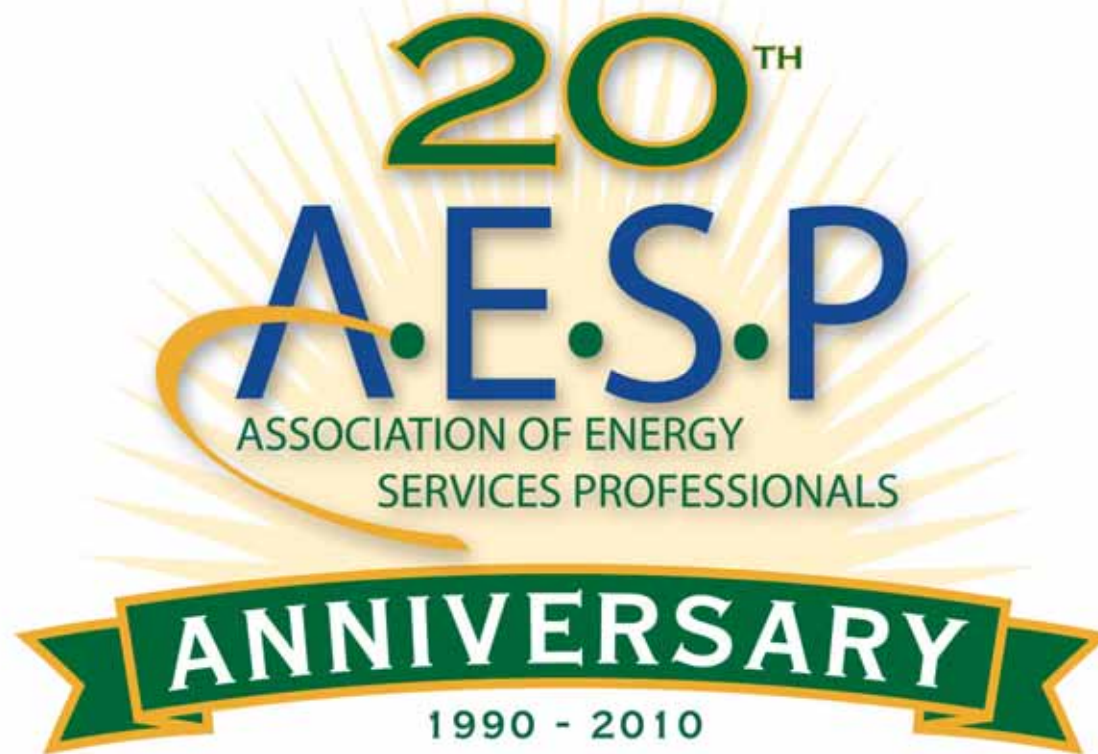
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