Goals (As presented 11/2010)

- Improve contractual vehicles
  - Update and streamline WFO and CRADA agreements
  - Create new opportunities to partner with industry

- Inreach
  - Educate tech transfer offices to improve consistency, streamline processes
  - Improve relationships with inventors to increase IP captured, manage expectations

- Outreach
  - Develop interagency relationships to improve coordination, synergies
  - Let industry know we’re open for business
TT Activities & Update

- America’s Next Top Energy Innovator
- Response to Presidential Memo on Technology Transfer and Commercialization
- TT Execution Plan (EPAct 2005 sec. 1001(g))
- New Contractual Vehicle
- SBIR TT
- Implementation of Technology Commercialization Fund
America’s Next Top Energy Innovator

- **Pilot Program**
  - **Template option agreement for any DOE patent***
    - $1,000 up-front fee
    - 12 month option
      - 6 month option with a 6 month no cost extension
    - Portfolio of up to 3 patents for a specific technology from a single laboratory
    - Deferment of patent cost for up to 2 years
    - Optional VC mentoring available
    - Showcased at ARPA-E Innovation Summit

*These are patents held by the contractors that manage DOE Laboratories. For DOE owned patents, license agreement with similar terms will be offered.
Round 1: Winners..

- 42 options to 36 companies
- 14 companies in competition
- Over 500K votes on website
- Top three winners (public vote/ internal review)
  - Umpqua Energy (Medford, Oregon)
  - Iowa Powder Atomization Technologies inc. (Nevada, IA)
  - Vorbeck Materials (Jessup, Maryland)

www.energy.gov/topinnovator
Response to Presidential MEMO: Section 1 & 2: Goals & Measure

Section 1: Motivation Behind Policy [No response req.]
- Innovation fuels economic growth & US Competitiveness

Section 2: Proposed Measures
- Include TT goals and measures in program and laboratory performance plans
- Include TT efforts by scientists and technologists in performance reviews
- Outreach/Inreach (No. of activities per year)
- Ratio of technology announcements to number of invention disclosures
- Ratio of invention disclosures to research expenditures at lab/facility per year
- Ratio of patents issued to patent application (rolling 3-yr average)
- Ratio of active patents ever licensed/optioned to total active patents
- No. of new commercialized technologies per FY
- No. of new startup companies and percent still in business after 3 years
- Economic contribution of commercialized technologies ($ value based on royalty)
Section 3: Streamlining

- Implementation of ‘Speed of Business Study’
  - Measure: Target a CRADA execution (60-day)
- America’s Next Top Energy Innovator Program
- Advance payment reduction
- Innovation Portal
- SBIR Program (noting SBIR Reauthorization)
  - Compress the award schedule
- Eliminate Phase I-II funding gap
  - More support, flexibility and transparency
  - More private sector reviewers
Section 4: Facilitate Commercialization through Local and Regional Partnership

- e-RIC Buildings Hub Cluster (Navy Yard)
- i-6 Green
- Individual Lab Programs (i.e., LANL)
- Asset Revitalization Initiative
- EERE Business Plan Competitions
- Enhanced Use Leasing (EUL) Authority
- DOE has requested authority from OMB
  - Will make a case in memo for EUL
  - Livermore Open Campus

7/21/2015
EXECUTION PLAN - GOALS

• identify and diminish or remove barriers to effective technology transfer

Reducing Barriers

• facilitate and promote the exchange of information to increase understanding of and familiarity with technology transfer opportunities across DOE

Communicating Opportunities

• facilitate understanding by multiple stakeholders of the results and impact of the technology transfer and commercialization activities of DOE Laboratories and Facilities

Increasing Industry Interaction

• catalyze interactions along the entire technology innovation chain between the private sector and the DOE Laboratories and Facilities

Communicating Outcomes
Interacting With Labs

National Lab

Licensing
CRADAs
WFO
User Facilities
Technical Assistance
Material Transfer
Personnel exchanges
Grants
Hubs
Entrepreneurial Leave

Private Sector
EXECUTION PLAN - TARGETS

**FY2011 Targets:**
- Revise and streamline the CRADA, along with Manual Chapter and Order
- Further reduce restrictions for advance payment requirement
- Streamline approvals for “net benefit to U.S.” when manufacturing Laboratory or DOE technologies outside the U.S.

**FY2012 Targets:**
- Revise and streamline the NF-WFO Agreements
- Develop a template License

**FY2011 (and on-going) Targets:**
- Develop or adapt materials in multiple media for delivery to a wide variety of stakeholders

**FY2011 Targets:**
- Establish HQ data gathering capabilities
- Enhance existing web presence

**FY2012 Target:**
Deliver coordinated data in usable format to multiple stakeholder audiences

**FY2011 (and on-going) Targets:**
- DOE presence or support at lab/industry events, technical meetings, technology showcases and similar events
- Study benefits of the LLNL Open Campus and other initiatives for possible other applications or support
Motivation for ACT

- RFI in 2009
- Engage the private sector in mission-compatible areas
- Better alignment of partnering practices
- Facilitate multi-party collaboration ‘virtual hub’
- Leverage contractor capability and capital
- Complement existing partnering mechanisms
  - CRADAs, WFO, User Facilities, Licensing
Noteworthy Changes

- IP lead negotiated between contractor and sponsor
- Modified “Government Use Rights” possible
- M&O Contractor assumes risk
  - Performance
  - Financial (e.g. Advance Payment)
- “March-in Rights”
- Speed of execution
- M&O Contractor succession provision
<table>
<thead>
<tr>
<th><strong>Advance Funding</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60 days, with some exceptions or approval by DOE</td>
<td>60 days, with some exceptions or approval by DOE</td>
<td>Level of payment based on existing WFO requirement of full cost recovery to Government. Contractor assumes responsibility for providing advance payment. ACT allows Contractor to be responsible for recovering costs from a Participant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Ownership of Intellectual Property</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor may take title to Lab-made inventions, except in case of federally funded WFO Sponsor or other applicable exceptions</td>
<td>Participant owns its inventions Lab owns its inventions Undivided rights in joint patents - Participant has option to license Lab rights</td>
<td>Contractor and Participant(s) negotiate an IP lead, covered by new patent class waiver</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Government Use Rights</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Government Use Rights</td>
<td>Full Government Use Rights</td>
<td>Limited Government rights for research purposes in many cases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Indemnification</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor indemnifies Government</td>
<td>Participant indemnifies Government</td>
<td>Government indemnification provided by Contractor or Sponsor, as negotiated</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Approval Process</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CO approves: (A) each WFO proposal (B) each exception to DOE terms and conditions</td>
<td>CO approves: (A) each CRADA proposal (B) each exception to DOE terms and conditions</td>
<td>CO approves each proposal under reasonable best efforts Performance may begin at Contractor risk with preliminary DOE approval CO does <strong>NOT</strong> approve terms and conditions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Notification of Alternative legal mechanisms</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Required if 100% Funds-In</td>
<td>Required includes the relative disposition of IP rights and the costs since these are modified under ACT</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Priority of Work</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>C.O. has authority to reprioritize</td>
<td>C.O. has authority to reprioritize</td>
<td>C.O. has authority to reprioritize</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Performance Guarantee</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>At Contractor’s discretion and risk</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Substantiation of IP Designation</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon request of patent counsel</td>
<td>Upon request of patent counsel</td>
<td>Upon request of patent counsel</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Successor Contract</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Required to accept WFO terms</td>
<td>Required to accept CRADA terms</td>
<td>Required to accept WFO terms May elect to accept project ACT terms if all parties agree Outgoing Contractor may retain ownership of IP if $20,000 has been invested or if successfully commercialized or deployed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Reporting</strong></th>
<th><strong>WFO</strong></th>
<th><strong>CRADAs</strong></th>
<th><strong>ACT PILOT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Within annual data call</td>
<td>Within annual data call</td>
<td>Additional data to be collected and semi-annual report</td>
<td></td>
</tr>
</tbody>
</table>
Implementation

- Industry sponsor must sign acknowledgment
- New DOE IP Class Waiver
- Applies only to non-federal clients
- No federal funds currently allowed
- Enhanced data rights for government
- Conflict of interest plan must be submitted
Driving Innovation

- Educate scientists/technologies about IP
- Engage entrepreneurs (within and outside)
- Cultivate entrepreneurial environment
- Support small businesses and start-ups
- Empower Tech Transfer Staff to negotiate
- Be facilitator not a gatekeeper
- Be sensitive to business and start-up needs

Get as many technologies out as possible!
How Can STEAB Help?

- Support implementation of TCF
- Be an early adopter
  - Assist in creating a market pull
  - Support start-up creation
- Facilitate outreach
  - Tell constituents about lab resources
  - Technology assistance programs
    - [http://techportal.eere.energy.gov/](http://techportal.eere.energy.gov/)
    - [http://techtransfer.energy.gov/](http://techtransfer.energy.gov/)
- Enhanced Use Lease Authority
Thank you!