

Memorandum

To: THE BOARD OF DIRECTORS
of the Independent Electricity System Operator

From: Anthony Martinello, Director Treasury and Pension Operations.

Date: February 27, 2018

Re: Pension Plan Performance and Update

Performance – Pension Fund (Defined Benefit Plan):

Attached to this memo is an executive summary listing out the performance of investments as at December 31, 2017.

The total fund's performance for 2017 and 4 year average period was 11.5% and 9.5% respectively, and was flat (0.0%) and +0.5% above the respective period benchmark.

Global capital markets continued to earn strong returns during 2017 despite some positive momentum toward higher interest rates during the last half of 2017. The IESO's long term forecast for equity markets is not to earn such high returns.

Performance – IESO Long-term Investments (i.e. SERP Reserve):

The SERP Reserve is wholly passively managed. For fiscal 2017 and 4 year average, the total fund earned gross 10.70% and 8.14% respectively.

Attached to this memo is an executive summary of each pooled fund and respective performance that comprises the total SERP Reserve as at December 31, 2017.

Pension, SERP and OPEB Education:

During late November 2017, the IESO's Board of Directors was provided with an educational session on the IESO's pension, SERP, and OPEB cash-flows and liabilities.

A number of discussion points were made during this session including a) pension governance & oversight, and b) SERP and OPEB liabilities. The Board noted to discuss further these matters in camera.

As part of the IESO's regular governance timetable, the IESO Pension Management Committee will be conducting an external-firm pension governance review during 2018 and will report the results to the IESO Board in due course. This review will cover what are the best roles and responsibilities of the IESO Board and IESO PMC. IESO Management's goal is to meet best industry practices for the IESO pension plan.

I look forward to any feedback from the IESO Board of Directors.

Sincerely,

DRAFT

Anthony Martinello
Director, Treasury and Pension Operations

Independent Electricity System Operator - Defined Benefit Plan

As of December 31, 2017

Total Fund

Plan Structure and Performance

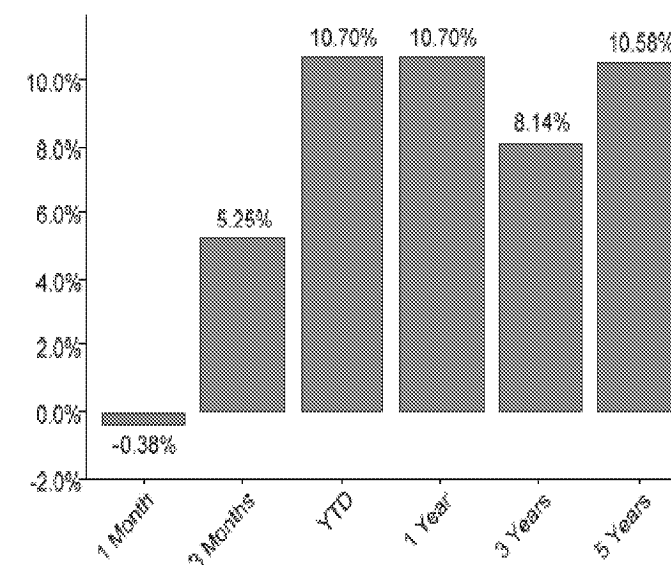
	Ending December 31, 2017												Inception	
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	4 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fund	572,619,971	100.0	100.0	8.8	4.8	11.5	11.5	9.2	7.9	9.5	10.2	6.1	6.5	Jul-01
Total Fund Benchmark				0.3	4.9	11.5	11.5	9.6	7.5	9.0	9.4	6.3	6.5	Jul-01
Canadian Equity	116,105,269	20.3	20.0	8.4	3.3	8.9	8.9	12.7	8.0	9.4	11.2	6.1	--	
S&P/TSX Capped 10%				1.2	4.5	9.1	9.1	14.9	6.6	7.6	8.6	4.6	--	
Fidelity Canadian Core Institutional Trust	116,105,269	20.3	20.0	0.4	3.3	8.9	8.9	12.7	8.0	9.4	11.2	6.1	9.4	Jan-04
S&P/TSX Capped 10%				1.2	4.5	9.1	9.1	14.9	6.6	7.6	8.6	4.6	7.9	Jan-04
Global Equity Hedged	220,206,203	38.5	37.5	0.1	5.9	18.6	18.6	12.8	11.9	11.9	15.5	4.6	--	
Hedged Global Equity Benchmark				0.0	5.7	17.7	17.7	11.9	10.9	11.0	14.5	6.2	--	
Unhedged Global Equity	220,899,247	38.6	37.5	-1.2	6.1	16.3	16.3	10.2	12.8	13.2	16.9	5.5	--	
Unhedged Global Equity Benchmark				-1.2	5.9	15.8	15.8	9.8	12.2	12.6	16.2	7.2	--	
TD Emerald US Equity Index	62,263,016	10.9	10.0	-1.7	6.8	13.7	13.7	10.8	14.3	16.6	21.2	11.1	17.8	Dec-10
S&P 500				-1.7	6.8	13.8	13.8	10.9	14.4	16.7	21.2	11.1	17.9	Dec-10
TD Emerald International Equity Index	39,109,953	6.8	5.0	-1.2	4.4	16.7	16.7	6.7	10.7	8.9	13.1	4.6	10.3	Dec-10
MSCI EAFE Net				-1.2	4.4	16.8	16.8	6.7	10.7	8.9	13.0	4.4	10.2	Dec-10
Ardevora Global Equity	52,443,961	9.2	10.0	-1.0	6.1	--	--	--	--	--	--	--	10.2	Aug-17
MSCI AC World Net				-1.2	5.9	15.8	15.8	9.8	12.2	12.5	16.0	7.2	8.4	Aug-17
Arrowstreet Global Equity	52,679,678	9.2	10.0	-1.3	6.6	18.2	18.2	12.0	--	--	--	--	6.6	Oct-17
MSCI AC World Net				-1.2	5.9	15.8	15.8	9.8	12.2	12.5	16.0	7.2	5.9	Oct-17
Vanguard Emerging Markets ETF	14,402,639	2.5	2.5	0.8	6.1	22.8	22.8	15.4	10.3	9.9	--	--	8.1	Feb-13
Vanguard Emerging Markets Benchmark				1.0	6.9	22.4	22.4	15.7	10.8	10.8	--	--	8.8	Feb-13
IESO Currency Hedge	-693,045	-0.1	0.0	2.8	-0.3	3.5	3.5	3.9	-2.9	-3.3	-3.5	-2.3	--	
IESO Currency Benchmark				2.8	-0.3	3.1	3.1	3.4	-3.2	-3.5	-3.7	-2.4	--	
State Street Currency Hedge	-693,045	-0.1	0.0	2.8	-0.3	3.5	3.5	3.9	-2.9	-3.3	-3.5	-2.3	-1.6	Aug-07
IESO Currency Benchmark				2.8	-0.3	3.1	3.1	3.4	-3.2	-3.5	-3.7	-2.4	-1.7	Aug-07
Canadian Fixed Income	194,512,282	34.0	35.0	0.0	5.2	7.0	7.0	4.7	4.4	7.5	4.6	6.6	--	
Canadian Fixed Income Benchmark				0.0	5.2	7.0	7.0	4.7	4.4	7.5	4.6	6.6	--	
TD Emerald Long Term Bond Index	194,512,282	34.0	35.0	0.0	5.2	7.0	7.0	4.7	4.4	7.5	4.6	6.6	6.3	Feb-14
FTSE TMX Long Term Bond				0.0	5.2	7.0	7.0	4.7	4.4	7.5	4.6	6.6	6.4	Feb-14
Real Estate	12,011,180	2.1	2.5	1.7	3.8	--	--	--	--	--	--	--	--	
Real Estate Benchmark				1.0	2.3	6.7	6.7	6.4	6.9	6.9	7.7	8.0	--	
Greystone Real Estate	12,011,180	2.1	2.5	1.7	3.8	10.6	10.6	9.2	8.2	7.7	8.5	8.5	3.8	Oct-17
Real Estate Benchmark				1.0	2.3	6.7	6.7	6.4	6.9	6.9	7.7	8.0	2.3	Oct-17
Infrastructure	26,311,950	4.6	5.0	-2.7	0.2	--	--	--	--	--	--	--	--	
CPI + 4.0% p.a.				-0.1	1.0	5.9	5.9	5.7	5.7	5.7	5.6	5.6	--	
JP Morgan Infrastructure	26,311,950	4.6	5.0	-2.7	0.2	--	--	--	--	--	--	--	0.2	Oct-17
CPI + 4.0% p.a.				-0.1	1.0	5.9	5.9	5.7	5.7	5.7	5.6	5.6	1.0	Oct-17
Cash & Equivalents	2,873,087	0.5	0.0	0.0	0.2	0.6	0.6	0.5	0.6	0.7	0.7	1.0	--	
FTSE TMX 91 Day T-Bill				0.0	0.2	0.6	0.6	0.5	0.6	0.7	0.7	1.0	--	
IESO Short-Term	2,873,087	0.5	0.0	0.0	0.2	0.6	0.6	0.5	0.6	0.7	0.7	1.0	--	
FTSE TMX 91 Day T-Bill				0.0	0.2	0.6	0.6	0.5	0.6	0.7	0.7	1.0	--	

IESO Long-term Investments (i.e. SERP Reserve) @ Dec-31-2017

At a glance

Fund Name	Inception Date	Market Value
TD Emerald Long Bond Broad Market Pooled Fund Trust	Feb 20 2009	\$16,678,655
TD Emerald U.S. Market Index Fund	Oct 31 2005	\$10,288,863
TD Emerald Canadian Market Capped Pooled Fund Trust	Nov 15 2012	\$9,047,650
TD Emerald International Equity Index Fund	Oct 31 2005	\$8,795,489
Total Market Value of Portfolio		\$44,810,657

Total Portfolio Performance



Description	Last Month	Last 3 Months	Year To Date	One Year	Two Years	Three Years	Four Years	Five Years
Canadian Equities	1.19%	4.44%	9.09%	9.09%	14.87%	6.57%	7.55%	8.60%
S&PTSX Eq/S&PTSX Capp Comp TR	1.20%	4.45%	9.10%	9.10%	14.91%	6.59%	7.56%	8.63%
U.S. Equities	-1.68%	6.76%	13.43%	13.43%	10.49%	13.95%	16.27%	20.80%
S&P 500 Net TR Index - C\$	-1.70%	6.68%	13.15%	13.15%	10.21%	13.64%	15.95%	20.47%
International Equities	-1.18%	4.42%	16.83%	16.83%	6.76%	10.71%	8.95%	13.06%
MSCI EAFE Net TR - C\$	-1.18%	4.42%	16.82%	16.82%	6.72%	10.65%	8.86%	12.97%
Fixed Income	0.02%	5.22%	6.97%	6.97%	4.69%	4.36%	7.46%	4.58%
41291 FIXED INCOME BENCHMARK	0.00%	5.22%	7.03%	7.03%	4.72%	4.41%	7.53%	4.64%
Total Portfolio	-0.38%	5.25%	10.70%	10.70%	8.29%	8.14%	9.67%	10.58%