When is Electricity the Best Energy Choice?

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Sr. Technical Executive
Three Dimensions of EPRI’s Value

To provide value to the public, our members, and the electricity sector
Electricity Use Has Grown Faster than Total Energy for More than a Century…What Will or Could Happen Next?

GROWTH DRIVEN BY EFFICIENCY, CONVENIENCE, SAFETY, AND LOW COST
Relationship Between CO2 & Electricity

the tighter the CO\textsubscript{2} cap, the greater the role electricity plays

What is Electrification?

Replacing alternative fueled energy end-use applications with efficient electric technology options while increasing consumer and societal benefit with the optimum energy choice.
National Technical Potential for Electrification

Source: DOE/EIA Annual Energy Outlook, Electricity use is about 13 Q (or about 19%) of Total Energy Use of 71 Q.
EPRI’s Approach to Efficient Electric Opportunities

ANALYTICS

Establish Industry Stakeholder Group
Conduct National, Regional, and Service Territory Assessments

TECHNOLOGY PIPELINE

Identify Early Stage Efficient Electrification Technologies
Accelerate Adoption Through Expanded EPRI Lab Capabilities and Field Demonstrations

R&D COLLABORATION

Develop Electrification Roadmap
Convene Efficient Electrification National Conference
Lead Development of Virtual Centers of Excellence

INFORM INDUSTRY STAKEHOLDERS, POLICYMAKERS, REGULATORS AND CONSUMERS
Major Efficient Electric Technology Opportunities

**HEATING AND COOLING**
- Advanced Heat Pumps
- Heating/Drying Technologies
- Thermal Storage
- Waste Heat Recovery

**TRANSPORTATION**
- Advanced Energy Storage
- High Power DC Charging
- Heavy Duty, C&I Applications
- Low Cost Hydrogen Fueling
- Autonomous and Other Advanced Mobility Technologies

**ALTERNATIVE PROCESSES**
- Agriculture
- Additive and Advanced Manufacturing Techniques
- Chemical Refining
- Material Production
Next-gen Heat Pump Technology

Provides Increased Efficiency and Higher Performance
Join EPRI for a Global Forum on Electrification

SAVE THE DATE
AUGUST 20-23, 2018 LONG BEACH, CALIFORNIA

• To gain an understanding of the quantifiable customer and environmental benefits of efficient electrification
• To learn about best practices for implementing efficient electrification programs to maximize customer benefit
• To experience the latest electrification-related technologies in action
• To collaborate with industry, government, and academic leaders

For more information, contact Info@Electrification2018.com

Scan here for the latest EPRI Efficient Electrification newsletter
Together…Shaping the Future of Electricity