

Ontario Power Generation Inc.

2017-2021 Payment Amounts

EB-2016-0152

Technical Conference

EXHIBIT AND UNDERTAKING LIST

Exh. KT

Exhibits

November 16, 2016

- 3.1 LIST OF SEC AMPCO INTERNAL AUDIT REPORT REQUESTS
- 3.2 BOARD STAFF CROSS-EXAMINATION COMPENDIUM FOR OPG PANEL 3.

November 15, 2016

- 2.1 COMPENDIUM
- 2.2 BOARD STAFF'S COMPENDIUM FOR PANEL 3.

November 14, 2016

- 1.1 LIST OF DOCUMENTS REQUESTED BY SEC AND AMPCO

UNDERTAKINGS

JT

Response Filed

November 16, 2016

- 3.1 TO PROVIDE RESULTS OF EACH OF THE METRICS ON THE SCORECARDS. November 21, 2016
- 3.2 TO PROVIDE A STEP-BY-STEP BREAKDOWN OF HOW CALCULATIONS IN PART B WERE ARRIVED AT. ALSO TO ADVISE IF ANY ADJUSTMENTS WERE MADE TO THE METHODOLOGY TO DETERMINE THAT RESPONSE TO THIS RESPONSE. November 21, 2016
- 3.3 TO DETERMINE SPECIFICALLY HOW HACKETT WOULD PROVIDE INSTRUCTIONS HOW TO EXTRACT THE DATA. November 21, 2016
- 3.4 TO PROVIDE THE DOCUMENTS LISTED IN EXHIBIT NO. KT3.1. November 30, 2016
- 3.5 TO CONFIRM CONCENTRIC'S ASSUMPTION RE: THE VALUE LINE DATA. November 21, 2016

JT		Response Filed
3.6	TO PROVIDE CONCENTRIC'S RESPONSE TO MR. SHEPHERD'S QUESTION ABOUT WHETHER AN ASYMMETRICAL POSITIVE RISK EXISTS.	November 21, 2016
3.7	TO ADVISE OF THE TOTAL BUDGETED COST OF THE CONCENTRIC PROJECTS AND WITH THE CURRENT COST OVERRUNS WHAT THE NEW BUDGET FIGURE IS. (WITHDRAWN)	November 21, 2016
3.8	TO INQUIRE WITH TOWERS WATSON AS TO WHETHER THEY CAN INCLUDE THE EXCLUDED GRANDFATHERED DATA IN THEIR ANALYSIS AND WHETHER THAT WOULD BE AN APPLES-TO-APPLES COMPARISON OR NOT.	November 21, 2016
3.9	FOR NUCLEAR AUTHORIZED MANAGEMENT GROUP, TO SPLIT THAT OUT BETWEEN THE ONES THAT ARE AT 75TH AND THE ONES THAT ARE AT 50TH.	November 21, 2016
3.10	TO PROVIDE A BREAKDOWN OF THE CHANGES THAT HAVE A MATERIAL IMPACT ON THE RATEPAYERS' RISK GOING FORWARD TO THE EXTENT OPG FEELS COMFORTABLE, OR IF NOT, TO SAY WHY NOT.	November 21, 2016
3.11	TO PROVIDE THE RESPONSE IN 9.7 SEC 93 BROKEN DOWN IN ONE-YEAR PERIODS.	November 21, 2016
3.12	TO CLARIFY THE REPSONSE IN ISSUE 11.1, STAFF 243, PAGE 3, UNDER (D).	November 21, 2016
3.13	TO BREAK OUT EXHIBIT F4, TAB 2, SCHEDULE 1, TABLE 3 BETWEEN NUCLEAR AND PRESCRIBED NUCLEAR AND PRESCRIBED HYDROELECTRIC FACILITIES.	November 21, 2016
3.14	WITH REFERENCE TO ISSUE 9.2, STAFF 213, AT PAGE 12 OF THE COMPENDIUM, TO GO THROUGH EACH ONE OF THE ACCOUNTS AND GIVE AN OPINION AS TO WHICH ONES IT APPLIES AND WHICH ONE IT DOESN'T.	November 21, 2016
3.15	TO PROVIDE BY-YEAR SHOWING OF HOW MUCH OF DRP-RELATED ITEMS ARE IN RATE BASE AND WHAT THE MATH ON RETURN ON RATE BASE WOULD BE IN THE COST OF CAPITAL OF THIS SENSITIVITY OF 1 PERCENT OR WHATEVER WAS DONE TO THE END OF THE TEST PERIOD.	November 21, 2016
3.16	TO PROVIDE PREVIOUSLY EXCLUDED DATA WITH RESPECT TO THE PRODUCTIVITY TREND OF OPG'S MANAGEMENT OF HYDROELECTRIC ASSETS.	November 21, 2016
JTX 3.17	REDACTED	
JTX 3.18	REDACTED	
JTX 3.19	REDACTED	
3.20	TO PROVIDE STAFFING PLANS INCLUDING BOTTOM LINE NUMBERS.	November 21, 2016
3.21	TO REQUEST CONCENTRIC'S COMMENT ON MR. JANIGAN'S QUESTION ABOUT THE CRVA AND THE INCREASE IN EQUITY THICKNESS.	November 21, 2016

JT**Response Filed**

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| 3.22 | WITH REFERENCE TO ISSUE 1.2, CCC NUMBER 8, TO PROVIDE A LIST OF THE PIRS DONE OVER THE LAST 12 MONTHS, TO SEE WHAT MAJOR PROJECTS HAVE BEEN DONE AND HOW WELL, IN PARTICULARLY ON BUDGET, THEY HAVE DONE, BEGINNING WITH A LIST OF THE MOST RECENT PIRS. | November 21, 2016 |
| 3.23 | TO PROVIDE THE UNREPORTED RESEARCH LEI GATHERED TO STUDY THE IMPACT OF CYCLICAL ECONOMIC VARIABLES ON PRODUCTIVITY GROWTH IN THE GENERATION INDUSTRY. | November 21, 2016 |
| 3.24 | TO ADVISE IF LEI CAN PROVIDE THE INFORMATION REQUESTED; NAMELY, FOR EACH UTILITY IN THE SAMPLE OF LEI'S STUDY FOR EACH YEAR, ADVISE WHAT IS THE ANNUAL PRODUCTIVITY GROWTH RATE THAT LEI HAS CALCULATED FOR THAT UTILITY IN THAT YEAR AND, IF POSSIBLE, TO SEPARATE THE CANADIAN UTILITIES FROM THE AMERICAN UTILITIES; ALSO, IF POSSIBLE, TO HIGHLIGHT WHICH DATA ARE SPECIFIC TO OPG. | November 21, 2016 |

November 15, 2016

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| 2.1 | TO FILE THE MINISTERIAL CONCURRENCE LETTER. | November 21, 2016 |
| 2.2 | TO EITHER PROVIDE THE REPORT DETAILING THE APPROXIMATELY 500 COMMUNITY JOBS, OR PROVIDE REASONS FOR NOT PROVIDING IT. | November 21, 2016 |
| 2.3 | TO CONFIRM WHETHER ALL THE ITEMS IN ATTACHMENT 1 ARE INCLUDED IN CHART 1. | November 21, 2016 |
| 2.4 | TO RECONCILE ED 18, BOARD STAFF 116, AND GEC 38, AND ADVISE THE DIFFERENCES WHAT COSTS WERE INCLUDED OR EXCLUDED AS BETWEEN THE THREE. | November 21, 2016 |
| 2.5 | OF THE COSTS INCLUDED IN ED 18, BOARD STAFF 116, AND GEC 38, TO ADVISE WHICH WERE INCLUDED OR EXCLUDED FROM THE ECONOMIC ASSESSMENT OF PICKERING, INCLUDING THE CALCULATION OF THE 6.5 CENTS PER KILOWATT-HOUR. | November 21, 2016 |
| 2.6 | TO CONSIDER MR. ELSON'S QUESTION FOR RELEVANCE, AND ADVISE WHETHER IT CAN BE ANSWERED AND REASONS WHY OR WHY NOT. | November 21, 2016 |
| 2.7 | TO ADVISE THE BUDGETARY NUMBER FOR TURBINE CONTROLS. | November 21, 2016 |
| 2.8 | TO PROVIDE IN ELECTRONIC FORMAT THE TABLE IR 4.2 AMPCO 17, IF POSSIBLE. | November 21, 2016 |
| 2.9 | TO PROVIDE THE INFORMATION FOR ITEMS AND 2 AND 3. | November 21, 2016 |
| 2.10 | TO PROVIDE THE FORECAST FOR SPOT PRICES FOR URANIUM. | November 21, 2016 |
| 2.11 | TO PROVIDE THE DATA POINTS AND POTENTIALLY UPDATE CHART 2 OF EXHIBIT F2, TAB 5, SCHEDULE 1, PAGE 3. | November 21, 2016 |
| 2.12 | TO PROVIDE THE DETAILS OF THE VARIOUS METRICS; ALSO, TO PROVIDE THE DRIVERS BEHIND THE INDEX AND EXPLAIN HOW THEY HAVE BEEN IMPROVING. | November 21, 2016 |

JT		Response Filed
2.13	TO ADVISE WHETHER THE FIGURE 1 DATA IS REPRESENTATIVE OF HOW THE FIRMS ARE ACTUALLY DOING VERSUS PARTICULAR SAFETY TARGETS.	November 21, 2016
2.14	TO UPDATE REFERRED TABLE TO REFLECT P-50 CONFIDENCE LEVEL SCHEDULE FOR DARLINGTON REFURBISHMENT PROJECT.	November 21, 2016
2.15	TO PROVIDE A FORECAST OF ZIRCONIUM COSTS IF IT EXISTS.	November 21, 2016
2.16	BESIDE COLUMN D, ON 4.4 SEC 46, PROVIDE THE VALUE OF THE FIRST EXECUTION BUSINESS CASE AND PUT AN EXTRA COLUMN IN WITH THE VALUE OF THE FIRST EXECUTION BUSINESS CASE FOR THE PROJECT AND THE CORRESPONDING VARIANCE ATTACHED TO THAT.	November 21, 2016
2.17	TO PROVIDE THE CAUSES AND LENGTHS OF THE POST-REFURBISHMENT MINI-OUTAGES FROM SOME OF THE OTHER CANDU PLANTS MENTIONED IN THE IR TO SEE HOW THEY WOULD COMPARE TO WHAT IS BEING PROPOSED, INCLUDING THE LENGTHS OF THOSE OUTAGES.	November 21, 2016
2.18	TO PROVIDE THE PARALLEL NUMBER THAT'S PROVIDED IN J5.3.	November 21, 2016
2.18A	TO CLARIFY THE RESPONSE TO PW IR 4, TAB 4.2, SCHEDULE 13 ABOUT THE HOLT ROAD INTERCHANGE.	November 21, 2016
2.19	TO PROVIDE THE CAPITAL IN-SERVICE AND WHAT WAS ACTUALLY DONE DURING THE RATE PERIOD PROJECT BY PROJECT FOR TIER 1 AND TIER 2.	November 21, 2016
2.20	TO DO A REVIEW LOOKING FOR A FORMALIZED BENCHMARKING STUDY IN RESPECT OF THE ELEMENTS THAT FORM PART OF THE COSTS PARAMETERS RELEVANT TO THE CONSIDERATION OF ESTABLISHING PAYMENT AMOUNTS.	November 21, 2016
2.21	TO GO THROUGH THE DIFFERENCES IN PHT OUTAGES AND CONFIRM THAT THAT'S THE REDUCTION NUMBER THAT'S GOING INTO THE FORECAST PRODUCTION.	November 21, 2016
2.22	TO PROVIDE INFORMATION RELATED TO PEER GROUP ANALYSIS UNDERTAKEN BY NAVIGANT.	November 21, 2016
2.23	TO ADVISE WHEN SIMPLE PIRS ARE DONE OR TRIGGERED, AND THEN WHEN COMPREHENSIVE PIRS ARE DONE OR TRIGGERED.	November 21, 2016
2.24	TO PROVIDE A SCENARIO SHOWING RATE SMOOTHING AND MATERIALITY.	November 21, 2016
2.25	TO SHOW THE AMOUNT OF COMPENSATION THAT IS INTENDED TO BE CAPITALIZED IN EACH OF THE TEST YEARS.	November 21, 2016
2.26	TO PROVIDE HISTORICAL NUMBERS FOR HEAD COUNTS FOR THE YEARS 2012 TO 2014 AND THEN FOR THE TEST PERIOD.	November 21, 2016
2.27	TO PROVIDE THE DESCRIBED CALCULATION.	November 21, 2016
2.28	TO PROVIDE THOSE OTHER ASPECTS OF REVENUE REQUIREMENT THAT ARE SUBJECT TO THE RULES IN AN UNDERTAKING.	November 21, 2016

JT		Response Filed
2.29	FOR THE 282 THAT COULD NOT BE BENCHMARKED, TO GROUP THEM BY JOB FAMILIES.	November 21, 2016
2.30	TO PROVIDE COST FOR ADVERTISING RELATED TO NUCLEAR GENERATION UNDER THE COMMUNICATIONS FUNCTION.	November 21, 2016
2.31	FOR COLUMN C OF EXHIBIT F3, TAB 1, SCHEDULE 1, PAGE 14 IN THE MIDDLE, TO CLARIFY WHICH IS PEER AND WHICH IS A MEDIUM NUMBER (ANSWERED)	pg 209 of transcript
2.32	TO EXPLAIN WHETHER THERE IS AN OVERLAP BETWEEN THE TOWERS MISSING AND THESE GROUPS ARE WITHIN THE BCS CATEGORY.	November 21, 2016
2.33	TO EXPLAIN WHY IT IS MORE COMPLEX TO MANAGE FOUR UNITS THAN TWO UNITS.	November 21, 2016
2.34	TO PROVIDE THE ANALYSIS FROM THE TOWERS WATSON REPORT.	November 21, 2016

November 14, 2016

1.1	TO PROVIDE THEIR RISK REGISTRY.	November 21, 2016
1.2	TO ADVISE WHAT OPG IS OVERSEEING WITHIN THE PROJECT AND TO BREAK DOWN COSTS ASSOCIATED WITH UNIT 2.	November 21, 2016
1.3	TO FILE THE REMAINING REPORTS THAT WERE COMPLETED AS A RESULT OF THE LAST PROCEEDING.	November 21, 2016
1.4	TO PROVIDE EXHIBITS 9, 11, AND 12.	November 21, 2016
1.5	TO PRODUCE THE KEPNER-TREGOE ANALYSIS.	November 21, 2016
1.6	FOR EACH OF THE MAJOR CONTRACTS, TO ADVISE WHAT PERCENTAGE OF THE CONTRACT IS OVERHEAD, WHAT PERCENTAGE IS PROFIT, THE COMBINED AMOUNT OF PROFIT AND OVERHEAD, AND WHAT PERCENTAGE IS AT THE CONTRACTOR'S RISK, WHAT IS AT THE AT-RISK, IF IT CAN BE DONE, AND IF IT CAN'T, EXPLAIN IT. BUT ALSO, IF IT CAN BE DONE, TO PROVIDE HOW THE CALCULATION WAS ARRIVED AT.	November 21, 2016
1.7	TO PROVIDE A RESPONSE RELATED TO INTERROGATORY 4.3 SEC 22, ATTACHMENT 2, TAB 15.	November 21, 2016
1.8	TO PROVIDE THE DOCUMENTS LISTED IN KT 1.1, OR TO INDICATE WHY OPG WON'T PROVIDE THEM.	November 30, 2016
1.9	TO UPDATE IRR EP10 ATTACHMENT 1 CHART 3, TO INCLUDE INTEREST AND ESCALATION FOR THE COST ITEMS LISTED.	November 21, 2016
1.10	TO PROVIDE A VERSION OF THE TABLE OF THE FORECAST SPEND LIFE FOR THE DARLINGTON REFURBISHMENT PROJECT THAT S THE COST TO DECEMBER 2016.	November 21, 2016
1.11	TO PROVIDE A FULL LISTING OF THE 24 PROJECTS SHOWN IN CHART 1, NUMBER 6.	November 21, 2016

JT		Response Filed
1.12	TO PROVIDE AN UPDATE TO TABLS 1, 3, 4, AND 5 of EXHIBIT D2, TAB 2, SCHEDULE 10.	November 21, 2016
1.13	TO PROVIDE COPIES OF REPORTS RELATED TO CONTRACT AMENDMENTS REFERRED TO IN AMPCO 55.	November 30, 2016
1.14	TO ADVISE THE NUMBER OF HOURS SPENT ON THE REACTOR FACE.	November 21, 2016
1.15	TO PROVIDE OPG'S RESPONSES TO THE RCRB RECOMMENDATIONS.	November 21, 2016
1.16	TO PROVIDE THE BREAKDOWN BETWEEN CAPITAL AND OM&a AMOUNTS.	November 21, 2016
1.17	TO PROVIDE RESPONSES TO THE ENVIRONMENTAL DEFENCE LETTER FILED NOVEMBER 8, 2016.	November 21, 2016
1.18	TO PROVIDE THE OPG POSITION ON MONTHLY AND QUARTERLY REPORTING OF THOSE FIGURES.	November 21, 2016
1.19	FOR D2, 28, ATTACHMENT NUMBER 1, PAGE 29, TO PROVIDE A UNIT BREAKOUT OF THE CUMULATIVE SPEND.	November 21, 2016
1.20	TO RECALCULATE IR 3 AND 4 BASED ONLY ON FUTURE COSTS, OR WHY OPG WILL NOT ANSWER.	November 21, 2016
1.21	TO PROVIDE THE MOST RECENT COMPLETE RISK REGISTRY.	November 21, 2016
1.22	TO PROVIDE AN UPDATE TO THE CHART SHOWING A COUPLE LEVELS BELOW THE VP LEVEL.	November 21, 2016
1.23	TO PROVIDE THE SCHEDULE IN THE CONTRACT IF IT EXISTS, OR IF IT HASN'T BEEN DONE, TO EXPLAIN WHY.	November 21, 2016
1.24	UNDERTAKING NO. JT1.24: WITH RESPECT OF THE SCOPE OF WORK THAT MS. GALLOWAY HAD PERFORMED IN THIS PROCEEDING AND OVER THE LAST TEN YEARS, TO CONSIDER THE REGULATORY PROCEEDINGS THAT SHE HAS PARTICIPATED IN AND IDENTIFY THOSE THAT HAVE A COMPARABLE SCOPE.	November 21, 2016
1.25	TO SPLIT OUT THOSE PROJECTS AGAINST THE FOUR THAT ARE ON PAGE 2 AS WELL AS ON PAGE 1.	November 21, 2016
1.26	TO ADVISE WHEN EACH ONE OF THE SHAFTS WERE LAST TESTED; ALSO, TO PROVIDE A SYNOPSIS OF THE STATE AND CONDITION AND TEST RESULTS.	November 21, 2016