**Energy Research and Development**

**Questions and Answers**

GFO-24-307

**Advancing Designs and Analysis of High Voltage Direct Current (HVDC) Substations and Environmental Monitoring for Floating Offshore Wind (FOSW)**

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**Disclaimer:** The following answers are based on California Energy Commission (CEC) staff’s interpretation of the questions received during the pre-application workshops and those submitted in writing prior to the deadline of March 25, 2025. It is the Applicant’s responsibility to review the purpose of the solicitation and to determine whether their proposed project is eligible for funding by reviewing the Eligibility Requirements within the Solicitation Manual. The CEC cannot advise as to whether a particular project is eligible for funding, because not all application details are known.

# **Group 1: Designs and Analysis of HVDC Substations**

1. **Question:** Can a developer propose a FOSS (floating offshore substation) technology they're developing within another country, even if they're not the OEM of that technology? Assuming they have the agreement of the OEM?

**Answer:** Proposals can include any feasible offshore substation technologies provided they meet the solicitation requirements. Applicants should include justification of proposed technologies based on their applicability to California’s wind energy areas. The feasibility of proposed technologies for California will be assessed during the project, and final recommendations will be made before a final concept design is developed. Proposal budgets that maximize CEC funds spent in California will be scored favorably consistent with the solicitation scoring criteria. Information about funds spent in California can be found in Section I.L of the solicitation manual.

1. **Question:** Will this solicitation support high voltage direct current (HVDC) environmental assessment not affiliated with a specific developer or HVDC manufacturer?

**Answer:** The applicant is responsible for ensuring that its proposal meets the requirements of the solicitation. CEC cannot make any pre-determinations as to the eligibility of a proposal without a complete submitted application. Applicants are encouraged to seek partner opportunities with other interested entities here: <https://www.empowerinnovation.net/en/custom/funding/view/46298>.

1. **Question:** Has a study been performed showing that high voltage alternative current (HVAC) does not work and HVDC is required? Given that other offshore wind farms, such as Coastal Virginia Offshore Wind, are further offshore than the proposed California projects and are using High Voltage AC substations and export cables, are there any specific reasons why HVDC systems are included in the subject CEC solicitation?

**Answer:** Given the distances of California’s wind energy areas to shore, both HVAC and HVDC transmission systems are viable options to export power from offshore wind projects to shore. While HVAC technologies are more mature and have primarily been used to export offshore wind to shore, HVDC transmission technology is considered nascent, especially for offshore applications. The purpose of this solicitation is to conduct research and development into the feasibility and increase the technology readiness level of HVDC concepts and analyses for offshore wind applications in California and to inform state policymakers, developers, and other interested parties.

1. **Question:** What level of detail is expected when providing a baseline for current HVDC substation designs?

**Answer:** Baseline details may include, but are not limited to, cost benchmarks; physical attributes such as materials, capacity, station size, and platforms; technical characteristics such as converter technologies, voltage and current, communication protocols, circuit breakers, switchgear, line and cable terminations, measurement equipment, HVDC configuration and grounding, busbar arrangements, converter efficiency, cooling systems, DC converters, power-flow control, bushings, and grid controllers; and the current feasibility and technical readiness level of these technologies.

1. **Question:** Would dynamic cable modeling be considered as a separate project? Or should it be included in an HVDC design? Have you considered superconducting cables for offshore wind farms?

**Answer:** HVDC dynamic cables are not considered to be within the scope of this group, however, the cable interface with the substation, to include cable bays, wet-mate connectors, and other components, may be included in a substation concept design. The applicant is responsible for ensuring that their proposal meets the requirements of the solicitation. CEC cannot make any pre-determinations as to the eligibility of a proposal without a complete submitted application. Applicants are encouraged to seek partner opportunities with other interested entities here: <https://www.empowerinnovation.net/en/custom/funding/view/46298>.

1. **Question:** How do you plan on testing substation designs?

**Answer:** Group 1 of this solicitation is to develop a concept design and associated analyses of HVDC substations. Concept designs may undergo an independent evaluation by a third-party entity. In-water testing is not within the scope for this group.

1. **Question:** Does the improvement of the topside design have to be included in the deliverables? Or can the structural and engineering, procurement, and construction (EPC) parts of the substation design be sufficient?

**Answer:** This solicitation seeks a concept design that informs all aspects of an offshore substation, including topside structure, platform, station keeping systems, component technologies, etc. Ongoing research and development in mooring systems, environmental monitoring solutions, platforms, etc., will be informed by this work. Each applicant is responsible for ensuring that its submitted application represents its best and final proposal to meet the solicitation requirements.

1. **Question:** Can the design advancement be technology agnostic? Could the advancement be a general improvement of HVDC floating or subsea design standards be sufficient for a deliverable if a floating wind developer supports the improvements?

**Answer:** Concept designs and associated analyses should seek to develop specific technology recommendations and standards that inform ongoing research and development work in offshore infrastructure and environmental monitoring solutions. Each applicant is responsible for ensuring that its submitted application represents its best and final proposal to meet the solicitation requirements.

1. **Question:** Applicants are aware that there have been many discussions about expanding California infrastructure to support FOSW development in the WEAs. Has a preliminary infrastructure plan been decided and is it publicly available? If such a plan is available, can applicants for HVDC substations incorporate the planned infrastructure improvements into the techno-economic analysis for the HVDC substation?

**Answer:** The Assembly Bill (AB) 525 strategic plan includes a preliminary analysis on offshore transmission corridors, and the California Independent System Operator (CAISO) approved onshore transmission upgrades to support the interconnection of offshore wind to the grid. Applicants are strongly encouraged to interface early with California offshore wind developers and other key parties to ensure that a concept design and associated analyses are informed by ongoing offshore wind development planning and coordination activities. Information and data relating to infrastructure planning may not be publicly available, and it will be the responsibility of the recipient to ensure that it can access or collect the necessary information in accordance with the proposed scope of work.

1. **Question:** Does CEC want to receive guidance on which design rules and analysis and engineering methods should apply to a substation design? Does CEC also want to receive a methodology on how to comparatively evaluate various design submittals?

**Answer:** California offshore wind developers will develop substation designs consistent with their processes. This solicitation seeks to ensure research and development of nascent technologies that could have a role in offshore wind development to meet the state’s decarbonization goals, lower ratepayer costs, and provide grid reliability in California. Applicants are highly recommended to identify key Technical Advisory Committee (TAC) members with the necessary expertise to inform development of concept designs and associated analyses.

1. **Question:** Many experts agree that 525 kV HVDC bipoles are the emerging standard for offshore wind transmission globally, and there are efficiencies associated with collapsing to a global standard, including capturing lessons learned from other markets and implementing the first link of an eventual HVDC offshore grid. However, given the nascent state of floating HVDC, such a rating will drive heavy substation equipment and thus significant substation cost. In addition, it is believed that deferring execution until the 525 kV system technology is mature will extend the timeline for achieving CEC goals. To what degree are Group 1 concepts, which consider ratings below 525 kV and thus may not link to a long-term HVDC offshore grid without additional equipment, encouraged to illuminate near-term advancements of the state of floating HVDC?

**Answer:** Proposed concepts that include design considerations that provide greater system utility (i.e., reliability, grid ancillary benefits) will be analyzed and evaluated for their feasibility and timeliness for offshore wind development in California’s wind energy areas to inform state policymakers, offshore wind developers, and other interested parties. Applicants may propose either near-term or long-term concepts and provide justification consistent with California’s offshore wind development needs, and either may be considered for a funding award consistent with the solicitation requirements.

1. **Question:** Metocean conditions of extreme conditions (i.e., 50-, 100-, 1,000- and 10,000-year return periods for winds, waves, currents, and tides) are important factors to design and validate floating substation systems. The same conditions should be used for all project teams for fair comparisons of the project outcomes. Will CEC provide representative metocean conditions in offshore California? If those are not available now, will they be available during an early stage of the project?

**Answer:** It is the responsibility of a recipient to identify and collect any key data or information for the successful development of a concept design and associated analyses. Early engagement with California offshore wind developers and other key parties is highly encouraged to ensure successful project outcomes.

1. **Question:** The Manual (pp. 7) states that project tasks include levelized cost of energy (LCOE) in Group 1. Shall the LCOE be estimated with considering all the elements of wind turbine platforms in a wind farm, inter-array dynamic cables, substation platform, and export cables to shore? Please clarify. If the wind turbine platform shall be considered, it requires an extensive effort for its unit cost estimate, which may not be appropriate for floating substation concept design. Will CEC provide a unit cost of a floating wind platform and overall size of wind farm required?

**Answer:** It is the responsibility of a recipient to identify and collect any key data or information for the successful development of a concept design and associated analyses. Proposals should include clearly defined technology references, assumptions, and boundaries; data references; and other considerations to inform the analyses and concept design.

1. **Question:** Page 3 notes that Group 1 projects will develop concept designs for a floating “or” subsea offshore HVDC substation (emphasis added). The solicitation also allows prospective applicants to submit multiple applications addressing the same project group, provided that each application is for a distinct project, meaning there is no overlap with respect to the technical tasks described in the Scope of Work. Could CEC please provide additional clarity with respect to the requirement of no overlap with respect to the technical tasks?
   1. Example 1 - if a single Group 1 project application proposes to analyze both floating and subsea offshore HVDC substations, does this comply with the requirement of no overlap with respect to the technical tasks?
   2. Example 2 - if a single Group 1 project application proposes to compare different floating offshore HVDC substation foundation designs/materials, does this comply with the requirement of no overlap with respect to the technical tasks?

**Answer:** If an applicant submits multiple applications that address the same project group, each application must be for a distinct project (i.e., no overlap with respect to the technical tasks described in the Scope of Work). It is the responsibility of the applicant to ensure that there is no overlap with respect to the technical tasks described in the Scope of Work for multiple applications. Failure to do so may result in rejection of the application(s). Proposed analyses within a single application may review several offshore substation platforms to include different floating and/or subsea platforms; however, the proposed concept design in the application must be technology-specific and consistent with the technical tasks listed in the proposed Scope of Work.

1. **Question:** Will proposals that include the design and analysis of HVAC systems be considered responsive to the solicitation?

**Answer:** This solicitation is seeking proposals to develop concept designs and associated analyses of HVDC substations for offshore wind. The applicant is responsible for ensuring that its proposal meets the requirements of the solicitation. CEC cannot make any pre-determinations as to the eligibility of a proposal without a complete submitted application.

1. **Question:** Given the nascent technology readiness level (TRL) of HVDC electrical equipment for floating and subsea applications, what are the CEC’s expectations for cost estimates of such equipment as part of the technoeconomic analysis?

**Answer:** Technoeconomic analyses may include considerations such as cost analyses; break-even analyses; sensitivity analyses; return on investment; payback period; market trends; growth potential; competitive landscape; demand projections; replicability of the project and/or long-term scale-up plans; and contracts, plans, or agreements. These technoeconomic analyses identify innovative concepts that would lower the levelized cost of electricity and provide the greatest economic benefit and cost savings for California ratepayers.

1. **Question:** Environmental impact assessment (e.g., cooling water case) may include: 1) assessment of the heated water amount discharged to sea, 2) marine biological impact analysis associated with the heated water discharged. Does the proposed project have to consider both or one only?

**Answer:** Environmental impact assessments of proposed cooling systems should identify all risks and effects to marine life and sensitive habitats from water intake and discharge, including effects of localized water temperatures, and develop mitigation strategies. Information on environmental impacts may be used to inform permitting agencies, such as Bureau of Ocean Energy Management. The applicant is responsible for ensuring that its proposal meets the requirements of the solicitation. CEC cannot make any pre-determinations as to the eligibility of a proposal without a complete submitted application.

# **Group 2: Environmental Monitoring Solutions**

1. **Question:** Can the monitoring solution be a concept out of university?

**Answer:** Yes, concepts may originate from a university. Proposed solutions for Group 2 must have a minimum starting TRL of 3. The U.S. Department of Energy’s “Technology Readiness Assessment Guide” is available at <https://www2.lbl.gov/dir/assets/docs/TRL%20guide.pdf>.

1. **Question:** Can the monitoring solution be a process agnostic to monitoring technology?

**Answer:** Applicants may propose any entanglement, environmental, and structural integrity monitoring system solutions that can meet the requirements contained in Section I.C. of the solicitation manual. Examples of relevant monitoring technologies are provided in the solicitation manual, but other relevant technologies are acceptable.

1. **Question:** Are there any constraints, restrictions (or expectations) we should anticipate related to field testing and or offshore environment testing?

**Answer:** Applicants should include any laboratory and/or field testing needed to advance the TRL of the proposed solution, where applicable.

1. **Question:** Concerning the monitoring system will be optimized to improve operational durability to withstand California deep-water conditions as a requirement stated in the technical approach in the high-cost offshore, my salutation is that the ideal location would be located in a remote area of the beach to save the installation and maintenance costs?

**Answer:** The intent of Group 2 is to develop a monitoring system that can be installed on equipment deployed at a floating offshore wind farm. This will reduce the reliance on, and cost of, vessel deployed solutions. Monitoring systems that include independently moored equipment at a floating offshore wind farm are also acceptable. Each applicant is responsible for ensuring that its proposal meets the requirements of the solicitation and should include any laboratory and/or field testing needed to advance the TRL of the proposed solution.

1. **Question:** Is the prevention of entanglement a strategy to be deployed with the proposed mitigation technology considered responsive to the solicitation?

**Answer:** Each applicant is responsible for ensuring that its proposal meets the requirements of the solicitation. The solicitation manual defines entanglement mitigation as the ability to verify the existence of and safely remove entangled abandoned, lost, or discarded fishing gear from floating offshore wind infrastructure.

1. **Question:** Are acoustic tags designed for fishing gear tracking and identification as a part of the mitigation system considered responsive to the solicitation?

**Answer:** Each applicant is responsible for ensuring that its proposal meets the requirements of the solicitation. CEC cannot make any pre-determinations as to the eligibility of a proposal without a complete submitted application.

1. **Question:** Assuming that electrical power is not available near the mooring lines, array cables, etc., is a novel solution in power generation from wave action considered responsive to the solicitation?

**Answer:** Each applicant is responsible for ensuring that its proposal meets the requirements of the solicitation. CEC cannot make any pre-determinations as to the eligibility of a proposal without a complete submitted application.

1. **Question:** Is the preferred system tied to the mooring or attached to the bottom of the FOSW structure? What about autonomous underwater vehicles (AUVs) with self-charging capabilities to cover the entire lease waters that can operate in residence without a support vessel for validating the accuracy of entanglement detection?

**Answer:** Each applicant is responsible for ensuring that its proposal meets the requirements of the solicitation. CEC cannot make any pre-determinations as to the eligibility of a proposal without a complete submitted application.

1. **Question:** Is validation testing in a simulated environment such as using a large freshwater tank for the proposal considered responsive to the solicitation?

**Answer:** Applicants should include any laboratory and/or field testing needed to advance the TRL of the proposed solution.

# **Eligible Applicants and Project Teams**

1. **Question:** Is it possible for foreign companies to apply or be included as a subrecipient?

**Answer**: All recipient, subrecipient, and vendor corporations; limited liability companies (LLCs); limited partnerships (LPs); and limited liability partnerships (LLPs) that transact intrastate business in California are required to be registered and in good standing with the California Secretary of State prior to the project being recommended for approval at a CEC Business Meeting. More information can be found here: <https://www.energy.ca.gov/funding-opportunities/funding-resources/ecams-resources/ecams-frequently-asked-questions>.

1. **Question:** Are there risks to agencies in the Federal government leading any bids?

**Answer**: Federally funded national labs can apply for this grant funding opportunity and can find Electric Program Investment Charge (EPIC) grant terms and conditions for Department of Energy entities here: <https://www.energy.ca.gov/funding-opportunities/funding-resources>.

1. **Question:** Could you provide more details about funds spent outside of the United States? Specifically, can a California-based company use internationally-based staff and be reimbursed with CEC funds? If we secured funding from a foreign government, can that funding be used to pay our researchers in that country?

**Answer:** The budget must NOT identify that CEC funds will be spent outside of the United States or for out-of-country travel. However, match funds may cover these costs if there are no legal restrictions. Recent legal restrictions may include Russian Sanctions outlined in the solicitation manual. Projects that maximize the spending of CEC funds in California will receive points as indicated in the scoring criteria. Only CEC funds may count towards the funds spent in California total. Definitions of spent in California are included in the solicitation manual.

1. **Question:** If \*an applicant\* were to collaborate with collaborators from another state, would the funding supporting the proposal from that state count as cost share? How about federal funding?

**Answer**: "Match funds" include cash or in-kind (non-cash) contributions provided by the applicant, subrecipients, or other parties that will be used in performance of the proposed project. Cash match can include funding awards earned or received from other agencies or states for the proposed technologies or study (but not for identical work).

1. **Question:** Can one \*applicant\* \*be awarded\* more than one \*proposal\* in each group?

**Answer:** Applicants may submit multiple applications, though each application must address only one of the project groups identified above. If an applicant submits multiple applications in the same project group, each application must be for a distinct project with no overlap in the technical tasks described in the Scope of Work.

1. **Question:** Can a proposal include options for scope and budget? For example, can a proposal offer an option 1 and an option 2, where each option has a distinct scope and budget request? Does CEC have a mechanism for evaluating proposals with options? Can proposals for Group 1 include options so the Energy Commission may select between say $2M, $3M, and $4M bids depending on whether they want to make say 2 or 3 awards?

**Answer**: The CEC is not responsible for picking specific options in an applicant’s proposal to award funding. Each applicant is responsible for ensuring that its submitted application represents its best and final proposal to meet the solicitation requirements.

1. **Question:** If we were able to secure funding from an outside entity (another country's federal government, another state's state government, developer, OEM), could their funds be used to secure the profit for the Prime applicant?

**Answer**: Applicants may NOT include any grant recipient profit from the proposed project, either as a reimbursed item, match share, or as part of overhead or general and administrative expenses. Attachment 13: EPIC Standard Grant Terms and Conditions, Section 7(g) includes more information relating to profit.

1. **Question:** List of potential Technical Advisory Committee (TAC) member names are required in the proposal? If project team members are from the professionals in key areas, can they be a TAC member as well?

**Answer**: A completed list of Technical Advisory Committee (TAC) members is not required to be identified in the proposal; however, it is up to the applicant to determine if it would like to include potential TAC members. TAC members should be independent of the project team to provide guidance in project direction. More information on the TAC is listed in Attachment 4: Scope of Work, subtask 1.11.

1. **Question:** Would the two awardees in each group have similar or different scopes?

**Answer:** Each applicant should review the solicitation requirements carefully and propose a project scope that it feels it can accomplish. It is possible, that if two awardees are selected in a group, the awarded projects could have different scopes of work.

1. **Question:** How many awards do you intend to make on Group 1?

**Answer:** One to three awards per group, depending on funding considerations and passing proposals.

# **General and Administrative**

1. **Question:** Have California developers and OEMs shown explicit interest in this research?

**Answer:** CEC staff conducted extensive outreach and engagement during the development of this solicitation. Requests for Information for Group 1 (<https://efiling.energy.ca.gov/GetDocument.aspx?tn=257721>) and Group 2 (<https://efiling.energy.ca.gov/GetDocument.aspx?tn=258498>) were issued, and feedback was received from California offshore wind developers and other interested parties.

1. **Question:** What are the protocols to reaching out to CEC about the application?

**Answer**: Please send all questions related to GFO-24-307 to:

Eunice Lemos-Adair

Commission Agreement Officer

715 P Street, MS-18

Sacramento, CA 95814

(279) 226-1065

[Eunice.Lemos-Adair@energy.ca.gov](mailto:Eunice.Lemos-Adair@energy.ca.gov?subject=GFO-24-307)

1. **Question:** Will you be posting responses to questions on a rolling basis to the website?

**Answer**: The deadline to receive questions was March 25, 2025, and responses will be posted on the week of April 7.

1. **Question:** What does the CEC consider a success when the projects are completed?

**Answer**: Successful EPIC projects provide ratepayer benefits, such as increased safety, reliability, affordability, environmental sustainability, and equity. Additionally, projects in this solicitation should demonstrate an increase in Technical Readiness Level of the proposed technology(ies) and provide recommendations for state policymakers, California developers, and other interested parties.

1. **Question:** Can ongoing project work be included in the "experience" document?

**Answer**: Active or past agreements with the CEC or other public agencies may be included in Attachment 8: Past Projects Information.

1. **Question:** What is the limitation on liability for the contract?

**Answer**: Successful applicants will be awarded grant funding to conduct research and development consistent with the EPIC standard grant terms and conditions outlined in Attachment 13. By submitting an application, the entity agrees to the respective terms and conditions corresponding to its organization without negotiation, consistent with Section II.A.2 of the solicitation manual.

1. **Question:** What is the expected duration of a project supported by CEC grant funding for HVDC substations (GFO-24-307)?

**Answer**: Typically, CEC projects last 3 – 4 years, depending on the funding requirements and the proposed scope of work. Section E of the solicitation manual contains anticipated agreement start and end dates, and each applicant should ensure that the proposed scope of work can be completed within the scheduled timeframe.

1. **Question:** What is the approximate administrative burden? E.g., are there monthly/quarterly reporting requirements?

**Answer**: Task 1 of the Scope of Work Template (see Attachment 4, Section III) describes most of the general administrative requirements, which include monthly and quarterly reporting. Applicants should carefully review all of the application materials to ensure that all application requirements are met.

1. **Question:** Regarding the cost share, is the expectation that non-CEC funds are committed at the beginning of the project? Or can we rely on CEC at the beginning to get us up and running, with the cost-share portion to be contributed later on?

**Answer**: Projects are expected to spend CEC funds concurrently with match funds. Awardees may request CEC approval of a match fund spending plan during agreement development in cases where CEC funds are expected to be spent early on during the project.

1. **Question:** How much flexibility is typically allowed in the award, particularly in response to field testing? For example, if initial field testing indicates an alternate approach would be more viable, would we be able to work with the program manager to modify the work plan/scope accordingly?

**Answer**: Changes to the scope of work after the agreement is signed may require approval at a CEC business meeting. Each applicant should propose a scope of work that is consistent with the proposed tasks and outcomes, which may include field testing.

1. **Question:** Please could you confirm whether office rent or rent for specialized labs or facilities are eligible direct or indirect costs for grant funding under CEC GFO-24-307?

**Answer**: Indirect costs may include other general business expenses such as rent. For more information on budget categories under this solicitation, please review the budget category guidance here: <https://www.energy.ca.gov/funding-opportunities/funding-resources/ecams-resources/budget-category-guidance?auHash=cEItgat6JNbO9BFGeVqe4E5T6koCOgTaqliFX6bmwtg>.

1. **Question:** Section 2 of the Standard Terms and Conditions lists several documents that are considered to be incorporated by reference including (among other documents) the "proposal submitted in response to the solicitation." Should this be interpreted to mean that additional terms and conditions may be included - and therefore incorporated by reference into the Standard Terms and Conditions - as part of the proposal that is submitted?

**Answer:** Attachment 13: EPIC Standard Grant Terms and Conditions lists documents incorporated by reference to include the submitted proposal. One of the documents that is incorporated by reference and made a part of the grant agreement is the proposal submitted by the grant recipient. The CEC relies on the information provided in the proposals and determines which applicant receives an award based on the information contained in the proposal.

The CEC will not accept additional terms and conditions submitted by an applicant for inclusion in the grant agreement. Please be aware the CEC reserves the right to modify the terms and conditionsprior to executing grant agreements.

1. **Question:** Would it be possible to amend the waiver of consequential damages contained in the Standard Terms and Conditions to be mutual? Would it be possible to add a force majeure clause to the Standard Terms and Conditions? Would it be possible for the Standard Terms and Conditions to limit the contractor team's liability to the value of the contract?

**Answer:** By submitting an application, the entity agrees to the respective terms and conditions corresponding to its organization without negotiation, consistent with Section II.A.2 of the solicitation manual. Failure to agree to the terms and conditions by taking actions such as failing to provide the required authorizations and certifications or indicating that acceptance is based on modification of the terms may result in rejection of the application.

1. **Question**: Could making certain results of the project public, that we would have normally sold, be considered an "in kind contribution" for the value of those documents?

**Answer**: As a condition to receive funding under this solicitation, applicants agree to fully comply with the California Taxpayer Access to Publicly Funded Research Act as outlined in Attachment 13: Exhibit C EPIC Standard Grant Terms and Conditions, section 24. Definitions of match funding categories, to include in-kind (non-cash) contributions are outlined in the Solicitation Manual, section K.

1. **Question:** If, prior to submitting a project application for GFO-24-307, a bidder self-invested and developed proprietary computational software and/or proprietary analytical models for designing and analyzing floating offshore wind structures, would such model or software be considered a permissible "In-Kind" match (as existing equipment, existing supplies, or another category)?

**Answer:** Definitions of match funding categories, to include in-kind (non-cash) contributions are outlined in the Solicitation Manual, section K.

1. **Question:** The proposed project is required to considerdisadvantaged communities involvement. Will teaming up with minority serving institutions (MSI) be considered as engagement of the disadvantaged communities?

**Answer:** Applicants are encouraged to engage with and identify how the proposed project will benefit disadvantaged and/or low-income communities, through positive impacts, such as ratepayer savings, job creation, economic development, and access to clean energy and sustainability, and how any potential negative impacts or risks will be assessed and mitigated.

1. **Question:** According to the Manual (pp. 26), Attachment 12 is required for application. However, this document is a reference of energy use, which doesn’t seem appropriate for this project. Please clarify if the attachment is a part of the application package to be submitted?

**Answer:** Any estimates of energy savings or greenhouse gas (GHG) impacts described in the application should be calculated as specified in Attachment 12: References for Calculating Energy End-Use and GHG emissions, to the extent that the references apply to the proposed project. Submitting this attachment is optional.

1. **Question:** The Manual II.A.3 (pp. 24) states that, “All corporations, limited liability companies (LLCs), limited partnerships (LPs) and limited liability partnerships (LLPs) that conduct intrastate business in California are required to be registered and in good standing with the California Secretary of State prior to its project being recommended for approval at an CEC Business Meeting.” Can you clarify if this is only applicable to the prime contractor who enters into the agreement with the CEC, or is it a requirement of every company who contributes to the project?

**Answer:** The requirement applies to grant recipients, as well as, project partners including, subrecipients, vendors, and match fund partners.

1. **Question:** What happens if your two best applications (Group 1) are for $4M each? So, then you would pick a third, lesser scoring application that has a lower cost?

**Answer:** The highest scoring applications will be recommended for funding, and other applications with a passing score may be considered for award based on funding constraints.

1. **Question:** If one of the deliverables of the HVDC design advancement is an upgrade to our existing engineering software, sold to designers and developers for ocean structures, will we maintain the intellectual property (IP) rights of the new version of the software to sell the software version without royalties to CEC? If one of the deliverables of the HVDC design advancement is a design with TRL 2-3 to TRL 3-5, will the OEM maintain the IP rights of that design? If one of the deliverables of the HVDC design advancement project is an update to a design standard, will the developer of that standard maintain the IP rights to sell those standards without royalties going to the CEC?

**Answer:** Attachment 13: Exhibit C EPIC Standard Grant Terms and Conditions contains intellectual property provisions. See Sections 19-21. By submitting an application, the entity agrees to the respective terms and conditions corresponding to its organization without negotiation, consistent with Section II.A.2 of the solicitation manual.

1. **Question:** In what detail must the design advancement be shared with CEC? Will a third-party verification of the design's progress be sufficient, or will the details of the design need to be shared and made public?

**Answer:** As a condition to receive funding under this solicitation, applicants agree to fully comply with the California Taxpayer Access to Publicly Funded Research Act as outlined in Attachment 13: Exhibit C EPIC Standard Grant Terms and Conditions, section 24.

1. **Question:** Are there any risks to the funding to be rescinded?Who funds EPIC?

**Answer:** This solicitation will award projects under EPIC which is funded by a surcharge on electricity ratepayers of the three largest Investor-Owned Utilities in California. The CPUC which oversees the EPIC program renewed it through 2030. CEC reserves the right to reject an application and/or cancel an award for any reason as outlined in the solicitation manual. Please see the EPIC webpage for more information: <https://www.energy.ca.gov/programs-and-topics/programs/electric-program-investment-charge-epic-program>.