CRADA Call Questions (and Responses) Received from 8/28/2017 to 9/1/2017

General:

30. May our company submit more than one proposal?
   o Yes, there is no limit to the number of proposals submitted.
31. The request for proposal is not clear on the submission process. Should the submission be by email to H2atScaleCRADAcall@nrel.gov or will it be via the Exchange website?
   o All submissions should be done by e-mail. (Please reference the cover page.)
32. Can you tell me if this CRADA applies to work from the PNNL?
   o Yes, all national labs can be partners in this CRADA call.
33. For projects that are selected and fully contracted (by 12/15/2017 per the announcement):
   When will funds transfer from the non-lab partner be required? During calendar 2017, or calendar 2018?
   o Non-FCTO funds need to be transferred to the labs in accordance with each individual lab’s CRADA requirements. Generally, this occurs in installments with the first installment occurring before work is initiated.
34. Would one of the award scenarios be NREL/DOE respond that they would like to fund the project, but at a lower level with reduced scope? For example, a proposal to do an extensive roadmap development along with techno-economic analysis requests $300K of DOE funding. The DOE likes the project, but can only provide $150K of funding. Could the award be made but with reduced scope?
   o Yes, it is possible for a project to be selected and the scope to be modified to meet available funding.
35. Is a standard DOE budget form required at the time of proposal submission? The announcement specifies “a detailed table describing the proposed cost-sharing, clearly articulating cash vs. in-kind”, but no specific form or format.
   o No standard DOE budget forms are required, just a simple table clearly stating the sources and uses of all funding both cash and in-kind.
36. Projects are to be judged by relevance to the H2@Scale goals. Those goals are not stated in the call. What are they?
   o The H2@Scale goals are described as “desired outcomes” – see the 6 bullets in the Objective section on page 1 of 21 of the Call.

Evaluation and Scoring:

37. One of our management team members just today came across your NREL proposal. I wanted to describe our project and see if you thought it would be worthwhile for us to apply. [detail of concept removed ]
   o You can work directly with the collaborating laboratory who can provide input on their capabilities to help to develop the scope. Expert reviewers will determine the value of each project relative to objective scoring criteria outlined in the CRADA call on page 10.
38. Will, and should, scoring reward field demonstration phase for real-world application data collection and analysis?
   - Expert reviewers will determine the value of each project relative to objective scoring criteria outlined in the CRADA call on page 10.

39. Will scoring award TRL advance from TRL X to TRL Y = (Y-X)?
   - Expert reviewers will determine the value of each project relative to objective scoring criteria outlined in the CRADA call on page 10.

Acceptable uses for laboratory spending of CRADA funds:

40. I understand that the money brought as funds-in by the industry should almost entirely be used to pay for lab employees’ salaries and facilities. Could this money be used to buy, let say, hydrogen? Could it also be used to install equipment?
   - Reasonable research expenses may be incurred by national labs in the process of carrying out the research.

41. Can the matching funding provided by DOE be used to procure equipment, such as buying vessels or transducers?
   - Reasonable research expenses may be incurred by national labs in the process of carrying out the research.

42. For a selected and fully contract project: Is the federal funding award restricted in any way? May it be applied to purchase of capital equipment?
   - Reasonable research expenses may be incurred by national labs in the process of carrying out the research.

Topic related questions:

43. Shouldn’t "Desired outcomes include: " also have these? A) Deep, toward complete, decarbonization of USA and global total energy economies -- from all sources, for all purposes, B) Hydrogen-based, complete, integrated, renewables-source, CO2-emission-free energy systems, as alternatives to the electricity system, i.e. the "Grid." You need a Figure 1.a which does not include the Grid so prominently. This is unnecessarily grid-centric.
   - The desired outcomes are not meant to be all inclusive. Thank you for the comment on the figure. There have been, and will continue to be, many opportunities for stakeholders to be engaged in defining and supporting H2@Scale. We encourage your organization to participate in future workshops.

44. Are you interested in modeling and other analyses comparing Gaseous Hydrogen (GH2) based complete, integrated, CO2-emission-free energy systems with the electricity grid, for the goal of "deep" or "complete" decarbonization of the USA total energy economy, at continental scale? If so, do you agree that will necessarily require a new, dedicated, high-purity, underground, GH2 pipeline network for gathering, transmission, distribution, and "free" energy storage by pipeline "packing", at continental scale?
45. Are projects related to such a GH2 pipeline system, i.e. linepipe material and system design (connectors, valves, meters, compressors) relevant to this CRADA call?
   - Topics of interest to the applicant(s) may be proposed (including variations of the examples) provided that they address H2@Scale objectives and meet all of the criteria outlined in this call.

46. Shouldn’t "Materials and Component manufacturing and R&D" include R&D&D for Gaseous Hydrogen (GH2) linepipe immune to Hydrogen Embrittlement (HE; HCC)?
   - Examples were included in the Appendix to be representative and not exclusive. Topics of interest to the applicant(s) may be proposed (including variations of the examples) provided that they address H2@Scale objectives and meet all of the criteria outlined in this call.

Additionl cost-share questions:

47. Can laboratory LDRD funding be used as part of the 50% cash cost share requirement that is eligible for FCTO matching funding?
   - Yes. As noted in the CRADA call, “While non-federal cost sharing is preferred, non-FCTO federal funds may be permitted as cost share,” LDRD funding used as cost share should be reviewed by appropriate staff at each lab to maintain consistency with the LDRD rules and regulations.

48. Does a non-profit organization with heavy corporate funding or membership fit into the a) 10% cost-share category for a non-profit or b) the 50% cost-share category of private industry.
   - Each situation will be evaluated on a case-by-case basis subject to appropriations.

49. My organization is a 501(c)3 nonprofit membership organization. The members are corporate entities that are highly relevant for deployment of energy technology, including hydrogen technology. What is the minimum cost share requirement for a H2@Scale proposal primed by my organization? I note that the cost share requirement for corporates is 50%, and for nonprofits is 10%.
   - Each situation will be evaluated on a case-by-case basis subject to appropriations.

50. If a project team is led by a non-profit and there is a national lab and a for-profit company as sub-partners, what would the cost share requirement be?

   Non-Profit Co. (Team lead)
   National Lab     For-Profit Co.

   - See related question number 9. If a non-profit is the lead and there are industry partners, the cost share requirement would be 50%.
51. Can the National Laboratory use some of the DOE or required 50% cost sharing funds to subcontract work to an outside third party to perform some of the tasks of the project?
   - All funds should flow to the lab. There could be funds flowing between the partners, but these funds are NOT considered to be part of the 50% funds-in cost share. These funds are considered to be in-kind cost share and would be in addition to the 50% funds-in cost share requirement.

Technical questions:

52. For pipelines is there a targeted permeation rate for RTP hydrogen delivery?
   - RTP pipe should achieve comparable permeation to standard FRP pipeline. The hydrogen permeation rate for a 4” pipe is about 0.02%, when pressurized to 100 bar. Please reference: https://www.hydrogen.energy.gov/pdfs/progress09/iii_16_smith.pdf

53. Does FCTO have data on targeted hydrogen delivery costs?