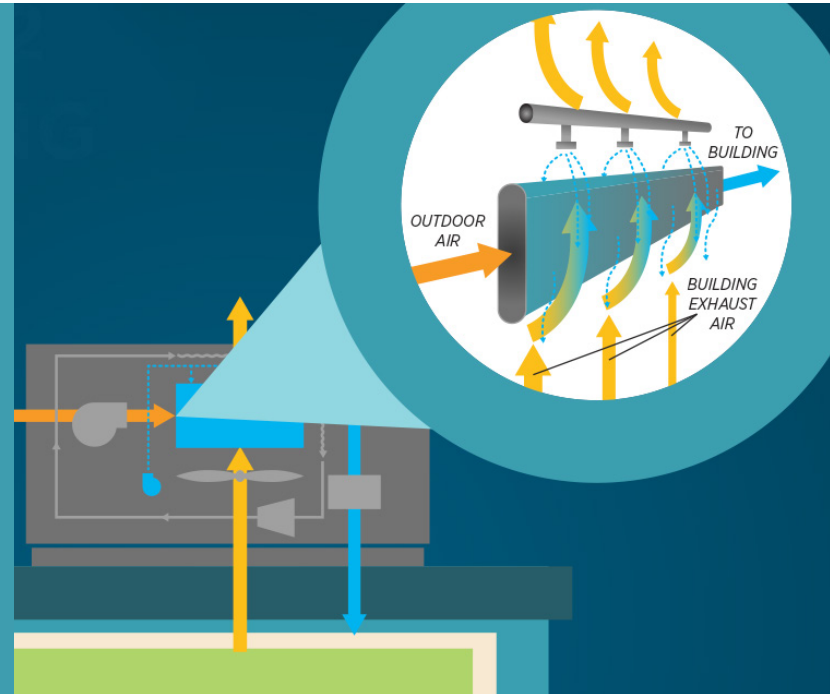


USING VIDEOS TO PROMOTE EVAPORATIVE COOLING ADOPTION



PROBLEM

Many stakeholder groups in the heating, ventilation, and air conditioning (HVAC) industry have a negative view of evaporative cooling technologies (ECTs). This view has been shaped by low quality products of the past and endures despite the availability of modern, high-quality evaporative cooling products. Western Cooling Efficiency Center (WCEC) research has identified a lack of good information and communication as a significant market barrier to adoption of climate-appropriate evaporative cooling products.

SOLUTION

Providing better information and communication is needed to encourage stakeholder adoption of ECTs. This WCEC study compared two methods of communicating information: outreach videos and manufacturer websites. While both methods were rated as equally informative by participants, research-based outreach videos produced higher levels of comfort and trust among stakeholders. **Outreach videos may be a promising method for communicating information about ECTs to stakeholders, especially if they come from trusted information sources and are distributed through professional industry networks.**

97% of HVAC stakeholders would recommend an outreach video to a friend or colleague.

TEST METHODOLOGY

WCEC researchers developed an online, survey-based intervention study, with a pre-test and post-test, to investigate whether outreach videos can effectively increase stakeholder understanding of and interest in ECTs. The survey questions were designed to reflect the motivations, goals, and knowledge of HVAC stakeholders. Individuals from across the HVAC industry in California were recruited to participate in the study.

- **Pre-Test**

Pre-test questions screened for study eligibility and asked about participant attitudes, experience, and beliefs regarding ECTs. Researchers then split participants into three groups and assigned them to a technology that was relevant to them, but with which they had no direct prior experience.

- **Intervention**

Once assigned a technology group, participants were randomly assigned to either the experimental group or control group. The experimental group was asked to watch the ECT outreach video, while the control group was asked to view the ECT manufacturer's website.

- **Post-Test**

Once participants had viewed the ECT video or website, they completed a post-test survey. Post-test questions addressed changes in attitude, knowledge, and motivation for adopting ECTs.

STUDY PARTICIPATION

WCEC researchers emailed survey invitations to 171 stakeholders. This invitation was also forwarded to 318 contacts at the Southern California Chapter of the American Society of Heating, Refrigeration and Air-Conditioning Engineers. In addition, researchers used a “snowball” technique to indirectly distribute the survey to additional stakeholders. Of the 489 invitations that were sent, 44 participants completed the study (9%).

OUTREACH VIDEOS

The WCEC created outreach videos for three evaporative cooling technologies: DualCool, Climate Wizard, and Munters EPX. Each video contained information deemed critical to addressing market barriers, including:

- Information on how the technology works,
- Evidence of its technical performance,
- Cost and energy savings estimates, and
- Testimonials from individuals who work with the technology.

Each video is about 14 minutes long and consists of narration, live interviews, on-location footage, and animated graphical assets. The finished videos can be viewed through the links under the resources section.

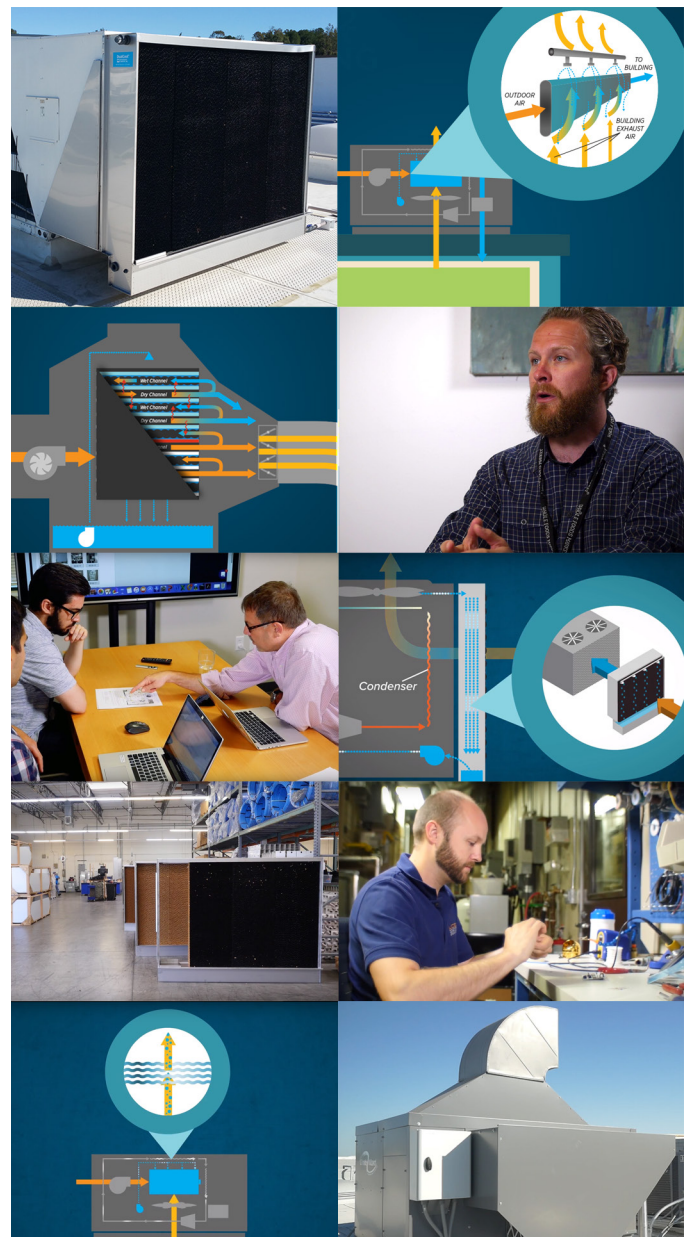
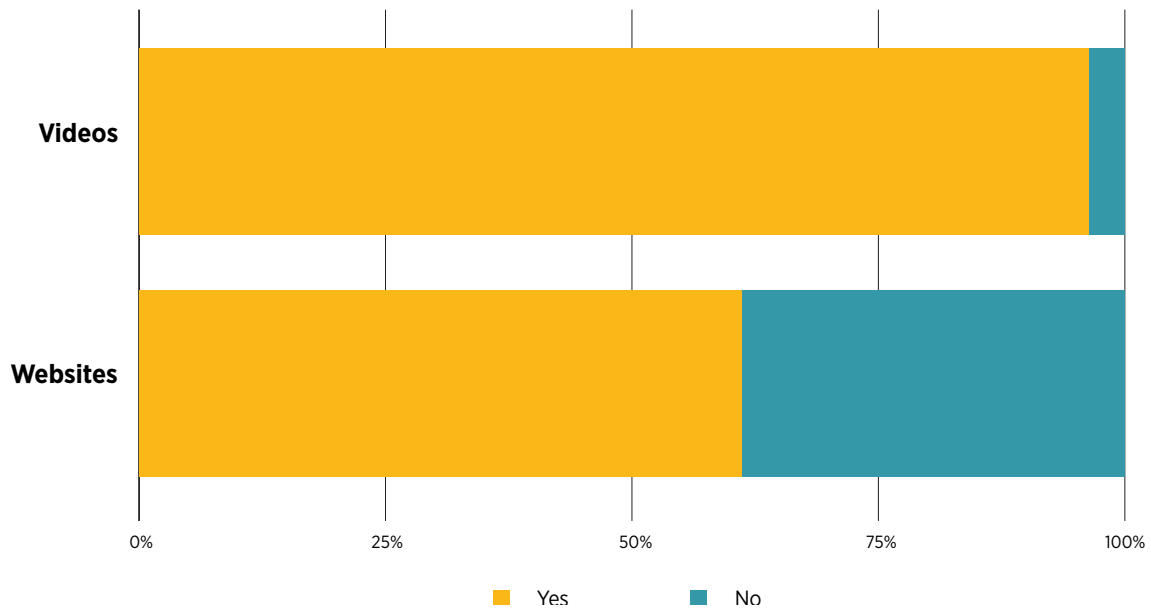


Figure 1 – Likelihood of Recommending the Information Source



RESULTS

Key findings include:

Trustworthiness

- When participants were asked whether they would recommend the video/website to an interested friend/colleague, 97% of video group participants said that they would recommend the video compared to 62% of website group participants, a statistically significant difference (Figure 1). In addition, videos were found to be more useful and trustworthy by a greater fraction of participants (Figure 2). Finally, researchers found that participants viewed universities, stakeholder peers, and state government agencies as the most trusted sources of information (Figure 3).

Comfort Level

- Nearly a quarter of video group participants reported being “a lot more comfortable” after watching the video, while none of the website group participants reported being “a lot more comfortable” working with the selected ECT technology.

Understandability

- Both videos and websites were effective at improving participants’ general understanding of ECTs; however, there was a statistically significant difference in the proportion of participants for whom the videos increased understanding “a lot.”

Figure 2 – Assessment of Informational Attributes

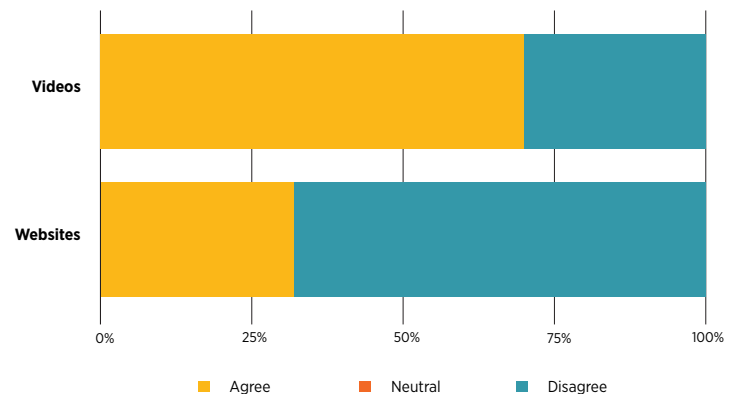
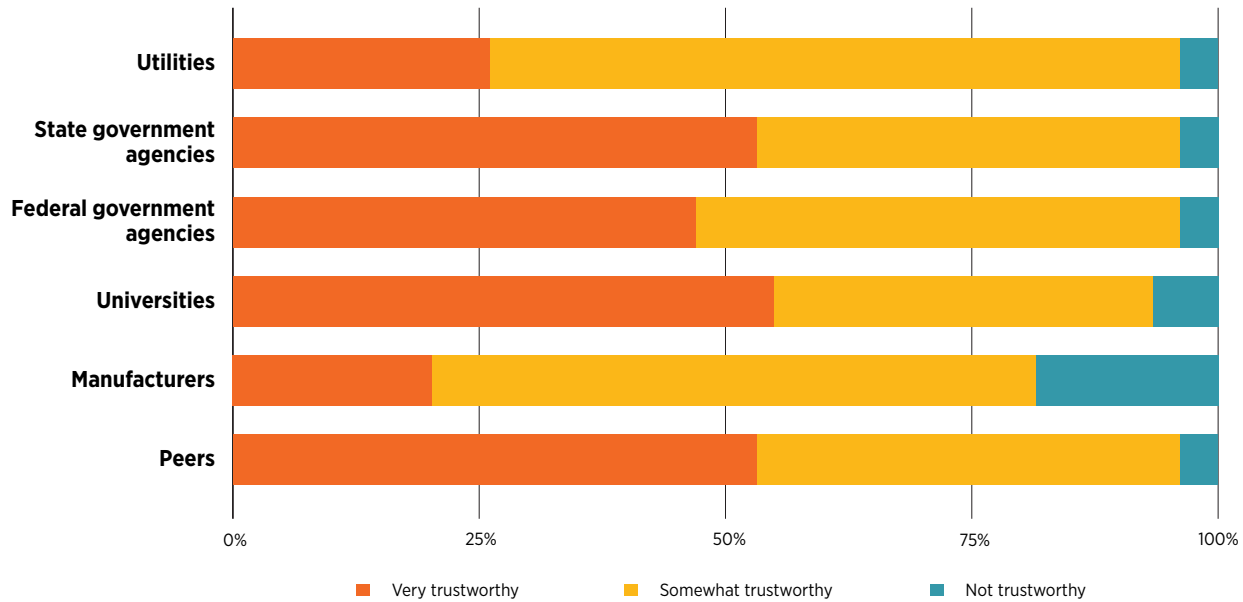


Figure 3 – Trustworthiness of Third Party Sources



CONCLUSION

This study suggests that videos are an effective platform for promoting emerging technologies, especially when disseminated through universities, stakeholder peers, and state government agencies.

RECOMMENDATIONS

- Consider creating outreach videos to convey information on emerging technologies.
- Segment long video content so stakeholders can view information based on their current stage in the adoption process.
- Disseminate outreach videos through trusted third party sources, including universities, stakeholder peers, and state government agencies.
- Support additional research to investigate whether there are systematic differences in video preferences, for example, among younger stakeholders.

RESOURCES

Videos

Evaporative Cooling Technologies: DualCool
https://bit.ly/WCEC_ECT1

Evaporative Cooling Technologies: ClimateWizard
https://bit.ly/WCEC_ECT2

Evaporative Cooling Technologies: MuntersEPX
https://bit.ly/WCEC_ECT3

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