SUMMARY OF ENGINEERING SERVICES MASTER SERVICES AGREEMENT

Contract Name:

Extended Services Master Service Agreement

Dates:

Date of Summary: May 6, 2016

E.S. Fox Limited

Date of Agreement: February 12, 2012

Date of Amendment 1: June 28, 2013

Date of Amendment 2: July 1, 2015

Black & MacDonal Limited

Date of Agreement: February 12, 2012

Date of Amendment 1: June 28, 2013

Date of Amendment 2: December 16, 2015

AECON Construction Group Inc. and SNC-Lavalin Nuclear Inc.

Date of Agreement: December 19, 2014

Date of Amendment 1: July 7, 2015

Summary of Key Terms:

The following is a brief summary of the key terms and conditions of the Extended Services Master Services Agreements that were entered into between: (1) Black & MacDonal Limited and OPG as of February 12, 2012, as amended by Amendment 1 dated as of June 28, 2013 and Amendment 2 dated as of December 16, 2015; (2) E.S. Fox Limited and OPG as of February 12, 2012, as amended by Amendment 1 dated as of June 28, 2013 and Amendment 2 dated as of July 1, 2015; and (3) SNC-Lavalin Nuclear Inc. and AECON Construction Group Inc. acting jointly and severally doing business as a contractual joint venture (the “SNC/AECON JV”), and OPG as of December 19, 2014, as amended by Amendment 1 dated as of July 7, 2015.
The form of agreement was developed as an engineering, procurement and construction contract and was intended to serve as a general framework applying to work in support of OPG’s nuclear generating stations and related facilities. The agreements reflect extensive feedback from the entire OPG project team, external legal counsel (Torys LLP (as to the original agreements with E.S. Fox Limited and Black & MacDonald Limited) and Blake, Cassels & Graydon LLP (as to the agreement with the SNC/AECON JV)), and the contractors.

Contracting Strategy for Extended Services Master Services Agreement

In February of 2012, OPG entered into Extended Services Master Services Agreements ("ESMSAs") with two contractors, Black & McDonald Limited and E.S. Fox Limited, as a result of a competitive process. In order to increase competition between contractors and to mitigate capacity risks, OPG entered into an ESMSA with the SNC/AECON JV, which had also participated in the earlier RFP process for the ESMSAs. The current agreement with all three contractors benefited from clarifications and adjustments based on OPG’s experience with the work conducted under the ESMSAs.

Performance of Work

The agreement is intended to apply to any work requested by OPG to be performed by the contractor during the term, which extends to February 15, 2027 (with an option for OPG to renew the agreement for up to five additional years), unless earlier terminated in accordance with the agreement. The contractor is not guaranteed any specific amount of work under the agreement. The implementation of the agreement and the execution and success of the work performed thereunder will be overseen by a steering committee, which meets quarterly and is comprised of the parties' representatives, and such other individuals as may be appointed by the parties. It is expected (but not required) that senior officers of the parties also attend steering committee meetings semi-annually.

In the performance of work the contractor is required to, at a minimum, exercise the standard of care normally exercised by professional contractors having specialized knowledge and
expertise in performing work of a similar nature, scope and complexity and to implement all
prudent practices applicable to such work.

When OPG requires work to be performed in relation to its nuclear generating stations and
other related facilities, it may issue a work request under the agreement. The work request
will include a worksheet listing any relevant OPG specifications, the pricing model applicable
to the work, an indication of which of the interface requirements contained in a schedule to
the agreement may apply to the work, and any other relevant information. OPG has the
option, in its sole discretion, of issuing the work request to the contractor alone, or to any
other contractors. The contractor must then respond to the work request with the information
requested by OPG, including an estimated schedule and cost for performing the work. If
OPG accepts the contractor’s response, OPG will issue a purchase order for the work and
the contractor will be required to perform all of the work so awarded. Relief from the schedule
and cost set forth in the contractor’s work request response is strictly controlled under the
agreement, as the contractor is expected to have taken into account the relevant aspects of
OPG’s ongoing nuclear operations in its preparation of the response.

Depending on the type of work requested in the purchase order, specific terms and
conditions set out in the appendices to the agreement will apply. The work performed by the
contractor under the agreement could consist of (1) engineering, procurement and
construction work where OPG is both the owner and the constructor, (2) engineering,
procurement and construction work where OPG is the owner and the contractor is the
constructor, (3) any combination of engineering, procurement, and construction work or (4)
any of these types of work individually. OPG also reserves the right to impose additional
terms and conditions as may be set out in a work request, and to request that any work be
performed on a phased basis.

In the event OPG determines certain work to be an emergency, the contractor may be
authorized by OPG to proceed with the work without a purchase order, pursuant to the
protocols set out in the agreement for “rapid response work”. The contractor is responsible
for keeping a list of emergency contacts up to date for the purpose of responding to rapid
response work requests as soon as practicable.

**Contractor Core Team and Personnel**

The agreement requires that the contractor establish and maintain a “core team” (whose
names are set out in a schedule to the agreement) capable of managing, controlling and
administering the provision of all work awarded to the contractor under the agreement. The
core team members must have successfully passed OPG’s oral review board, and had their
compensation approved by OPG’s representative. The core team members (or their
replacements, as reflected in an amended schedule) must remain available to perform their
functions and to perform the work awarded to the contractor so that no additional contractor
personnel are required, and the intent is for these core team members to be engaged on a
full-time basis. The composition of the core team will be reviewed on an annual basis, or
more frequently if so determined by the steering committee.

OPG may also request “augmented staff” (temporary workers with various technical skill sets
requested by OPG and supplied by the contractor), to perform work under a purchase order.
The agreement requires that the contractor use its personnel in the most cost-effective and
efficient manner to perform the work, taking into account the appropriate experience and
qualifications required for each task.

**Master Status Report and Schedules**

The contractor is required to develop and maintain a master status report for all work
performed under the agreement in a form approved by OPG, and to update the report at
least once a month for the purposes of providing OPG with the information it requires.
Among other things, the master status report should provide an integrated schedule for all
purchase orders, show the workloading of all of the contractor’s personnel, and track the
level of effort of the core team.

Additionally, the contractor is required to complete and submit a draft project schedule in
respect of the work under each purchase order, which must incorporate and be consistent
with the milestones set out in the purchase order, if any. OPG will have the opportunity to review and provide comments on any proposed project schedule, and once approved, the schedule will be final. The contractor will be entitled to schedule relief only in the event of a project change authorization (or in the event of an “excusable delay”).

**Evaluation - Performance Indicators**

The agreement provides for the calculation of a continuous performance score obtained by aggregating a series of category scores based on four performance indicators: cost, schedule, safety, and human performance. The cost performance indicator measures the actual contract price for the work against the contractor’s estimated contract price at the date on which the application for final payment of work is accepted by OPG. The schedule performance indicator measures the contractor’s ability to complete the work on or before the completion date and to adhere to the project schedule in respect of the work. The safety performance and the human performance indicators measure, respectively, the contractor’s overall safety performance and the contractor’s overall record for responding to and correcting human performance related issues in respect of the work as measured by the metrics for each category set out in a schedule to the agreement.

The overall performance score based on the above category performance indicators is used by OPG to determine whether to award future work under the agreement, and to calculate the performance fee to be paid to the contractor under the agreement.

**Incentives - Performance Fees**

In respect of any application for payment (other than in respect of fixed price work or the core team services fee, as described below), OPG will withhold a fixed percentage of the total amount payable to the contractor under such application for payment, which will be added to the performance fee pool. The performance fee pool is re-set to zero on December 31 of each calendar year.

The steering committee will, following its quarterly meeting, determine a performance fee release date. The amount of the performance fee payable to the contractor on the first
performance fee release date in any calendar year is determined by multiplying the applicable performance score by the amount comprising the performance fee pool. The amount payable on each subsequent release date in the same calendar year is determined by multiplying the applicable performance score for the calendar year by the amount added to the fee pool in such calendar year, and then deducting the amount of the performance fee previously paid in that calendar year.

In the event the performance fee calculations described above result in a negative number on any performance fee release date, the contractor will pay to OPG the amount of the performance fee that is negative.

If required, OPG may provide for a project-specific performance scorecard in a purchase order.

**Other Components of the Contract Price**

The agreement provides for an annual core team services fee payable in 12 installments on a monthly basis by OPG to the contractor for all work performed by the core team under the agreement. This core team services fee includes all costs associated with the services provided by the core team, including labour, profit, overhead, taxes, etc. OPG may review and revise the core team services fee at any time in response to a change in the composition of the core team flowing from a material and unexpected change in the projected value or composition of the work.

The contract price for projects to be performed under this agreement will be set out in the applicable purchase order, subject to amendments contained in any “project change authorization” (as described below). The work may be provided on a fixed price basis, where the total compensation payable to the contractor for the work under the applicable purchase order is reflected in a fixed price, or on a reimbursable cost basis. Reimbursable costs consist of both labour and non-labour costs incurred and actually paid by the contractor, and which are calculated in accordance with the applicable reimbursable cost table set out in a schedule to the agreement.
For rapid response work and performance fee work, OPG will pay to the contractor its reimbursable costs (including both labour and non-labour costs) and overhead and profit amounts calculated by multiplying the estimated reimbursable labour costs by fixed percentages totaling [redacted].

Goods will be supplied at the contractor’s actual cost plus an agreed administration fee set out in the worksheet to the purchase order, not to exceed [redacted]. Rented equipment with a book value of greater than $2,000 will be treated as reimbursable non-labour costs at the contractor’s cost plus an agreed administration fee of [redacted].

Subcontracts will be priced at the contractor’s actual cost plus an agreed administration fee of [redacted].

The contractor is entitled to be reimbursed (without a mark-up) for business expenses in accordance with the business expense reimbursement schedule attached to the agreement.

“Open Book” Approach and Audit Rights

All contract pricing, whether in respect of rapid response work, performance fee work, fixed price work, or costs associated with “augmented staff”, will be developed by the contractor on a fully open book and transparent basis, allowing OPG full review of quantities, unit prices, quotations, allowances and contingencies, as applicable.

The agreement requires the contractor to provide OPG with full and open access to all financial and other records relating to the work performed under the agreement. The agreement also provides OPG with extensive audit rights for all financial and other records that relate to work that is performed on a reimbursable costs basis, with few restrictions on the lookback periods for audits and readjustment of contractor cost claims. OPG is not entitled to dispute or audit any profit, overhead or contingency amounts forming part of the contract price payable in respect of fixed price work.
Performance Security, Insurance and Indemnities

The agreement obliges the contractor to post a letter of credit in the amount of $2M. The amount of this letter of credit is subject to quarterly adjustment based on the estimated quarterly spend at the beginning of each calendar year, not to exceed 10 per cent of the estimated quarterly spend. OPG may require that the amount of the letter of credit be increased or decreased at any time in the event OPG reasonably determines there is a material change in the current estimated quarterly spend. In addition, OPG may stipulate in a purchase order that a project-specific letter of credit is required in an amount not to exceed 10 per cent of the total value of the purchase order. If a project-specific letter of credit is required, the estimated quarterly spend under such purchase order will not be included for the purposes of calculating the amount of the general letter of credit. The contractor must maintain the letter of credit in force until 60 days after all of its obligations under the agreement and any outstanding purchase orders have been satisfied in full, including all warranty obligations.

In the case of the SNC/AECON JV, the contractor provided guarantees from the ultimate parent companies of the contractor in support of all of the contractor’s obligations under the agreement. These guarantees contain ratings-based and/or covenant based tests of the ongoing creditworthiness of the parent guarantors.

The agreement contains insurance requirements set out in a schedule to the agreement. The agreement also contains contractor indemnity provisions and limits of liability consistent with general industry standards.

Project Change Authorizations and Excusable Delays

The agreement tightly restricts the ability of the contractor to initiate a “project change authorization”, and it may only do so if there is (1) a change in applicable laws (not related to taxes) or (2) if there are new Canadian federal or provincial sales, use or excise taxes, duties or any changes in the rates or applicability of such taxes and duties. In each case, such changes must materially affect the work under the applicable purchase order and must not have been reasonably foreseeable at the time of the purchase order. In the event of a project
change authorization, the parties will agree to an equitable change to the project schedule and/or contract price as necessary. The rationale for this restrictive approach is that the contractor is assumed to have taken into account all relevant information in the preparation of the work request response on which the purchase order is based.

The contractor will not be held responsible for any “excusable delay” in fulfilling its obligations under any purchase order. An “excusable delay” is a delay that is caused by an OPG breach or a stop work order, emergency or hazardous condition for which OPG is responsible, fire, flood, tidal wave, lightning, earthquake, cyclone, strike or lockout by persons working at the applicable site, war, riot or act of public enemies including terrorists, or severe and unusual weather conditions at the applicable site which could not have been anticipated by an experienced contractor and which exceed the 50 year severity for that weather condition in the applicable area of Ontario, and in each case affects the critical path of the relevant project schedule set out in the purchase order.

Subcontractors

The agreement permits the use of subcontractors, provided OPG does not object to any such subcontractor. Certain “first tier subcontractors” are identified on a schedule to the agreement, and OPG must be notified immediately if there are any changes to the identity of the first tier subcontractors, or to the work to be performed by them. Any such changes to the first tier subcontractors must be approved by OPG.

Intellectual Property

The agreement requires the contractor to transfer to OPG, or to license to OPG, all intellectual property required for the performance of the work.

Warranty

The warranties in respect of the work are determined on a project by project basis, and are set out in the terms and conditions applicable to the type of work set out in the relevant purchase order.
Scientific Research and Experimental Development ("SRED") Tax Credit

The agreement provides that OPG is entitled to claim all SRED tax credits generated by the work under the agreement.

Termination for Default

The agreement includes standard events of default. If the contractor defaults, OPG will be entitled to terminate the agreement and to exercise a number of self-help remedies.

If an event of default occurs under a specific purchase order that does not permit OPG to terminate the entire agreement for cause, OPG has several self-help remedies available to it in respect of the remaining work under the relevant purchase order.

Termination for default would permit OPG to make a claim against the contractor for full contractual damages (subject to a percentage cap formula that is linked to the total contract price and certain other amounts).

Termination for Convenience

The agreement permits OPG to terminate the agreement or any purchase order (including a purchase order for augmented staff) for convenience at any time. Certain types of direct damages (but not full contractual damages) will be payable by OPG to the contractor in such circumstances.

Suspension of Work

The agreement permits OPG to suspend the work under any purchase order, in whole or in part, at any time. Reasonable incremental direct costs (but not full contractual damages) will be payable by OPG to the contractor in such circumstances, provided that the contractor takes all commercially reasonable steps to mitigate such costs, including redeploying its personnel.

OPG may also order the contractor to suspend the work as a result of a situation that puts such work, any part of the work site or any people at risk (a "stand down order"), for example
in the case of a human performance error, or a procedural or environmental issue. If the stand down order is not caused by the contractor, its subcontractors or its personnel, OPG will compensate the contractor for the direct costs and expenses resulting from the stand down order, unless the stand down order results from an “excusable delay”.

Dispute Resolution

The agreement provides for both informal and formal resolution of disputes. The informal procedure contemplates a staged escalation of disputes within OPG’s and the contractor’s management structure with a view to achieving a consensual resolution of the dispute. The formal mechanism is binding arbitration under commercial arbitration rules. The agreement limits the recourse of the contractor and OPG to the ordinary courts.