



# Denny Substation Project

*Powering Seattle through the 21st century*



## FAQ

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### Project Purpose and Need

#### 1. What is the Denny Substation Project?

The Denny Substation Project provides for the design and construction of a new substation in North Downtown area (Denny Substation), associated transmission circuits (Denny–East Pine; Denny–Broad; Denny–Mass), and the new South Lake Union 13kV Distribution Network System. The overall Denny Program also includes expansion of the Denny Triangle network, and a future expansion of the network distribution area in the South Lake Union Urban Center.

Construction of the new substation and associated transmission and network distribution circuits will provide the electrical power infrastructure necessary to support the development and economic policies that the City of Seattle has implemented over the last decade and that have succeeded in making the City's center into the region's most competitive location for high-tech and bio-tech research and manufacturing, and other innovative entrepreneurial high-tech industries.

#### 2. Why is Seattle City Light building a new substation?

City Light is building a new substation to provide for the necessary infrastructure and equipment to optimally operate both the City Light and Regional Transmission grid and to provide the necessary capacity to construct a new network distribution system in South Lake Union Urban Center. The new substation is necessary to provide for optimal operation flexibility of the utilities electrical distribution system and the necessary reliability in this critical area of Seattle. Although City Light's existing substations have some capacity to handle future loads, there is no available capacity to support the new network in the SLU Urban Center.

#### 3. How did Seattle City Light evaluate the electrical needs for the area to be served by the project?

In early 2011, City Light engaged a consultant to supplement City Light's own engineering studies and assist with analysis of the load service needs for the urban centers in the North-Central area of Seattle. This work concluded that a network distribution system, supported by a new North Downtown substation, would provide the most viable, safe, reliable, and cost effective means to meet emerging load in the North Downtown area.

Since the initial assessment of electrical needs was completed, there has been significant high-density development activity in the South Lake Union Urban Center as well as in the Denny Triangle Urban Village (Amazon Campus, etc.). This recent surge of development has made the scheduled delivery of the substation even more critical to City Light operational flexibility in meeting the electrical demand in the North Downtown area and providing for future load growth reliably.



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#### 4. How much will this project cost?

Currently, the project budget for Phase 1 (including Substation Alternative SA3) is \$296.8M thru 2019.

Costs for future expansion of the substation (ultimate build-out) are not currently identified.

#### 5. How will the project be funded?

It is Seattle City Light's financial policy for substation and transmission capital improvements to be funded by all Seattle City Light customers. These improvements are necessary to properly operate and support City Light's service territory systems, and benefit all customers by providing local service capacity and maintaining our connection to the regional transmission grid.

However, the capital improvements to the distribution system, such as the network system that will emanate from the new Denny Substation, will be funded by ratepayers that receive network service.

## Design

#### 6. What will the Denny Substation look like?

It depends on which alternative is chosen. City Light has stated that Substation Alternative 3 (SA3) is its Preferred Alternative through the SEPA Process, and the Utility has been discussing this design with regulatory agencies including the Seattle Design Commission. The Commission has recently provided preliminary approval for this design by approving the 60% Design Concept of SA3.

Renderings of the current SA3 design and concept drawings for Substation Alternatives 1 and 2 can be found on our Denny Substation Project website:

<http://www.seattle.gov/light/dennysub/default.asp>.

#### 7. Will there be anything other than the Denny Substation on the site?

It depends on the alternative chosen. The proposal for Substation Alternative 3 (SA3 – the Preferred Alternative) would provide for integration of public art into the design of the substation project as well as public benefits for a street vacation that likely would include open space and a variety of programming that will activate the open space and the site. This programming will be defined by ongoing engagement with the neighborhood, community stakeholders, and other City Departments and will require approval from both the Seattle Design Commission and the City Council. Substation Alternative 2 (SA2) would offer similar opportunities. If Substation Alternative 1 (SA1) were chosen, artwork may still be incorporated to the facility, but public benefits for vacation of Pontius Avenue North (such as open space and programming to activate the site) would not be needed or provided.

#### 8. How did Seattle City Light choose the alternative routes being considered for the new transmission line?



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City Light's Transmission Engineering staff reviewed the multiple corridors that exist between the new Denny Substation and the existing Massachusetts Substation. The preliminary routes as chosen for the proposed transmission line are on a relatively direct path between the two substations and have the lowest overall construction impacts and highest operational viability. Design of the new transmission line, to finally place the line within whichever alignment is chosen, will likely begin in 2016.

**9. What is a distribution network?**

A distribution network is an underground electrical distribution system designed to be highly reliable. It has redundant components such as transformers and feeders so that the loss of any one component will not result in the loss of full power to a customer and momentary fluctuations in power are avoided or not perceptible to customers.

**10. Will a distribution network provide better service to Seattle City Light customers?**

Network systems provide highly reliable service to the customers it serves through system feeder redundancy.

**11. Will network service cost customers more than they currently pay for electricity?**

Yes. Network service is more costly to customers than other distribution methods. Customers that connect to network service will be charged at the Seattle City Council approved network rate.

## Environmental Review

**12. What is SEPA and how does environmental analysis under SEPA lead to a better project?**

SEPA is the State Environmental Policy Act passed by the State of Washington and adopted by the City of Seattle. The SEPA process provides decision-makers with environmental information that can be used along with other types of information to determine whether and how to proceed with a proposal. When different alternatives are evaluated through a SEPA Environmental Impact Statement (EIS), as is being done for this project, the decision-maker can compare environmental impacts of the different alternatives and consider those when making decisions about proposals and projects.



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## **13. When will the Final EIS be issued?**

The Final EIS is currently expected to be issued in the first quarter of 2015. The project website will include schedule updates when available.

## **14. What permits will be required in order to build the project?**

Some but not all of the permits expected to be needed are:

- Building Permits
- Street Use Permits
- Master Use Permit
- King County Discharge Approval
- Side Sewer Permit
- Electrical Permits
- Coverage under Ecology's NPDES Construction Stormwater General Permit
- Noise Variance
- Street Vacation Approval (if SA2 or SA3 is chosen)

## **Construction**

### **15. When will construction of the Denny Substation start and how long will it take?**

Construction is anticipated to begin in mid-2015 with energization of the Denny Substation in the third quarter of 2017. Energization of the substation facility will allow City Light to begin connecting customers to the associated distribution networks.

### **16. When will construction of the distribution network start and how long will it take?**

Construction of Phase I network is expected to begin in mid-2015, with completion of the first phase in late 2016. Construction of the future phases of the network would occur as needed over the next 25-30 years or so.

### **17. When will area residents, offices, and other facilities be connected to the new distribution network?**

Existing customers will not be required to connect to the new Network, unless they so choose, until they either re-develop their parcel or upgrade their power service use. For customers that are ready for network service the connection will be sometime soon after the substation is complete and energized, currently scheduled for the third quarter of 2017.

### **18. When will construction of the new transmission line start?**

The construction of a new transmission line from Denny Substation to Massachusetts Substation is now expected to begin in 2018 and be completed in 2020.



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**19. How tall will the poles be for the new Denny to Massachusetts transmission line's overhead area?**

Pole height will be determined during design and depends in part on topography and area structures and facilities that would need to be crossed. The current worst-case assumption analyzed within the EIS is that the steel monopoles could be approximately 150 feet tall.

**20. Will the poles for the new transmission line overhead alternative hold any utility lines other than electrical?**

Other utilities are not typically co-located with electrical transmission circuits, but design work will determine whether this would be feasible or optimal.

**21. What is a "street vacation" and why is it a part of this project?**

The term Street Vacation refers to the process where an entity who owns property adjacent to the right-of-way can petition the City Council to acquire public right-of-way for private use. Public right-of-way is any property where the City has a right to use the land for street purposes whether the right-of-way has ever been improved and used as a street or not.

<http://www.seattle.gov/transportation/streetvacations.htm>

In the case of the proposed Denny Substation, a street vacation would be needed for two of the substation alternatives (SA2 and SA3). Either of these options would close and incorporate that part of Pontius Avenue North between East Denny Way and John Street into the substation site.

**22. How will construction of the Denny Substation project affect area residents and businesses?**

Substation construction will have temporary noise, transportation, and some utility impacts. Transportation impacts associated with substation construction include: an extended closure of East Denny Way to connect into the existing transmission line and initially power the substation; some sidewalk closures and parking restrictions around the site; potential traffic disruption with haul trucks moving to and from the site for a period and delivery of large equipment to the substation site; and temporary relocation of the bus stop along the Denny block where the substation would be located. Construction of the distribution network and new transmission line would also have temporary noise, transportation, and utility impacts.

City Light will work diligently to minimize construction impacts. Information on the anticipated duration of construction and about construction impacts identified for the substation, distribution network, and transmission line can be found in the [Draft EIS \(published in March of 2014\)](#) and in [the Final EIS \(to be published in early 2015\)](#).

## Public Involvement

**23. How has the public been involved in the planning process?**

Public involvement is an important part of this project. Methods used to inform and engage the public include public meetings, Community Forums, briefings, a project hotline, website and email, and recently City Light added a social media component. Public meetings are planned around key phases of the project, the first of which was public scoping in October 2012. Subsequent public



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meetings were held in October 2013 (to review preliminary designs), March 2014 (to review refined substation designs and open space plans), and April 2014 (to review and receive comments on the Draft EIS).

The Community Forum is composed of invited individuals who represent the roughly 35 project area organizations and stakeholder interests. Two community forum meetings were held in 2013, a third in February 2014. Additional meetings are planned in 2014 and 2015.

The project hotline (206-257-2142) continues to provide basic project information and offers callers the opportunity to leave messages with their questions and comments, and the project website ([www.seattle.gov/light/dennysub](http://www.seattle.gov/light/dennysub)) continues to be the most visited project page on City Light's website. The project email ([dennysub@seattle.gov](mailto:dennysub@seattle.gov)) is the primary email address for all correspondence with the public. All emails received at this address will be responded to within 24 hours. As of April 29, 2014, Facebook, Instagram and Twitter will be newly activated with project information and relevant events.

The SEPA process, an important component of project planning, also involved public involvement. Public scoping meetings were held to help confirm topics and alternatives to be addressed by the EIS and a 45-day public scoping period was provided, during which time the public could provide written comments. A public hearing was then held on the Draft EIS when it was issued to solicit feedback on the document, and public comments on the Draft EIS were accepted for a 30-day period. Also as part of the SEPA process, the project team did additional public outreach with groups along the potential transmission line corridors to understand their issues and concerns about City Light's future construction and operation of a new transmission line.

## **24. How will residents and businesses be informed before and during construction?**

A public involvement consultant will be on board during the construction phase of the project to help ensure that information about construction is relayed to potentially affected members of the community as far in advance of the work as possible. City Light and the consultant is using a variety of means including the website, targeted mailings, and social media (Facebook, Instagram and Twitter) to get information out about construction planning. City Light is committed to keeping two-way communication open between the public and City Light during construction. As it is developed, additional detail on planned construction management and communications will be shared on the project website and through the project's social media.

## **Contact Information**

### **25. Where can I find more information about this project?**

Email: [scl\\_dennysub@seattle.gov](mailto:scl_dennysub@seattle.gov)  
Website: [www.seattle.gov/light/dennysub](http://www.seattle.gov/light/dennysub)  
Project Hotline: 206-257-2142



Facebook: [dennysubstationproject](https://www.facebook.com/dennysubstationproject)

Instagram: [dennysubstation](https://www.instagram.com/dennysubstation)

Twitter: [dennysubstation](https://twitter.com/dennysubstation)