Idaho National Laboratory (INL) Mission

“Actively and effectively support INL’s mission as a multi-program laboratory with an emphasis on emergency and national security, which includes a railroad crossing, research quantities of spent fuel, and the Idaho Regional Optical Network (IRON).”

Railroad Crossing
Idaho’s current method of sales tax distribution to cities is overly-complicated and is based on outdated and data. Multiple entities are seeking a reinvigorated effort to secure a railroad crossing that unites the University Place and Center for Advanced Energy Study campuses. The Greater Idaho Falls Chamber of Commerce (GIFCC) understands the difficult nature of achieving this long-term objective, but seeks a renewed focus by the Governor, Legislature, Congressional Delegation, City of Idaho Falls, Idaho National Laboratory, Union Pacific, and other interested parties in finally achieving a successful outcome. We note that the acquisition of this rail crossing is made even more critical given the upcoming construction of two new research facilities on INL’s University Boulevard Campus.

Previous efforts to secure this crossing have been stymied for a variety of reasons but most prominently by a reluctance on the part of Union Pacific to add any at-grade crossings without the removal of at least two or three other at-grade crossings. For Union Pacific, this is a safety and liability issue. While there may be no specific legislative fix to this matter, the education of legislators on the issue and their potential involvement in discussions aimed at seeking approval of the crossing, and perhaps funding for the crossing, could be necessary in this or upcoming legislative sessions.

Research Quantities of Spent Fuel
The GIFCC fully recognizes the short- and long-term negative impacts to Idaho National Laboratory of not being allowed to acquire and utilize small amounts of nuclear materials for research and national security purposes. We encourage the Secretary of Energy, the Governor of Idaho, and the Idaho Attorney General to renew conversations aimed at ending the Settlement Agreement stalemate on this matter and seeking a path forward that ensures the Lab’s ongoing mission as our nation’s lead nuclear energy laboratory. We further seek the active involvement of the Idaho State Legislature in facilitating an expeditious and positive outcome for the State and the Laboratory.

The Lab is currently prohibited by Attorney General, Lawrence Wasden, from bringing in small quantities of research materials that come from commercial nuclear reactors due to the ongoing delays in startup of the Integrated Waste Treatment Unit. The Attorney General feels prohibiting all shipments of additional materials, even small quantities, is his only recourse under the 1995 Settlement Agreement to hold the Department of Energy (DOE) accountable. The Attorney General, however, remains willing to discuss this matter with the Governor and the Secretary of Energy in an effort to find common ground on future DOE actions that might allow the delivery of research quantities to resume.

Much like the railroad crossing issue, there is likely nothing specific the Legislature can do to remedy this matter, but educating legislators on the importance of this issue to the GIFCC and the economy of eastern Idaho is important. Further, urging the Governor, Attorney General, and the Secretary of Energy to resume negotiations/discussions is critical.

Idaho Regional Optical Network (IRON)
Support State funding toward ongoing maintenance of the Idaho Regional Optical Network (IRON). This critical funding will ensure Idaho’s colleges and universities have access to the full capabilities of INL’s two new facilities at their home campuses across the state.
Idaho Regional Optical Network’s role is to step up to the challenge of enhancing collaboration for Idaho’s Education Ecosystem through high-speed cost-effective bandwidth.

Therefore, IRON is striving to provide statewide educational access to the opportunities provided by Idaho National Laboratory’s two new buildings.

**BACKGROUND**

- IRON’s startup capital came from the eight charter associates’ contribution of $50,000 to $100,000 each. The Idaho Department of Administration was one of these initial charter associates.
- Battelle Memorial Institute also provided a $250,000 no-interest line of credit. This line of credit was paid back.
- An element of IRON’s funding model today targets infrastructure grants. The largest and most significant grant was $3.5 million from the J.A. and Kathryn Albertson Family Foundation (JKAF), which funded additional base infrastructure for IRON’s statewide network. The JKAF grant concluded in early 2017.  
  - IRON has taken on the additional responsibility of the maintenance and operation (M&O) of this $3.5 million statewide investment. Additional grant funds included participating university grants of $200K (U of I), $125K (BSU), and $140K (ISU).

A list of those contributing to IRON is shown below:

<table>
<thead>
<tr>
<th>Contributions</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Boise State University</td>
<td>Idaho National Laboratory</td>
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<tr>
<td>Bonneville County</td>
<td>Idaho State Department of Education</td>
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<tr>
<td>Bonneville Joint School District</td>
<td>Idaho State University</td>
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<tr>
<td>BYU Idaho</td>
<td>Lewis-Clark State College</td>
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<tr>
<td>City of Ammon</td>
<td>Nez Perce Tribe</td>
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<td>City of Moscow</td>
<td>North Idaho College</td>
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<td>College of Southern Idaho</td>
<td>St. Joseph Regional Medical Center</td>
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<td>Gritman Medical Center</td>
<td>University of Idaho</td>
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<td>Idaho Digital Learning</td>
<td>Washington State University</td>
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<tr>
<td>Idaho Hospital Association</td>
<td>Washington State University-Vancouver</td>
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**IRON’S FINANCIAL STATUS**

In addition to the $1.38 million of annual operating budget contributed by IRON Associates, $400,000 annually will be contributed by the educational components (ISU, U of I, BSU, INL, and BYU-I) to ensure reliability and sustainability of IRON’s existing 10g infrastructure and to prepare for a 100g upgrade.

Given Idaho National Laboratory’s willingness to collaborate with educational entities across the state, they are investing $2 to $3 million toward capital infrastructure to ensure 100g access to the new buildings in support of Idaho’s Education Ecosystem. This capital investment will require an annual $800,000 M&O budget to ensure sustainability and reliability across IRON’s 100g infrastructure. The universities and the State Board of
Education feel strongly enough about this enhanced collaboration network that they have joined growing, broad support for this budget request.

This $800,000 annual investment is the final piece necessary to create a unique educational ecosystem.

**HOW ARE FUNDS ALLOCATED**

The state’s contribution of $800,000 will be used for IRON network administration (including long-term dark fiber leases), equipment maintenance, labor for outage response, facility leases, and critical equipment refresh. This contribution does not include any charter associates’ internal network infrastructure.

Detailing how much will be spent on hardware, software, maintenance or any other item is difficult. IRON’s estimates are based on industry standards and best practices. In a cost analysis, the worst-case scenario was $1.1 million, best case was $700,000, and IRON selected the most likely scenario of $800,000. Expense categories include hardware refresh for equipment that fails out of warranty, software upgrades outside of the current license agreements, and labor for system administration, outage response, and vendor interface.

**NOTE**

IRON’s existing 10g network is adequate for any noneducational use. The 100g network is entirely for statewide educational/research collaboration. All non-educational traffic is under 5g today or incidental.