



University Boulevard, the arterial roadway through a new research corridor, now carries traffic to a procurement office building and six major R&D facilities including the Energy Innovation Laboratory, left, and the Energy Systems Laboratory, right.

Long, winding road to revitalizing INL's Research and Education Campus

By Rick Bolton, *INL Communications & Governmental Affairs*

A decade ago, it began with a vision. Call it a dream

Consolidate dozens of research labs scattered around Idaho Falls and the Department of Energy's Idaho desert Site onto a central campus, where researchers from throughout the nation — and the world — could converge to help solve pressing scientific, energy and national security challenges.

The former laboratories, most in poor condition or not sophisticated enough to accommodate current research and development, needed to be upgraded so Idaho National Laboratory could achieve its vision of becoming a world-class nuclear research and development center.

Today, a landscape that only eight years ago was open land has become a showcase of modern research labs and buildings, a gateway to INL's Research and Education Campus (REC).

University Boulevard, the arterial roadway through the corridor, now carries traffic to six major R&D facilities and a procurement office building. The new facilities — constructed using various private and public financing methods and all leased by INL — are worth more than \$117 million. The 346,000 square feet of new lab and office space, which incorporates two national scientific user facilities (including one LEED Platinum and two LEED Gold facilities), is a far cry from the previous scattered, inadequate laboratories.

How the University Boulevard corridor came to be is a winding tale of trial and error involving private and public entities willing to take a leap of faith in INL's future. It required a determined, persistent effort on the part of staff and management from both the DOE and INL managing contractor Battelle Energy Alliance.

Here are the nuts and bolts of that winding tale, which started with a vision that if INL built new research labs, collaborators and partners would come and bring more business growth.

Flexibility to achieve vision

In 2004, DOE defined the vision for the new INL. Battelle Energy Alliance proposed the strategy and plan to implement the vision. DOE's philosophy was to give the management & operations contractor the flexibility and leeway needed to accomplish the vision, and hold the contractor accountable for its resource commitments.

Before that, the last major DOE capital investment in the REC was the INL Research Center in 1984, and the last commercial lease investment was the Engineering Research Office Building in 1993. At the height of INL growth, in the mid-1990s, the lab had about 44 leased properties, including repurposed bicycle shops and grocery stores.



DOE awarded a 10-year contract to BEA in February 2005. The new contractor's purpose was to transform parts of two uniquely different national laboratories into the newly formed Idaho National Laboratory, and to become the pre-eminent, internationally recognized nuclear energy research, development and demonstration laboratory within 10 years. INL was formed by combining the former Argonne National Laboratory-West and the R&D portion of the former Idaho National Engineering and Environmental Laboratory.

BEA set about aggressively streamlining, upgrading and planning for a new infrastructure. The INL Infrastructure Transformation Plan of September 2005 offered an overall roadmap for transforming INL to meet the new vision. A key goal was to procure 400,000 square feet of new facility space



Click the image above to view a virtual flyover video of the new campus.

The Energy Systems Laboratory has 54,000 square feet of reconfigurable laboratory space plus a large laboratory for biomass feedstock characterization.

to replace the multitude of dispersed and poorly suited leased spaces.

DOE's Office of Nuclear Energy approved the plan for consolidating the INL Research and Education Campus in December 2005. The plan sought to add or replace 200,000 to 500,000 square feet of professional scientific space that was in fair to poor condition. The Master Campus Plan requirements document and environmental assessment were approved in January and March

2007 respectively. They defined the campus location and the REC boundaries.

Alternative financing approaches

Initial financing attempts proved to be too lengthy and difficult to achieve. The new strategy was to keep the original target of 200,000 to 500,000 square feet of new space, consolidate existing scattered leases, and pursue developer-financed facilities in smaller incremental sizes. INL then pursued numerous alternative financing approaches. It divided projects into smaller increments that local developers could more easily finance, and encouraged developers to offer projects that best suited local market conditions.

Among the lessons learned from University Boulevard expansion were:

- Community, state and local developers should show significant interest and initiative in helping the lab meet its strategic vision; strategic planning starts years ahead of groundbreaking, and plans must be flexible and include options (size, cost, capabilities);
- Strong business cases are critical to success with developers and governmental decision-makers;
- Multiple funding (community, state, federal, universities, developers) sources need to be considered; and
- Communication between all stakeholders and decision-makers is critical.

Certain aspects of the revitalization of INL's Research and Education Campus have captured the interest of others in the DOE complex: All facilities are leased, general-purpose buildings; no government land is involved and there are no DOE capital investments (except for the utility corridor); and facilities were developed by others (local developers, state of Idaho, state universities, and private funding).

For INL, the decade-old infrastructure dream has become a reality on University Boulevard.

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The Center for Advanced Energy Studies is a partnership between INL and Idaho's three public research universities.



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