UNDERTAKING NO. J4.4

REFERENCE

Hearing Day May 13, 2011 Tr. p. 109

UNDERTAKING NO J4.4: TO PROVIDE DETAILED DESCRIPTION AS TO HOW AVOIDED COSTS REPRESENTED IN BUSINESS PLAN AT EXHIBIT A, TAB 2, SCHEDULE 1, PAGE 17 OF 52 ARE CALCULATED.

RESPONSE

The benefits of CDM are counted as the reduction in the cost of energy to be generated and the reduction in the cost of the new resource capacity that would be needed as a result of implementing the CDM.

The reduction in the cost of energy is simply the fuel plus variable OM&A that would be saved as a result of the energy savings to be achieved by the CDM. The estimate of avoided energy relates mostly to the cost of fuel to operate the generation facility. Under contracts that are signed with generators, fuel costs are generally passed through and so the cost of energy is avoided. The reduction in the cost of new resource capacity is estimated as the capital and fixed OM&A cost that would be saved due to the reduced need for new generation, transmission and distribution capacity because of the peak load reduction to be achieved by the CDM. The present value of the CDM benefit is estimated as the sum of the discounted future annual energy cost savings and levelized capital cost savings.

The avoided cost estimates that the OPA uses to estimate the cost-effectiveness of CDM are shown in the “OPA Conservation and Demand Management Cost Effectiveness Guide”, which is available at the following web address:

http://www.powerauthority.on.ca/sites/default/files/20110406%20-%20EMV%20Protocols%20and%20Requirements.pdf

The electricity system continually evolves as procurements are initiated and completed and contracts for resources are executed and as plans evolve in response to updates in the load forecast. To reflect these updates, the estimates of avoided costs will be updated in IPSP2.

The tables attached to this exhibit as Attachment 1 provide further details on the calculation of the $2.7 Billion in avoided electricity supply costs from the OPA's 2011-2014 OPA-Contracted Province-Wide programs.

The avoided costs for each program are calculated by multiplying the Avoided Costs Table (which shows discounted per unit avoided energy costs and capacity costs, by year and by season/TOU period) by the program's lifetime savings (broken out by year and by season/TOU period). This produces a table of total avoided energy and capacity costs, by year (and by season/TOU period for energy) for each program. The sum of yearly energy and capacity avoided cost values is the total avoided cost for the program.

The avoided costs for each of the four programs were calculated separately and then added together to determine the portfolio level avoided costs, as shown in the summary table below:

2011-2014 OPA-Contracted Province-Wide CDM Program Portfolio

Avoided Costs by Program ($M)

Program	Avoided Energy Cost	Avoided Capacity Cost	Total Avoided Cost
Consumer	349	468	**817**
Business	655	906	**1,561**
Industrial	172	144	**316**
Low Income	35	9	**44**
Portfolio	**1,211**	**1,526**	**2,738**