Clean Energy Coordination
Department of Ecology
PO Box 47709
Olympia, WA 98504-7709

Re: Scoping comments — Programmatic Environmental Impact Statement (PEIS) for Battery Energy Storage Systems

To the clean energy coordination team:

Copenhagen Infrastructure Partners (CIP) submits these comments in response to the Department of Ecology's scoping request for the Programmatic Environmental Impact Statement on battery energy storage systems.

CIP invests in the development and construction of U.S. clean energy infrastructure and currently manages a pipeline of approximately 17,000 MW of clean energy projects. Since entering the U.S. market in 2016, we have invested approximately $4.7 billion across 20 states, including battery energy storage in Washington state.

Members of our team attended the September 15 informational session and public comment meeting, and we appreciated both the clarity of the presentation and the Department's guidance on what constitutes a useful comment. We have worked to reflect that guidance in the comments below on each of the four areas the department requested input, followed by comments on how the PEIS can work in practice.

We offer these comments as an organization that develops, owns, and operates energy projects and thus has experience working alongside communities across the U.S., Our goal is to support a technically sound and practical analysis and workable language that local jurisdictions can readily implement

In summary, we ask that the PEIS:

- Focuses on technology performance, not type of hardware. This means evaluation of energy storage by how it performs on safety and environmental measures, so the analysis stays more consistent and useful as technology evolves
- Recognizes practical factors that can constrain where projects are sited
- Provides answers to frequent questions from the public, addressing fire safety, water runoffs, noise and decommissioning with clear, evidence-based analysis
- Sets practical and consistent expectations offering a toolkit of mitigation measures that gives communities, reviewing agencies and developers a common baseline and makes clear how a project that follows the PEIS can provide a reliable basis for community evaluation

1. Types of facilities to be evaluated

The department's proposed focus on standalone, utility-scale battery energy storage is appropriate. Standalone storage is a distinct asset class with a distinct impact profile, and analyzing it separately from co-located or behind-the-meter configurations will produce clearer findings.

We recommend, however, that the analysis characterize storage by performance and hazard profile rather than by named chemistry. Battery storage technology is improving continuously, and the specific cell chemistry, enclosure design, thermal management approach and fire detection / suppression

systems and hazard mitigation tools available at final design differ materially from those available at the point a project is first contemplated. Findings tied to a particular named chemistry could constrain jurisdictions to evaluate projects against assumptions that no longer reflect current technology, which could limit the PEIS's usefulness as a long-term decision-making tool.

We believe a performance-based framing helps better characterize impacts under SEPA without unnecessarily limiting the usefulness of the PEIS. We suggest the PEIS evaluate facilities by the characteristics that actually drive impact — site selection and disturbance footprint, enclosure design, safety profile, compliance with codes effective at the time of project proposal and associated hazard mitigation, and decommissioning, including end-of-life material recovery. Those characteristics are measurable, they are what national standards already address, and they remain meaningful as the underlying technology changes.

Relatedly, we ask that the department state expressly that the PEIS is intended to accommodate technological improvement. Jurisdictions reviewing a project should be able to accept a design that meets or exceeds the performance envelope the PEIS contemplates, using technology that did not exist when the document was written, without needing supplemental programmatic analysis. The same should apply when an operating facility adds or replaces batteries over its life, as long as it stays within its approved footprint and safety performance.

2. Assumptions used to identify the geographic scope of study

Battery storage cannot be sited just anywhere, and we ask that the PEIS acknowledge this practical reality as context for project-level review. While environmental impacts and feasible mitigation are central to SEPA review, viable locations are also constrained by proximity to transmission and substations, available interconnection capacity, interconnection requirements and, in some cases, demonstrated grid reliability needs.

These are important siting considerations, but they are not environmental impacts and we are not asking the PEIS to determine how they should be weighed. Rather, we ask that the PEIS recognize them as relevant context, leaving permitting jurisdictions to balance environmental impacts and feasible mitigation with other factors when determining whether and under what conditions a project should be permitted.

3. Potential impacts on environmental resources to analyze

The sixteen resource areas identified in the presentation are comprehensive and we do not suggest additions to the list. The following are specific observations on areas where the analysis would benefit from particular attention, and where we can contribute information.

- **Environmental health and safety, and public services.** Fire risk is the dominant public concern and the area where the PEIS can be most useful. Any recommended setback distances should be based on the specific design and site, rather than a single fixed distance that could be too strict in some cases and not protective enough in others. As certain areas of Washington are prone to wildfires, the analysis should also consider wildfire risk, both from and to a facility. We encourage the analysis to address not only facility design but response capability — specifically, the resources available to the authority having jurisdiction. Many areas suitable for storage development are served by volunteer or combination fire districts with limited staffing and equipment. We believe this is a real and addressable gap, and we address it under mitigation below.

- **Water resources.** We encourage explicit analysis of firefighting water containment and treatment. Where a facility is located near a stream, wetland or drinking water source, the handling of water applied during an incident is a distinct pathway from the fire itself and warrants separate treatment. This concern has been raised repeatedly in public comment on individual projects and would benefit from a consistent programmatic answer. The analysis should also reflect current fire suppression practice for battery facilities, which generally focuses on protecting neighboring equipment rather than extinguishing the affected unit, and uses far less water than is often assumed.
- **Energy and natural resources.** Round-trip efficiency losses, including conversion and rectification losses, and capacity degradation over the operating life were both raised by commenters at the September 15 meeting. Both are real, measurable and well characterized in operating data. Addressing them directly and accurately, using available operating data, will allow jurisdictions and the public to have a clear understanding of their significance rather than being left to draw conclusions without context.
- **Extreme weather performance.** Also raised in public comment. Thermal management requirements and performance in cold conditions are relevant to both auxiliary load and reliability, and are worth addressing directly given the climate range across the state.
- **Tribal rights, interests and resources.** We support the department's decision to place this first among the resource areas. We comment on process under mitigation below.

4. Potential mitigation measures to consider

Based on our experience working with local jurisdictions, fire authorities and other stakeholders, the following measures address issues that arise consistently during project review. Several would establish clear responsibilities for project proponents. From an industry perspective, clearly defined expectations at the programmatic level can provide greater consistency for communities, reviewing agencies and developers and reduce uncertainty during individual project reviews. These measures should serve as a practical toolkit that projects can use to show consistency with the PEIS, rather than having fixed requirements needing to be written into local code. In particular, we request that the PEIS identify the characteristics that need to be included at the time of application, with a recognition that due to extended timelines for permitting along with project financing and use agreements, the specific equipment that will be purchased and constructed often cannot be known at the time the application is developed.

- **Technology disclosure.** Project proponents should disclose the storage technology, chemistry and enclosure configuration selected, together with applicable standards compliance documentation, once equipment selection is final and in advance of construction. However, this information can only generally be known at the time the permit application is prepared (e.g. there may be multiple vendors under consideration but a purchase agreement cannot be made until project financing has been confirmed, after the permit is issued). Establishing a consistent disclosure expectation would give jurisdictions a common baseline of information for evaluating projects. If equipment assumption changes after permitting to a system that is expected to perform and have parameters as well or better, that change should not require a new review.
- **Fire safety documentation and emergency response planning.** Required safety testing and documentation, including the applicable Hazard Mitigation Analysis, Emergency Response Plan and large-scale fire testing for the selected system, should be provided to the authority having jurisdiction (AHJ) as a standard part of project development. Emergency response planning should also involve the responding fire agency and include site

familiarization and appropriate training before the facility enters service. Framing this requirement around applicable safety standards and required documentation, rather than individual provisions of NFPA 855, would allow the PEIS to remain useful as codes and standards evolve.

- **Response capability support.** That the PEIS identify mechanisms by which a project can voluntarily contribute, in proportion to demonstrated need, to the response capability of the jurisdiction serving it, particularly where that jurisdiction is a volunteer or combination district. Washington law provides for voluntary mitigation agreements. Identifying this mechanism in the PEIS would provide jurisdictions and proponents with a clear framework for addressing demonstrated response-capability needs associated with a project.
- **Firefighting water containment and treatment.** That project design and emergency response planning address the management, containment and, where necessary, treatment of water used during an incident, reflecting current firefighting practice and with site-specific consideration given to proximity to surface water and other environmental resources.
- **Early engagement with affected Tribes.** That the PEIS identify early, pre-application engagement with potentially affected Tribes as a best practice, initiated before project design is fixed and separate from the permitting timeline. Oregon's Energy Facility Siting Council recently adopted rules requiring applicants to reach out to affected Tribes, and document those efforts, before formally starting the state siting process. Formal consultation remains appropriately government-to-government. From a project-development perspective, however, early engagement gives proponents an opportunity to understand potential Tribal concerns while meaningful adjustments to siting or design may still be possible.
- **Decommissioning.** That decommissioning obligations, financial assurance and material recovery be addressed programmatically. Decommissioning was raised by several commenters, and battery storage differs from many permanent industrial land uses in that the equipment can be removed and the site restored at the end of its operating life. A consistent programmatic expectation, including financial assurance, would give jurisdictions confidence that this is more than a representation. Financial assurance can take standard forms, such as bonds or letters of credit, and should be updated periodically over the life of the project.

5. Structure of the PEIS, and its usability at the project level

Our most substantive request concerns how the document is built. Based on the approach used in the Department's completed clean energy programmatic statements and electrical transmission PEIS, a standardized framework can give local jurisdictions and project proponents a common reference point for subsequent environmental review. We also believe that this is consistent with the Legislature's intentions under HB 1216.

One practical mechanism is a project consistency worksheet for battery energy storage, comparable to those developed for wind, solar and green hydrogen. Used alongside the SEPA checklist, a consistency worksheet would allow a project proponent and lead agency to document how proposed project is consistent with the mitigation measures the PEIS identifies; or in some cases, why those mitigation measures may not be appropriate for the proposed project. For that framework to function effectively, the PEIS should also clearly establish:

- What a project proponent must demonstrate to show consistency with the PEIS and its mitigation measures.

- How a lead agency evaluates that consistency and determines which issues have already been addressed through the programmatic analysis.
- When additional project-specific analysis is appropriate based on site or project conditions.
- How the PEIS can be relied upon during subsequent review to avoid unnecessarily repeating analysis already completed at the programmatic level.

We further ask that the document state clearly how lead agencies should treat a project that follows its recommendations - including whether it can rely on the PEIS in the local environmental (SEPA) determination-so that the programmatic analysis reduces duplicative project-level work rather than adding a further layer to it.

We understand this to be the intent of the authorizing legislation, which directed the department to prepare programmatic environmental impact statements in order to expedite subsequent project review.

From an industry perspective, clarity on how the PEIS translates into project-level review provides greater predictability about the information developers will need to provide. It is equally important for planning staff, who will be responsible for applying the PEIS to individual proposals. The PEIS will be most useful if it clearly shows what has already been addressed, what a project must demonstrate and what still requires site-specific review.

6. Offer of technical information

In response to the department's request for new or unknown information, we can provide operating and engineering data on topics raised at the September 15 meeting: round-trip efficiency, capacity degradation over project life, performance in extreme heat and cold, noise, and decommissioning. We are glad to share this with the department or its consultants in a form suitable for the public record, and to make our team and relevant third-party consultants available for any technical workshop during the draft phase.

Closing

We appreciate the Department’s work to undertake this programmatic analysis and the opportunity to participate in the scoping process. Developing a technically sound, transparent and practical resource will provide valuable guidance for local jurisdictions as they evaluate a technology that may be new to their communities as well as for developers to be evaluated on well-defined and rigorous standards.

Our comments are intended to help inform that effort based on our experience developing energy storage projects and working with communities across the country. We are not asking the Department to reach any conclusion about a particular project, nor have we commented on any specific project.

Thank you for the opportunity to provide input at this early stage. We appreciate the Department’s thoughtful approach to this process and look forward to reviewing the draft PEIS.

Respectfully submitted,

Ján Porvazník
Head of Project Development & Strategy
Flagship Funds
CIP Terra Technologies
japv@cip-tt.com