

Viewpoint—Electrification: A Big Idea Is About to Get Much Bigger



As one of the most versatile forms of energy on the planet, electricity can be generated from many resources and used to provide many services safely and efficiently. It is the backbone of the digital economy. As an idea, electrification's application and benefits are continuing to increase. As the electric supply becomes cleaner, efficient electrification can reduce society's overall emissions. It can also improve energy efficiency, economic efficiency, water use efficiency, grid utilization efficiency, productivity, and safety.

Today, in the energy sector as a whole, I see efficient electrification, especially electric transportation, becoming a "Big Idea"—and one poised to get much bigger as energy sector stakeholders arrive at a common understanding of its potential to change the energy landscape.

As I write this in the early summer, EPRI is finalizing the agenda for [Electrification 2018](#), our first conference and exposition to bring under one roof electrification's stakeholders, innovators, and business interests. Personally, my enthusiasm for this event is rooted in my leadership at EPRI, in my career as a researcher, and in the satisfaction I take in a hands-on approach to technology.

It Takes a 'Big Tent' to House a Big Idea

Consider the [exposition](#), which will host nearly 100 companies and organizations covering virtually every aspect of electrification. Those attending can engage with people driving innovation and commercial opportunities in energy storage, advanced industrial processes, commercial building automation, zero net energy developments, and electric vehicle charging. (One company offers a charging station that you can take with you when you travel.)



Mike Howard, President and Chief Executive Officer, EPRI

We see significant interest in electrification and agriculture, with emphasis on indoor agriculture. But participants also can interact with people who have helped a traditional “outdoor farm” employ renewables in a microgrid configuration that includes the farm’s homegrown software innovations.

Also in the exposition will be innovators and developers working on systems architecture and platforms for the “Internet of things” and Blockchain. These provide opportunities to understand more clearly how transactional and energy management systems are instrumental in electrification’s central role in more dynamic and integrated energy networks.

This just scratches the surface of what is offered by this event (and more important, electrification overall). Looking beyond the conference itself, the key point is that electrification’s scope is much bigger than most people have realized. By bringing into focus the full breadth of its application and benefits, we can achieve faster, more integrated progress.

Digging Deeper

In broadening the scope of our thinking, we need to dig deeper as we go. [Pre-conference workshops](#) explore industrial processes, lean manufacturing, the foodservice industry, building electrification and decarbonization, and transportation.

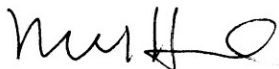
Breakout sessions provide in-depth discussion in five tracks: transportation, industrial and commercial/residential technologies, the regulatory/policy landscape, and understanding electrification’s cost and benefits.

C-Suite Perspectives

Through the conference’s three plenary sessions, we are framing executive perspectives on “the big idea” of electrification, the technology involved, and its economic aspects. These perspectives encompass utilities, venture capital, transportation (personal, industrial, and mass transport), industrial facility construction, environmental stakeholders, and regulators. These sessions will rely heavily on conversation among the leaders present, and we expect them to spark a great deal of conversation in the breakout sessions and in the exposition hall.

I think it is no exaggeration to say that electrification is rapidly outgrowing its traditional definition and its familiar boundaries. We expect the discussions, the scope of research, and the technological progress to grow. EPRI is actively encouraging the broadest possible participation as we go forward. The Big Idea is about to get much bigger.

Mike Howard



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