1 Q. In reference to section 8.2 of the ESRA Report, please explain what, if any, benefit occurs with the addition of 60 MW gas turbine if TL267 in service date is advanced by one year.

A.

As detailed in Table 1 below, the addition of 60 MW gas turbine, with the one-year advancement of TL267 results in no expected unserved energy in excess of planning criteria. The only notable benefit for the addition of the gas turbine in conjunction with the advancement of TL267 when compared to the advancement of TL267 without additional generation is that there is no longer expected unserved energy in excess of planning criteria in Winter 2017-18 for a Holyrood plant DAFOR of 24%. For completeness, Table 2 indicates the benefit provided by the addition of 60 MW gas turbine inclusive of the 10 MW capacity provided to the Island Interconnected System by the Holyrood diesels.

Table 1 - Addition of 60 MW GT with One Year Advancement of TL267 without Holyrood Diesels

P90 Analysis						
Year	2016/17	2017/18	2018/19	2019/20		
	Expected Unserved Energy in Excess					
HRD DAFOR	of Planning Criteria (MWh)					
10%	-	-	-	-		
14%	83	•	ı	ı		
19%	577	-	-	-		
24%	1375	-	-	-		
	Incremental Annual Expected Outage					
HRD DAFOR	Hours					
10%	-	-	-	-		
14%	13,800	-	-	-		
19%	96,200	-	-	-		
24%	229,200	-	-	-		

Table 2 - Addition of 60 MW GT with One Year Advancement of TL267 with Holyrood Diesels

P90 Analysis						
Year	2016/17	2017/18	2018/19	2019/20		
	Expected Unserved Energy in Excess					
HRD DAFOR	of Planning Criteria (MWh)					
10%	-	-	-	-		
14%	14	-	-	-		
19%	427	•	•	•		
24%	1098	-	-	-		
	Incremental Annual Expected Outage					
HRD DAFOR	Hours					
10%	-	-	-	-		
14%	2,300	-	-	-		
19%	71,200	-	-	-		
24%	183,000	-	-	-		