Q. May 2019 Near-Term Generation Adequacy Report: Please provide a comparison of Island demand forecasts for the May 2019 Near Term Generation Adequacy Report, the 2018 Reliability and Resource Adequacy Study, the November 2016 ESRA, and at least one prior ESRA. Please focus the comparison to what can be characterized as a base case or medium forecast in each of these studies. Also, please provide a narrative discussion of the key differences between the assumptions underlying these forecasts.

A. Table 1 through Table 4 provide a comparison of Island demand forecasts prepared for:

- The "Near-Term Generation Adequacy Report" (the "Near-Term Report");[1]
- The "Reliability and Resource Adequacy Study" (the "R&RA Study");[2]
- The "Energy Supply Risk Assessment" (the "ESRA");[3] and
- "A Report to the Board of Commissioners of Public Utilities on Generation Adequacy" (the "Generation Adequacy Report").[4]

Table 1 through Table 4 provide the demand requirement forecasts[5] for Newfoundland Power, Hydro Rural, and Industrial Customers, which make up the components of island interconnected customer demand that are coincident with island peak demand, shown in Table 4.

Beginning with the Newfoundland Power coincident demand forecasts included in Table 1, both the Generation Adequacy Report (2015) and the ESRA (2016) demand forecasts are based on Newfoundland Power's internally completed energy forecasts while the R&RA Study (2018) and the Near-Term Report (2019) demand forecasts are based on demand

[1] Filed with the Board on May 15, 2019.
[2] Filed with the Board on November 16, 2018.
[3] Filed with the Board on November 30, 2016.
[4] Filed with the Board on September 16, 2015.
[5] Coincident values in MW.

forecasts for Newfoundland Power prepared by Newfoundland and Labrador Hydro ("Hydro").

The change in forecast demand from the 2015 Generation Adequacy Report to the 2016 ESRA primarily reflects the changes to Newfoundland Power's underlying forecast assumptions with respect to the provincial economy and electricity prices. Hydro does not have direct visibility of these forecast assumptions used by Newfoundland Power. The minor change in forecast demand from the 2018 R&RA Study to the 2019 Near-Term Report reflects changes to the coincidence factor assumption between Newfoundland Power demand and Newfoundland Power demand at island peak demand. Coincidence factor assumptions for forecasts are generally reviewed and updated annually by Hydro.

Table 1: Newfoundland Power Coincident MW (P50)

	Generation Adequacy Report	ESRA	R&RA Study	Near-Term Report
2015/2016	1403			
2016/2017	1419	1395		
2017/2018	1431	1389		
2018/2019	1444	1389	1401	
2019/2020	1458	1391	1396	1391
2020/2021			1391	1386
2021/2022			1396	1390
2022/2023			1401	1396
2023/2024			1404	1398

The Hydro Rural coincident demand forecasts included in Table 2 broadly reflect changes to Hydro's underlying forecast assumptions with respect to the provincial economy, electricity prices, and changes to the coincidence factor between Hydro Rural demand and Hydro Rural demand at island peak demand. The more significant demand change that occurred between the 2015 Generation Adequacy Report and the 2016 ESRA forecasts reflects changes in assumptions related to the power requirements of two mining operations located on the rural island system.

Table 2: Hydro Rural Coincident MW (P50)

	Generation Adequacy Report	ESRA	R&RA Study	Near-Term Report
2015/2016	89			
2016/2017	86	95		
2017/2018	85	92		
2018/2019	84	92	94	
2019/2020	83	91	92	91
2020/2021			92	90
2021/2022			90	88
2022/2023			88	87
2023/2024			88	86

The key differences between industrial coincident demand forecasts included in Table 3 primarily reflect changes to forecast power requirements to meet nickel processing requirements. Based on updated customer supplied information, power requirement forecasts to meet nickel processing requirements were reduced between the 2015 Generation Adequacy Report and the 2016 ESRA forecasts, reduced once again between the 2016 ESRA and the 2018 R&RA Study forecast, and increased between the 2018 R&RA Study and 2019 Near-Term Report forecasts.

Table 3: Industrial Coincident MW

	Generation Adequacy Report	ESRA	R&RA Study	Near-Term Report
2015/2016	171			
2016/2017	188	162		
2017/2018	198	180		
2018/2019	201	179	177	
2019/2020	201	178	174	178
2020/2021			174	182
2021/2022			174	183
2022/2023			174	183
2023/2024			174	183

Note that the incremental customer demand requirement to serve P90 demand versus the P50 demands included in the tables remained largely unchanged across forecasts. Forecasted system demand losses would have been commensurate with the forecast coincident demand requirements and transmission system configuration.

Table 4: Coincident Customer MW (P50)[6]

	Generation Adequacy Report	ESRA	R&RA Study	Near-Term Report
2015/2016	1663			
2016/2017	1693	1652		
2017/2018	1714	1662		
2018/2019	1729	1660	1671	
2019/2020	1742	1659	1662	1659
2020/2021			1657	1657
2021/2022			1659	1662
2022/2023			1663	1666
2023/2024			1666	1668

[6] Table 4 = Table 1 + Table 2 + Table 3.