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DOE ANNOUNCES A THIRD ROUND OF FUNDING FOR TRANSFORMATIONAL ENERGY RESEARCH PROJECTS

On Tuesday March 2, 2010, the Department of Energy ("DOE") announced a third round of funding through the Advanced Research Projects Agency-Energy ("ARPA-E") for innovative and cutting-edge clean energy projects. Up to \$100 million will be available from the American Recovery and Reinvestment Act ("ARRA") and project awards are expected to average between \$1 million and \$5 million. With this funding opportunity, ARPA-E is focused on spurring development in three specific technology areas: grid-scale energy storage, advanced delivery of electrical power, and building energy efficiency. The deadline for Concept Papers under this funding opportunity is **April 2, 2010**.

U.S. Energy Secretary Steven Chu announced this latest round of funding at the inaugural ARPA-E Energy Innovation Summit. ARPA-E, inspired by the military's Defense Advanced Research Projects Agency ("DARPA") and established by Congress in 2007, provides support for the research and development of energy technologies to overcome long-term and high-risk technological barriers. In April of 2009, President Obama announced the availability of \$400 million for the initial funding of ARPA-E projects.

The latest solicitations from ARPA-E seek to promote research and development in three key areas:

- **Grid-Scale Rampable Intermittent Dispatchable Storage (GRIDS)**

This solicitation seeks to pursue new approaches to efficiently store energy and manage short-duration variability in renewable generation. Specifically, funding will be available for research and development on new electrical energy storage concepts as well as projects that address critical shortcomings in existing grid-scale storage techniques. ARPA-E is looking for novel approaches to energy storage concepts such as batteries, flow-batteries, compressed air, ultra-high energy density flywheels, high-scale ultracapacitors, and other innovative energy storage systems. The ARPA-E program is projecting that 5-15 awards will be made under this solicitation.

- **Agile Delivery of Electrical Power Technology (ADEPT)**

ARPA-E seeks to invest in materials for fundamental advances in the delivery of electrical power in the following specific areas of interest: (1) soft magnetics; (2) high voltage switches and advanced solid-state switch technologies; (3) advanced circuit topologies and converter architectures; and (4) reliable, high-density charge storage. The ARPA-E program is projecting that 5-15 awards will be made under this solicitation.

- **Building Energy Efficiency Through Innovative Thermodevices (BEETIT)**

As energy efficiency becomes a more prominent part of the renewable energy field, ARPA-E seeks to promote energy efficient building cooling technologies. ARPA-E funding will be available for projects conducting research and development on cooling systems that use refrigerants with low global warming potential, energy efficient air conditioning systems for warm and humid climates with an increased coefficient of performance (COP), and vapor compression air conditioning systems for hot climates for re-circulating air loads with an increased COP. The ARPA-E program is projecting that 5-15 awards will be made under this solicitation.

Awards are expected to be between \$500,000 and \$10 million, generally averaging between \$1 million and \$5 million. ARPA-E anticipates awarding multiple agreements totaling \$35 million under the ADEPT solicitation and \$30 million under each of the GRIDS and BEETIT solicitations.

Though the DOE has released a separate solicitation for each research area listed above, the ARPA-E application process is the same for each area of focus. The application is divided into two parts: (1) a Concept Paper addressing programmatic goals, objectives, and the anticipated delivery of the project goals; and (2) a Full Application. Concept Papers are due for this round of funding by **April 2, 2010**. Applicants will then be notified of whether they are encouraged or discouraged from submitting a Full Application, expected to be due in mid-May 2010. As with other DOE programs, the full application process can be rigorous and time consuming and applicants should carefully weigh the investment and extremely competitive nature of the program before applying.

During the first round of the program, the DOE selected 37 projects representing a diverse group of technologies and institutions as recipients of a total of \$151 million dollars in funding. Secretary Chu's announcement of a third round of funding through ARPA-E comes on the heels of \$100 million made

available in the second round of funding in December 2009. ARPA-E received nearly 500 Concept Papers in January 2010 for that round of funding and Full Applications will be submitted by March 15, 2010. As the ARPA-E program is designed to support research and development of high-risk technologies, the application and review process is much more technically focused than many of the other DOE funding programs.

For additional information regarding ARPA-E funding, program requirements, or assistance with applications, please contact [Elias Hinckley](#). He may be reached at ebhinckley@venable.com or 202.344.4639.

Additional information regarding funding for renewable energy projects can also be found by visiting the [Energy practice area website](#).

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