

## **Ferguson: Energy Matters**

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### **AB 32 Reality Begins To Sink In.**

This week I was invited to give a presentation to the Clean Energy States Alliance, an invitation I happily accepted. CESA is the organization of energy professionals who manage the various state clean energy funds. They are very interested in California's new global warming law, AB 32, and how implementation may proceed.

These experts regard the challenges presented by AB 32 as extremely complex. Energy professionals near and far are beginning to understand how difficult it will be to meet the goals California has set for itself.

It is a given, of course, that California lights must stay on. It is also a given that California's population will grow - an increase of 18 percent is expected by 2020.

Despite these facts, AB 32's greenhouse reduction goals imply that California's electricity sector will burn no more natural gas in 2020 than it does today. It must reduce imports of coal-fired power by nearly 50 percent by 2020. Consequently, if the lights are to stay on for a growing population, electricity from nonfossil, renewable resources must quadruple - in a mere 14 years.

When the facts are presented in these stark terms, seasoned experts are shocked that California would even consider passing such legislation.

There are alternative scenarios to meeting the AB 32 goals. Natural gas consumption could be allowed to grow slightly if coal-fired imported electricity were to decrease by more than 50 percent. But this would require expanding nonfossil generation even more rapidly.

Or, if technology to capture greenhouse gas emissions from power plants, especially coal-fired power plants, were to become a reality in the next 14 years, electricity from plants permanently sequestering carbon dioxide could be used in California in place of nonfossil resources. (The likelihood of increasing hydroelectric and nuclear generation before 2020 is considered remote.)

There is general agreement, however, that the most feasible scenario is the quadrupling of renewables. It is extremely challenging, but not impossible.

Additional investment in energy efficiency will slow load growth and decrease the amount of new generation required.

California has adequate renewable resources. Several studies, including one done by the Energy Foundation at the behest of the California Public Utilities Commission, have identified commercially viable renewable resources sufficient to meet the generation needs of the state. New investment in a mixture of geothermal, wind, solar, and biomass generation could, in fact, provide the additional required electric energy. Wall Street has already indicated that the \$50 billion or so required could be made available.

New transmission lines will also be needed to bring this electricity to consumers, and 14 years is adequate time to do so. After all, NASA has declared that it will build a permanent manned outpost on the moon by 2020. At least meeting the AB 32 goals doesn't require rocket science.

What seems to be lacking in the AB 32 discussion is any sense that the politicians in Sacramento understand the scope of the challenge. U.S. Senator Barbara Boxer plans to invite our governor to Washington to expound on our wonderful goals, but does either of them really understand what needs to happen in the real world if these goals are to be met?

To be taken seriously, the governor needs to start talking about what changes must occur for his goals to be realized. Imagine a press conference in which the governor begins by saying:

"To meet California's greenhouse gas reduction goals and limit global warming, our state will be using no more natural gas in the year 2020 to generate electricity than we do today.

"We will also significantly reduce our dependence on coal-fired power from neighboring states until these plants can permanently sequester carbon dioxide and prevent it from warming the globe.

"We will keep the lights on for our growing population by increasing our investment in energy efficiency and clean, renewable energy resources. By 2020 we will quadruple the amount of electricity we generate using energy from the sun, the wind, and the earth.

"The new energy economy will be fantastic!"

Now that would be a press conference worth watching.

Without such evidence of a clear understanding of what's required, experts are left wondering whether the commitment is real. Let's hope the reality of AB 32 sinks into Sacramento.

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