

UNDERTAKING JT3.5

Undertaking

To provide an updated list of projects classified as used and useful now rather than part of the Darlington Refurbishment Project

Response

Part A

Please refer to the attached tables:

Attachment A – The attached table includes a detailed listing of Projects included in D2-2-2, Table 1 and includes annual In Service and OM&A expenditures. The amounts included in D2-2-2 Table 1 are based on the forecasted amounts as of May 2014 and may not align with the latest OPG approved Business Case.

Attachment B – The attached table includes detailed descriptions of the used and useful partial in service additions represented by the in-service amounts found in Attachment A.

Part B

The following summarizes the basis for used and useful of all of the assets to be placed in-service in the rate period per Exhibit D2-2-2.

Darlington Operations Support Building (OSB) Refurbishment will be used and useful in providing office space for operations support staff, technical services, security systems, IT, telephone network hub etc. to the station when it is placed in service to electricity ratepayers in 2015.

D2O (Heavy Water) Storage Facility will be used and useful for storing heavy water and for managing heavy water drums when it is placed in service as the first unit is dewatered prior to refurbishment. Partial in-service amounts will be immediately used and useful as these services are required for ongoing TRF and station operations.

Darlington (DN) Auxiliary Heating System will be used and useful in providing reliable back-up steam to the station when it is placed in service in 2015. Back up steam is needed to prevent potential equipment damage due to freezing when all four Darlington units are shut down.

Water and Sewer became used and useful as each phase was placed in service in 2012, 2013, and 2014 in providing a reliable domestic and fire water supply to the station and replacing the existing sewage services to the station.

Electrical Power Distribution System will be used and useful in providing reliable electrical power to the existing and new buildings at the station as each phase is placed in service in 2013 and 2014. It will replace the existing system which has degraded over time.

Darlington Energy Complex became used and useful when it was placed in service in

1 2013 in providing space for training including reactor mock-up, warehouse space for
2 tooling and materials, and office space. Additional in-service amounts in 2013 and 2014
3 include the surrounding site servicing including roads and street-scaping.
4

5 **Re-tube and Feeder Replacement (RFR) Island Support Annex** will become used
6 and useful when it was placed in service in 2016 and used by Refurbishment staff to
7 execute the Refurbishment project and in support of Darlington online and outage
8 maintenance activities.
9

10 **Other Campus Plan Projects** will become used and useful once placed in-service and
11 used to support station projects and outages, as well as refurbishment work. The GM
12 facility is currently being used by Station staff due to the fact that the Operations Support
13 Building is being refurbished as well as nuclear project staff working on Refurbishment
14 and non-refurbishment projects. Other facilities, including Salt Shed, parking
15 improvements, and contractor facility will support station needs, including outages and
16 Nuclear Portfolio projects.
17

18 **Safety Improvement Opportunities** are projects that OPG must complete prior to the
19 first unit refurbishment as part of the Environmental Assessment for the Refurbishment
20 and continued operations of Darlington and will become used and useful by the station
21 once placed in-service as these are safety enhancements to the existing station. These
22 projects include:
23

- 24 1. **Third Emergency Power Generator** will be used and useful in meeting an EA
25 commitment to CNSC by providing improved availability and reliability of the
26 Emergency Power System at the station when it is placed in service in 2015. It
27 will be able to withstand a higher level seismic event than the Design Basis
28 Earthquake.
- 29 2. **Containment Filtered Venting System** will be used and useful once placed in
30 service in 2015. Partial in-service amounts of \$2M will be used and useful
31 immediately as it allows for a controlled, filtered release of airborne activity to the
32 environment from Containment to prevent failure from over-pressurization during
33 severe accidents.
- 34 3. **Powerhouse Steam Venting System** will be used and useful in meeting the
35 safety improvement EA commitment to CNSC when it is placed in service in
36 2015. It will improve the reliability of powerhouse venting to prevent damage to
37 safety related systems, structures, and components in the event of piping failure.
- 38 4. **Shield Tank Over Pressure Protection** will be used and useful once placed in
39 service in 2015. Partial in-service amounts of \$3.5M will be used and useful
40 immediately as it prevents shield tank failure from over-pressurization under
41 severe Beyond Design Bases Accidents (BDBA).
- 42 5. **Emergency Service Water Buried Services** will be used and useful once
43 placed in service in 2015. The installation of a parallel buried line of piping will
44 continue to supply cooling water to selected safety related systems when normal
45 water supplies are unavailable for the removal of decay heat and prevention of
46 subsequent process failure, which may result in release of radiation to the public.
47

48 **Other Miscellaneous Station Modification** includes services to island the unit to

1 enable refurbishment, including Fuel Bay Heat Exchange Replacement and Inspection
2 Facility, Emergency Service Water Pipe and Component Replacement, Negative
3 Pressure Containment Modifications, Heavy Water Management System Modifications,
4 and Primary Heat Transport Pump Motor Replacement. These will be placed in-service
5 when complete.
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