September 2017 Interest Rates

Issue Date	Amount of Debentures ($0)	Debenture Rate (%)	Note Rate (%)	Comparable Treasury Market Rate (%)	Spread Over Treasury Rate (%)	CDC Fee	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000	0.625	1.000
						Borrower Fee	0.021	0.021	0.000	0.000	0.389	0.389	0.749	0.749	0.9375	0.9375	0.914	0.914	0.697	0.697	1.043	1.043	1.103	1.103	0.958	0.958	0.731	0.731
						CSA Fee	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
10-Year Debentures																					**Refinance**							
Jan 14	16,313	2.14	2.2229	1.76	0.38		N/A	N/A	3.29	N/A	N/A	N/A	4.394	N/A	4.672	5.224	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mar 14	26,933	1.96	2.0362	1.56	0.40		N/A	N/A	N/A	N/A	N/A	N/A	4.207	4.759	4.484	5.037	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
May 14	34,831	1.98	2.0570	1.65	0.33		N/A	N/A	N/A	N/A	3.699	N/A	N/A	N/A	4.508	5.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July 14	21,590	1.98	2.0571	1.62	0.36		N/A	N/A	N/A	N/A	N/A	4.25	4.23	N/A	4.51	5.064	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sept 14	23,153	2.16	2.2437	1.77	0.39		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.695	5.248	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov 14	26,728	2.03	2.1088	1.63	0.40		N/A	N/A	N/A	N/A	N/A	N/A	4.28	N/A	4.555	5.107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jan 15	16,216	1.89	1.9638	1.50	0.30		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.416	4.969	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mar 15	16,574	1.88	1.9532	1.58	0.30		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.401	4.954	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
May 15	17,472	1.85	1.92236	1.58	0.56		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.374	4.927	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July 15	16,171	1.80	1.87073	1.54	0.26		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.326	4.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sept 15	12,087	1.71	1.77724	1.54	0.17		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.236	4.790	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov 15	22,147	1.66	1.72515	1.64	0.02		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.176	4.729	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jan 16	21,441	1.80	1.87054	1.64	0.16		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.323	4.876	4.288	4.842	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mar 16	22,005	1.84	1.91202	1.43	0.41		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.368	4.922	4.333	4.887	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
May 16	14,308	1.71	1.77701	1.25	0.46		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.229	4.782	4.194	4.747	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July 16	18,677	1.63	1.69415	0.99	0.64		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.150	4.704	4.115	4.669	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sept 16	15,168	1.80	1.87052	1.14	0.66		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.325	4.878	4.290	4.844	N/A	N/A	N/A	N/A	N/A	N/A	4.355	N/A	N/A	N/A
Nov 16	8,870	2.17	2.25397	1.49	0.68		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.704	5.256	4.669	5.222	N/A	N/A	N/A	N/A	N/A	N/A	4.734	N/A	N/A	N/A
Jan 17	7,325	2.42	2.51256	1.88	0.54		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.950	5.500	4.916	N/A	4.598	5.148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mar 17	14,862	2.63	2.73012	2.11	0.52		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.170	5.720	5.135	5.685	4.817	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.867	N/A
May 17	17,713	2.33	2.41974	1.92	0.41		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.868	5.420	4.833	5.385	4.514	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July 17	13,552	2.32	2.40909	1.95	0.37		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.850	5.401	4.816	5.366	4.497	5.048	N/A	N/A	N/A	N/A	N/A	5.431	4.547	N/A
Sept 17	11,457	1.98	2.05698	1.63	0.35		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.506	5.059	4.471	5.024	4.152	4.704	N/A	N/A	N/A	N/A	N/A	N/A	4.202	N/A
20-Year Debentures																					**Refinance**							
Jan 14	283,660	3.46	3.51651	2.98	0.48		N/A	N/A	N/A	4.86	4.87	N/A	5.31	5.77	5.54	6.00	N/A	N/A	N/A	N/A	N/A	N/A	5.74	N/A	N/A	N/A	N/A	N/A
Feb 14	251,320	3.23	3.28357	2.69	0.54		N/A	N/A	4.17	4.62	4.64	5.10	5.08	5.54	5.31	5.77	N/A	N/A	N/A	N/A	N/A	N/A	5.51	N/A	N/A	N/A	N/A	N/A
Mar 14	361,134	3.21	3.26331	2.73	0.48		N/A	N/A	4.15	N/A	4.62	5.08	5.06	5.52	5.29	5.75	N/A	N/A	N/A	N/A	N/A	N/A	5.49	N/A	N/A	N/A	N/A	N/A
April 14	356,704	3.11	3.16225	2.66	0.45		N/A	N/A	N/A	4.51	4.52	4.98	4.96	5.42	5.19	5.65	N/A	N/A	N/A	N/A	N/A	N/A	5.39	5.852	N/A	N/A	N/A	N/A
May 14	321,645	3.00	3.05065	2.61	0.39		N/A	N/A	3.935	N/A	4.411	N/A	4.85	5.308	5.08	5.538	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
June 14	224,447	2.99	3.04044	2.60	0.39		N/A	N/A	N/A	N/A	4.399	N/A	4.839	5.296	5.069	5.526	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July 14	317,997	2.87	2.91897	2.51	0.36		N/A	N/A	N/A	N/A	4.281	4.739	4.721	5.18	4.952	5.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug 14	263,440	2.88	2.92905	2.46	0.42		N/A	N/A	N/A	N/A	N/A	N/A	4.730	5.188	4.96	5.418	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sept 14	355,242	2.92	2.96968	2.52	0.40		N/A	N/A	N/A	N/A	4.331	N/A	4.772	5.23	5.002	5.461	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oct 14	224,803	2.74	2.78718	2.32	0.42		N/A	N/A	N/A	N/A	4.150	N/A	4.590	5.049	4.821	5.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov 14	230,111	2.80	2.84791	2.36	0.44		N/A	N/A	N/A	N/A	4.667	4.209	4.649	N/A	4.879	5.338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dec 14	329,518	2.70	2.74666	2.20	0.50		N/A	N/A	N/A	N/A	N/A	N/A	4.551	N/A	4.782	5.242	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jan 15	232,709	2.52	2.56408	2.01	0.51		N/A	N/A	N/A	N/A	N/A	N/A	4.370	4.829	4.601	5.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Feb 15	238,962	2.46	2.51049	1.81	0.65		N/A	N/A	N/A	N/A	N/A	N/A	4.315	4.774	4.546	5.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mar 15	280,740	2.72	2.76680	2.12	0.60		N/A	N/A	N/A	N/A	N/A	N/A	4.568	N/A	4.799	5.257	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
April 15	338,693	2.51	2.55396	1.92	0.59		N/A	N/A	N/A	N/A	N/A	N/A	4.360	4.820	4.591	5.051	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
May 15	312,757	2.77	2.81760	2.21	0.56		N/A	N/A	N/A	N/A	N/A	N/A	4.619	N/A	4.850	5.309	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
June 15	301,688	2.98	3.03048	2.44	0.54		N/A	N/A	N/A	N/A	N/A	N/A	4.832	N/A	5.062	5.521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July 15	245,659	2.88	2.92906	2.27	0.61		N/A	N/A	N/A	N/A	N/A	N/A	4.731	5.189	4.961	5.419	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug 15	283,855	2.82	2.87760	2.23	0.59		N/A	N/A	N/A	N/A	N/A	N/A	4.678	5.136	4.909	5.367	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sept 15	301,921	2.82	2.86828	2.21	0.61		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.902	5.360	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oct 15	288,205	2.72	2.76688	2.06	0.66		N/A	N/A	N/A	N/A	N/A	N/A	4.570	N/A	4.801	5.259	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov 15	282,747	2.70	2.74652	2.24	0.46		N/A	N/A	N/A	N/A	N/A	N/A	4.548	5.006	4.778	5.237	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dec 15	267,518	2.82	2.86835	2.22	0.60		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.902	5.361	4.873	5.332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jan 16	217,157	2.78	2.82769	2.18	0.60		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.860	5.318	4.831	5.290	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Feb 16	318,257	2.27	2.31051	1.61	0.66		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.352	4.813	4.324	4.784	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mar 16	295,011	2.50	2.54381	1.91	0.59		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.582	5.042	4.553	5.013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
April 16	266,931	2.26	2.30022	1.71	0.55		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.340	4.800	4.311	4.771	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
May 16	273,418	2.27	2.31036	1.79	0.48		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.349	4.809	4.320	4.780	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
June 16	349,640	2.18	2.21908	1.66	0.52		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.261	4.722	4.232	4.693	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July 16	260,748	2.04	2.07704	1.42	0.62		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.120	4.581	4.091	4.552	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug 16	288,027	2.04	2.07699	1.53	0.51		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.122	4.584	4.093	4.555	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sept 16	317,920	2.03	2.06674	1.56	0.47		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.110	4.572	4.082	4.543	N/A	N/A	N/A	N/A	N/A	N/A	4.136	4.597	N/A	N/A
Oct 16	298,584	2.21	2.24946	1.74	0.47		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.289	4.750	4.261	4.721	N/A	N/A	N/A	N/A	N/A	N/A	4.315	N/A	N/A	N/A
Nov 16	342,876	2.57	2.61479	2.08	0.49		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.652	5.111	4.623	5.083	4.357	N/A	N/A	N/A	N/A	N/A	4.677	5.136	N/A	N/A
Dec 16	314,132	2.81	2.85811	2.40	0.41		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.890	5.349	4.862	5.320	4.596	5.005	N/A	N/A	N/A	N/A	4.916	5.374	4.638	N/A
Jan 17	276,384	2.80	2.84789	2.40	0.40		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.879	5.337	4.850	5.308	4.585	5.043	N/A	N/A	N/A	N/A	4.904	5.362	4.626	N/A
Feb 17	360,199	2.82	2.86826	2.38	0.44		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.901	5.360	4.872	5.331	4.607	5.066	N/A	N/A	N/A	N/A	4.926	5.385	4.649	5.107
Mar 17	333,267	3.04	3.09120	2.58	0.46		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.121	5.579	5.092	5.550	4.827	5.285	N/A	N/A	N/A	N/A	5.146	N/A	4.869	N/A
April 17	310,817	2.84	2.88846	2.35	0.49		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.919	5.377	4.891	5.349	4.625	5.084	N/A	N/A	N/A	N/A	4.944	N/A	4.667	N/A
May 17	361,901	2.88	2.92925	2.39	0.49		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.962	5.421	4.934	5.392	4.668	5.127	N/A	N/A	N/A	N/A	N/A	5.446	4.710	5.168
June 17	338,673	2.81	2.85812	2.20	0.61		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.891	5.349	4.862	5.320	4.596	5.055	N/A	N/A	N/A	N/A	4.916	N/A	4.638	5.097
July 17	305,239	2.98	3.03041	2.38	0.60		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.059	5.517	5.031	5.488	4.766	5.223	N/A	N/A	N/A	N/A	N/A	N/A	4.807	5.265
Aug 17	356,964	2.75	2.79734	2.22	0.53		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.832	5.291	4.803	5.262	4.537	4.996	N/A	N/A	N/A	N/A	N/A	N/A	4.579	5.038
Sept 17	333,569	2.59	2.63502	2.05	0.54		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.670	5.129	4.641	5.100	4.376	4.835	N/A	N/A	N/A	N/A	N/A	N/A	4.417	4.876