Amendment 0001
Solicitation Number 14-SN-0012
"Compact High-Density Tactical Energy Storage"
29 May 14

The purpose of Amendment 0001 is to amend the Special Notice, revise the Recommended White Paper Submission Date, correct the year listed under Section IV. White Paper Submission paragraph 5, and respond to questions submitted prior to 5/28/14. Questions received after that date and before the deadline for submissions of questions will be addressed in a subsequent amendment.

Special Notice 14-SN-0012 is hereby amended as follows:

1. The Recommended White Paper Submission Date is revised as follows:

VI. SIGNIFICANT DATES AND TIMES

Event	Date	Time
Recommended White Paper Submission Date*	**9 June 2014**	1400
Notification of White Paper Valuation*	15 Jul 2014	
Recommended Full Proposal Submission*	20 Aug 2014	1400
Notification of Selection: Full Proposals *	20 Sep 2014	
Awards *	15 Mar 2015	

Note: * These are approximate dates**.**

2. The Section IV. White Paper Submission paragraph 5 is revised as follows:

The cover page should be labeled "White Paper for ONR **2014** Research Opportunity: Compact High-Density Tactical Energy Storage."

3. Questions and Answers are provided as follows:

Question 1: Is technical innovation at the component level desired or required (e.g. battery with increased energy density or compact regenerative fuel cell)?

Answer 1: The Special Notice states that "The objective is to encourage innovation, advance technology development, and foster technology transition that benefits future war-fighters and meets US Marine Corps future needs." Innovation at any level (component, system, cell, materials, etc.) is acceptable.

Question 2: Should system be based on existing, off-the-shelf technologies?

Answer 2: Science & Technology (S&T) approach is sought that involves applied research and/or advanced technology development. Off-the-shelf technologies may be included as part of the overall system development.

Question 3: Will the lightweight MEHPS system (3kW) be an acceptable demonstration?

Answer 3: We are interested in demonstration of energy storage technology at a TRL of 5 and 6. Demonstration at the system-level is desired. The demonstration should highlight the performance and scalability needed to address the "future hybrid power generation systems such as those envisioned as a result of the MEHPS Analysis of Alternatives…"

Question 4: What does the system varying load look like?

Answer 4: Load profiles are provided in Special Notice reference document 3, Brief to Industry, Mobile Electric Hybrid Power Sources (MEHPS).

Question 5: Is the ultimate power supplied as AC or DC or both?

Answer 5: The energy storage system will be charged with DC input power. The energy storage system technology developed under this Special Notice will support hybrid power systems providing AC output.

Question 6: What are the requirements for bus voltage control, noise?

Answer 6: Specific requirements for voltage control and noise have not yet been established.

Question 7: Is there a requirement to use only military qualified generators, solar panels and batteries or can we use commercial units?

Answer 7: It is envisioned that the energy storage system will eventually become an integral part of a military hybrid power system. Demonstration of the energy storage system during the 36-month effort described in 14-SN-0012 may be accomplished using commercial or military equipment.

Question 8: We intend to submit a white paper proposal on the ONR Special Notice 14-SN-0012 on June 2. Since the notice lists a June 1 deadline, will our submission still be considered?

Answer 8: Yes, the "Recommended White Paper Submission Date" is extended to 9 June.

Question 9: For ONR Special Notice 14-SN-0012, could you let us know which loading scenario we should consider in the attached package?

Answer 9: The attached package is Special Notice reference document 3, Brief to Industry, Mobile Electric Hybrid Power Sources (MEHPS). The loading scenarios to consider are for MEHPS Lightweight, MEHPS Medium, and MEHPS Micro-Grid Medium.

Question 10: Are the references renewables already a part of the system? And do they connect into the generator output such that the solicited ESS would not have to directly interface with it?

Answer 10: Special Notice reference document 3, Brief to Industry, Mobile Electric Hybrid Power Sources (MEHPS) identifies renewable source and generator as part of the MEHPS family of systems. There is no requirement for the energy storage system to directly interface with the renewable source or the generator.

Question 11: Is it desired to use COTS energy storage elements, vice developing a new energy storage device?

Answer 11: Science & Technology (S&T) approach is sought that involves applied research and/or advanced technology development. Off-the-shelf technologies may be included as part of the overall system development.

Question 12: Is the desired end product a fully integrated energy storage device, power electronic interface, and necessary controls to interface with the system prime movers?

Answer 12: It is envisioned that the energy storage system will eventually become an integral part of a military hybrid power system. This special notice seeks development and demonstration of system level energy storage technology. There is no requirement for the energy storage system to directly interface with the renewable source or the generator