Sulfur Dioxide (SO₂) & Nitrogen Oxide (NOx) Emissions Control Projects

- The SO₂ projects at the Nixon and Drake power plants are on schedule and are anticipated to be completed at a total cost consistent with program estimates developed in 2011.

- The Utilities Board received an update at their February 2015 meeting on the emissions control program at both the Drake and Nixon power plants. The update included a review of the project background, regulatory requirements, compliance schedule, implementation plan, program costs and future planning. The meeting can be viewed here, with the emissions control update beginning at 1:30:00: [http://easylink.playstream.com/springs_util_ondmd/ubmtg02182015.wvx](http://easylink.playstream.com/springs_util_ondmd/ubmtg02182015.wvx)

- NOx controls at Drake have been achieved through installation of Ultra Low NOx burners and Over-Fire Air, and were completed ahead of schedule.
  
  - The current estimate at completion for the SO₂ emissions control program at both Drake and Nixon is $273M
    - In the 2011 business case, we estimated that controls for both SO₂ and NOx for both plants could cost $295M, or the equivalent of approximately $330M today, and SO₂ controls alone for both plants could cost approximately $274M, or the equivalent of approximately $300M today.
    
    - Early testing of the NSG system demonstrated positive results for removal of SO₂, NOx, particulates and CO₂; we subsequently contracted only for SO₂ removal to meet regulatory compliance requirements.
  
  - Updated cost estimates for “traditional” scrubber technology at the Drake plant today are approximately $212M.
    - The 2011 estimate for “traditional” scrubber technology at Drake was $158M, and would have required significant modification to existing baghouses.

  - The updated estimate of the total project cost of SO₂ controls for Drake units 6 and 7 at completion is $170M.
    - The NSG SO₂ emissions control project has a lower cost compared to traditional scrubber technology with lower operating costs.
    - The updated project estimate reflects owners engineer services that were outsourced to support the extensive construction begun in March 2014. The updated cost reflects the current schedule, assignment of additional Utilities’ staff to the project team for the construction phase, and purchase of ancillary equipment.

    - In 2011, the scrubber project was estimated to cost approximately $121.8M, with $111.8M specific to the design and construction of the NSG System and an additional $10M in site improvements that would be required at the Drake site regardless of the scrubber technology used.

- At no point in the development of the Drake scrubber project was a full-scale commercial system only $20M.

We are committed to environmental stewardship and are on track to meet regulatory compliance in a cost effective manner.