# DOE SBIR Phase III projects to meet DOE mission goals and build energy jobs

## Summary

**DOE would improve its R&D productivity and milestone achievement in meeting mission objectives by better advancing SBIR program innovations in DOE's mainstream R&D.**

DOE invests some $170 million in highly competitive SBIR and STTR I/II programs, nurturing promising technologies chosen for innovation and potential towards DOE mission goals. Unfortunately, the SBIR innovations hardly ever advance into DOE's mainstream $11 billion R&D program under the current DOE practices (with the exception of some science office procurements).

America needs this clean energy and energy efficiency innovation. Small business technology companies provide much of America's innovation and most of its high quality jobs growth, yet they are all but absent from DOE's mainstream R&D program. Small technology development especially has a high multiplier for future American high quality manufacturing and service jobs. Its relative absence from mainstream DOE BAA programs is especially dysfunctional as there is virtually no other pre-commercial opportunity for a small energy technology company to advance: in energy the "valley of death" is many times wider than in most other industries.

**Half the solution is removing the EPACT Section 988 cost-share barrier to DOE Phase IIIs.** Removing the EPACT Section 988 cost-share barrier for all normally-procured DOE R&D awards or subawards that qualify by statute as SBIR Phase III work would remove a primary block to SBIR company participation in DOE mainstream R&D. This would unleash small business innovation within existing BAA scope and budgets towards DOE missions and high quality energy jobs growth. This would also maximize program manager influence and alignment of the Phase IIIs with program goals. To further encourage this, DOE could direct program managers to seek use of SBIR technology in their BAA awards.

The 988 statute exempts SBIR awards from cost-share, and the SBIR statutes classify Phase IIIs as SBIR awards with full SBIR status, thus exemption may be straightforward. Alternately, the 988 statute authorizes the DOE Secretary to reduce or eliminate cost sharing requirements for applied R&D based on appropriateness and necessity.

**The second half of the solution would be to implement a special annual DOE SBIR Phase III Commercialization Initiative** to select especially high potential follow-on Phase III projects for mainstream R&D advancement. Awards may be made through (1) the existing Programs without any further competition because "the work is derived from, extends or logically concludes efforts performed under prior SBIR agreements" or (2) a competitive solicitation inviting companies having demonstrated a successful Phase II and having potentially promising and commercially viable SBIR technologies. The Phase IIIs could be large (e.g. $3-4 million each, if justified), with

funding for this formal Phase III to be supported by a separate budget and also without cost-share requirement. Money should not come from the SBIR Phase I/II program but instead from the mainstream DOE R&D budget, and set to 2.5% of that budget. Once selected, projects would be integrated into existing DOE programs for best coordination and fit to DOE missions.

Phase III opportunities as specified in the SBIR Directive need not be limited to only SBIR technologies previously funded by DOE, but should also be opened to companies with SBIRs from other agencies whose technologies are deemed of value to the mission of the Department. This consideration will bring in a larger applicant pool with greater commercial potential and a cross fertilization of SBIR between DOE and other agencies. Implementation could benefit from adoption of best practices from other agencies, e.g. DoD, adapted towards DOE's objective of advancing technologies that need DOE support to be able to achieve technology insertion to the U.S. Commercial market.

Removing cost share would remove a major barrier to energy innovation while best aligning SBIR Phase IIIs to program objectives and process, with authority contained in the EPACT statute. The DOE SBIR Phase III Commercialization Initiative recognizes that meritorious opportunities will arise outside of normal program scopes with cross-program impact, and allows DOE HQ to support these. Together these actions will boost DOE R&D success in meeting its mission objectives and in growing future high quality American energy sector jobs and industries.

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