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Port of Long Beach Comments, Docket # 16-EPIC-01

RE: EPIC Request for Comments: Increase Adoption of Emerging Clean Energy Technologies through Procurement.

Thank you for the opportunity to comment on this draft solicitation. The Port of Long Beach (POLB) is a local government agency (a department of the City of Long Beach). Our customers (tenants) are the marine terminal operators that facilitate the flow of cargo from ships to stores. As a seaport authority, POLB constructs and maintains Port infrastructure, and designs, builds and leases marine terminal properties to over 200 separate entities. POLB's tenants own the cargo-handling equipment on the terminals and rent the terminal space and buildings from POLB. Each tenant's electricity is metered separately, with power demands ranging from 0.5kW to 7MW. The higher electrical loads are typically related to air-emission reduction strategies, such as provision of shore-to-ship electric power, electric cranes, other cargo-handling equipment, and area lighting. Both POLB and its tenants are potential large-scale clean energy procurers and are significant funding contributors to California's Public Purpose Programs.

Our responses to the specific questions solicited for input are as follows:

1. (For all groups) What are barriers that large-scale customers face when procuring emerging energy technology solutions? What projects funded from this solicitation help address those barriers? If not, what specific changes would you recommend to help ensure the resulting projects meet large-scale customer procurement needs?

Examples of potential procurement barriers:

- $\hat{a} \in \phi$ Funding and incentive availability
- Capital planning and budgeting processes, including advanced planning and firm data on ROI
- Operational disruptions
- Training, operation, and maintenance outside of core business functions
- Consumer confidence in new products, including fear of innovation and its obsolescence

2. (For all groups) What are specific recommendations you can provide for improving the purpose of the solicitation outlined in this RFC? Please explain the rationale behind these recommendations.

No comment.

3. (For all groups) Are there existing efforts that complement the groups identified in this RFC? What specific changes to this proposed solicitation would you suggest to best leverage these existing efforts?

No comment.

4. (For all groups) Are the proposed funding amounts identified in the RFC appropriate for the work requested? Please explain the rationale behind the recommendations, and, if applicable, what would the expected cost be to adequately test and evaluate the technology types identified in this draft solicitation?

No comment.

5. (For Group 1) Should the Energy Commission require test bed locations in both Northern and Southern California? Please explain the rationale behind the recommendations.

Test bed locations should reflect the variety of climate factors the emerging technologies might be exposed to. Technological performance and/or materials considerations may differ in hot/cold/dry/wet/salty/windy/calm environments.

6. (Groups 1 and 2) Are there additional technologies we should consider or technologies we should remove from the lists provided in this RFC? Please explain the rationale behind the recommendations.

As described, the Test Bed Environment and Validation category appears to be specific to buildings. However, at seaports, the majority of energy used is from equipment outside of buildings. Test bed activities should not be limited to building applications.

The clean energy generation list might be expanded from BIPV to specify technologies such as in-pipe hydroelectric power, building-integrated wind turbines, emerging PV materials (aside from BIPV), and others that are promising but pre-commercial.

The California Energy Product Evaluation Hub (Group 2) solicitation should also consider safety ratings, such as UL certifications. These certifications are expensive and time consuming, and perhaps there are strategies or partnerships that Group 2 could evaluate to lessen the certification burden. Large-scale energy procurers are also likely to be large-scale employers for which the minimization of danger, risk, and liability is paramount. The Port requires UL listings (where feasible) for any equipment wired into our infrastructure.

7. (Group 3) How can Group 3 most effectively build trust with target customers to ensure that the target customers are buying high quality products?

In our experience, many emerging energy products are warranted for a period longer than their actual existence, causing skepticism about such claims. In addition, emerging technology providers are often newer business entities without a proven track record. CEC might consider requiring warranties that reflect the scale of capital expenditures, as well as develop a program for backing emerging technology warranties (surety bonds or similar) for smaller vendors.

8. (for Group 4) What are the largest impediments to successful deployment of solutions that can facilitate successful procurement of emerging energy technologies? Are there solutions not addressed under this proposed solicitation that would address these impediments? Please explain the rationale behind the recommendations.

No comment.