

**PROGRAM SUMMARY FOR KEVIN GUNN  
COMMISSIONER, MISSOURI PUBLIC SERVICE COMMISSION  
2009 EISENHOWER FELLOW TO AUSTRALIA**

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Kevin Gunn traveled to Australia to identify best practices in energy efficiency and utilization used by Australian political entities to create an integrated energy policy that recognizes a need for less reliance on carbon based fuels while balancing the economic needs of the country. Mr. Gunn concluded that Australia is poised to become the leader in global climate change. He observed that Australians have designed a Carbon Pollution Reduction Scheme (CPRS), which is better known in the United States as “cap and trade”; created a Renewable Energy Target; are developing new carbon capture and sequestration technologies; and exploring alternative sources of electricity generation.

In Australia, Mr. Gunn found some specific best practices that could be replicated in the U.S. regarding the generation, delivery, and cleaning of energy. The first best practice Mr. Gunn examined was the Carbon Pollution Reduction Scheme (CPRS), Australia’s version of cap and trade. The CPRS caps the amount of carbon emissions and then issues permits for emitters. If a polluter emits less than is allowed under its permit, it may trade, on an open market, its allowances. The environmental impact is the same because the total amount of emissions is capped at an acceptable level. Compensation in the form of direct government payments will go to offset any adverse consequences to impacted industries. The permits will, over time, expire as Australia slowly transforms to a zero carbon economy.

A second best practice Mr. Gunn identified was the expansion of the Renewable Energy Target. The Council of Australian Governments (COAG) agreed to the design of the expanded national Renewable Energy Target (RET) scheme to implement the Government's commitment that 20% of Australia's electricity supply comes from renewable energy sources by 2020. The RET will accelerate the deployment of renewable energy technologies such as wind, biomass and geothermal. The next best practice Mr. Gunn found was the separation of entities within the energy market. The market parts consist of the Australian Energy Regulator (AER); Australian Energy Market Commission (AEMC); and the National Electricity Market Management Company Limited (NEMMCO). Mr. Gunn observed that the markets operate efficiently and that the structures that are in place seem to fit well into the model of separate generation, distribution, and retail markets.

According to Mr. Gunn, carbon capture and sequestration (CCS) is the most exciting best practice and field of development in Australia. He notes there are several pilot projects currently in development that test new technology as well as new techniques for geologic CCS; however, the potential for biologic CCS is the most innovative. Biologic CCS feeds carbon captured from power plants to algae in a specially designed bioreactor. The algae is then harvested and turned into commercially useful products, such as wet and dry cattle feed and biofuels. Mr. Gunn states that in the biologic CCS process the algae have commercially viable uses after the capture takes places. He adds that the scalability of the project could delay wide scale implementation as enough land must be located to build bioreactors to capture the enormous amounts carbon we produce.

Mr. Gunn visited the town of Portland in Victoria which is home to three large wind farms owned by the Pacific Hydro company. One farm, the Cape Bridgewater Project contains 29 two-megawatt wind generators. Cape Bridgewater powers homes, the wind turbines are built locally so creates an economic impact in the area, and creates an income for landowners who continue to raise cattle and sheep while the turbines turn. Mr. Gunn observed that Pacific Hydro has taken prime land in Portland, helped develop a local economic boost, cultivated community support while making a real impact through the use of renewable energy. He believes this project, which incorporates community buy-in, is a model project that US companies should learn much from.

The final best practice Mr. Gunn found was an energy efficiency initiative. coolNRG is an Australian based company involved in the mass distribution of compact fluorescent light bulbs. It teams with power companies or governments or both and uses mass media campaigns to distribute the bulbs. Mr. Gunn believes he can replicate this idea in Missouri.

Mr. Gunn deeply appreciates the hospitality shown by the Eisenhower Fellows of Australia; they provided him access to people and places in Australia that were invaluable to his experience. He plans to implement and champion for several of the best practices he examined in Australia.