

In Search of Innovation

Innovation. It's what has set America apart. We can all think of inventions that have helped transform our country, even the world. But often it's been the companion or residual ideas – innovations we can't recall – that have quietly but surely made life better.

Consider the telephone. We know the story of Alexander Graham Bell and his call for help to Watson. But it was the less-celebrated developments in networking and switching over the years that have allowed us to pick up a phone in our kitchen or office and connect with people around the world instantaneously.

We are now entering a tremendously innovative time in the energy industry. Wind turbines and solar panels are sprouting up around the nation and plug-in automobiles are expected to be in showrooms in the not-too-distant future.

Perhaps even more significant are technologies that will support these innovations. Far from the spotlight, developments in the storage of electricity, for example, may end up being the key to a long-term energy revolution.

Currently, no reliable, low-cost method exists to store electricity, which generally must be used when produced. This has been an impediment to the emergence of alternative energy sources.

Solar power is not able to satisfy demand

for energy around the clock. It generates energy only when the sun is shining – not at night or on a cloudy day. A passing cloud can cause a quick drop in solar electric production. Wind power has the same limitation: It is not constant or predictable.

But imagine if energy from the sun or wind could be stored.

Current battery storage technology is getting better with improved performance and lower operating costs. Much hard work

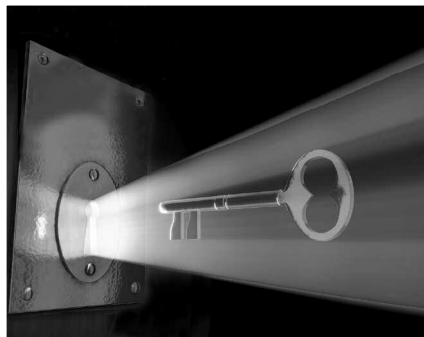
is being done to find cheaper and more efficient storage by such organizations as the Electricity Storage Association (of which PSE&G is a founding member) and the Electric Power Research Institute (EPRI) energy storage research program (to which PSE&G is an advisor).

Battery storage technology could greatly aid the expansion of solar and wind power – and even vastly im-

prove those plug-in cars.

Government-sponsored research efforts should give greater priority to this area. Advanced electric storage could easily be the unsung innovation that truly unlocks the total potential of alternative energy to improve our lives.

What's your view? Please let us know at Opinion@PSEG.com



Battery energy storage could aid the expansion of solar and wind power



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