

2007 Procurement Directors Conference

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- Lab Tech Transfer EPact 2001
- Other Transaction: Range Fuels
- EM awards
- BioEnergy Research Centers

Laboratory Tech Transfer: Recent Developments: EPACT Sec. 1001

- Secretary to appoint TT Coordinator
- Establish Tech Transfer Working group of labs
- Tech Commercialization Fund: 0.9 % of applied energy R&D budget to be used to provide matching funds with private partners to promote promising technologies for commercial purposes
- Annual Tech Transfer Execution Plan

Appointment of the Coordinator

- Dr. Raymond L. Orbach, Under Secretary for Science, appointed June 28, 2007
 - *(c) DUTIES OF THE COORDINATOR.—The Coordinator shall oversee—*
 - *(1) the activities of the Technology Transfer Working Group established under subsection (d);*
 - *(2) the expenditure of funds allocated for technology transfer within the Department;*
 - *(3) the activities of each technology partnership ombudsman appointed under section 11 of the Technology Transfer Commercialization Act of 2000 (42 U.S.C. 7261c); and*
 - *(4) efforts to engage private sector entities, including venture capital companies.*
- Technology Transfer Policy Board also established to Support the DOE Technology Transfer Coordinator and carry forth in the absence of a Coordinator
- Policy Board members
 - Career federal officials
 - Representatives from all programs plus MA, GC, and PI
 - Meets monthly

Technology Transfer Policy Board

- **DOE Technology Transfer Policy Board Membership** as of 10/19/2007
- **Chair: Dr. Raymond L. Orbach**, Under Secretary for Science
- **Members** Devon Streit, SC-32; David Koegel, SC-32; Jamileh Soudah; NA-116; Paul Detwiler, NA-1; Mary Egger, GC-60; Paul Gottlieb, GC-62; GC-62; Mike Curtis, PI-43; Michael Fischetti, MA-61; John Stamos, NE-31; Jay Braitsch, FE-24; Imre Gyuk, OE-10; Steven Chalk, EERE

Addressing EPO Act 2005 Requirements

- Establish Technology Transfer Working Group: letter sent to lab directors and field offices asking for appointment of official representatives
- Establish Energy Technology Commercialization Fund: Still under discussion
- Technology Transfer Execution Plan
 - Annual updates
 - First plan due Dec. 31, 2007
- Ombuds: Met with DOE ADR director

Other Activities

- Secretarial Policy Statement on Laboratory Technology Transfer
 - Reinforces importance of TT
 - Replacement for DOE Order 482.1 (expired)
 - Includes roles and responsibilities and guidelines
- Review of technology transfer mechanisms across DOE complex:
 - subcommittee empowered which includes some Board members, subject matter experts, field offices and lab technical advisors

Other Activities

- Meetings with Industry
- Greater transparency of DOE complex capabilities to the outside world
- “One stop shopping”
- Uniformity in use of technology transfer mechanisms

Draft Policy Statement Guidelines

- Facility implements Lab TT
- Royalties and equity are not **the** measure of success
- Importance of partners having substantial business plans
- Absent overriding mission objectives, consistency should be the rule

LAB TRANSACTION	USE	SUBJECT INVENTIONS	DATA	COSTS	US COMPETITONESS
CRADA	Collaborative Research between Labs and Private Sector Partners	Lab and Participant may elect title in its own inventions; Participant has right to negotiate exclusive license in Lab technology (statute)	Data may be protected from public dissemination for up to 5 yrs.	Shared between Lab and Participant	Products embodying IP resulting from CRADA shall be manufactured substantially in the U.S.
WFO Agreement	To provide access to highly specialized and/or unique facilities, services, or technical expertise	Sponsor may elect their own title to its own and to Lab subject inventions (Policy)	Sponsor may mark first produced data as proprietary with limited exceptions(Policy)	Sponsor pays full costs	Sponsor will not grant any party exclusive right to use or sell subject inventions in the U.S. unless products are manufactured substantially in the U.S. (Policy)(Note: Freedom Car exception)
SC Proprietary User Facility Agreement	Use of specialized Lab equipment only	User may elect title to subject inventions(no Government license or march in rights)	User may mark first produced data as proprietary with limited exceptions	User pays costs	User will not grant any party exclusive rights to use or sell subject inventions in the U.S. unless products are manufactured substantially in the U.S.
SC Non-Proprietary User Facility Agreement	Use of specialized Lab equipment only	User may elect title to subject inventions	Data is publicly available	Each party bears own costs	User will not grant any party exclusive rights to use or sell subject inventions in the U.S. unless products are manufactured substantially in the U.S.
NSRC Precompetitive User Facility Agreement (NSRCs)	Use of specialized lab equipment and collaboration with Lab scientists for pre-competitive research	User may elect title to subject inventions its own subject inventions	Data is publicly available	Each party bears own costs	User will not grant any party exclusive rights to use or sell subject inventions in the U.S. unless products are manufactured substantially in the U.S.
Deployment User Facility Agreement (NNSA facilities)	For NNSA facilities, Use of specialized equipment and Lab employees	Lab returns title to lab inventions	5 year data protection	Full cost recovery	User will not grant any party exclusive rights to use or sell subject inventions in the U.S. unless products are manufactured substantially in the U.S.
Freedom CAR	WFO Agreements and CRADAs	Normal CRADA and WFO principles apply	Data protection is subject to certain limitations, (i.e. data lists) that require that certain types of data remain publicly available	Normal CRADA and WFO principles apply	CRADAs and WFO Agreements are treated equally with a Program pre-approved NBS

Direct R&D Transactions with DOE: Other Transactions Authority

- Because EPACT “05” cites the DOD authority as basis for DOE authority, initially, DOE has chosen to follow DOD model
- IP flexibility emphasized
- Scenarios used to advocate for OTs were based on need for flexible IP based on real DOE transactions
 - Teaming Arrangements
 - Demonstration of new clean up technologies
 - software development for NNSA Supercomputers
- Motivation to do an OT: Top down?

Direct R&D Transactions with DOE: Other Transactions Authority

- The first TIA was executed Monday with Range Fuels in a Golden award
- For Awardee: Subject invention definition changed from “conceived OR first actually Reduced to practice” to “conceived AND actually reduced to practice”
- For DOE: March-in rights expanded from covering only subject inventions to covering as a contract provision all IP necessary to replicate facility

EM Awards

- Facility data clause and special data transfer provisions should be used in long term clean up agreements
- Invention reporting by awardees must be enforced: defensive patenting by DOE to protect against infringement claims

DOE BioEnergy Research Centers

- multidisciplinary teams of leading scientists to do advance research needed to make cellulosic ethanol and other biofuels commercially viable on a national scale
- Virtual centers involving diverse institutions, academia, non-profits and private sector.

DOE BioEnergy Research Centers

- **ORNL**
 - *National Labs*: Oak Ridge National Laboratory, National Renewable Energy Research Laboratory, Brookhaven National Laboratory
 - *Non-profit Research Foundation*: Samuel Roberts Noble Foundation
 - *Universities*: The University of Tennessee, University of Georgia, Georgia Institute of Technology, Dartmouth College, University of California at Riverside, Washington State University, University of Minnesota, Virginia Polytechnic Institute and State University, North Carolina State University, Cornell University
 - *Industrial Research Partners*: ArborGen, LLC, Mascoma Corporation, Verenum Corporation
 - BESC Commercialization Council
- **Great Lakes BRC**
 - *Universities*: University of Wisconsin, Michigan State University, Illinois State University, Iowa State University, University of Florida
 - *National Labs*: Pacific Northwest National Labs, Oak Ridge National Labs
 - *Industry*: Lucigen, C 5, 6 Technologies
- **LBNL**
 - *National Labs*: LBNL, Lawrence Livermore National Laboratory (LLNL), Sandia National Laboratories (SNL)
 - *Universities*: University of California–Davis (UCD), University of California–Berkeley (UCB), and the Carnegie Institution

DOE BioEnergy Research Centers: IP Management Plan

- Centralized licensing:
 - Ownership of IP stays with inventing partner
 - After \$200K in royalties, 60% of royalties reserved for BRC, remainder to inventing partner and inventor
 - IP Management committee: filing, licensing strategies, use of BRC royalties
 - Likely to involve start up companies and investment by venture capitalists: IP key
 - At LBNL, filing to be by LBNL, with costs split between LBNL and owning partner