From: Cherry, Brian K

Sent: 3/19/2013 7:40:21 AM

To: Mark J. Ferron (mark.ferron@cpuc.ca.gov)

Cc:

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Subject: Fwd: POLITICO Opinion - Modernize Our Outdated Energy Infrastructure

FYI.

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From: News Flash < newsflash@pge.com > Date: March 19, 2013, 7:23:33 AM PDT

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Subject: POLITICO Opinion - Modernize Our Outdated Energy

Infrastructure

**Reply-To:** <newsflash@pge.com>

POLITICO published an opinion piece by PG&E Corp. Chairman, CEO and President Tony Earley and International President of IBEW Edwin Hill calling for the investment in new electric and natural gas infrastructure across America.

## Modernize Our Outdated Energy Infrastructure

By Tony Earley, Edwin Hill

POLITICO - Opinion, March 18, 2013

## http://www.politico.com/story/2013/03/modernize-our-outdated-energy-infrastructure-89026 Page2.html#ixzz2NxC3T3b0

Imagine buying the latest computer with access to all the state-of-the-art games and programs — and then trying to access the Internet through a rotary phone. Forcing the latest technology to rely on outdated delivery systems doesn't make sense in telecommunications, and it doesn't make sense in energy either. Yet that is what America would essentially be trying to do if we don't invest in our basic energy infrastructure.

Even as the national debate on carbon emissions rages on, our nation is undergoing a boom in clean energy innovation that is helping to reshape America's energy future. President Obama seized on this progress in his State of the Union address and made a strong case for more investment in cleaner energy sources and better efficiency, from natural gas and renewables to smarter electric grids.

But if we are serious about speeding the transition to more sustainable technologies, as the president called for, we also need to get serious about making new investments in the nation's basic energy infrastructure, which is still the backbone of our energy economy. It will do America little good to be the world leader in energy innovation if the other core components of the grid are not similarly advanced enough or reliable enough to get the power to the end user.

Yet the reality is that, a lot like our interstate highway system, vast portions of our power and natural gas networks were built in the post-World War II era. After half a century, critical parts of the system are reaching the limits of what they were designed to do. These limitations threaten to hold back progress toward our longer-term energy sustainability and security goals.

To his credit, the president touched on this challenge when he said America's energy sector is part of an aging infrastructure badly in need of work. But while age is a crucial factor, it's not the only reason we need to invest.

Integrating new technologies and new energy sources into our existing grid is not a simple matter of "plug and play." Introducing technologies like distributed generation and electric cars on a large scale brings with it real-world engineering and operating challenges. Many of these can't be addressed without upgrading or strengthening the supporting infrastructure.

Take renewables, for example. For all their benefits, power from solar and wind resources can be highly variable. As these resources become a bigger share of our overall energy mix, we need infrastructure to support them, from backup generation to new transmission and other technology that can keep power flows on the grid stable as renewable output fluctuates.

Vehicle electrification is another example. Charging an electric car can draw almost as much energy as a small home. Supporting large numbers of electric cars will require upgrading neighborhood electric distribution systems and installing new transformers and other equipment.

One leading study estimates the power industry alone needs to make as much as \$2 trillion in basic system investments over the next couple of decades. By any measure, that's a sobering figure. Fortunately though, it also comes with some good news.

These investments can put tens of thousands of Americans back to work. One analysis estimates that modernizing and upgrading the electric transmission system alone could create an additional 150,000 to 200,000 jobs every year over the next two decades. Investments Pacific Gas and Electric plans to make in the next several years in California are expected to support as many as 30,000 jobs. Moreover, this work is laying the foundation for future growth in a world where affordable, reliable and clean energy is only going to become more vital if America intends to stay competitive.

The president is right that "no area holds more promise than our investments in American energy." But if we hope to realize this promise, we need to reverse the trend of underinvesting in our basic energy infrastructure over the past 20 years. With our long-term clean energy and energy security goals hanging in the balance and a workforce ready to put its skills to the task, the time to start is now.

Tony Earley is chairman and CEO of PG&E, one of the country's largest gas and electric utilities, serving 15 million people and with 21,000 employees. Edwin Hill is the International president of the International Brotherhood of Electrical Workers, which represents approximately 750,000 union members and retirees.

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