

December 2016

Mainwaring Substation Upgrade: Telecommunication Tower

Dear Neighbour,

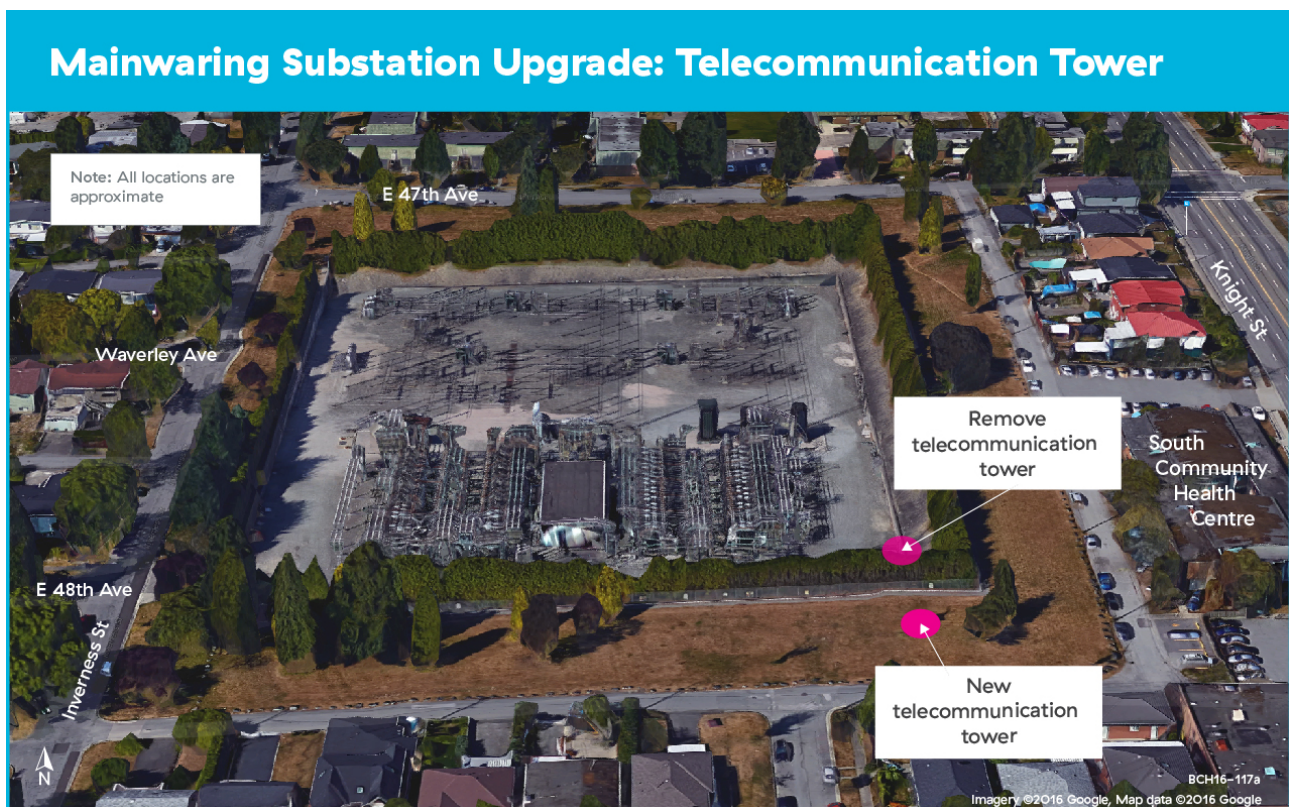
As you may know, we're upgrading Mainwaring Substation so we can continue to provide reliable electricity to the 60,000 homes and businesses served by this substation for the next 30 years.

We need to build a new telecommunication tower at the substation to enhance communication between BC Hydro's facilities. This new tower will have equipment similar to the existing tower at the substation, and additional new telecommunication antennas. Once the new tower is operational, the old tower will be removed (including the antennas and equipment).

We've now designed the tower and we're ready to begin the community consultation process as required by Innovation, Science, and Economic Development (ISED) Canada, formerly Industry Canada.

Where will the new telecommunication tower be located?

Mainwaring Substation is located at 6450 Inverness Street (at the intersection of Inverness Street and 47th Avenue). The new telecommunication tower will be constructed about 20 metres south of the existing tower on the southeast corner of our property as shown in the graphic below (LAT: 49° 13' 33.55" N LONG 123° 04' 42.18" W). As the new tower is located outside the existing fence line, a new fence will be installed around it.



The substation and new telecommunication tower will not be accessible by the public.

What will the new telecommunication tower look like?

The new tower will look very similar to the existing tower currently in the substation (see below).



Rendering of the new tower, looking from the southeast



Existing telecommunication tower at Mainwaring Substation

The new tower will be a lattice structure approximately 32 metres tall (measured from existing ground level) and will have a lightning rod attached to the top, making the total height 33 metres. The existing tower currently in the substation is 27 metres tall.

The new tower will be structurally stronger because of the new telecommunication antennas; a 1.8 metre diameter antenna will be installed 24 metres above the ground. The other antennas shown in the rendering are for future requirements. Weather monitoring devices for the University of British Columbia will be installed 27.5 metres above the ground. This equipment is currently on the existing tower.

There is no requirement to paint the new telecommunication tower or install lighting at the top of it.

The installation of the telecommunication tower will respect good engineering practices including structural adequacy and will comply with all related Canadian Codes and Standards.

When would it be built?

All requirements for ISED Canada and Transport Canada have to be met before we're able to begin construction of the telecommunication tower.

We plan to start constructing the new telecommunication tower in early 2017. Construction will take approximately two months to complete.

We will remove the existing tower once the new tower has been put in service.

What will happen during construction?

We'll start by excavating the site on the south side where the new tower will be located. We will then level the ground and install the new tower. Once we finish the new telecommunication tower, we will install visual screening around the telecommunication tower area.

Why do we need to move the telecommunication tower?

The new tower location will allow for better point-to-point communications with other BC Hydro facilities, improving the overall security and reliability of the electrical grid for our customers.

What is the consultation process?

We are providing project information for comment to the nearby community and City of Vancouver representatives. We're following the ISED process, *Radiocommunication and Broadcasting Antennas systems (CPC-2-0-03)*.

The ISED process requires us to notify people who live within a certain radius of the new tower (three times the height of the new tower). This area does not include very many neighbours, and as such, we have chosen to exceed that notification area to include more of the community. Any inquiries that are received during this notification will be responded to and submitted to the City of Vancouver and ISED.

This information, as well as information regarding the Mainwaring Substation Upgrade, can be found on the project website at www.bchydro.com/mainwaring.

Information on the ISED Consultation process, as well as general information on antenna systems is available on ISED's Spectrum Management and Telecommunications website at:
www.ic.gc.ca/towers.

Will it be in compliance with Health Canada's Safety Code 6?

ISED requires that all towers operate in accordance with Health Canada's safety standards. We confirm that the telecommunication tower described in this notification package will be installed and operated on an ongoing basis to comply with Health Canada's Safety Code 6, as may be amended from time to time, for the protection of the general public, including any combined effects of nearby installations within the local radio environment.

Does it require any environmental reviews?

Environmental studies (e.g. wildlife, vegetation, aquatics, archaeology, soils) have been conducted and no environmental concerns have been identified. The project does not have any requirements under the *Canadian Environmental Assessment Act*.

If you want to know more or provide comments...

If you have questions regarding the tower or would like to provide comments, please provide them in writing within 30 days of receiving this notice. All written inquiries must be submitted no later than January 5, 2017.

Contact Information:

BC Hydro

Megan Harris
Capital Infrastructure Communications
stakeholderengagement@bchydro.com
Phone: 604 623 4472
Fax: 604 623 3937
333 Dunsmuir Street
Vancouver, BC V6B 5R3
www.bchydro.com/mainwaring

City of Vancouver

Development and Building Services Centre
Phone: 604 873 7611
Ground floor
515 West 10th Avenue
Vancouver, BC V5Z 4A8
www.vancouver.ca

Local Industry Canada Office

Arthur Lo
Lower Mainland Office
ic.spectrumsurrey-surreyspectre.ic@canada.ca
Phone: 604 586 2521
Fax: 604-586-2528
13401 108 Avenue, Suite 1700
Surrey, BC V3T 5V6

Sincerely,



Megan Harris
Stakeholder Engagement, BC Hydro