

Political Connections

One Foot in the Future

By Ronald Brownstein

Hinges in history aren't usually obvious at the time. But with the distance of decades, a chance 1976 meeting in the Berkeley Faculty Club between Jerry Brown and Arthur Rosenfeld stands as a turning point in the way Americans have used and thought about energy.

At the time, Brown was California's eclectic young governor. Rosenfeld was an accomplished particle physicist (he had studied under Enrico Fermi) at the Lawrence Berkeley National Laboratory who had turned his attention to energy efficiency after the 1973 Arab oil embargo.

Brown faced a dilemma when he met Rosenfeld. Skeptical about nuclear power's safety, the governor opposed a plan from a San Diego utility to build a large nuclear plant called Sundesert. But he confronted pressure to help the state close a gaping projected shortfall between electricity supply and demand.

Rosenfeld offered Brown an alternative. Scribbling furiously on a napkin, he showed Brown calculations demonstrating that tougher efficiency standards for energy-gobbling refrigerators could save California as much power as Sundesert would produce. The state proceeded to block the plant, and in 1977 the California Energy Commission approved landmark efficiency standards not only for refrigerators but also for freezers and air conditioners.

That sequence of decisions raised the profile of efficiency as an energy source, powerfully illuminating that saving a kilowatt could be more economical than generating one. It solidified California's role as the forward edge of innovation in U.S. energy policy, a position the state has maintained ever since with initiatives in areas from building efficiency to renewable energy and carbon reductions. And it foreshadowed the unique influence that the indefatigable Rosenfeld would exert on energy policy for decades.

Rosenfeld, who is 83, retired on Wednesday from the California Energy Commission. Since that encounter with Brown, he has consistently enriched the national energy debate—as the founder of the Center for Building Science at the Lawrence Berkeley Lab in the 1970s; later as an adviser to President Clinton's Energy Department; and since 2000 as a member of the state energy commission. He

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hasn't lost a step. In 1978, the California commission used his computer program to formulate its breakthrough energy-efficiency standards for buildings—standards that have been emulated by other states and countries. In the past few years, he has led the commission's efforts to replace conventional heat-trapping black roofs with energy-saving white or “cool-color” alternatives, another innovation with huge conservation potential.

From whatever post, Rosenfeld has argued that energy efficiency, as he wrote recently, “is by far the fastest, cleanest, and cheapest energy resource available.” His audience has extended to the highest levels of government, not only in Sacramento but also in Washington. “He's a national resource,” former Vice President Gore told me last year. Rosenfeld has equally affected House Energy and Commerce Committee Chairman Henry Waxman, D-Calif., who included major conservation provisions—among them tougher national appliance and building efficiency standards—in the climate-change legislation that he steered through the House last summer. “We looked to Dr. Rosenfeld's many successes for inspiration,” Waxman said this week. “Energy efficiency will be at the heart of any clean-energy legislation we enact this year.”

In some ways, efficiency is a bright spot in the nation's long struggle to devise a sustainable energy strategy. Per capita U.S. energy use has declined only slightly since 1973, but the amount of energy consumed to produce each dollar of domestic product has been cut about in half over that period. The economic shift from manufacturing toward service employment explains some of that improvement, but much has resulted from public policies demanding savings, such as appliance efficiency standards and automobile fuel-economy rules.

Yet, whether measured per person or by economic output, the United States still consumes much more energy than Germany, Japan, and other industrialized nations. Rosenfeld, who is more tart than sugary, finds reason for optimism in the growing number of people worldwide who recognize that greater efficiency can reduce both energy costs and carbon emissions.

But he worries that progress is coming too slowly, especially to reverse the long-term threat of climate disruption. “We're just not set up as a society to take into account problems where the effects of today's wasteful ways ... show up 40 years later,” he says. That's a warning worth heeding, especially coming from a man who has operated for decades with one foot in the future. ■

rbrownstein@nationaljournal.com