6

Summary of Comments and Responses

energize EASTSIDE EIS

CHAPTER 6. SUMMARY OF COMMENTS AND RESPONSES

This chapter summarizes comments and responses provided on both the Phase 1 Draft EIS and the Phase 2 Draft EIS for the Energize Eastside project. Appendix J provides a complete set of responses to comments on the Phase 1 Draft EIS, and Appendix K provides a complete set of responses to comments on the Phase 2 Draft EIS.

The Phase 1 Draft EIS was programmatic in nature and not required under SEPA (see Section 1.4 and Chapter 2, page 2-2, of this Final EIS for more detail). Therefore, responses to comments during Phase 1 were prepared as the comment-response narrative summary in Appendix J-1. Although a separate response was not prepared for each individual comment, the EIS Consultant Team made a significant effort to capture all substantive issues raised in the comments, and prepared the summary responses in the narrative to address those concerns. The Phase 1 Draft EIS comment response narrative is intended to provide a logical flow and understanding of the issues associated with this project. Comments were grouped into major topics and identified "key themes." Following the narrative summary in Appendix J-1, all comment letters received on the Phase 1 Draft EIS are reproduced in full in Appendix J-2, with cross-references provided to the corresponding key theme that summarizes the associated response in the summary narrative.

Because the Phase 2 Draft EIS focused on a specific project proposed by PSE, responses to Phase 2 comments are presented in Appendix K for each individual comment received, rather than using a narrative summary. The comment letters are reproduced in full in Appendix K, with the responses presented next to the identified comments.

Source of Comments Received on the Phase 1 Draft EIS

Comments on the Phase 1 Draft EIS were received in the form of website forms, emails, oral testimony, and letters, many of which included attachments. Most of these comments were provided by email and oral testimony (Figure 6-1).

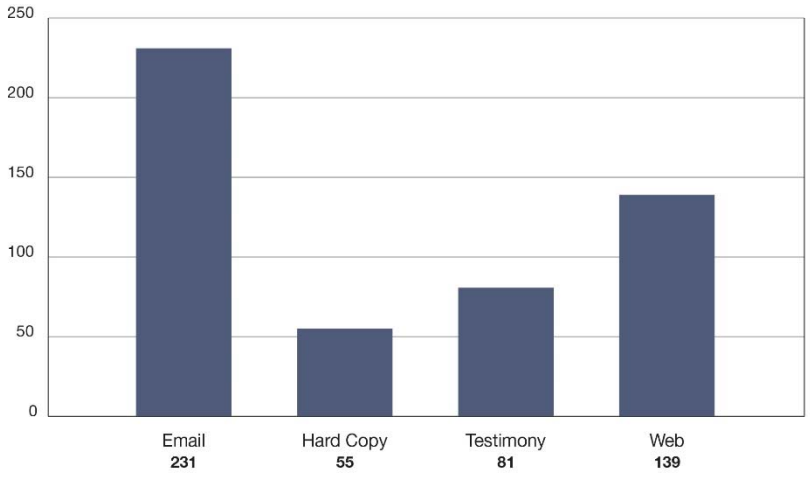

Figure 6-1. Comment by Type, Phase 1

Comments were submitted by 1,068 individuals. Individuals who provided their names on a petition that was submitted as a single attachment to one comment letter are included in this count. Of these, 456 signatories added individual comments to the petition. Of the 1,068 individual

commenters, some submitted multiple website forms and/or spoke at more than one meeting, and are only counted once in this total. Some individuals submitted duplicate forms, emails, and letters.

Comments were received from 26 different organizations (e.g., homeowner associations), six public agencies, and the Muckleshoot Tribe. A comment received from an organization, the Coalition of Eastside Neighborhoods for Sensible Energy (CENSE), referenced 50 comment letters included as an attachment.

Source of Comments Received on the Phase 2 Draft EIS

Comments on the Phase 2 Draft EIS were received in the form of website forms, emails, oral testimony, and letters, many of which included attachments. Most of these comments were provided by email and oral testimony (Figure 6-2).

Comments were submitted by 173 individuals. Some of these individuals submitted multiple website forms and/or spoke at more than one meeting, and are only counted once in this total. Some individuals submitted duplicate forms, emails, and letters.

Comments were received from 21 different organizations (e.g., homeowner associations), two public agencies, and one Tribe.

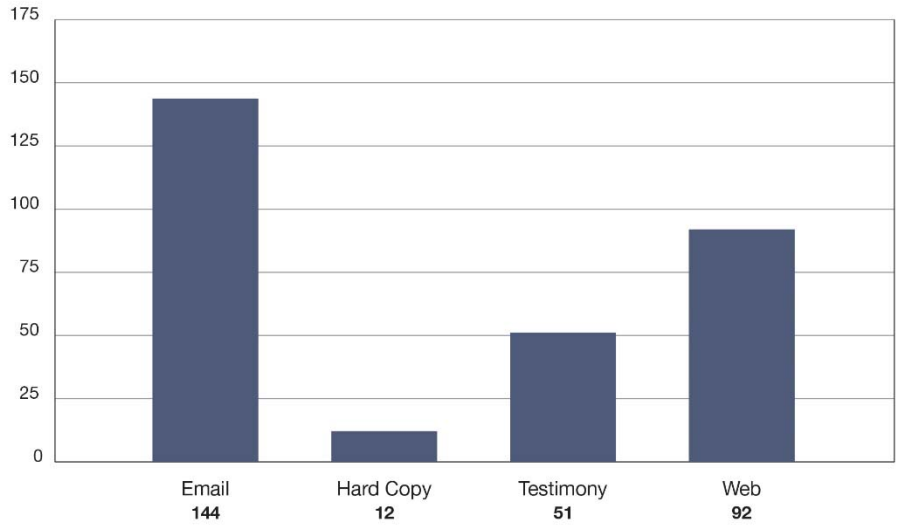

Figure 6-2. Comment by Type, Phase 2

Topics, Issues, and Themes Raised in Comments during Phase 1 and Phase 2

Comments received at both stages followed similar topics and themes. The following summary in Chapter 6 lists those topics and the general themes raised within them. It also summarizes how the comments received were taken into account in preparing the Final EIS. Any errors in the analysis identified in either Draft EIS are corrected in the Final EIS; see Chapter 3, *Errata*, in this Final EIS. The intent of this summary is to provide the reader a "road map" for how the comments were responded to and addressed; the more detailed responses are captured in Appendix J, Appendix K, the Errata, and revisions to the Final EIS, based on comments received.

6.1 SEPA AND EIS PROCESS

Comment Theme	Response
Objectivity and overall adequacy of the Phase 1 Draft EIS	The Partner Cities have taken steps to ensure the EIS analysis is independent and objective. The EIS includes an appropriate level of analysis of all potentially significant impacts identified during scoping. See Key Theme EIS-1 in Appendix J-1.
SEPA process, including phased EIS and opportunities for meaningful public input	The Partner Cities acknowledge the document is long, and the public process has also been long. However, SEPA provides flexibility by allowing a phased EIS process and other provisions, to address complex issues such as those posed by the Energize Eastside project. See Key Theme EIS-2 in Appendix J-1. No change in Final EIS.
Completeness of the Phase 1 Draft EIS scope	Concerns about the level of detail provided in the Phase 1 Draft EIS are addressed through the project-level analyses in both the Phase 2 Draft EIS and the Final EIS. The scope of the economics analysis is at the discretion of the Lead Agency under SEPA; in this case, the Partner Cities elected not to include all of the economic information requested in the scoping process and public comment periods. See Key Theme EIS-3 in Appendix J-1.

6.2 PROJECT OBJECTIVES

Comment Theme	Response
Objectives of proposal (to address reliability issues or to increase capacity for other purposes)	The Phase 1 and Phase 2 Draft EISs evaluated PSE's proposal to construct 230 kV overhead transmission lines; the Lead Agency has limited authority under SEPA to question an applicant's motives and cannot use SEPA to alter the applicant's objectives. The EIS Consultant Team reviewed the planning model and found that PSE had used standard planning practices. The project is intended to address an anticipated future transmission capacity issue in the study area that could affect PSE's broader transmission system reliability. No change in Final EIS. See Key Theme OBJ-1 in Appendix J-1.
Disagreement with PSE's planning data and assumptions, and how they define project need	The EIS Consultant Team confirmed that the needs assessment was conducted in accordance with industry standards for utility planning. No change in Final EIS. See Key Theme OBJ-2 in Appendix J-1.
The Lauckhart/Schiffman Load Flow Study suggests that the project is not needed	PSE indicates that it has a responsibility for planning its system according to NERC, WECC, and ColumbiaGrid requirements. The Lauckhart/Schiffman Load Flow Study makes a number of assumptions that are not consistent with WECC and ColumbiaGrid model assumptions. Even using their assumptions, the City of Bellevue's independent analysis found that at least one transformer would exceed capacity. No change in Final EIS. See Key Theme OBJ-3 in Appendix J-1.
ColumbiaGrid	PSE alone is responsible for delivering power within PSE's service area and cannot depend on ColumbiaGrid to make up for the transmission shortfall in the Eastside. No change in the Final EIS. See Key Theme OBJ-4 in Appendix J-1.

6.3 ALTERNATIVES

Comment Theme	Response
Alternatives considered in the Draft EIS	The Phase 1 Draft EIS was a programmatic-level analysis, whereas the Phase 2 Draft EIS was a project-level analysis. The project-level Phase 2 Draft EIS includes a more specific and detailed review of alternatives based on the analysis of Phase 1. The Partner Cities are not obligated to consider every conceivable scenario, but rather present a reasonable range of alternatives, per SEPA rules. No change in the Final EIS. See Key Theme ALT-1 in Appendix J-1.
Comparative summary of impacts	Lead Agencies are granted leeway in how they choose to present and format information on the comparative impacts of the alternatives. An error in Table 1-3 of the Phase 1 Draft EIS was corrected in the Errata section of the Final EIS. See Key Theme ALT-2 in Appendix J-1.

6.4 LAND USE AND HOUSING

Comment Theme	Response
Property condemnation	During the Phase 1 programmatic evaluation, project alignments were not definitively identified, and it was therefore not known whether property would need to be acquired for the project. For the Phase 2 Draft EIS, locations of the various project segments and options were identified, and no houses or businesses would be condemned or demolished under any of the segments or options analyzed. PSE's Proposed Alignment in the Final EIS would be entirely within the existing corridor and can be developed without need for displacement of houses or businesses. No change in the Final EIS. See Key Theme LU-1 in Appendix J-1.
Easement width required for safety	No houses or businesses would be condemned or demolished under any of the segments or options analyzed in the Phase 2 Draft EIS. The corridor would not need to be widened to accommodate the 230 kV transmission lines, and no new easements would be needed. No change in the Final EIS. See Key Theme LU-2 in Appendix J-1.
Essential public facility (EPF)	The proposed project will follow the conditional use, shoreline, and critical areas permit processes in the applicable jurisdictions. For the Final EIS, no Partner City has indicated that the project will go through the EPF permit process. This clarification is reflected in the analysis presented in the Final EIS. See Key Theme LU-3 in Appendix J-1.
Greater impacts in denser residential or natural areas	The Phase 1 Draft EIS addressed impacts to communities in the project area at a programmatic level, whereas specific alignments were chosen for the alternatives for the Phase 2 Draft EIS analysis, allowing an examination of impacts to the specific neighborhoods that would be crossed by the 230 kV transmission lines. PSE's Proposed Alignment in the Final EIS would be entirely within the existing corridor. Therefore, the land uses within this corridor would be the same as are currently identified. No changes in the Final EIS. See Key Theme LU-4 in Appendix J-1.

6.5 SCENIC VIEWS AND THE AESTHETIC ENVIRONMENT

Comment Theme	Response
Study area and key viewpoints	The study area for the Phase 1 Draft EIS was broad because it focused on a broad range of approaches rather than project-specific details. For the Phase 2 analysis, the project-specific analysis includes a GIS-analysis based on more detailed information. Roadways are considered to be viewpoints programmatically in the Phase 1 Draft EIS. Specific roadway corridors were evaluated in the Phase 2 Draft EIS, and key viewpoints were added. The Phase 1 Draft EIS lists public viewpoints provided at parks, trails, and public open spaces. For the Phase 2 Draft EIS, all recreation areas within the study area (parks, trails, outdoor recreation facilities) were assessed regardless of their ownership. Additional key viewpoints were simulated for the Final EIS. See Key Theme VR-1 in Appendix J-1.
Methodology	There is no adopted or widely recognized methodology for evaluating visual impacts of transmission lines in urban environments. The Phase 1 and Phase 2 Draft EIS visual impact assessment methodologies were based in part on the 2015 Federal Highway Administration guidance for evaluating highway projects and on guidance for evaluating wind farms. Viewer sensitivity was assigned based on a viewer's proximity to the project and their level of awareness. The Phase 2 analysis included a more refined methodology for viewer sensitivity than what was used in the Phase 1 analysis. Visual simulations are provided in the Phase 2 Draft EIS and the Final EIS. Potential significant adverse visual impacts were identified in the Phase 2 Draft EIS, and the Final EIS refines the analysis with additional maps and key viewpoints. See Key Theme VR-2 in Appendix J-1.
Vegetation clearing would reduce visual quality	Project-specific vegetation clearing is described and assessed in the Phase 2 Draft EIS, which includes the use of PSE's existing 100-foot-wide Sammamish-Lakeside-Talbot Hill 115 kV corridor. Regulations for 230 kV transmission lines call for the removal of trees with a potential height of greater than 15 feet within the managed right-of-way, while 115 kV lines allow 25-foot trees within the managed right-of-way zone. Updated vegetation removal information is provided in the Phase 2 Draft EIS and in the Final EIS. No changes were made to the visual analysis in the Final EIS. See Key Theme VR-3 in Appendix J-1.
Project would be inconsistent with comprehensive plan policies	Updated vegetation removal information is provided in the Phase 2 Draft EIS and the Final EIS, and the resulting impacts to the aesthetic environment are also evaluated in greater detail. There is no overarching policy that states that vegetation removal is inconsistent with Eastside aesthetic values, although policies discouraging tree removal in certain areas are discussed in the Phase 2 Draft EIS. The Phase 2 Draft EIS did find some areas where the project would be inconsistent with policies protecting neighborhood character. In Newcastle, new policies were adopted after the Phase 1 Draft EIS was published and were included in the Phase 2 analysis. No changes in the Final EIS, except the addition of the Code Variance Option in Newcastle, which would reduce the visual impacts compared to the No Code Variance Option. See Key Theme VR-4 in Appendix J-1.

Comment Theme	Response
Condemning of homes and installation of a new transmission line would change the visual character of Eastside neighborhoods	The Phase 1 Draft EIS acknowledged that condemnation and removal of homes for a new corridor could have significant impacts on neighborhood character. For the Phase 2 Draft EIS alternatives and for PSE's Proposed Alignment in the Final EIS, no houses or businesses would be condemned or demolished. No changes in the Final EIS. See Key Theme VR-5 in Appendix J-1.
Light and glare	Aviation warning lights would not be required for this project. The EIS Consultant Team evaluated light and glare impacts associated with construction and operation of the project. No significant impacts were identified regarding light and glare. No changes in the Final EIS. See Key Theme VR-6 in Appendix J-1.
Mitigation	Additional details on potential mitigation are presented in the Phase 2 Draft EIS. The Final EIS shows that the Code Variance Option in Newcastle would have lesser visual impacts in the Olympic Ridge neighborhood than the No Code Variance Option. PSE has also committed to using a combined shield wire/communication line, which would reduce the total number of wires in the air. See Key Theme VR-7 in Appendix J-1.

6.6 WATER RESOURCES

Comment Theme	Response
Water resources not identified in the Phase 1 Draft (e.g., springs, streams, lakes, Coal Creek basin resources, etc.)	The Phase 1 Draft EIS provides a high-level, programmatic assessment of potential impacts to water resources within the combined study area. Comments on the Phase 1 Draft EIS were considered when developing the scope for the Phase 2 Draft EIS analysis. The Phase 2 Draft EIS provides a more thorough, project-level assessment of the potential impacts of PSE's proposal. The Phase 2 Draft EIS reports the results of geotechnical studies conducted along the existing corridor. No changes in the Final EIS. See Key Theme WTR-1 in Appendix J-1.
Stormwater management	A project-level assessment of potential impacts to water quality is provided in the Phase 2 Draft EIS. The amount of new impervious surface would be minimal. In addition, once installed, the new poles would not affect groundwater infiltration or shallow groundwater flow. For tree-removal impacts to stormwater, the Phase 2 Draft EIS found that impacts would be less-than-significant because PSE would comply with state and local stormwater permit requirements and would implement BMPs to control surface water runoff. In the Final EIS, PSE's Proposed Alignment would be constructed entirely within the existing corridor. The Final EIS states that approximately 60% of the poles for PSE's Proposed Alignment would be directly embedded, which requires a smaller impervious footprint than poles with concrete foundations. See Key Theme WTR-2 in Appendix J-1.
Groundwater pollution and diversion	If coal ash were present in the soil, it is unlikely that it would contaminate the groundwater because of requirements for preventing pollution during construction. Construction for pole installation would also require excavation for pole foundations or direct embedding, which could encounter shallow groundwater and could require dewatering. Because the area of excavation for each pole would be limited to approximately 8 feet in diameter, any dewatering would be minimal. No changes in the Final EIS. See Key Theme WTR-3 in Appendix J-1.

Comment Theme	Response
Construction-related impacts	It would not be necessary to reroute springs under any of the alternatives considered for this project. The implementation of BMPs, and compliance with local and state permit requirements, would be required to reduce potential water quality impacts, which is covered in both the Phase 1 and Phase 2 Draft EISs, as well as the Final EIS. Alternative 2 in the Phase 1 Draft EIS has a lower potential for construction impacts to water resources, but was determined not to be a feasible alternative and therefore was not carried forward for additional analysis in the Phase 2 Draft EIS or the Final EIS. No changes to the Final EIS. See Key Theme WTR-4 in Appendix J-1.
Water quality and permitting	Case-by-case analysis is required to confirm the applicability of Section 404 and Section 10 permit requirements to surface waters such as rivers, streams, ditches, lakes, ponds, territorial seas, and wetlands. During the permitting process, PSE would be required to demonstrate compliance with the NFIP BiOp, which includes showing that proposed development activities in a floodplain do not result in an adverse effect on listed species or habitat. No changes in the Final EIS. See Key Theme WTR-5 in Appendix J-1.
Tribal treaty rights	These comments relate specifically to Alternative 1, Option D as presented in the Phase 1 Draft EIS. That option, which would involve construction in Lake Washington where treaty rights would need to be taken into account, was not carried forward for additional analysis in Phase 2 or the Final EIS.

6.7 PLANTS AND ANIMALS

Comment Theme	Response
Habitat	The Phase 2 Draft EIS provides a project-level assessment of impacts to habitat associated with Coal Creek Park Natural Area within 0.5 mile of the project alignment, and notes that Coal Creek supports Chinook salmon and steelhead. The potential presence of amphibians and reptiles in the combined study area has been added to the Errata. PSE's existing corridor provides habitat and migration corridors for area wildlife, as well as specific critical habitat areas. Specific impacts to hedgerows were not assessed; however, vegetation removal within the right-of-way is covered. There is no evidence that animals avoid high voltage lines in urban areas beyond what would occur as a result of human presence and vegetation clearing. See Key Theme P&A-1 in Appendix J-1.
Tree removal/vegetation clearing	The Phase 1 Draft EIS examined the worst-case scenario for new overhead transmission lines, which assumed that a new corridor for a 230 kV line would be 120 to 150 feet wide. The 40% existing tree canopy coverage cited in the Phase 1 Draft EIS was based on the average tree coverage mapped in the project area jurisdictions, based on the best available information. Updated vegetation removal information, including a more detailed discussion of the managed right-of-way, is provided in the Phase 2 Draft EIS and in the Final EIS. The Phase 2 Draft EIS assessment did not estimate the amount of noise attenuation lost as a result of tree removal because dense forested vegetation must be greater than 60 feet in depth to have a noticeable effect. Tree removal and mitigation will be evaluated as part of the permitting process. Note that the corridor width as evaluated in the Phase 2 Draft EIS and Final EIS is 100 feet. See Key Theme P&A-2 in Appendix J-1.
Fish and wildlife	Larger wire sizes for the 230 kV transmission lines would be more visible to flying species, resulting in increased avoidance behavior, which is expected to reduce direct impacts from collision or potential air quality changes resulting from ionization of pollutant particles by the corona discharge. EMF impacts to wildlife species are generally unknown or inconclusive. Discussion of EMF impacts is included in the Phase 2 Draft EIS and expanded in the Final EIS. Noise impacts from the corona discharge were found to be negligible, although noise impacts from peak generators were moderate to significant. The effects of power lines on wildlife species are highly variable and limited information is available. Western big-eared bat, Keen's myotis, long-legged myotis, and long-eared myotis have been added to the Bellevue list in the Final EIS (See Errata, Chapter 3). See Key Theme P&A-3 in Appendix J-1.
Impacts to birds	The Phase 2 Draft EIS states that the project would reduce the electrocution and collision rates for avian species due to the increased separation between conductors and larger, more visible conductors. Eagle nest locations were considered during development of the Phase 2 Draft EIS. No changes in the Final EIS. See Key Theme P&A-4 in Appendix J-1.
Mitigation	The Phase 1 Draft EIS states that impacts on vegetation and habitat would be mitigated through site and facility design to minimize the need for vegetation and tree removal to the extent feasible. The Phase 2 Draft EIS also includes a mitigation measure to increase pole heights to allow greater separation between poles so that some poles can be moved out of critical areas or associated buffers. The Final EIS takes into account the more fully developed design, including refined pole locations. See Key Theme P&A-5 in Appendix J-1.

6.8 GREENHOUSE GASES

Comment Theme	Response
Phase 1 Draft EIS scope, analysis, mitigation, and conclusions	Alternative-specific mitigation measures are listed in the Phase 2 Draft EIS. Mitigation is not limited to the measures listed in the EIS, and additional mitigation could be required. Alternatives 2 and 3 were not carried forward for analysis in the Phase 2 Draft EIS. Given the relatively small level of emissions from a worst-case assumption regarding project emissions for concrete foundations, it was concluded that the project would not result in significant emissions from manufacturing construction materials. More project-specific estimates were included in the Phase 2 Draft EIS analysis. No changes in the Final EIS. See Key Theme GHG-1 in Appendix J-1.
Tree clearing analysis and GHG effects	An updated vegetation removal assessment, including a more detailed discussion of the tree inventory assessment, is provided in the Phase 2 Draft EIS and the Final EIS. See Key Theme GHG-2 in Appendix J-1.
Sustainable utilities and climate change	Whether or not a utility should be required to purchase or implement carbon offsets or its willingness to adopt new technologies to reduce fossil fuel use is beyond the scope of this EIS analysis. Information and analysis on impacts of coal-based generation are not included because they are outside the scope of the EIS analysis. No changes in the Final EIS. See Key Theme GHG-3 in Appendix J-1.
Need for air quality analysis under SEPA	Construction of a new power plant, such as a peak generation facility, was not carried forward as an alternative in the Phase 2 Draft EIS analysis. The project is not being constructed to increase power production; therefore, impacts associated with increased power production, such as mercury emissions and other air pollutants from existing power sources, were not evaluated as part of this EIS process. No changes in the Final EIS. See Key Theme GHG-4 in Appendix J-1.

6.9 RECREATION

Comment Theme	Response
Trails in utility corridors	Improvements to recreational resources, including trails, can be identified as permit conditions by the appropriate municipality, where an adverse impact has been identified. There is a potential for permanent impacts to recreation within the existing transmission corridors if vegetation removal results in a permanent conversion of vegetation type. The Phase 2 Draft EIS found that within the existing corridor, impacts to recreation would be less-than-significant because vegetation clearing and changes to poles and wires would not affect the use of recreation sites. No changes in the Final EIS. See Key Theme REC-1 in Appendix J-1.
Birding as a recreation activity	Potential impacts to wildlife, including birds, are discussed in the Phase 1 and Phase 2 Draft EISs. The Phase 2 Draft EIS did not evaluate the Cross Kirkland Trail because the alignment route and options did not extend into the City of Kirkland. Potential impacts to the Eastside Rail Corridor were evaluated in the Phase 2 Draft EIS. No changes in the Final EIS. See Key Theme REC-2 in Appendix J-1.
Permanent loss of recreation sites	For the Final EIS, PSE's Proposed Alignment would occur within its existing right-of-way and would not require new easements or property acquisition. Safety issues, as they relate to recreation resources, are described in the Phase 2 Draft EIS. Mitigation measures in the Phase 1 Draft EIS were in keeping with the programmatic nature of the document, and mitigation measures proposed were high-level in nature. The Phase 2 Draft EIS provides more specific mitigation strategies. No changes in the Final EIS. See Key Theme REC-3 in Appendix J-1.
Cumulative impacts	Cumulative impacts are described in the Phase 2 Draft EIS and Final EIS. No changes in the Final EIS. See Key Theme REC-4 in Appendix J-1.

6.10 CULTURAL AND HISTORIC RESOURCES

Comment Theme	Response
Interpretation of impacts	The potential for ground disturbance and associated impacts under the No Action Alternative is addressed in the Phase 2 Draft EIS. The Eastside Transmission System has been recommended eligible for listing on the National Register of Historic Places, and PSE is conducting further evaluation of the resource and consulting with DAHP to obtain an eligibility determination for the system as part of a historic property inventory field assessment. If the Eastside Transmission System is determined eligible by DAHP for listing in the NRHP, pole replacement could be a significant impact, but it is possible that the impacts could be mitigated. Noise and vibration are addressed in the Historic and Cultural Resources chapter of the Phase 1 Draft EIS. Implementation of the No Action Alternative could have minor to moderate impacts to aboveground historic properties, primarily from the installation of components associated with energy conservation measures. No changes in the Final EIS. See Key Theme H&C-1 in Appendix J-1.
Analytical process	The Phase 2 Draft EIS addresses the analysis of individual properties. PSE has begun conducting site-specific historic property and archaeological studies for the resources identified in the EIS, and has committed to completing the analysis prior to construction so that impacts can be avoided or mitigated. No changes in the Final EIS. See Key Theme H&C-2 in Appendix J-1.
Existing and proposed cultural resources	The Phase 2 Draft EIS describes the Newcastle Cemetery, noting its historic significance, and the Somerset neighborhood, and describes potential mitigation measures. PSE will request a determination from DAHP regarding the cemetery's eligibility for inclusion on the National Register of Historic Places. Analysis of components associated with peak generation plants and energy efficiency (as presented in the Phase 1 Draft EIS) was not included in the Phase 2 Draft EIS because these project elements are no longer under consideration. No changes in the Final EIS. See Key Theme H&C-3 in Appendix J-1.

6.11 ENVIRONMENTAL HEALTH– ELECTRIC AND MAGNETIC FIELDS (EMF)

Comment Theme	Response
Potential health effects from electric and magnetic fields	Extensive health studies have not found a causal link between adverse health effects and EMF from electrical transmission lines. An analysis of the potential health impacts is included in the Phase 1 Draft EIS due to public concerns raised during scoping. Dr. Asher Sheppard, a consultant with the EIS Consultant Team who has a scientific background in evaluating human health effects from electrical transmission lines, reviewed the additional citations to research as provided by commenters to determine whether the findings presented by the cited studies would change the conclusions provided in the Phase 1 Draft EIS. Dr. Sheppard's findings are summarized in the Final EIS. See Key Theme EMF-1 in Appendix J-1.
Potential health effects from corona ions	Available studies and research, including those in Section 8.3.6 of the Phase 1 Draft EIS, are considered inconclusive and do not suggest a probable health impact associated with corona ionization, either during the construction or the operation of PSE's proposed project. Dr. Sheppard reviewed the other studies cited by commenters. Dr. Sheppard's findings are summarized in the Final EIS. See Key Theme EMF-2 in Appendix J-1.
Populations particularly susceptible to electric and magnetic fields	Exposure to magnetic fields in homes, schools, parks, and daycare facilities is acknowledged in the Phase 2 Draft EIS. The calculated magnetic field levels would be well below the lowest reference guideline, even assuming 24-hour exposure. No changes in the Final EIS. See Key Theme EMF-3 in Appendix J-1.
Potential for increase in magnetic fields	The magnetic field levels associated with the project are anticipated to be lower than existing field levels along the existing transmission line corridor. No changes in the Final EIS. See Key Theme EMF-4 in Appendix J-1.

6.12 ENVIRONMENTAL HEALTH – PIPELINE SAFETY

Comment Theme	Response
Risk of catastrophic explosions and leaks caused by construction	The risks of accidents in the pipeline corridor is acknowledged in the Phase 1 Draft EIS, and more fully discussed in the Phase 2 Draft EIS. Most accidents are caused by a failure to properly locate the underground utility during construction. In the case of the corridor shared by PSE's transmission line and the Olympic Pipeline system, PSE and Olympic have worked together in the corridor for 40 years, and communicate regularly to coordinate activities related to pole replacement and other maintenance work. Risk assessment completed for the Phase 2 Draft EIS indicate that there would be a very small increase in total risk during construction. The risk to the Olympic Pipeline system due to vibrations from construction equipment is addressed in the Phase 2 Draft EIS. Regarding mitigation, PSE will follow protocols established by the pipeline operator during construction. No changes in the Final EIS. See Key Theme PLS-1 in Appendix J-1.

Comment Theme	Response
Risk of catastrophic explosions, fires, or leaks caused by natural forces, such as earthquakes, windstorms, and lightning	Operational risks related to natural forces were broadly analyzed in the Phase 1 Draft EIS. The Phase 1 Draft EIS and the Phase 2 Draft EIS both acknowledge that earthquakes and lightning strikes or wires downed by extreme weather events present risks of fault conditions or arcing from the transmission lines to the pipelines. The risk assessment included in the Phase 2 Draft EIS took into account historical incident rates for natural force-caused pipeline incidents on similar systems nationwide, and current risks in the corridor in consideration of fuel type/flammability, pipe parameters, safety features, and other factors, and determined that the project is not expected to increase the risks of accidental release due to seismic activity or other natural forces. Additional information on seismic risks in the corridor and how these risks are accounted for is provided in the Final EIS. See Key Theme PLS-2 in Appendix J-1.
Risk of pipeline corrosion caused by electrical interference from power lines	PSE retained DNV GL to develop a detailed analysis of risks and recommendations for the Energize Eastside project, which was used in preparing the analysis for the Phase 2 Draft EIS. The Phase 2 Draft EIS also contained additional recommendations beyond those presented in the DNV GL report, to be used to analyze potential for AC interference once final pole locations are developed. Even using conservatively high assumptions for risk factors, the analysis showed that there would be a small increase in total risk during operation. Mitigation can decrease those risks even further. No changes in the Final EIS. See Key Theme PLS-3 in Appendix J-1.
Evaluation of worst-case scenario involving pipeline rupture and fire	For a buried pipeline transporting refined petroleum product, the greatest risk to the public is posed by pool fires. EDM Services used data specific to the Olympic Pipeline system, including an estimated maximum release volume based on pipe size, pressure, and other factors, to model a release and subsequent pool fire size. The risk assessment modeled a worst-case scenario using the maximum release volume from U.S. Hazardous Liquid Pipeline release data, which is described in detail in the Phase 2 Draft EIS. The focus of the risk assessment in the Phase 2 Draft EIS was estimating the change in risk that would occur with PSE's proposal, compared to existing conditions. The Phase 2 Draft EIS acknowledged that local conditions could affect the shape and consequences of a fire. The Final EIS discusses the variable conditions that could affect the spread and impact of a fire in each segment. See Key Theme PLS-4 in Appendix J-1.
Risk of non-compliance with safety regulations that apply to Olympic and PSE	The Partner Cities, in issuing permits, can decide that additional conditions are required. PSE and Olympic have coordinated regarding the project since 2012, and both have indicated they would continue their coordination through final design and construction. PSE plans to integrate, where applicable, the results and recommendation of DNV GL's AC Interference Study (2016) to the design of pole locations, layout, and configuration in order to mitigate potential electrical interference-related impacts on the pipelines. Olympic, however, is responsible for the safety of its pipeline system in compliance with federal safety requirements. To estimate the probability of pipeline failures, historical data on pipeline incidents/spills that have occurred on similar systems are most commonly used. However, the historical incident/spill data do not include information on these similar systems' violations record, which means that comparison in this case is not feasible. No change in the Final EIS. See Key Theme PLS-5 in Appendix J-1.

Comment Theme	Response
Engagement of Olympic in the EIS process	The Partner Cities and the EIS Consultant Team contacted Olympic during the development of the Phase 1 Draft EIS, and made additional inquiries during the project-specific phase of the EIS. Olympic, however, did not provide some requested information for the Phase 2 analysis, which could be attributed to proprietary or security concerns. PSE cannot compel Olympic to release the information. PSE has limited authority to influence specific mitigation measures undertaken by Olympic Pipe Line Company related to pipeline operation or monitoring, but can provide information to assist pipeline operators in protecting the pipeline. No change in the Final EIS. See Key Theme PLS-6 in Appendix J-1.

6.13 NOISE

Comment Theme	Response
Noise from corona discharge	Corona noise was analyzed as a part of the Phase 1 Draft EIS and was found to be relatively low for nearby residential environments and virtually the same as existing noise levels, which is well below the limits required by local noise regulations. No changes in the Final EIS. See Key Theme NOI-1 in Appendix J-1.
Construction and operational noise	Because of the short duration of construction and the restrictions imposed by noise regulations, construction impacts were not expected to be significant. Operational noise would also be regulated at the local level, both through permit review and also through enforcement of local codes after the project is operational. Substations are not exempt from local noise regulations, but are also not subject to the 10 dBA reduction per Washington State law. Noise was not analyzed in the Phase 2 Draft EIS because no significant and unavoidable noise impacts were identified in the Phase 1 Draft EIS, assuming compliance with noise regulations. No changes in the Final EIS. See Key Theme NOI-2 in Appendix J-1.
Applicable noise regulations and significance thresholds	Noise regulations are based on the Washington Administrative Code (WAC), which informs the noise regulations at the local level. Per WAC 197-11-794, significance involves context and intensity, magnitude and duration, and is determined by the Lead Agency. For the Phase 1 Draft EIS, the City of Bellevue (along with the other Partner Cities) determined that the project would have a significant impact if it would generate operational noise that would conflict with local ordinances or would increase ambient noise levels by 5 dBA or greater at a sensitive land use. No changes in the Final EIS. See Key Theme NOI-3 in Appendix J-1.

6.14 ECONOMICS

Comment Theme	Response
Property value depreciation	SEPA does not require that economic impacts be evaluated, although it was included in the EIS because it was highlighted as a concern during scoping. The Phase 1 Draft EIS provided a review of the impacts at a programmatic level; therefore, no site-specific data were analyzed. Further economic analysis regarding impacts to property values from transmission lines was included in the Phase 2 Draft EIS. This analysis did not find studies that indicated a negative effect on property values due to the replacement of lower voltage with higher voltage transmission lines in an existing utility corridor. The Phase 2 Draft EIS includes a detailed analysis of the visual impacts and found that there would be no significant unavoidable impacts to scenic views. PSE's Proposed Alignment evaluated in the Final EIS would be entirely in the existing utility corridor, so economic impacts due to property acquisitions were not further analyzed. No changes in the Final EIS. See Key Theme ECON-1 in Appendix J-1.
Tax revenue impacts	The Phase 2 Draft EIS analyzed the potential loss of property tax revenue, using Newcastle as a proxy for impacts. This was to provide a comparison with similar analysis in the Phase 1 Draft EIS regarding the City of Bellevue. Impacts on property values from the conversion of land to a utility use are not evaluated in the Phase 2 Draft EIS because no land would be acquired for the project. No changes in the Final EIS. See Key Theme ECON-2 in Appendix J-1.
Need for a full cost-benefit analysis	Economic analysis is not required under SEPA. The analysis of property tax effects on the City of Newcastle and the value of lost ecosystem services due to reduced tree cover were conducted in response to comments received during the public comment periods for the Phase 1 Draft EIS and the scoping period for the Phase 2 Draft EIS. Based on estimates provided by PSE, the proposed project is not anticipated to significantly affect the price of electricity in the Eastside. No changes in the Final EIS. See Key Theme ECON-3 in Appendix J-1.
Fairness of financial burden	It is the responsibility of the Washington Utilities and Transportation Commission (WUTC) to determine if the cost of electrical upgrades is appropriate. PSE has stated that the cost for the project would be included in future annual capital projects budgets, and that $1 to $2 of the average monthly bill for residential customers would go toward the project. PSE determined that Alternative 2 was not a feasible approach for solving the transmission capacity deficiency. No changes in the Final EIS. See Key Theme ECON-4 in Appendix J-1.

6.15 EARTH

Comment Theme	Response
Earthquake-related hazards	The Phase 1 Draft EIS indicates that the proposed project would not increase the probability of an earthquake to occur nor increase the amount of damage that would occur to the pipeline in an earthquake. The final structural design would comply with NESC 2017 as adopted by the WUTC, as well as seismic recommendations from an engineer licensed in Washington. An expanded discussion of seismic and liquefaction impacts and requirements is included in the Final EIS, Section 4.11. See Key Theme EARTH-1 in Appendix J-1.
Impacts from taller poles and pole installation	PSE stated that there have been no structure failures of its steel transmission poles due to geologic hazards, and failures of wood poles have been rare, involving extenuating circumstances like placement in a bog or being impacted by a landslide in a remote mountain setting. Key findings from the PSE geohazard reports are included in the Final EIS Section 4.11. See Key Theme EARTH-2 in Appendix J-1.
Earthwork activities near Olympic Pipeline system	The project would be required to comply with all regulations regarding erosion-prone areas, such as steep slopes. The Olympic Pipe Line Company has stringent construction requirements in the area of its pipelines and would continue its close coordination with PSE and local jurisdictions for all construction activities located adjacent to the pipelines. A risk assessment that took into account the risks in the corridor was conducted as part of the Phase 2 Draft EIS. No changes in the Final EIS. See Key Theme EARTH-3 in Appendix J-1.
Regulatory thresholds and mitigation measures	The mitigation measures identified in the Phase 1 Draft EIS were prepared in the context of a programmatic level of analysis. These mitigation measures are not specific to certain facilities, but would be applied where needed. BMPs are developed on a project-specific basis and determined by the local regulatory agency. The project will incorporate seismic recommendations of an engineer licensed in Washington. Use of appropriate stormwater management (detention) facilities to reduce stream flow velocities and flooding, as well as NESC seismic engineering design requirements have been included as mitigation in the Phase 1 Draft EIS, and carried forward into the Final EIS. The Final EIS Section 4.11 clarifies that NESC standards for transmission lines do not include specific seismic requirements because addressing wind and ice loads results in structures that are more than adequate to address seismic requirements. See Key Theme EARTH-4 in Appendix J-1.
Request for more location-specific data	The Phase 1 Draft EIS determined that impacts under all alternatives would be minor with the implementation of BMPs, geotechnical recommendations, regulatory requirements, and industry standards. Revised pole location data are included in the Final EIS analysis, and Section 4.11 discusses the seismic risks in each segment. See Key Theme EARTH-5 in Appendix J-1.

6.16 TRANSPORTATION

Comment Theme	Response
General congestion /transportation impacts associated with construction	The Phase 1 Draft EIS contains an analysis of impacts due to the use of construction vehicles and other construction activities. In Phase 2, it was determined that no houses would need to be removed for the project. The methods used to install new steel poles will depend on the type of pole used and both its physical and functional location. The Final EIS includes a discussion of the pole types expected for PSE's Proposed Alignment. Driveways along the transmission line route would be passable during construction unless there is an alternative driveway serving a property that can accommodate vehicles if one driveway is temporarily closed. Brief road closures may be required for pulling wires, but PSE will prepare traffic control plans and work closely with City public works staff regarding road closures, traffic plans, etc. No change in the Final EIS. See Key Theme TRAN-1 in Appendix J-1.
Potential need to truck contents of the pipelines	The estimate included in the Phase 1 Draft EIS was provided by Olympic, and would result in a substantial reduction in the amount of fuel being transported through the region, or a substantial amount being transported by means other than truck, such as by barge or rail. A higher estimate of 4,000 truck trips per day is considered a worst-case estimate because it assumes no reduction in volume of products being shipped through the region, and all of the products being shipped by truck. This is noted in the Errata in the Final EIS. See Key Theme TRAN-1 in Appendix J-1.
Transporting project components	Construction timing/scheduling was not known at the time of the Phase 1 Draft EIS or the Phase 2 Draft EIS, but the projected project schedule, including phasing, is described in the Final EIS. Replacement of large equipment happens infrequently, and operational transportation impacts would be minor, as described in the Phase 1 Draft EIS. No changes in the Final EIS. See Key Theme TRAN-3 in Appendix J-1.
Mitigation of transportation impacts during construction	The Phase 1 Draft EIS presents general mitigation measures identified to avoid or reduce the potential transportation impacts expected during construction. There are no plans to relocate residential customers to hotels. However, this is a potential mitigation measure that could be employed, if warranted, as described in the Phase 2 Draft EIS. No changes to the Final EIS. See Key Theme TRAN-4 in Appendix J-1.

6.17 ENERGY AND UTILITIES

Comment Theme	Response
Energy use of peaker plants	Construction of new peaker plants was not carried forward as an alternative because the noise they produce would be incompatible with the predominately residential surroundings. The distributed generation component and peaker plants would rely on non-renewable resources (fossil fuels such as diesel or natural gas) to operate, as discussed in the Phase 1 Draft EIS. No changes to the Final EIS. See Key Theme EGY-1 in Appendix J-1.
Alternative 1 would increase demand for energy and therefore require more fossil fuel use	Alternative 1 would provide more than adequate capacity to meet the projected transmission shortfall in the Eastside. However, there is no intermediate size of transmission facility that would meet PSE's stated objectives. There is no indication in its IRP that PSE plans to increase reliance on or transmission from the Colstrip plant. No changes in the Final EIS. See Key Theme EGY-2 in Appendix J-1.
The need for utility providers to adopt measures that reflect sustainability, conservation, and efficiency	PSE has a conservation program that is part of its IRP. Consistency of the project with adopted energy policies was conducted for the Phase 1 Draft EIS analysis. The Energize Eastside project would not adversely affect PSE's conservation program. No changes in the Final EIS. See Key Theme EGY-3 in Appendix J-1.
Impacts to other utilities	The Phase 1 Draft EIS describes the potential for interference with other electronic communications equipment. If the project is constructed, PSE will work with telecom companies to reinstall cellular equipment onto the new 230 kV poles, subject to the requirements of Chapter 80.54 RCW, Chapter 480-54 WAC, and local jurisdiction regulations. PSE will continue to coordinate with King County Water Treatment Division as the project design is refined. No changes in the Final EIS. See Key Theme UTL-1 in Appendix J-1.
Utility disruptions caused by terrorism or natural hazards	Public safety risks associated with terrorist attacks are discussed in the Phase 1 Draft EIS as an unlikely, but possible worst-case scenario, although the project is not expected to increase this risk. Redundancy is considered by PSE as part of its long-range planning efforts. No changes in the Final EIS. See Key Theme UTL-2 in Appendix J-1.
Utility oversight	WUTC regulation of the Olympic Pipeline system is independent from PSE's project. The IRP process is separate from the setting of rates and relates to the sources of power that PSE plans to use to provide electricity to its customers. No changes in the Final EIS. See Key Theme UTL-3 in Appendix J-1.
Co-location with Olympic Pipeline system	Olympic Pipe Line Company is responsible for operating its pipeline system safely. Olympic does not have legal authority to deny PSE's project. Liability due to a pipeline failure would depend on the cause. No change to the Final EIS. See Key Theme UTL-4 in Appendix J-1.
Conclusions of the Phase 1 Draft EIS	PSE stated that this project is needed in part to protect the regional grid from harm that could result from an overloading of PSE's system due to growing demand within the Eastside. Conformance with industry standards and regulatory requirements would ensure that potential hazards are identified and design plans developed to minimize adverse effects from these hazards. Maintenance activities for 230 kV lines and poles are similar to those for the current 115 kV lines. No changes to the Final EIS. See Key Theme UTL-5 in Appendix J-1.

6.18 PUBLIC SERVICES

Comment Theme	Response
Response to pipeline-related incident	Existing local service providers are expected to be adequate to address the demand for fire and other emergency response for most incidents that could occur during construction and operation of the transmission lines. The need for emergency response services would be the same for the project as they would be for the No Action Alternative. The Phase 1 Draft EIS analysis was based on a review of the comprehensive plans and policies of each jurisdiction, as well as phone interviews with the major police and fire departments. The Bellevue Fire Department Standards of Response Coverage document was not reviewed at the time of the Phase 1 Draft EIS because it was not identified as a source, but the data from the report are consistent with the findings in the Phase 1 and Phase 2 Draft EISs. The Phase 1 Draft EIS did not discuss the potential need for additional personnel from adjacent jurisdictions if there were a major fire on the pipeline, but this has been included as a mitigation measure in the Final EIS. With the additional mitigation measures proposed in the Phase 2 Draft EIS and Final EIS, the project would not substantially increase the risk of an accidental release from the pipelines, and could decrease some aspects of the risk. Insurance rates are not expected to increase as a result of the project. The Final EIS discusses the Bellevue Fire Department Standards of Response Coverage in responses to comments on the Phase 1 Draft EIS and Phase 2 Draft EIS. See Key Theme SVC-1 in Appendix J-1.
Interference with communication devices	Overhead transmission lines do not generally interfere with radio or television reception, although corona can affect AM radio frequencies. No corona-generated interference with police and emergency personnel communication/ emergency devices is anticipated. PSE would design the new 230 kV lines in consideration of the Institute of Electrical and Electronics Engineers design guidelines. No changes in the Final EIS. See Key Theme SVC-2 in Appendix J-1.
Safety measures and plans	Operation of the alternatives presented in both the Phase 1 and Phase 2 Draft EISs could increase demand for emergency services in the study area. However, mitigation can decrease impacts. Current safety measures, including emergency service providers, levels of service, and response times, are detailed in the Phase 1 Draft EIS. Access to residential and commercial properties would be maintained at all times. The Phase 1 Draft EIS presented a general analysis of risks regarding pipeline safety. For the Phase 2 Draft EIS, a more detailed pipeline safety risk assessment was conducted to further evaluate pipeline safety risks, including construction risks. The Final EIS describes the variable conditions that could affect the spread and impact of a fire in each segment. See Key Theme SVC-3 in Appendix J-1.
Reliable energy is required for community services to operate	PSE has clarified how the project relates to reliability, which is presented in the Phase 2 Draft EIS and the Final EIS. PSE determined that, without the project, under certain circumstances the Eastside communities would need to be placed at risk of load shedding (deliberate power outages) in order to protect the regional grid. The degree of additional system reliability provided by the project is unknown because of the complexity of the system and the variety of factors that can cause equipment failure. No changes in the Final EIS. See Key Theme SVC-4 in Appendix J-1.