

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

March 31, 2008

RESPONDERS:

SUBJECT: Amendment No. 2 to Solicitation for Letters of Interest (LOI) No. RAT-8-88012, "Solar America Initiative (SAI) PV Technology Incubator".

Amendment No. 2 is being issued to provide NREL responses to questions received to date regarding the subject Solicitation.

1. Is the due date for receipt of the electronic copy and the hard copy the same?

Yes. Each LOI response must be submitted in an original hard copy and PDF and both must be received by 4:00 P.M. Mountain Time on 04/18/08.
3. Can a company submit more than one LOI response based on different technologies?

No. Responders to this LOI must be U.S. Small Business. A Responder is limited to only one (1) response to this LOI.
4. Are the slides of the Net Conference available online for download?

Yes. The Net Conference presentation is available at www.nrel.gov/business_opportunities/solicitations_rfps.html.
5. While not required for Incubator, the SAM model is a very useful tool in evaluating the system-level impact of a technology, but BIPV wasn't easily evaluated in previous versions of the model. Has the model been modified to make it more accommodating of BIPV?

This question is outside of the LOI scope.
6. If you received an award under the SAI TPP, can you be eligible for an Incubator award?

The current Incubator LOI does not prohibit awardees under the SAI TPP from participating.
7. How many awards are anticipated?

Six (6) to ten (10) awards are anticipated.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

8. We don't have a demonstrative lens but would have by time of award. Are we eligible?

Each Responder must make that determination. It is also up to the Responder to provide as much detailed information so that the reviewers can understand what the baseline prototype is and how to incubate it.
9. Are last years' reviewers the same people who will review the new submission?

We don't disclose this type of information. It is safe to say that the review team will include NREL staff as well as external reviewers.
10. Is there a page limit for the proposal?

Per the LOI, responses should not exceed 24 pages.
11. How many LOIs were received last year?

It is NREL's policy not to indicate how many total proposals were received under any competitive solicitation.
12. Are the current TPP and PV-Incubator awardees eligible to apply during this round?

Yes, the LOI is open to all small businesses.
13. If the proposal is accepted, will there be initial funding for start up costs?

No. There are not provisions for advance payments.
14. Please expand upon price participation. What qualifies?

A minimum of 20% price participation is required under the LOI. Price participation is defined as a percentage of the total allowable and allocable costs under the subcontract which may be met by contributions by the Subcontractor and by contributions from the Subcontractor's lower-tier subcontractors or suppliers at no cost to NREL.
15. What is the size of each award?

NREL funding available for each individual award under this LOI will not exceed \$3M for the 18-month duration of the work effort.
16. Are Module Certification costs eligible under this SAI?

Yes.
17. Can a partner of a responder get more than 20%?

Per the LOI, the 20% limitation refers only to lower-tier subcontractors who are large businesses.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

18. Will NREL have any ownership of the Subcontractor's technology or company?

No. Intellectual Property Provisions for research, development, or demonstration subcontracts with domestic small businesses (Appendix C-2) can be reviewed at www.nrel.gov/business_opportunities/related_docs.html.

19. At completion of fixed price contract, who will have ownership and or rights to any IP developed under the subcontract?

Technical data first produced in the performance of the subcontract is “contract data”. NREL has unlimited rights in contract data. The Subcontractor also has the right to use, release to others, reproduce, distribute, or publish any data first produced in the performance of the subcontract subject to the specific provisions of Appendix C-2.

20. If you have not quite hit the efficiency goal of the starting product, but can verify your comfort that you can achieve it, is that acceptable.

You can have milestones to achieve. For example if the Responder begins with a prototype of a 10% device and provides a clear path up to 15%, this is acceptable. It is up to the Responder to convince the reviewers that they can achieve the stated milestones/deliverables as well as Stage Gates.

21. Is a U.S. subsidiary of a foreign company eligible to apply?

In accordance with the LOI, all efforts funded under this project shall be performed by a U.S. company in the U.S. or its territories. A U.S. company is defined as a business incorporated or formed as a legal entity in the U.S.

22. Is it allowable for the small business to raise venture capital to satisfy the price participation requirement?

Yes

23. If we anticipate our program can be completed in less time, will it be possible to submit an LOI for less than 18 months, and how does that affect funding level?

You are welcome to submit your response for any time period. It has to address the entrance and exit criteria per the LOI. The anticipated period of performance is 18 months with a ceiling amount of \$3M per award.

24. When considering price participation, "existing facility etc" is considered as of what date?

“In-kind” contributions will not be accepted as price participation, i.e. donated facilities.

25. Are you looking for a particular type of PV technology or is it open to all types?

The topics are in the LOI and are guidelines, however, they all need to address the module tier TIO.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

26. For a Si cell development, is the cell itself adequate, or must one partner with a module manufacturer to produce a module with the improved cell as part of it?

The purpose of this solicitation is to begin with a prototype and demonstrate that it can get to the pilot production, >3 MW level. It can be any part of the Module tier 1 e.g. it could just be the cell. It is up to the Responder as to what part you want to address in your response to this LOI.

27. Is participant share (>20%) considered part of the total award?

In accordance with the LOI, a minimum of 20% price participation is required for award. Price participation is defined as a percentage of the total allowable and allocable costs under the subcontract.

28. How will NREL/DOE assist the PV developer in market entry of the newly developed product?

When you address the LOI, you should state the market entry you will enter to develop. NREL and DOE support this effort. It is hoped that we will meet the SAI goals of the different market entries by 2015.

29. Is it allowable for the small business to raise venture capital to satisfy the price participation requirement? By IEEE and IEC definitions for CPV, module includes the concentrator. Is it acceptable in this solicitation to include critical concentrator developments?

Yes to the 1st question. Yes to the 2nd question as well; hopefully the critical components of your development address the Module TIOs.

30. Can the proposed program focus solely on reaching pilot production with a concentrator component, leaving development of the receiver and other module components to other funding sources?

You need to start with whatever baseline prototype you are trying to develop and show us that you are going to take the prototype to pilot production. It needs to be a part of the Module tier 1 TIO.

31. Can a federal lab be a Tier 2 Subcontractor for this LOI?

In accordance with the LOI, Federally Funded Research and Development Centers (FFRDCs) are not eligible for funding under this Solicitation and therefore cannot be lower-tier subcontractors.

32. If current Incubator companies win under this round, will the two awards run concurrently?

The current LOI does not restrict current Incubator companies from participating.

33. Can we add additional categories to the TIO list? How many TIOs need to be addressed in this response?

You can amend the TIO list to your liking as long as it fits in with the Module one tier, see page 4 of the LOI.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

34. Will the DOE restrict awardees of this LOI from participating in the upcoming TPP if the two would 'dovetail' but not duplicate efforts?

This is an NREL procurement. The current LOI does not restrict current Incubator companies from participating.

35. Do you have any views on crystalline silicon versus other technologies?

We are technology neutral. NREL is here to provide support for incubating a prototype cell/device or module and take it to the pilot production level within 18 months within the topics per the LOI.

35. Does the size of the match if it is above minimum matter in the selection?

No.

36. For project planning purposes, when is month 1? Is it September 2008?

The start date of the project is the date NREL signs the subcontract document.

37. Can a module manufactured externally be used as the entrance criteria?

The company needs to show us that they have a prototype and be able to take that into pilot production. The baseline needs to be quantifiable.

38. Is there a preference for an 8a company?

No

39. What are some other examples of baseline metrics other than an I-V curve?

It is up to the Responder to provide adequate metrics based on the technology proposed. Devices/Cells or Modules metrics can vary with what baseline measurements are necessary.

40. Will an attempt be made to achieve geographic distribution of awards?

NREL is geographically neutral.

41. When is the data that is due for the baseline prototype due and what are the validation requirements, (any 3rd party or only NREL)?

The baseline verification/validation should be part of the response as this is the entrance criteria of the LOI. It is up to the Responder to provide enough information to convince the review team.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

42. How long before reimbursement can be received upon receipt of deliverable?

NREL's payment terms are Net 30. Payment will be made within 30 days of receipt and NREL acceptance of the required deliverable.

43. Are technologies required to meet the SAI program cost goals for 2010? (E.g., 13-18/kWh for residential, etc.?)

When you respond to the LOI, you need to address the goals per the LOI. The solicitation title is SAI PV Incubator and is part of the SAI.

44. When calculating production costs, can foreign sub-contractors be used to minimize costs in component manufacturing?

The LOI does not prohibit participation by a foreign lower-tier subcontractors. However, the LOI does indicate that all efforts funded under this project shall be performed by a U.S. company in the U.S. or its territories. If foreign lower-tier subcontractors are utilized, then the costs associated with their participation should be paid by the Subcontractor's price participation funds.

45. If awarded a contract for a concentrator cell development which does not include the system component, can the 3MW requirement be projected from the anticipated cell concentration level?

You need to address the Module 1 tier TIO and respond accordingly. There are many aspects to the tier and not all need to be addresses, see page 4 for detailed guidance.

46. If awarded, are contract rates and costs audited?

In accordance with the LOI, in the event a Responder is selected for negotiations with the intent of reaching agreement on the award of a subcontract, the Responder will be required to submit a detailed price proposal with verifiable and substantiating pricing data. The amount of the individual award will be based on an audit of the price proposal, a technical review of the proposed SOW, and negotiations between the NREL Subcontract Administrator and the Responder. The Responder will further be required to confirm the level and sources of price participation funds.

47. Can one modify the tier to support spectrum splitting concentrators

We are interested in the Module 1 tier TIO's. You need to address that in your LOI. In the LOI on page 4, it says it is acceptable to modify the Example Tier 2 structure or submit as broken down under the Module 1 TIOs.

48. May we define BIPV as a module?

I assume you mean Module 1 tiered TIOs. On page 4 of the LOI, you can modify the Example Tier 2 structure or submit as broken down under the Module 1 TIOs.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

49. Will the proposal remain confidential?

Submitted proposals shall be used and disclosed for NREL evaluation purposes only. Please see page 19 of the LOI, Item 14.b. – Restrictions on disclosure and use of data. Additionally, each member of the review team is required to sign a confidentiality certificate agreeing that they will not disclose any information either during the proceedings of the source evaluation or any subsequent time concerning the source evaluation, to anyone who is not also authorized access to the information by law or regulations.

50. Is there a government test lab available for module test?

NREL provides module testing per this LOI for deliverables awarded under a subcontract. Depending on what module tests are needed NREL would be available. We also provide testing of cells and devices.

51. Will NREL/deliverable testing be at no cost?

We do not charge for testing of cell deliverables if awarded a subcontract; within a certain reasonable number. It will not be part of the subcontract costs.

52. Do in-kind contributions (e.g. purchase of equipment) count toward the price participation?

In-kind contributions are not allowable. However, all equipment proposed to be purchased specifically for the project must be purchased by funds provided by the Subcontractor or its lower-tiers and as such can be used to meet the LOI requirement for 20% price participation.

53. Do improved crystalline Si 1-sun cells qualify for this LOI, or is the LOI geared toward low concentrator Si cells?

Any technology covered under the allowed topics per the LOI is encouraged. It is up to the Responder to respond within the Module Tier 1 TIO. We are technology neutral.

54. Is there a government lab for cell testing at 200 to 1000 sun concentrations?

NREL has the capability of performing concentration measurements up to 1000 suns.

55. Do we attach the entire Representations & Certifications file to the submitted proposal or should we send it separately?

It should be submitted as an attachment to the proposal.

56. If equipment is 'leased' under the contract. Can the lease payments count as price participation ?

Equipment lease costs under the project must be covered by funds provided by the Subcontractor or its lower-tiers and as such can be used to meet the LOI requirement for 20% price participation.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

57. Can NREL facilities be used to perform some of the work proposed in the LOI?

You can not use the NREL facilities to perform the work, although we can help you with cell testing, reliability testing, etc. The PDIL facility at NREL lends itself very well for collaborations with industry. A different mechanism like a CRADA could be negotiated separately for work at NREL; however, that is not part of this solicitation.

58. If the respondent company is 100% USA, but would like to use foreign manufacturers for some of the components of the solar electric production system; would that be permitted or does every component in the system have to be produced in the U.S.?

The LOI does not prohibit participation by a foreign lower-tier subcontractor. However, the LOI does indicate that all efforts funded under this project shall be performed by a U.S. company in the U.S. or its territories. As such, components provided by a foreign manufacturer should be purchased with funds provided by the Subcontractor or its lower-tiers.

59. Is CIGS Thin film eligible?

Please look at the topics stated in the LOI as to what is appropriate for this solicitation. NREL is technology neutral.

60. When is the data that is due for the baseline prototype due and what are the validation requirements, (any 3rd party or only NREL)?

The baseline verification/validation needs to be submitted with the LOI. You need to convince the reviewers that you have a starting prototype with the necessary requirements. The entrance criteria is a prototype cell/device or module. The exit criterion is pilot production at the > 3 MW level.

61. Should all foreign components be 100% covered by price participation?

Yes.

62. Is there a guideline for price participation?

The LOI requirement is 20% which must include all equipment purchased specifically for the project. All costs associated with participation by foreign lower-tier subcontractors should also be covered by the Subcontractor.

63. If we purchase equipment before the start of the program can it count for price participation?

Only equipment purchased specifically for the project can count as meeting price participation requirements.

64. Does a higher match increase the likelihood of funding?

No.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

65. Is an a300 cell from Sunpower a foreign or domestic component?

We do not have adequate details regarding the A300 cell from Sunpower to respond to the question.

66. Solar panels using spectral splitting technology have very high efficiencies how do we level the cost?

It is up to the responder to address LCOE within the proposed Key Performance Parameters and Technical Improvement Opportunities.

67. How far along does the company have to be in terms of cell/module readiness for the solicitation?

Please see the entrance/exit criteria of the LOI. Essentially the Incubator entrance is to start with a prototype baseline that can be scaled up to the >3 MW pilot production level.

68. For the Incubator or another solicitation, could there be funding for electron microscope characterization at NREL?

NREL provides free measurement and characterization within reason.

69. The solicitation says that it “targets” research and development of PV cell and module prototypes. Does development of a novel concentrator concept qualify for funding under this program? In particular, can the proposed program focus solely on reaching pilot production with the concentrator component, leaving development of the receiver and other module components to other funding sources, or must development of the concentrator and receiver be proposed as an integrated module?

Please see page 4 of the LOI. The LOI addresses the module Tier 1 and should be broken down as an example into Tier 2 components. The LOI states that you can break this down and address as many or as few of the TIO components.

70. If a company identifies several technical thrusts, corresponding to different TIOs, that need to be completed to reach pilot production, and articulates them all in the LOI, is it acceptable to limit the proposed scope of work and associated budget to a subset of these tasks that the company identifies as the critical tasks?

The TIOs need to address the Module aspect and can be broken down as you like, see page 4 of the LOI.

71. Under a fixed price subcontract will we get paid on the execution of each deliverable or only at the stage gate?

Payments made under fixed price subcontracts are based upon receipt and acceptance by NREL of deliverables listed under the payment article of the subcontract. The deliverables, the price to be paid for each, and the due date for receipt are negotiated.

LOI No. RAT-8-88012
March 31, 2008
Amendment No. 2

72. Would laboratory hardware be regarded as equipment?

Material items such as glassware, gases, solvents, etc.; items which would be consumed during the normal course of the work effort would be considered "expendable" materials. Expendable materials are not tracked by NREL. However, the LOI states that all equipment (personal property) purchases must be acquired through price participation funds contributed to the project by the Responder and by price participation funds contributed by the Responder's lower-tier subcontractors or suppliers at no cost to NREL. If NREL funds are used to purchase equipment then that equipment becomes the property of NREL. NREL does not want to deal with the question of equipment ownership at the end of the project.

73. Why is the NAICS Code identified in Section 16 of the LOI?

The small business size standard for the identified Code allows the Responder to determine if they are in fact a small business.

74. With regard to existing trade secrets and patents, existing and to be developed, who has right of ownership?

Appendix C-2, Intellectual Property Provisions defines limited rights data as data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. Appendix C-2 describes the Government's rights to use, duplicate, or disclose limited rights data. See Clause 3 – Rights in Data.

Patent rights with regard to small businesses performing research and development work are detailed under Clause 7 – Patent Rights-Retention by the Subcontractor of Appendix C-2.

Except as otherwise stated in this amendment, the subject LOI remains unchanged.

Should questions arise please contact the undersigned via e-mail at william_algiene@nrel.gov.

Sincerely,

William L. Algiene
Sr. Subcontract Administrator