

DHS SBIR-2013.1 Question and Answer Matrix

As of 1/15/2013

ID#	Date Answered	Topic Area	Question	Answer
1	12/21/2012	SB013.1-005	<ul style="list-style-type: none"> The goal is for the quick disconnect device/cable to sense when "disengagement" from the supporting structure may be necessary, to be able to safely, quickly, and reliably "disengage" without causing damage to the cable or its support structure, and support rapid restoration (i.e., the ability to "quick connect" the distribution line back up) following the event. <ul style="list-style-type: none"> It is not clear to us whether the requested device is for "support structure" (as stated above) only or both "a utility pole or support structure" cited in the previous paragraph of the SBIR. (Does this statement mean/imply that the "quick disconnect device/cable" is required only where the cited Siemens Distribution Class Disconnects are used?) Please clarify which locations are to be addressed. Secondly, is the goal for a "sensor" only (possibly to operate with, or actuate upon certain conditions, the referenced Siemens Distribution Class Disconnects) or is this for a new type sensor/connector that will be added it at more "utility poles or support structures" than the referenced disconnects. (A later sentence includes "is based on existing distribution cable designs" which doesn't clarify whether the "preference" is for the cable, the disconnect, or these together.) It would appear that the referenced disconnects are not located at enough locations that it would be useful in preventing damage at every location which a tree or weather and other cited causes would occur. Please clarify the expected locations for the "quick disconnect device/cable" to be used and whether the "quick disconnect device/cable" is its own device (possibly including a sensor) or a modification/upgrade/improvement to the referenced Siemens Distribution Class Disconnects. Lastly (at this point of time) - If the "quick disconnect device/cable" is to be used broadly, are we to presume that the design would not be limited to the cited Siemens Distribution Class Disconnects or will this program use the cited disconnects as a basis for broader use? (This point becomes mute if an answer to the previous questions make it clear that the goal is something "new".) 	<ul style="list-style-type: none"> The support structure is assumed to be a utility pole – the requested device is therefore for the utility pole. It does not mean that its only required where Siemens Distribution Class Disconnects are used – that was provided as an example of an existing disconnect (we are not requesting modifications/upgrades/improvements to the Siemens device) The goal is for a connector that can sense when it needs to disconnect from the utility pole (something new). The device could be located anywhere within the distribution system (not associated with the Siemens Disconnects). It is its own device.
2	12/21/2012	SB013.1-005	<ul style="list-style-type: none"> The system should not impact normal operations.' <ul style="list-style-type: none"> Is "the system" equivalent to "quick disconnect device/cable" or does "the system" imply that their is a process for monitoring the installed "quick disconnect device/cable" (other than on site visual)? If such a monitoring system is required, would it have to integrate with what may exist at the utilities already? The quick-disconnect cable system must meet all applicable ANSI/IEEE industry standards, as well as any applicable safety and environmental standards.' <ul style="list-style-type: none"> Having experience with government/military contracts, the "scope" of design is very "open to interpretation" (and subsequently incurs "unexpected" costs/delays in so many circumstances). Can you provide reference to specifications that need to be complied with for the product's design? 	<ul style="list-style-type: none"> The system refers to the quick disconnect device/cable – it should have minimal impact to normal every-day operations (no false "disconnects"). If a monitoring feature is incorporated, it should integrate with what already exists at the utilities. As this is a new concept, our intent is to keep the scope fairly open.
3	1/3/2013	SB013.1-004	<ul style="list-style-type: none"> w.r.t permissible strategies for mitigating the threat of GPS spoofing in civil energy distribution networks: Is a solution that employs an additional communication/phase-synchronization channel between power system phasor measurement units (PMUs) as a way to aid detection/localization of spoofing potentially within scope of the topic? (i.e. Am I "allowed" to design and make use of such a channel in my proposed solution, provided it is technically feasible, cost effective, robust to similar disruption/tampering, etc?) w.r.t. strategies for localizing the spoofing: Presumably the desire is to localize the power system node which is being tampered with... Is there also an interest in localizing the precise lat/long location of the GPS spoofing RF transmitter? (e.g. by subsequent direct RF detection near the affected power system node.) Or is that really a different challenge from the one desired addressed in this topic? 	<ul style="list-style-type: none"> Yes Yes. Locating the source of GPS disruption (i.e. jamming/spoofing signal source location) is a primary Objective of this SBIR.
4	1/3/2013	General	Does the requirement for a 12 point font extend to table text/headings and figures/figure captions or does it apply only to headings and proposal text?	For table text and figure captions only, the font size to be used is 10 point. The 12 point font requirement applies to headings and proposal text.
5	1/4/2012	General	Can the proposal number used in the heading of the proposal be abbreviated to the last four digits or is the entire proposal number required?	The proposal number generated by the system is the number to be used in the header of the proposal (in its entirety).
6	1/10/2013	H-SB013.1-003	This solicitation asks for a helmet-attached device to provide firefighters with audible warning for high temperature. Can a device that provides both communication improvements and temperature warning be proposed, is this idea acceptable? Or, is only a stand-alone device for temperature warning needed for this solicitation?	The goal of the solicitation is for the development of a stand-alone device.

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7	1/10/2013	H-SB013.1-003	The proposal states that the device is mounted on the firefighters helmet. Is this a hard requirement or can the device be worn in another location on the fire fighter?	Although the helmet is the preferred location, other proposed locations would be considered if the offerer could clearly show that it would be effective in providing a fast indication of potential hazardous conditions from all directions.
8	1/11/2013	H-SB013.1-001	PHASE I: The Phase I effort will provide studies or engineering prototype data that show the feasibility of an RF network performing detection/tracking in heavily forested areas and an approach with that network for mitigating environmental factors that can cause false alarms (i.e., windblown foliage). The Phase I effort should also include RF measurements in a forested area that validate the selected approach. <ul style="list-style-type: none"> Should these efforts be completed before applying for SBIR or should they be included as part of the research that is presented upon completion of Phase I? 	These validation efforts should be part of the proposed Phase I work. The presentation of the data would be included in the SBIR monthly reports as soon as the work was completed as well as the Final Report.
9	1/11/2013	General	<ul style="list-style-type: none"> We would like to engage the services of a non-US citizen, through an arrangement with a non-US company who is that person's employer, as a Consultant. We will identify this person (and this company) as required by paragraph 3.5(b)6. We understand the requirement (in paragraph 1.3) to perform all work (including Subcontractors) in the United States. Does that requirement extend to Consultants, who are not producing deliverables but are only providing advice? If the answer to question 1 is "yes", meaning that Consultants are not allowed to work outside the US on a DHS SBIR, would it be acceptable if that person agreed to travel to our US facility and perform all work here? Alternatively, would it be acceptable for us to use such a Foreign National Consultant, working from their non-US office, if we were to pay for their services from private investment rather than from SBIR funds? 	<ul style="list-style-type: none"> Yes, consultants are considered subcontractors, and according to the solicitation, all subcontractors must perform in the US. <p>Per HSAR 3052.204-71, Contractor employee access, Alternate II (JUN 2006), "(h) Contractors shall identify in their proposals, the names and citizenship of all non-U.S. citizens proposed to work under the contract. Any additions or deletions of non-U.S. citizens after contract award shall also be reported to the contracting officer."</p> <ul style="list-style-type: none"> According to the solicitation, all [research/research and development] work must be performed by the small business concern and its subcontractors in the United States. Additionally, in Section 3.5, pg. 21, states that contractors must "identify any non-U.S. citizen(s) that you expect to be involved on this project (including direct employees, subcontractors and consultants), their country of origin, type of visa or work permit under which they are performing, and an explanation of their anticipated level of involvement on this project." To summarize, a foreign national can be a subcontractor, but he/she must perform in the US. Note that, if selected for award, you may be required to provide additional information during contract negotiations. According to the solicitation, all [research/research and development] work proposed must be performed by the small business concern and its subcontractors in the United States.
10	1/9/2013	General	If our outside participant is a consultant, do we answer yes or no to the subcontractor question on section M of Cover Sheet Certifications?	Mark "Yes" to the subcontractor questions if a consultant will be used. Subcontractor Type: Other
11	1/9/2013	General	Under "Participants" do we name the specific person who is consulting, or the name of the institution that employs them?	Identify the specific person's full name.
12	1/9/2013	General	Under the Participants section of the cover sheet, is a consultant considered a "subcontractor," "partner," or "other"?	Consultants are considered subcontractors. Either "Subcontractor" or "Other" can be selected.
13	1/9/2013	General	Do we have to name the PI as a key person, or is that assumed? - See cover sheet section on Key Individuals	The PI must be identified as a key personnel
14	1/11/2013	General	Is there a fillable Briefing Chart Template available?	Yes, a fillable Briefing Chart Template is available at FedBizOpps.gov for Solicitation # HSHQDC-13-R-00009, under "All Files"
15	1/15/2013	H-SB013.1-005	Please specify at approximately what force the device should disengage at, and approximately what would be the expected normal operating force?	This is up to the proposer to investigate and determine what the best force or other conditions would be for an effective device, based on their proposed technology, with minimal false disengagements.
16	1/15/2013	H-SB013.1-005	What should the design service life be for the proposed solution?	No specific requirements for service life though recommend a service life cycle that is compatible with existing cables / distribution infrastructure maintenance cycles.
17	1/15/2013	H-SB013.1-005	Since such a device does not currently exist, can you specify which ANSI/IEEE standards the device would need to conform to.	There are no specific ANSI/IEEE standards for this type of device – the objective of this statement is to ensure that the proposed device would not violate any standards or practices for power distribution or cause any unsafe conditions.

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18	1/15/2013	H-SB013.1-005	<p>Is the target application for the solicited device solely to disengage the high voltage electrical “primaries” typically found at the top of utility poles, while leaving other cables groups (i.e. Copper Telecom, Fiber Optics, Cable Television) as is? Or should multiple devices be proposed which can be used with these other types of cabling? If preventing damage to the supporting structure (utility poles) is a chief objective, then in the event of a large tree falling across the lines, just disengaging the primaries may not prevent damage to the utility poles if there is an abundance of other cable groups lower on the pole that could bear the weight and impart it on the utility poles, and it would seem that all cable groups would need to be disengaged from the utility pole to prevent all damage for this particular event.</p>	<p>The focus for this effort is on the power cables.</p>
19	1/15/2013	H-SB013.1-005	<p>If the solicited solution is solely for use on high voltage primaries, should there be one device per primary conductor, with all connectors being able to be disengage independently of each other during an event, or should there be a more comprehensive solution where multiple disengagements occur if one conductor experiences a high force condition?</p> <p>For example – In the case of a 3 phase distribution system where there are 3 primaries, would it be desirable to disconnect all 3 primaries if only one of them experiences a high force condition to prevent “single phasing”, or should each primary disconnect independently when/if it experiences a high force condition?</p>	<p>There is no specific requirement to have one device per primary – it is up to the proposer to investigate & determine the best concept of operations for their device.</p>