

S takeholders frequently tell us they're impressed by all the nuclear research we do at the Idaho National Laboratory, but they wonder why we don't do more work on renewable energy, like wind, solar and hydro. Well, the answer is, we do research in those areas, but our history and our expertise is in nuclear energy research.

We don't apologize for that: nuclear energy is a clean, safe, vital part of this country's energy mix (about 20 percent of the electricity produced in the United States is nuclear), and research done at the INL has played a vital role in the design and safe operation of every one of those reactors.

The INL (which began as the National Reactor Testing Station in 1949, and has had two other name changes over the years) performed the ground-breaking research into what kinds of materials work best in nuclear reactors, and in establishing safety limits for the operation of commercial nuclear power plants. That's what was envisioned when the former Atomic Energy Commission first decided that the 890-square miles of government-owned land on the relatively isolated Snake River Plain was the best place to pioneer sometimes dangerous nuclear work.

SO HOW DO THEY DECIDE WHAT TO DO AT THE INL?

Nuclear energy is a clean, safe, vital

part of this country's energy mix.



Our mission, which includes very important national security work, is continually evolving. As noted above, we have done work in areas like wind, hydropower and geothermal energy. National laboratories develop specific areas of expertise, based largely on the people who work for them, and the needs of the government at the time. When the government wanted to develop a geothermal energy project at Raft River in southern Idaho back in the 1970s, they turned to scientists at the then Idaho National Engineering Laboratory to manage the project. That led to an ongoing capability within the Idaho laboratory in geothermal energy.

The INL is owned by the U.S. Department of Energy, and frequently a program office within DOE will ask one of its national laboratories to get involved in specific research, or that office will seek research proposals from its national laboratories to carry out specific work. The INL competes for research funding with the other national laboratories, and occasionally with universities or even private industry. Such competition motivates the national laboratories to find and develop their scientific talent, so they can land such important research work.

But not every lab competes for every piece of research work that comes down the pike. Each national laboratory has its own role and mission, areas of research where they are exceptionally talented, or where they have outstanding research machines or capabilities. The National Renewable Energy Laboratory in Colorado, for example, is the nation's primary laboratory for renewable energy and energy efficiency R&D. Its "centers of excellence" are photovoltaics, bioenergy and wind technology. The INL may land a small piece of research work in any of those areas, but NREL is the leader in those disciplines and will likely receive the lion's share of funding for those missions. The INL's main mission, of course, is still nuclear energy. We have an excellent research tool in the Advanced Test Reactor, one of the premier test reactors in the world. We have a history of working in the nuclear industry, and we have very bright, talented scientists, engineers and technicians who take great pride in moving the nuclear industry forward. When DOE issued its requests for proposals to manage the INL back in 2003, it articulated a clear vision for what it wanted the INL to become: "a pre-eminent nuclear research, development and demonstration laboratory." While the lab continues to make significant contributions to national and homeland security, and science and technology, the INL's main goal remains to be the best nuclear research and development lab in the country.



