

1 Q. **Projects over \$200,000 but less than \$500,000**

2 Replace Alternator Shaft, page D-8:

3 Brush outlines at Page D-17 that there are two viable options. What is the cost for
4 Option 1, repairing the current shaft and returning it to service without fully
5 removing the hardness ring, but increasing inspections and examination?
6
7

8 A. Hydro implemented Option 1, repairing the current shaft and returning it to service
9 without fully removing the hardness ring but increasing inspections and
10 examination, in December 2013. The cost of repairing the existing shaft and
11 returning the unit to service was approximately \$148,000. This approach was taken
12 as an interim measure only, to allow the unit to be returned to service and to allow
13 the planning of the stub shaft replacement. Hydro believes this approach to be
14 appropriate for the short term, but it is not the preferred long term solution. In its
15 current condition, the stub shaft is at risk for crack formation and shaft failure as a
16 result of the hardness ring and other hard spots. The recommended long term
17 solution is replacement of the stub shaft to mitigate the risk of failure as a result of
18 the remaining hardness which cannot be removed without weakening the shaft.
19

20 In Hydro's judgment, continuing to operate and monitor is acceptable over the
21 short term, while the stub shaft replacement is planned. Returning the unit to near
22 original specification is required for safe and reliable operation of the unit for the
23 long term.