Ariel Castle

10/1/2026

To: Clean Energy Coordination, Washington State Department of Ecology

RE: Scoping Comments: Battery Energy Storage System Facilities Programmatic Environmental Impact Statement

Dear Clean Energy Coordination Team,

My name is Ariel Autumn Castle, and I live on Snoqualmie Ridge in Snoqualmie, WA which resides in the Snoqualmie Valley. My home is near the proposed Cascadia Ridge battery energy storage facility, which its developer, Jupiter Power, has announced it will take to the Energy Facility Site Evaluation Council (EFSEC) for state certification.

I support Washington's clean energy goals and recognize that battery storage has an important role in the state's energy future. My concern is where and how these facilities are sited. Stand-alone BESS facilities are now being proposed next to dense neighborhoods, schools, parks, forests, and salmon-bearing waters. Because future project-level reviews will tier to this PEIS, its scope will shape whether communities like mine are protected.

I also ask Ecology to share the PEIS's findings with EFSEC and other lead agencies as the analysis is developed, rather than waiting for the final document in 2028. Projects such as Cascadia Ridge may move through review before the PEIS is complete. Those reviews should benefit from this work, and the PEIS's timeline should not leave a gap in which projects are approved without it.

I respectfully ask Ecology to include the following in the scope of the PEIS.

1. Public health: toxic plume exposure to residents, not only responders.

The scoping document frames hazardous emissions mainly as a risk to fire responders. For stand-alone BESS sited near dense neighborhoods, the greater exposure may fall on residents who have no training, protective equipment, or warning.

The PEIS should evaluate:
• Plume behavior and exposure radius. Model how toxic gases (hydrogen fluoride, hydrogen cyanide, carbon monoxide) and particulates travel downwind at increasing distances from the facility, such as 0.5, 1, 2, and 5 miles. Include worst-case conditions: nighttime temperature inversions that trap gases near the ground, valley and ridge terrain, and high winds. Isolation distances in current incident guidance are designed for responders at the scene, not for downwind neighborhoods, and should not be treated as a safe public setback.
• Exposure before warning or evacuation. Evaluate how much exposure could occur before an incident is detected, an alert is issued, and people can be notified and moved. This is especially important at night, when residents are asleep and least able to recognize or respond to a release. In a densely populated area, the time needed to alert and move thousands of people may exceed the time it takes a plume to reach them.

• Evacuation route capacity. Evaluate whether existing roads can move the full surrounding population out quickly, including school buses, people without vehicles, and people with medical needs or disabilities. Where they cannot, the PEIS should identify this as a siting constraint.
• Lasting harm to people and animals. Exposure to these gases can cause serious and permanent injury, including lasting lung damage, along with delayed-onset symptoms that may not appear for hours. Children, older adults, and people with respiratory conditions are especially vulnerable. The PEIS should also evaluate harm to pets, livestock, and wildlife, which cannot evacuate or be protected.
• Deposition and cleanup. Evaluate heavy metals and fluoride compounds settling on soil, vegetation, play areas, gardens, and homes, and set cleanup standards. Do not rely solely on air-monitoring conclusions from past incidents like Moss Landing. Include post-incident soil and sediment data.
• Medical capacity. Assess whether local hospitals can treat mass hydrogen fluoride exposure, including stocks of calcium gluconate antidote and decontamination capacity.

2. Siting criteria, exclusion areas, and setbacks.

Ecology's 2025 analysis of BESS paired with solar and wind assumed large facilities in remote areas, unlikely to be near cities. The scoping document acknowledges that stand-alone BESS are smaller and could be sited in a variety of locations. In practice, developers now propose them next to dense neighborhoods because they want quick connection to existing substations.

The PEIS's assumptions about suitable areas should reflect that reality.

I ask that the geographic scope go beyond proximity to infrastructure and also identify areas that are unsuitable for utility-scale BESS. These include:

• Residential neighborhoods, schools, parks, hospitals, and childcare facilities. Puget Sound Energy's own consultant-prepared siting study treats heavy residential presence, schools, and hospitals as indicators that a location is less desirable for energy storage.
• Wildland-urban interface zones and forested land, where a facility both adds an ignition source and is exposed to wildfire.
• Mapped and suspected fault zones, and areas with landslide, liquefaction, or steep-slope hazards.
• Critical areas: fish-bearing streams and their buffers, wetlands, floodplains, aquifer recharge areas, and areas with private domestic wells downgradient.
• Constrained valley and ridge terrain, where temperature inversions can trap emissions near the ground.
• Areas without municipal water service or fire hydrants, where firefighters would depend on tanker supply alone.
• Areas with limited evacuation routes relative to the surrounding population.

Setbacks. Washington has no statewide BESS setback requirements, and local standards vary widely. The PEIS should recommend minimum setback distances from homes, schools, parks, hospitals, and waterways, based on the plume modeling described in Section 1, not on equipment spacing or responder isolation distances. Setbacks should be measured from the nearest property line of the sensitive use, not from the nearest building.

Alternatives and site justification. The PEIS should recommend that project-level reviews require

applicants to compare their chosen site with lower-impact alternatives that have similar grid access, such as previously disturbed, industrial, or brownfield land. Applicants should have to explain why a residential-adjacent or forested site was chosen over those options.

Preference for disturbed land. The PEIS should identify siting on previously cleared, industrial, or contaminated land as a primary way to avoid impacts. This avoids forest clearing, habitat loss, and new exposure for residential communities.

3. Wildlife, habitat, and forest loss.
Stand-alone BESS facilities are typically cleared of all vegetation, graveled, and fenced. Where they are sited on forested land, that clearing is permanent and irreversible.

The PEIS should evaluate:
• Loss of wildlife corridors. Forested parcels near developed areas often serve as the last connected movement routes for large mammals such as elk, black bear, cougar, bobcat, coyote, and deer. The PEIS should evaluate how clearing and fencing these parcels cuts off movement and pushes animals into neighborhoods and roadways, raising human–wildlife conflict and vehicle collisions.
• Habitat fragmentation, not just acres lost. A cleared, fenced site can split a larger habitat area into pieces too small to support some species.
• Wetlands. Wetlands filter pollutants, store floodwater, recharge groundwater, and provide breeding habitat for amphibians, birds, and insects. The PEIS should evaluate direct loss and indirect harm to wetlands near BESS sites from:
o Clearing within or near wetland buffers.
o Altered drainage that dries out or floods wetlands.
o Sediment from construction.
o Contaminated runoff during an incident.
A degraded wetland also loses its ability to protect downstream waters, which compounds every other water impact.
• Streams, rivers, and lakes as habitat. Forest cover keeps streams cool, shaded, and stable. The PEIS should evaluate how clearing and impervious surfaces near streams raise water temperatures, increase peak flows and bank erosion, and smother spawning gravels and insect habitat with sediment. Trout, salmon, amphibians, and the aquatic insects they feed on are all at risk. Lakes and ponds receiving runoff should be evaluated for sediment and contaminant buildup, which can persist for years.
• Riparian buffers. Recommend that project-level reviews apply current, not outdated, critical-area buffer standards. Some jurisdictions have recently widened stream buffers, especially where steep slopes are present.
• Construction-phase impacts. Assess disturbance to nesting birds and breeding or denning seasons, consistent with the Migratory Bird Treaty Act.
• Ongoing operational impacts. Assess 24/7 noise from cooling fans and inverters, security lighting at night, and fencing on nearby wildlife behavior.
• Toxic exposure to wildlife during an incident. Animals cannot be warned or evacuated. The PEIS should evaluate harm to wildlife, pets, livestock, fish, and amphibians from smoke, toxic gases, and contaminated water, sediment, or vegetation after a fire.
• Mitigation feasibility. Ecology's prior analysis acknowledged that mitigation for special-status habitats or species may not be feasible. The PEIS should treat avoidance as the primary mitigation: steer facilities away from intact forest, wetlands, stream corridors, and wildlife corridors, and toward previously disturbed land.

4. Water resources, salmon, orcas, and Tribal resources.

BESS facilities are often sited on hillsides or forested parcels above streams, wetlands, and rivers. Whatever leaves the site, in normal operation or during an incident, flows downhill into those waters and into groundwater.

The PEIS should evaluate:
• Fire suppression runoff. Battery fires can require very large volumes of cooling water over days. That water can carry heavy metals, fluoride compounds, electrolyte breakdown products, and firefighting chemicals, including PFAS-containing foams if used. The PEIS should evaluate where this water goes and how it can be fully contained, and should recommend containment capacity sized for a multi-day, full-facility event, not a single container.
• Stormwater and construction impacts. Clearing forest and adding impervious surface increases runoff volume, erosion, and sediment reaching streams, even without an incident. The PEIS should evaluate these impacts on steep or erosion-prone sites.
• Groundwater and drinking water. Contaminants can migrate through soil into aquifers. The PEIS should evaluate risks to private domestic wells and municipal wellfields downgradient of a facility. It should recommend that project-level reviews require a hydrogeologic assessment and baseline water-quality testing of nearby wells before construction.
• Salmon and Southern Resident orcas. Many proposed sites drain into rivers that support ESA-listed Chinook salmon, which are the primary food source for endangered Southern Resident orcas. A contamination event could harm salmon at multiple life stages and add stress to an already food-limited orca population. The PEIS should evaluate downstream impacts to listed fish, including contamination that reaches salmon habitat from sites upstream of natural barriers.
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• Monitoring and cleanup. The PEIS should recommend ongoing water-quality monitoring for operating facilities. It should also set clear cleanup standards, timelines, and financial responsibility for any contamination of surface water, groundwater, or sediment.

5. Wildfire.

Ecology's prior analysis described wildfire risk from BESS mainly as a new ignition source in remote locations with limited response. Stand-alone facilities in wildland-urban interface (WUI) areas present a different and more serious risk, because forest, homes, and the facility sit side by side.

The PEIS should evaluate:
• Risk in both directions. A battery fire can throw embers and radiant heat into surrounding forest and start a wildfire. A wildfire can also reach a facility and trigger thermal runaway in multiple containers at once. That would create a combined wildfire and toxic-chemical event that is far harder to fight and evacuate from than either alone.
• Wind-driven fire spread. Evaluate how seasonal high winds and windstorms could spread a battery fire's embers, smoke, and toxic plume quickly into nearby neighborhoods and forest. This

includes wind events outside the traditional summer fire season.
• Changing fire conditions. Western Washington's fire risk is increasing with hotter, drier summers. The PEIS should use forward-looking climate projections, not historical fire records alone, when evaluating wildfire risk over a facility's 20-plus-year life.
• Firefighting limits. Evaluate whether local fire agencies can fight a battery fire and a spreading wildfire at the same time, especially where there is no municipal water supply or hydrants and where mutual-aid resources may already be committed during regional fire events.
• Smoke combined with toxic emissions. Evaluate health impacts when wildfire smoke and battery fire emissions mix, particularly for children, older adults, and people with respiratory conditions.
• Evacuation during wildfire. Evaluate whether evacuation routes could be blocked or overwhelmed by fire, smoke, or heavy traffic at the same moment residents need to leave.
• Reignition. Battery fires can reignite days or weeks after appearing to be out. Evaluate the extended wildfire risk this creates for surrounding forest.
• Mitigation and siting. Recommend defensible space and vegetation management standards, fire-resistant site design, and on-site water supply requirements. The PEIS should also identify WUI and forested areas as poor locations for BESS, treating avoidance as the primary mitigation.

6. Seismic hazard.

Western Washington faces both a Cascadia Subduction Zone megathrust earthquake and shallow crustal fault earthquakes, such as on the Seattle Fault and the Southern Whidbey Island Fault Zone. USGS estimates a high probability of a damaging earthquake in the Puget Sound region within the next 50 years. The scoping document does not name seismic risk. I ask that it be explicitly included under Earth Resources and Environmental Health and Safety.

The PEIS should evaluate:
• Earthquake-triggered thermal runaway. Current seismic standards for electrical equipment mainly ensure that equipment stays anchored and upright. They do not show whether battery cells can survive strong or prolonged shaking without internal damage that leads to overheating and fire, sometimes hours or days later. There is little real-world data on how large BESS facilities perform in major earthquakes.
• Multiple simultaneous failures. A single earthquake could damage many containers at once, overwhelming fire suppression systems designed for a single-container event.
• Ground failure. Evaluate liquefaction, landslides, and slope failure, especially for facilities on hillsides, steep slopes, or fill. Ground movement could break containment, foundations, or spill-control systems.
• The full chain of impacts. Model the sequence from earthquake to battery damage, fire, toxic release, and contaminated runoff into streams and groundwater, rather than evaluating each hazard separately.
• Emergency response after an earthquake. After a major quake, fire agencies will be stretched across the region. Roads and bridges may be damaged, water systems may fail, and communication may be disrupted. A BESS fire in that setting could burn with little or no response while residents are unable to evacuate.
• Aftershocks. Evaluate risks to damaged facilities and to responders during aftershocks.
• Siting and design. Recommend site-specific geotechnical and fault studies for every project. Seismic design standards should address battery cell integrity, not just equipment anchoring. The PEIS should identify areas near active faults, or with high liquefaction or landslide risk, as poor locations for BESS.

7. Emergency response, readiness, and evacuation planning.

Section 1 addresses evacuation route capacity. This section addresses whether the agencies responsible for public safety are equipped to respond at all.

The PEIS should evaluate:
• Local fire agency readiness. Battery fires differ from structure fires. They produce explosive and toxic gases, resist water, can reignite for days or weeks, and require specialized monitoring equipment and training. Many local agencies are not equipped for them. For example, Eastside Fire & Rescue has stated in writing that it "cannot confirm that we are fully prepared today to mitigate an incident of this type and scale." King County Fire District 38, which has jurisdiction over the proposed Cascadia Ridge site, has formally opposed the siting and stated that local resources are not adequate for a BESS emergency. The PEIS should recommend that demonstrated local readiness be a condition of approval, not an assumption.
• Firefighting water supply. Evaluate sites without municipal water or hydrants, where responders depend on tanker trucks alone during a multi-day event.
• Mutual aid capacity. Evaluate whether regional mutual aid can sustain a multi-day battery fire, especially when resources are already committed to wildfires, storms, or earthquakes.
• Public alerts and notification. Evaluate how quickly residents, schools, and businesses can be warned of a toxic release, including at night, and whether alert systems reach everyone, including people who don't speak English and people with disabilities. Recommend real-time air monitoring at facility boundaries, linked to automatic public alerts.
• Schools, childcare, and vulnerable populations. Evaluate shelter-in-place, evacuation, and family reunification plans for nearby schools, as well as plans for medically fragile residents, care facilities, and people without vehicles.
• Hospital and medical capacity. Evaluate whether local hospitals can treat mass toxic gas exposure (see Section 1).
• Emergency plans before approval. Recommend that site-specific emergency response plans, evacuation plans, and toxic-release scenarios be completed, shared with local agencies, and made public before a project is approved, not deferred to after permitting.
• Responder safety. Evaluate protective equipment, gas monitoring, and training needs for responders, including volunteer and rural departments.

8. Safety codes, battery chemistry, and financial responsibility.

Outdated codes. The scoping document acknowledges that Washington has not adopted the most recent edition of NFPA 855 (2026), and that state code references earlier editions of UL 9540A than the current one. Projects permitted under older standards may operate for 20 years or more without the benefit of current safety knowledge.

The PEIS should:
• Recommend that all new projects meet the most current editions of NFPA 855, UL 9540, and UL 9540A, regardless of what state code has adopted.
• Recommend that the state adopt these updates promptly.
• Recommend that projects stay current with safety upgrades over their operating life, not only at the time of permitting.
Battery chemistry. The PEIS is limited to lithium-ion batteries. However, lithium-ion chemistries

differ significantly in fire behavior and toxic emissions, and safer alternatives are emerging. The PEIS should:
• Evaluate impacts separately by chemistry, such as lithium iron phosphate (LFP) and nickel manganese cobalt (NMC), rather than treating all lithium-ion as one category.
• Evaluate lower-risk chemistries as mitigation, including sodium-ion and other non-lithium technologies, especially for sites near homes, schools, and sensitive environments.
• Require chemistry disclosure and commitment before environmental review. Developers should not be allowed to complete environmental review with the chemistry "not yet selected," or to substitute "similar technology" after approval without new review.
• Require public release of large-scale fire test results (UL 9540A) for the specific product proposed, and an independent third-party safety review before approval.
Financial responsibility. Large BESS fires have produced cleanup, response, and remediation costs far exceeding typical bond amounts. For example, King County's current ordinance caps financial responsibility at $1 million. The PEIS should recommend:
• Financial assurance scaled to the worst-case cost of fire response, environmental cleanup, and long-term monitoring, rather than a flat cap.
• Separate decommissioning bonds covering battery removal, recycling, and site restoration.
• Clear liability for harm to public health, private property, wells, and natural resources, with a defined process for affected residents to be compensated.
• Requirements that financial assurance remain in place, and transfer intact, if the facility is sold or the owner goes bankrupt.
End of life. Evaluate battery replacement (augmentation), recycling, disposal of hazardous materials, and full site restoration at decommissioning, including restoring forest and habitat where land was cleared.

9. Cumulative impacts and project scale.

Full buildout, not just phase one. Developers may present a smaller initial capacity to the public while designing sites for much larger future expansion. For example, publicly released civil plans for the proposed Cascadia Ridge facility point to a 410 MW / 1,640 MWh buildout, compared to the 130 MW figure presented to the public. The PEIS should recommend that project-level reviews evaluate the maximum capacity a site is designed or permitted to hold, including future phases, battery augmentation, and expansion. Later expansions should not be allowed without new environmental review.

Clustering around substations. Developers often seek sites near the same substations and transmission lines. The PEIS should evaluate the cumulative effect of multiple BESS facilities, substations, and transmission lines concentrated in one community. This includes combined fire and toxic-release risk, noise, visual impact, habitat loss, and emergency response demand.

BESS serving large new loads. The PEIS should also evaluate BESS facilities built to serve or support large new loads such as data centers, including the cumulative impacts when both are sited in or near the same community.

Combined hazard events. Evaluate how BESS risk compounds with other hazards a community already faces, such as wildfire, windstorms, flooding, and earthquakes, which may occur at the same time and strain the same response resources.

Regional habitat and forest loss. Evaluate the cumulative loss of forest, wildlife corridors, and wetlands as multiple facilities are built across a region, not just the acres lost at each individual site.

Cumulative burden on communities. Evaluate whether certain communities are being asked to host a disproportionate share of energy infrastructure risk while the benefits flow to the broader regional grid and to private investors. This connects to the PEIS's environmental justice analysis.

Watershed-scale impacts. Evaluate cumulative effects on a watershed when multiple facilities, construction projects, and impervious surfaces drain into the same streams, wetlands, and salmon-bearing rivers.

Closing.

I want to be direct about what is at stake for families like mine. We moved to Snoqualmie Ridge in 2018 and intended to stay for the rest of our lives. We love this valley: its forests, rivers, trails, wildlife, and community. My teenager attends Mt. Si High School, about a mile from the proposed facility.

I am deeply concerned for my family's health and safety. If the Cascadia Ridge facility is approved at this location, we will sell our home and leave the community we love rather than live with these risks. Many of my neighbors have told me the same. When a single facility can push long-time residents out of their homes, the siting process has failed to account for its true impacts.

I am a strong supporter of clean energy and of Washington's climate goals. I understand that a growing population, electrification, and new large energy users are putting real pressure on the grid, and that storage is part of the solution. But there are many ways to meet that need without placing clear and avoidable risks on families and communities. These include energy efficiency and demand response, distributed storage paired with rooftop solar, and siting utility-scale facilities on industrial, previously disturbed, or remote land with safe separation from homes and schools. This is not opposition to clean energy. It is a request that Washington get siting right. This PEIS is an opportunity to set that standard for the entire state. I urge Ecology to use it fully, and to build a scope that reflects how and where these facilities are actually being proposed today.

Thank you for your time and for the opportunity to comment. I look forward to reviewing the Draft PEIS.

Respectfully,
Ariel Autumn Castle
34405 SE Cochrane Street
Snoqualmie, WA 98065

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- **Smoke combined with toxic emissions.** Evaluate health impacts when wildfire smoke and battery fire emissions mix, particularly for children, older adults, and people with respiratory conditions.

- **Evacuation during wildfire.** Evaluate whether evacuation routes could be blocked or overwhelmed by fire, smoke, or heavy traffic at the same moment residents need to leave.
- **Reignition.** Battery fires can reignite days or weeks after appearing to be out. Evaluate the extended wildfire risk this creates for surrounding forest.
- **Mitigation and siting.** Recommend defensible space and vegetation management standards, fire-resistant site design, and on-site water supply requirements. The PEIS should also identify WUI and forested areas as poor locations for BESS, treating avoidance as the primary mitigation.

6. Seismic hazard.

Western Washington faces both a Cascadia Subduction Zone megathrust earthquake and shallow crustal fault earthquakes, such as on the Seattle Fault and the Southern Whidbey Island Fault Zone. USGS estimates a high probability of a damaging earthquake in the Puget Sound region within the next 50 years. The scoping document does not name seismic risk. I ask that it be explicitly included under Earth Resources and Environmental Health and Safety. The PEIS should evaluate:

- **Earthquake-triggered thermal runaway.** Current seismic standards for electrical equipment mainly ensure that equipment stays anchored and upright. They do not show whether battery cells can survive strong or prolonged shaking without internal damage that leads to overheating and fire, sometimes hours or days later. There is little real-world data on how large BESS facilities perform in major earthquakes.
- **Multiple simultaneous failures.** A single earthquake could damage many containers at once, overwhelming fire suppression systems designed for a single-container event.
- **Ground failure.** Evaluate liquefaction, landslides, and slope failure, especially for facilities on hillsides, steep slopes, or fill. Ground movement could break containment, foundations, or spill-control systems.
- **The full chain of impacts.** Model the sequence from earthquake to battery damage, fire, toxic release, and contaminated runoff into streams and groundwater, rather than evaluating each hazard separately.
- **Emergency response after an earthquake.** After a major quake, fire agencies will be stretched across the region. Roads and bridges may be damaged, water systems may fail, and communication may be disrupted. A BESS fire in that setting could burn with little or no response while residents are unable to evacuate.

- **Aftershocks.** Evaluate risks to damaged facilities and to responders during aftershocks.
- **Siting and design.** Recommend site-specific geotechnical and fault studies for every project. Seismic design standards should address battery cell integrity, not just equipment anchoring. The PEIS should identify areas near active faults, or with high liquefaction or landslide risk, as poor locations for BESS.

7. Emergency response, readiness, and evacuation planning.

Section 1 addresses evacuation route capacity. This section addresses whether the agencies responsible for public safety are equipped to respond at all. The PEIS should evaluate:

- **Local fire agency readiness.** Battery fires differ from structure fires. They produce explosive and toxic gases, resist water, can reignite for days or weeks, and require specialized monitoring equipment and training. Many local agencies are not equipped for them. For example, Eastside Fire & Rescue has stated in writing that it "cannot confirm that we are fully prepared today to mitigate an incident of this type and scale." King County Fire District 38, which has jurisdiction over the proposed Cascadia Ridge site, has formally opposed the siting and stated that local resources are not adequate for a BESS emergency. The PEIS should recommend that demonstrated local readiness be a condition of approval, not an assumption.
- **Firefighting water supply.** Evaluate sites without municipal water or hydrants, where responders depend on tanker trucks alone during a multi-day event.
- **Mutual aid capacity.** Evaluate whether regional mutual aid can sustain a multi-day battery fire, especially when resources are already committed to wildfires, storms, or earthquakes.
- **Public alerts and notification.** Evaluate how quickly residents, schools, and businesses can be warned of a toxic release, including at night, and whether alert systems reach everyone, including people who don't speak English and people with disabilities. Recommend real-time air monitoring at facility boundaries, linked to automatic public alerts.
- **Schools, childcare, and vulnerable populations.** Evaluate shelter-in-place, evacuation, and family reunification plans for nearby schools, as well as plans for medically fragile residents, care facilities, and people without vehicles.
- **Hospital and medical capacity.** Evaluate whether local hospitals can treat mass toxic gas exposure (see Section 1).

- **Emergency plans before approval.** Recommend that site-specific emergency response plans, evacuation plans, and toxic-release scenarios be completed, shared with local agencies, and made public before a project is approved, not deferred to after permitting.
- **Responder safety.** Evaluate protective equipment, gas monitoring, and training needs for responders, including volunteer and rural departments.

8. Safety codes, battery chemistry, and financial responsibility.

Outdated codes. The scoping document acknowledges that Washington has not adopted the most recent edition of NFPA 855 (2026), and that state code references earlier editions of UL 9540A than the current one. Projects permitted under older standards may operate for 20 years or more without the benefit of current safety knowledge. The PEIS should:

- Recommend that all new projects meet the most current editions of NFPA 855, UL 9540, and UL 9540A, regardless of what state code has adopted.
- Recommend that the state adopt these updates promptly.
- Recommend that projects stay current with safety upgrades over their operating life, not only at the time of permitting.

Battery chemistry. The PEIS is limited to lithium-ion batteries. However, lithium-ion chemistries differ significantly in fire behavior and toxic emissions, and safer alternatives are emerging. The PEIS should:

- **Evaluate impacts separately by chemistry**, such as lithium iron phosphate (LFP) and nickel manganese cobalt (NMC), rather than treating all lithium-ion as one category.
- **Evaluate lower-risk chemistries as mitigation**, including sodium-ion and other non-lithium technologies, especially for sites near homes, schools, and sensitive environments.
- **Require chemistry disclosure and commitment before environmental review.** Developers should not be allowed to complete environmental review with the chemistry "not yet selected," or to substitute "similar technology" after approval without new review.
- **Require public release of large-scale fire test results** (UL 9540A) for the specific product proposed, and an independent third-party safety review before approval.

Financial responsibility. Large BESS fires have produced cleanup, response, and remediation costs far exceeding typical bond amounts. For example, King County's current ordinance caps financial responsibility at $1 million. The PEIS should recommend:

- Financial assurance scaled to the worst-case cost of fire response, environmental cleanup, and long-term monitoring, rather than a flat cap.
- Separate decommissioning bonds covering battery removal, recycling, and site restoration.
- Clear liability for harm to public health, private property, wells, and natural resources, with a defined process for affected residents to be compensated.
- Requirements that financial assurance remain in place, and transfer intact, if the facility is sold or the owner goes bankrupt.

End of life. Evaluate battery replacement (augmentation), recycling, disposal of hazardous materials, and full site restoration at decommissioning, including restoring forest and habitat where land was cleared.

9. Cumulative impacts and project scale.

Full buildout, not just phase one. Developers may present a smaller initial capacity to the public while designing sites for much larger future expansion. For example, publicly released civil plans for the proposed Cascadia Ridge facility point to a 410 MW / 1,640 MWh buildout, compared to the 130 MW figure presented to the public. The PEIS should recommend that project-level reviews evaluate the maximum capacity a site is designed or permitted to hold, including future phases, battery augmentation, and expansion. Later expansions should not be allowed without new environmental review.

Clustering around substations. Developers often seek sites near the same substations and transmission lines. The PEIS should evaluate the cumulative effect of multiple BESS facilities, substations, and transmission lines concentrated in one community. This includes combined fire and toxic-release risk, noise, visual impact, habitat loss, and emergency response demand.

BESS serving large new loads. The PEIS should also evaluate BESS facilities built to serve or support large new loads such as data centers, including the cumulative impacts when both are sited in or near the same community.

Combined hazard events. Evaluate how BESS risk compounds with other hazards a community already faces, such as wildfire, windstorms, flooding, and earthquakes, which may occur at the same time and strain the same response resources.

Regional habitat and forest loss. Evaluate the cumulative loss of forest, wildlife corridors, and wetlands as multiple facilities are built across a region, not just the acres lost at each individual site.

Cumulative burden on communities. Evaluate whether certain communities are being asked to host a disproportionate share of energy infrastructure risk while the benefits flow to the broader regional grid and to private investors. This connects to the PEIS's environmental justice analysis.

Watershed-scale impacts. Evaluate cumulative effects on a watershed when multiple facilities, construction projects, and impervious surfaces drain into the same streams, wetlands, and salmon-bearing rivers.

Closing.

I want to be direct about what is at stake for families like mine. We moved to Snoqualmie Ridge in 2018 and intended to stay for the rest of our lives. We love this valley: its forests, rivers, trails, wildlife, and community. My teenager attends Mt. Si High School, about a mile from the proposed facility.

I am deeply concerned for my family's health and safety. If the Cascadia Ridge facility is approved at this location, we will sell our home and leave the community we love rather than live with these risks. Many of my neighbors have told me the same. When a single facility can push long-time residents out of their homes, the siting process has failed to account for its true impacts.

I am a strong supporter of clean energy and of Washington's climate goals. I understand that a growing population, electrification, and new large energy users are putting real pressure on the grid, and that storage is part of the solution. But there are many ways to meet that need without placing clear and avoidable risks on families and communities. These include energy efficiency and demand response, distributed storage paired with rooftop solar, and siting utility-scale facilities on industrial, previously disturbed, or remote land with safe separation from homes and schools. This is not opposition to clean energy. It is a request that Washington get siting right. This PEIS is an opportunity to set that standard for the entire state. I urge Ecology to use it fully, and to build a scope that reflects how and where these facilities are actually being proposed today.

Thank you for your time and for the opportunity to comment. I look forward to reviewing the Draft PEIS.

Respectfully,

Ariel Autumn Castle
34405 SE Cochrane Street
Snoqualmie, WA 98065