Meet the Extraordinary Empire that is the Department of Energy

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By Llewellyn King

Becoming Secretary of Energy is like becoming ruler of the Austro-Hungarian Empire: You do best by letting the nationalities and religions alone unless they are giving trouble.

The Department of Energy is such a vast archipelago that the secretary, with whom responsibility for the whole rests, can't seek to know the details of every program or every division.

No doubt Jennifer Granholm, the 16th secretary, is in the process of finding out just how vast and disparate the DOE is. Her experience in running a large state, Michigan, should stand her in good stead: knowing what to delegate and when to intervene. After serving as President Bill Clinton's secretary of energy, Bill Richardson, was elected governor of New Mexico in 2002. To be sure, the state is almost a DOE colony with two mighty national laboratories, Sandia and Los Alamos, and the Waste Isolation Pilot Plant.

Three other secretaries stand out in my years of covering the department, going back to its predecessor agencies, the Atomic Energy Commission and the Energy Research and Development Administration, which existed from 1974 to the creation of the DOE in 1977.

First and foremost, James Schlesinger, a towering public service figure with an incredible resume: Chairman of the Atomic Energy Commission, Director of the CIA, and Secretary of Defense. A former editor at The Energy Daily said, "Jim knows where the bodies are buried. He buried them."

Second, Don Hodel who had been involved with energy most of his career. Finally, of course, Ernie Moniz who had been an assistant secretary and was ready for the top job. That he is a nuclear hand from MIT, where he ran the energy program, meant he was ready when he got the nod from President Barack Obama.

The national labs are the jewels in the crown not just of the DOE but, in some ways, of the whole government—and the whole world. They constitute an awesome array of talent and technology. They collaborate in research with partners around the globe in areas like nuclear safety, weapons security, nuclear fuel, and best practices.

If approved by the State Department, they collaborate on other matters, like reducing pollution and enhancing workplace safety. In Asia, for example, they worked on a better tuk-tuk (a three-wheeled motor vehicle used as a taxi) to eliminate the pollution from two-stroke engines. A great deal of lab research has traditionally been shared openly and evenly, although that tightened after 9/11.

During the Cold War when there was fear of an accidental nuclear detonation, Lawrence Livermore, the big weapons lab in California, shared safety knowledge with the Soviet Union, including developments in fail-safe switches and insensitive explosive in the warheads.

The 17 labs, owned by the government and operated by contractors, have no equal in the world. They encourage American industry to collaborate and are keen to sign collaborative agreements. However it is a slow, bureaucratic process.

For Sec. Granholm, the labs are her shock troops, able and willing but also demanding: they compete vigorously for budget dollars.

She will hear—and there is truth to it—that the labs are coddled. They are also our first line of scientific defense and creativity. They are there in cybersecurity; in new reactors; on the edge of medical discoveries where physics meets biology, and where probing the very nature of matter is undertaken.

In space exploration, deep-earth science and submarine propulsion, the labs are there. They have studied potholes in the roads and all sorts of ways of capturing carbon, short of banning the use of fossil fuels, to achieve a carbon-free future.

It is reasonable to believe that Granholm, by all accounts a brilliant woman, will seize on the labs and promote them as a national asset while using them as a kind of cover against the wilder hopes of the extremes of political expectation.

Mark Twain said that no one would endeavor to stand on the public podium and play an instrument without prior instruction, but there is no such inhibition when it comes to writing. That could be tweaked to no inhibition when it comes to advocating for a course of energy policy. If Granholm hasn't found that out yet, she will. Fortunately, she has at her command

this huge scientific organization, the labs, with excellent credentials which can make or knock down an argument.

The first-ever civilian nuclear reactor ran at the Idaho National Laboratory. Today, that lab houses cutting-edge nuclear testing and is host to the first small modular reactor from NuScale. Argonne National Laboratory in Chicago is pioneering other reactor designs.

The National Renewable Energy Laboratory in Golden, Colo., should be of special use to Granholm as one of her missions is to push alternative energy. That lab has carried forward renewable energy in a myriad of ways, from the construction of wind turbines to the switching that has made dispersed generation a reality.

While the labs can't fend off all the slings and arrows which are aimed at secretaries of energy, they are dependable battalions, dating back to the days of the Manhattan Project. Secretaries have found they can call on the labs' scientific prowess, but also their prowess in the world of ideas.

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