

**REPORT TO PENINSULA RECREATION COMMISSION
MEETING OF THURSDAY, APRIL 29, 2021**

SUBJECT **Panorama Recreation Main Electrical Transformer**

ISSUE SUMMARY

To amend the capital budget for the main electrical transformer project to allow for transformer replacement.

BACKGROUND

As part of the Main Electrical Transformer Project, the 1500 kVa transformer was removed from its location so the transformer pad could be relevelled. During the process of lifting the transformer back on to its pad, the unit broke loose from its rigging and fell 18-24 inches partially landing on the concrete pad. The transformer was briefly inspected for damage on site and reinstalled. The unit energized and showed no initial signs of damage from the impact.

After the incident, Panorama engaged a third-party high voltage electrical contractor to perform extensive testing of the unit. The report found that the main transformer that feeds Panorama Recreation Center is in less than suitable condition for reliable operation. Testing of the unit revealed oil leaking from one set of bushings that was found to be likely caused by the fall. Testing also found significant faults in some of the unit's windings. The report was unable to confirm if the fall contributed to, or worsened the conditions of the windings due to inconsistencies in prior testing results. The report recommends removing the transformer from operation as failure of the unit is considered likely.

Based on the report findings, the transformer should be replaced as soon as possible. Staff are gathering additional quotes to have this work completed.

ALTERNATIVES

Alternative 1:

The Peninsula Recreation Commission recommends to the Capital Regional District Board:

That the approved Panorama Recreation project 19-02-Main Electrical Transformer Upgrade be amended by \$52,100 to accommodate for the emergency replacement of the main electrical transformer, and to proceed with the purchase of the transformer.

Alternative 2:

That the Peninsula Recreation Commission receive this report for information.

IMPLICATIONS

Financial Implications

The estimated budget to replace the transformer including permits, installation, commissioning and disposal of the old transformer is \$80,000.00. The transformer replacement can be done

within the original Transformer Maintenance Upgrade Project which currently has an approximate remaining balance of \$27,900, leaving a required project budget increase of \$52,100.

Staff are involved in negotiations for compensation of damages arising from this incident.

Failure of the transformer prior to replacement would result in substantial costs to provide emergency power and would drastically limit our operations. Under temporary generator power we would not be able to operate the refrigeration plant or pool.

Service Delivery Implications

The 1500 kVa transformer provides power to Panorama Recreation and is imperative to the operation of the facility. These transformers are not readily available and typically have a 20-30 week lead time on ordering. Failure of the transformer would cause extensive service delivery interruptions.

CONCLUSION

The main electrical transformer at Panorama Recreation was found to be in poor condition following an incident during the Main Electrical Transformer Maintenance Project. The assessment of the unit revealed that the transformer is in less than suitable condition for reliable operation and should be taken out of service. A project budget increase of \$52,100. is required to cover the transformer replacement costs.

RECOMMENDATION

The Peninsula Recreation Commission recommends to the Capital Regional District Board:

That the approved Panorama Recreation project 19-02-Main Electrical Transformer Upgrade be amended by \$52,100 to accommodate for the emergency replacement of the main electrical transformer, and to proceed with the purchase of the transformer.

Submitted by:	Lorraine Brewster, Senior Manager, Panorama Recreation
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