June 12, 2017

CITY COUNCIL STUDY SESSION ITEM

SUBJECT

Review of the published Energize Eastside Phase 2 Draft Environmental Impact Study in light of City Council's 2016 scoping comments.

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POLICY ISSUES

State Law/Growth Management Act: The City of Bellevue has the authority to regulate land use and, under GMA, the requirement to consider the location of existing and proposed utilities and potential utility corridors in land use planning. The City must also plan for the provision of essential public facilities such as utilities consistent with the goals and objectives of its Comprehensive Plan, taking into consideration the public service obligation of the utility involved.

Comprehensive Plan: The Utilities Element Comprehensive Plan policies for non-managed utilities at UT-72 through UT-75 describe a framework for implementing the electric service system; requiring siting analysis; identifying tools to avoid, minimize and mitigate the impacts of new and expanded electric utility facilities; and providing highly reliable electric service for Bellevue customers.

Energize Eastside is an electrical utility facilities project to build approximately 18 miles of new 230kV transmission lines from Renton to Redmond through Bellevue. Consistent with the City's applicable legal framework, the Council has previously provided comments on the Phase 2 DEIS scoping period to encourage transparency and a thorough review of alternatives for the Project.

DIRECTION NEEDED FROM COUNCIL

ACTION	DIRECTION	INFORMATION ONLY
☐	☐	☒

The City Council submitted Phase 2 DEIS scoping comments in May 2016. The Phase 2 DEIS came out in April, and this agenda memo and staff presentation assesses how it addressed the Council's scoping comments.

Council Role: The State Environmental Policy Act requires environmental review on "actions," and action with respect to this PSE project is the anticipated issuance of a permit. Responsibility for the City's environmental review process is delegated to the City's SEPA Responsible Official, and the process proceeds under codes and regulations adopted by each partner city.

The FEIS will inform the mitigation required to address identified impacts; that mitigation may be incorporated into PSE's permit application(s) or will be imposed on the project through the future Conditional Use Permit (CUP) process. The CUP and conditions, together with existing City codes and

regulations, govern development of the proposed electrical facility through construction and long-term operations.

Council participates in this environmental review process as an anticipated decision-maker. Comments were submitted (see Attachment A) requesting information and analysis to help ensure that the FEIS adequately addresses issues raised by the community about the potential significant adverse environmental impacts of this significant infrastructure project. Tonight's study session will inform the Council on how the Phase 2 DEIS scope addressed the points raised in the Council's Phase 2 scoping letter (see Attachment A). Council will not be asked to prepare additional comments on the draft EIS.

BACKGROUND/ANALYSIS

Summary:

As a reminder and for additional context on the Council's scoping letter, PSE identified the alignment called "Willow 2" as its preliminary preferred alignment following publication of the Phase 1 DEIS. As the project owner, PSE will review the Phase 2 DEIS and make a final decision about the scope and alignment of the project to prepare its CUP application. The Phase 2 DEIS then is organized to disclose the impacts of the preliminary preferred alternative identified by PSE, as well as alternatives to that alignment.

The Phase 2 DEIS adequately addresses the issue areas identified in the Council comment letter (the below is a summary of the comments submitted by the Council and the DEIS response; more detailed references follow).

1. It emphasized **transparency** in understanding impacts of variations within the Willow 2 preferred Alternative 1 and in reducing visual clutter within existing and proposed corridor segments **(Council comment letter, issues 1.1 and 1.2)**

2. It conducted a **visual** impacts analysis that included detailed simulations, specific measures to minimize impacts, and examining undergrounding where identified for mitigation **(Council comment letter, issues 2.1 – 2.5)**

3. It identified **Health and safety** impacts, particularly related to areas of collocation with the Olympic pipeline, analysis of the likely magnitude of the safety risk; differentiating impacts of noise and access inconvenience during construction and then operations; and considering regulatory jurisdictional best practices **(Council comment letter, issues 3.1 – 3.5)**

4. It quantified **ecological** impacts of loss of trees, tree canopy, and their ecological function through the use of **ecosystem service values** in a cost-benefit analysis **(Council comment letter, issues 4.1 – 4.4)**

5. It discussed how it addressed alternatives failing to meet **purpose and need** of the proposal **(Council comment letter, issue 5)**

6. Acknowledging that it is not an element of the environment, the DEIS conducted an economic examination of **property values** and effects of transmission line placement on land use **(Council comment letter, issue 6)**

7. The DEIS acknowledged the role of **energy efficiency** components of maintenance and conservation without adding them to the No Action Alternative, since to do so would not have met PSE objectives for the project. **(Council comment letter, issue 8)**

8. The DEIS generally addressed short-term construction impacts for **coordination** during construction phases of the Newport Way sidewalk CIP project **(Council comment letter, issue 9)**

Detailed Comments and Responses

The details from the May 16, 2016 Council comment letter:

Transparency 1.1: The Phase 2 DEIS should provide an understanding of the detailed impacts of variations along segments of the Willow 2 preferred alternative, including key factors that PSE has used to select its preferred route.

Transparency 1.2: The comparison between potential alignment variations within Willow 2 should include which variations focus on existing corridors and which allow for reducing the overall number of poles or otherwise reduce visual clutter. All comparisons should include how variations impact sensitive areas, existing residences and public safety considerations.

> The chapters are arranged to summarize key findings, explain the components of the preferred alternative, and then compare them across chapters that focus on long- and short-term impacts (and mitigation), and cumulative and significant unavoidable adverse impacts. (Chapter 2, Project Alternatives p. 2-1)
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> The key factors in selecting the Willow 2 preferred alternative included a combination of its identification as the most environmentally effective and cost-efficient solution to PSE's objectives for the project, and examining utility corridor options in the area besides the existing transmission corridor to address community expressed concerns about potential adverse impacts. (Chapter 2.1.2.3 Transmission Line Segments and Options pp. 2-20 and 2-21)
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> The Phase 2 DEIS does focus on which alignment variations focus on existing corridors and allow for reducing the overall number of poles and reducing visual clutter. The Bellevue South Segment – Willow 2 Option description on p. 2-39 indicates proposed poles and locations for five separate pole styles in six separate locations, in part to avoid significant aesthetic impacts identified with Willow 1. (Chapter 3 – Long-Term (Operation) Impacts and Potential Mitigation, pp 3.1-39 – 40)

Visual Impacts 2.1: Robust visual impact simulations should be conducted along the entire alignment in order to give a true reflection of the impacts along the different geographies, topographies and surrounding land uses along the segment.

Visual Impacts 2.2: The Phase 2 DEIS should identify alternatives or measures to minimize identified visual impacts, including: consideration of best available technologies to minimize the bulk and scale of the transmission line infrastructure, alignment and profile modifications, and ways to minimize visual clutter.

Visual Impacts 2.3: In addition, comments have been suggested undergrounding some or all of the transmission line might be appropriate mitigation for visual impacts.

Visual Impacts 2.4: The Phase 2 DEIS should identify where undergrounding would mitigate significant adverse visual impacts and include a description of the technical standards and requirements for undergrounding a 230kV transmission line; should identify state regulation and utility tariffs around undergrounding such lines, and identify from a technical standpoint whether undergrounding is precluded from mitigation consideration when the facility is located within regulatory proximity to the Olympic pipeline.

Visual Impacts 2.5: There should be a specific analysis of the area required for undergrounding, areas where undergrounding is feasible and would mitigate identified impacts, a comparison of that to the space available within the existing shared utility corridor, and consideration of the safety impacts of underground colocation, if technically feasible

To assess changes to the aesthetic environment, visual simulations of 44 selected viewpoints along the existing and new corridors were developed. Simulations for the Bellevue South Segment Options can be found in Section 3.2, Scenic Views and Aesthetic Environment. Methods for preparing visual simulations are detailed in Appendix C. For this EIS, simulations for 18 of the 46 key viewpoints (KVPs) are used to support impact conclusions (see Section 3.2-5, Long-term Impacts). They are listed in Table 3.2-2, and their locations shown on Figure 3.2-4. Appendix C incudes simulations for all 46 KVPs and a map showing their locations.

Mitigation measures are included in Scenic Views and Aesthetic Environment for operational impacts. Noting there would be no significant adverse impacts to scenic views (Scenic Views and Aesthetic Environment Summary, p. 1-15), the DEIS suggests measures to "Design overhead transmission lines to be aesthetically compatible with surrounding land uses [and] could include design measures such as changes to pole height, spacing, location, or color." (Scenic Views and Aesthetic Environment Summary, p. 1-15)

The Phase 2 DEIS identified no significant adverse impacts to scenic views, the first class of visual impacts. For the second class of visual impacts—aesthetic environment—the DEIS identified significant aesthetic impacts to the bypass options (new alignments), Willow 1 (existing alignments) and the Newcastle segment (existing alignments). Options to variously mitigate these include pole configuration and placement, use of existing transmission corridors, or placing the line underground (Chapter 1 Scenic Views and Aesthetic Environment Summary p. 1-15). As to the latter, cities within which these portions of the corridor are located could mitigate by requesting undergrounding, although state law and existing tariffs require that the jurisdictions contribute financially to any such requirement. In addition, undergrounding the transmission line in an existing corridor with co-located pipeline was identified as having its own environmental impacts (2.2.2 Underground Transmission Line, p. 2-53). These alignment options are not the preferred alternative Willow 2, for which no significant visual impacts have been identified and thus no consideration of undergrounding as mitigation.

Health and Safety Impacts 3.1: The Phase 2 DEIS should carefully consider areas where the preferred alternative will be collocated with any natural gas or fuel pipeline along the alignment.

Health and Safety Impacts 3.2: The Phase 2 DEIS should identify the potential project-specific impacts of such collocation in the event of a natural disaster (earthquake) or leak or other damage to either the proposed PSE infrastructure or the existing pipeline infrastructure.

Health and Safety Impacts 3.3: The Phase 2 DEIS should identify the likely magnitude of the safety risk, the areas most at risk in such an event, and alternatives or measures that would minimize that risk. Measures should address best practices, best available technological solutions and other approaches to avoiding or minimizing risk.

Most of the No Action and Preferred Alternative alignments are already co-located (except an area in south Renton segment) with the pipeline. The EDM Services probabilistic pipeline risk assessment. Chapter 3 (3.9 – Environmental Health – Pipeline Safety and Appendix I) contains the results of this risk assessment, evaluating "the human health, safety and environmental risks associated with the existing Olympic Pipeline system within PSE's corridor, and identifies the incremental change in these risks associated with the Energize Eastside project."

The risk assessment focuses on the probability of risk of a pipeline leak or fire caused by the construction or operation of the Project. Although this probability is low, the magnitude of damage could be high but would be the same whether construction or operation caused it.

The risk assessment also focused on the probability of risk that could occur from incidents in three categories of "unintentional pipeline damage": electrical interference (external corrosion), pipeline leaks (detection and control), and construction (by others in the vicinity.)

Before it assessed risk, the assessment established project-related risk thresholds for significant impacts from all of these probabilities. These thresholds are measured in terms of probable annual incident frequency.

The risk assessment established and then compared levels of existing risk (what could happen under the No Action alternative) to the incremental change in that risk with the preferred Willow 2 Alternative. It measured this change in terms of the probability of an event for individual risk, and for societal risk. The additional risk magnitude calculates the chance of fatalities that would occur, that would not have occurred if the project was not built.

The risk assessment calculated the annual <u>individual</u> risk of fatality for operation of the 230kV lines within the corridor at a "1 in 4.5 million likelihood that an individual at a specific location would be fatally injured over a 1-year period." The risk assessment calculated the annual <u>societal</u> risk at a "1 in 2 million" likelihood of an event resulting in multiple fatalities (Chapter 3 Long Term Operation Impacts and Potential Mitigation pp. 3.9-40 through 42.)

> "Based on the results of the risk assessment, the individual risk for the proposed 230kV lines would incrementally increase over that proposed by the existing 115kV lines (No Action.) This maximum estimated increase is slight, approximately 1 in 51 million (calculated as the statistical increase in risk between 1 in 51 million/1 in 4.5 million = 9 percent.) In other words, the assessment estimates that there would be an approximately 9 percent increase in individual risk during operation of Alternative 1 before any mitigation is applied. Because the risk level is already very low, this 9 percent increase is not considered substantial." (p. 3.9-41)
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> "Based on the results of the assessment, the increased societal risk of the proposed 230kV lines over that posed by the existing 115kV lines (No Action) is 1 in 253 million…In other words, the assessment estimates that there would be a 0.8 percent increase in societal risk during operation of Alternative 1. Because the risk level is already very low, this 0.8 percent increase is not considered substantial." (p. 3.9-42)

The DEIS also addressed the risks associated with a pipeline release or fire resulting from construction or operation of the Energize Eastside project, which it determined could result in potentially significant adverse environmental impacts. The specific impacts would depend on the location and the nature of the incident. Section 3.9.1 explains the legal requirements to prevent, prepare for, and respond to a pipeline incident. Even with worst-case assumptions related to the increased risk during operation and construction, the likelihood of a pipeline release and fire would remain low, and no substantial increase in risk compared to the existing conditions was identified. It is likely that with the implementation of additional measures included in Sections 3.9.7 and 4.9.4, any increase in risks within the corridor can be fully mitigated. As a result of applying these mitigation requirements during construction and operation, no significant unavoidable adverse impacts have been identified (Chapter 6.9 Environmental Health – Pipeline Safety).

The framework of laws and regulations in which construction and operations take place spreads across Federal, State and local authority. This authority is the primary mitigation for impacts of risk.

Health and Safety Impacts 3.4: The Phase 2 DEIS should differentiate impacts, including impacts of noise and access inconvenience, and mitigation of constructions and operations for each of the preferred alternative alignments.

Health and Safety Impacts 3.5: Each jurisdiction has different regulations so the Phase 2 DEIS should make sure that best practices mitigate across the whole line of permitting regulations.

The DEIS differentiated impacts of noise and access inconvenience and mitigation of construction-related and operational impacts for each of the preferred alternative alignments. The DEIS used charts to display each jurisdiction's approach to, and requirements of permitting. (Chapter 4)

Finally, "Soils and geology were analyzed in Phase 1 of the DEIS because seismic and geotechnical hazards (including ground shaking, liquefaction, and landslides) are present throughout the area. However, impacts under all alternatives would be less than significant with regulatory compliance, and implementation of industry standards, geotechnical recommendations, and best management practices." (Elements of the Environment Not Analyzed in the Phase 2 DEIS, p. 1-10)

Ecological Impacts 4.1: The Phase 2 DEIS should quantify the number of significant trees likely to be removed for construction of PSE's preferred alternative.

Ecological Impacts 4.2: The Phase 2 DEIS should quantify the impact of such removal to the City's overall tree canopy and to any species of concern or wildlife corridors as defined in the City's critical areas regulations.

Ecological Impacts 4.3: The Phase 2 DEIS should also evaluate modifications to avoid or minimize tree loss, as well as mitigation measures including undergrounding of the transmission line and/or replacement of trees removed in construction, that address loss of trees as well as any ecological function or habitat loss.

Ecological Impacts 4.4: The Phase 2 DEIS should seek to quantify the ecosystem service values and shapes of urban forests which would help with cost-benefit analysis.

Chapter 3 identified the number of trees that could be subject to removal or maintenance within the existing corridor and along new corridors. Under Potential Impacts to Plants (p. 3.4-14) the DEIS identified a project alignment range from greatest (5,400) to least (3,600) number of trees removed. The preferred Alternative 1 falls right in the middle (4,200). Noting that substantial habitat would remain in much of the corridor, with at least 5,000 inventoried trees retained, the basic character and functions of the habitat would be maintained [and] vegetation removal associated with Alternative 1 would result in a less than significant impact (3.4.2.1 Plants and Animals in the Study Area-Vegetation Cover p. 3.4-7.)

The assessment of ecosystem services includes the study area used by The Watershed Company (2016a) to survey existing trees in the existing and new transmission line corridors. p. 3.10-1. The approximately 9,400 inventoried trees (aka the forest) represent a fixed value of nearly $19M. The ecosystem services are annual avoided surface runoff, pollution removal, and carbon sequestration. The total annual services value—the ecological value—of the forest is $37,850. A chart (3.10.4.3) on p. 3.10-11 identified the ecosystem service value losses of tree removal that would occur under the preferred Alternative 1, and compared those to the citywide ecosystem services analysis provided citywide in a 2007 study, to provide context by which to measure the scale of the impact to ecosystem services under Alternative 1. For example, in 2007 Bellevue's tree canopy stored 332,000 tons of carbon in trees, and sequestered 2,582 tons of carbon per year. The project corridor would lose 140–800 tons of carbon stored in trees, and a loss of 13–30 tons of carbon sequestered per year depending on the modeled scenarios.

The analysis concluded that Ecosystem Services are not expected to be significantly impacted by the project, even for the option that results in the highest number of trees being removed. The total ecosystem services lost as a result of Alternative 1, when compared to Bellevue alone would constitute less than 0.2 percent of the services provided by urban tree cover. Nevertheless, the Phase 2 DEIS expects that trees will be replaced, identifying mitigation in the form of minimizing tree removal, control measures during construction, stabilizing construction areas with new plant material, and most importantly complying through permitting with existing regulations, operational management plans (vegetation management in transmission corridors, a regulated local action), and critical area ordinances.

The Phase 2 DEIS should include a discussion of any particular alternative that is determined to fail to meet the purpose and need of the Proposal, or is otherwise determined to be not reasonable or feasible. This transparency in the process is important to those in the community who remain concerned about the ability to fully mitigate the impacts associated with PSE's preferred alternative.

Chapter 2.2 Alternatives Considered But Not Included (p. 2-52) described seven alternatives evaluated in the Phase 1 DEIS but which did not meet the purpose and need of the Proposal.

Property Values (from the Phase 1 Summary): "The City acknowledges that effects on property values and property tax rates are of high concern to many residents, particularly in relation to Alternative 1, Option A (the preferred Alternative), as demonstrated by the large number of comments received on this topic. As described in the Phase 1 DEIS, the effect of a transmission line on property values is an economic rather than an environmental issue as defined by SEPA. However, the issue was discussed in the land use analysis to the extent that a change in property values could result in a change in land use…

For the project-level analysis in the Phase 2 DEIS additional economic information should be provided for other jurisdictions to identify potential changes in land use. These comments and any new information should be used to refine the discussion, analysis and characterization of these issues in the Phase 2 DEIS.

The Phase 2 DEIS included an analysis of the property tax impacts from the presence of a transmission line, which studies have shown can adversely affect the value of properties adjacent to the transmission line. "For the Energize Eastside project…the findings of a recent study [Tatos et al, 2016] generally reinforced the conclusions in the Phase 1 DEIS that a small, negative effect is expected from the presence of transmission lines, but does not suggest that the replacement of lower voltage with higher voltage lines would result in a greater negative effect than the existing lines have at present." (Chapter 3.10 Economics 3.10.1 Major Revenue Sources for the City of Newcastle p. 3.10-2)

To assess the economic impact of this the DEIS used a sensitivity analysis based on a presumed $10M drop in revenues from property tax due to a loss in assessed valuation levels, and applied it to the City of Newcastle, the most "price sensitive" of the Partner Cities. The identified mitigation for such revenue loss takes the form of increases in the mil levy rate to recover the revenue. This would see a Newcastle homeowner have to take on about $5.27 per year more in taxes to make it up (Table 3.10-4, p. 3.10-9).

The Phase 2 DEIS also found no significant unavoidable adverse impacts to land use and housing. Although each segment of the project would be consistent with land use-related comprehensive policies, some segments were found inconsistent with aesthetic and recreation-related policies. It is this latter, aesthetic component that is addressed by the economic impact analysis in Chapter 3.10.

The Phase 2 DEIS should include in the No Action Alternatives analysis those energy efficiency components of maintenance and conservation (including energy efficiency measures and increasing demand response components to reduce end-use customer usage), other activities including additional voluntary conservation, demand-response components including AMI, and distributed generation. These components analyzed under Alternative 2 in the Phase 1 DEIS could be considered for mitigation components within the city's partnerships with PSE to provide an alternative energy future.

Because the Phase 1 DEIS concluded that these components, analyzed under Alternative 2 and Alternative 2b, would not address the deficiency that PSE has identified and because they are part of the mix of conservation and resource technology efforts that PSE would be doing anyway, these resource technology alternatives were not carried forward into Phase 2. See Phase 2 DEIS, Section 2.1.7 (explaining why Alternative 2 was not carried forward as an alternative in Phase 2 DEIS).

Energy efficiency and other measures are currently addressed as part of both the No Action and the action alternatives. Because energy efficiency measures are currently voluntary measures whose implementation would continue to be achieved through incentives and other methods of promotion, the Phase 2 DEIS assumes that "[e]nergy efficiency improvements described under the No Action Alternative apply to all of the alternatives." (Phase 2 DEIS, p. ii) The Phase 2 DEIS further provides: "Under either alternative, it is assumed that PSE would continue to achieve 100 percent of the company's conservation goals as outlined in its 2015 Integrated Resource Plan (PSE, 2015), system wide and for the Eastside. Conservation goals are achieved through a variety of energy efficiency improvements implemented by PSE and its customers. Conservation refers to electrical energy

savings above and beyond state or local energy code requirements. For additional information on conservation efforts in PSE's service area, see Section 2.3.1 of the Phase 1 Draft EIS. Since conservation efforts would not change as a result of the project, impacts associated with such efforts are not analyzed in this EIS." (Phase 2 DEIS, p. 1-9)

With respect to the use of these measures as mitigation, SEPA and the City's land use permitting authority provide for mitigation of specific, identified adverse impacts. Therefore, mitigation measures are only discussed in the context of identified adverse impacts (see generally Chapters 3 and 4 of the Phase 2 DEIS). Energy efficiency, voluntary conservation, demand-response components, and distributed generation would attempt to reduce the need for the project rather than its impacts and therefore are not presented in the mitigation discussion in the Phase 2 DEIS.

The Willow 2 preferred alternative alignment should examine coordination and user convenience issues if line construction occurs during construction phases of the City of Bellevue's Newport Way sidewalk CIP project.

The sidewalk CIP (PW-R-185) extends approximately 270 feet past where the centerline of the existing transmission corridor crosses Newport Way. Those 270 feet would be in the Willow 2 Option-Preferred new corridor alignment, and construction mitigation practices described in Chapter 2.1.3 (Construction) and identified in Chapter 4 (Short-term construction impacts and potential mitigation) would apply.

ALTERNATIVES
N/A

RECOMMENDATION
N/A

ATTACHMENTS
A. May 16, 2016 City Council scoping comment letter
B. Online link to the Energize Eastside Phase 2 Draft EIS

AVAILABLE IN COUNCIL DOCUMENT LIBRARY
N/A