Notes to Financial Statements

1. NATURE OF OPERATIONS

a) The Independent Electricity System Operator (IESO) is a not-for-profit, non-taxable, corporation established pursuant to Part II of the *Electricity Act, 1998*. The predecessor Independent Electricity System Operator and the Ontario Power Authority (OPA) were amalgamated by statute effective on January 1, 2015, and continued as the Independent Electricity System Operator. As set out in the *Electricity Act, 1998*, the IESO operates pursuant to a licence granted by the Ontario Energy Board (OEB). The amalgamation was effected pursuant to Bill 14, *Building Opportunity and Securing Our Future Act (Budget Measures), 2014*, which received Royal Assent on July 24, 2014. Schedule 7 of the Bill amended the *Electricity Act, 1998,* by amalgamating the two predecessor corporations and by continuing them as the Independent Electricity System Operator. IESO's services and the market IESO operates are subject to regulation by the Ontario Energy Board (the "OEB"), under the authority granted by the Ontario Energy Board Act, 1998. The OEB has regulatory oversight of electricity matters in Ontario. The objects of the IESO as contained in the *Electricity Act, 1998,* and Ontario Regulation 288/14 are as follows:

- to exercise the powers and perform the duties assigned to it under this Act, the regulations, directions, the market rules and its licence;
- to enter into agreements with transmitters to give it authority to direct the operation of their transmission systems;
- to direct the operation and maintain the reliability of the IESO-controlled grid to promote the purposes of this Act;
- to participate in the development by any standards authority of criteria and standards relating to the reliability of the integrated power system;
- to establish and enforce criteria and standards relating to the reliability of the integrated power system;
- to work with the responsible authorities outside of Ontario to co-ordinate the IESO's activities with the activities of those authorities;
- to operate the IESO-administered markets to promote the purposes of this Act;
- to engage in activities related to contracting for the procurement of electricity supply, electricity capacity and conservation resources;
- to engage in activities related to settlements, payments under a contract entered into under the authority of this Act and payments provided for under this Act or the *Ontario Energy Board Act, 1998*;
- to engage in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario;
- to forecast electricity demand and the adequacy and reliability of electricity resources for Ontario for the short-term, medium-term and long-term;
- to conduct independent planning for electricity generation, demand management, conservation and transmission;
- to engage in activities to facilitate the diversification of sources of electricity supply by promoting the use of cleaner energy sources and technologies, including alternative energy sources and renewable energy sources;
- to engage in activities in support of system-wide goals for the amount of electricity to be produced from different energy sources;
- to engage in activities that facilitate load management;
- to engage in activities that promote electricity conservation and the efficient use of electricity;
- to assist the Board by facilitating stability in rates for certain types of consumers;
- to collect and make public information relating to the short-term, medium-term and long-term electricity needs of Ontario and the adequacy and reliability of the integrated power system to meet those needs; and
- to engage in such other objects as may be prescribed by the regulations.

b) The IESO was designated the Smart Metering Entity (SME) by Ontario Regulation 393/07 under the *Electricity Act, 1998,* on March 28, 2007. The regulation came into effect on July 26, 2007.

The objects of the Smart Metering Entity, as contained in the *Electricity Act, 1998,* are as follows:

- to plan and implement and, on an ongoing basis, oversee, administer and deliver any part of the smart metering initiative as required by regulation under this or any Act or directive made pursuant to sections 28.3 or 28.4 of the *Ontario Energy Board Act, 1998*, and, if so authorized, to have the exclusive authority to conduct these activities;
- to collect and manage and to facilitate the collection and management of information and data and to store the information and data related to the metering of consumers' consumption or use of electricity in Ontario, including data collected from distributors and, if so authorized, to have the exclusive authority to collect, manage and store the data;
- to establish, to own or lease and to operate one or more databases to facilitate collecting, managing, storing and retrieving smart metering data;
- to provide and promote non-discriminatory access, on appropriate terms and subject to any conditions in its licence relating to the protection of privacy, by distributors, retailers and other persons,

    i. to the information and data referred to above, and

    ii. to the telecommunication system that permits the SME to transfer data about the consumption or use of electricity to and from its databases, including access to its telecommunication equipment, systems and technology and associated equipment, systems and technologies.

- to own or to lease and to operate equipment, systems and technology, including telecommunication equipment, systems and technology that permit the SME to transfer data about the consumption or use of electricity to and from its databases, including owning, leasing or operating such equipment, systems and technology and associated equipment, systems and technologies, directly or indirectly, including through one or more subsidiaries, if the SME is a corporation;
- to engage in such competitive procurement activities as are necessary to fulfill its objects or business activities;
- to procure, as and when necessary, meters, metering equipment, systems and technology and any associated equipment, systems and technologies on behalf of distributors, as an agent or otherwise, directly or indirectly, including through one or more subsidiaries, if the Smart Metering Entity is a corporation;
- to recover, through just and reasonable rates, the costs and an appropriate return approved by the Ontario Energy Board associated with the conduct of its activities; and
- to undertake any other objects that are prescribed by associated regulation.

c) IESO is required to exercise the powers and rights and to perform the duties and obligations assigned to it under the Ontario Fair Hydro Plan Act, 2017 (FHP) and to engage in activities to facilitate the implementation of FHP, including,

    i. entering into agreements or arrangements with any person for the purposes of the FHP,
    ii. engaging in activities related to making payments to and receiving payments as contemplated under the FHP and related settlement activities,
    iii. engaging in activities related to the transfer and administration of the regulatory asset created under the FHP, which activities may include,
        a) incurring liabilities in relation to the regulatory asset
        b) transferring the regulatory asset under section 26 of the FHP for consideration, and
        c) acting as a recovery agent under the FHP.

d) The IESO is required to submit its proposed expenditures, revenue requirements and fees for the coming year to the OEB for review and approval. The submission may be made only with the approval or deemed approval of the IESO business plan by the Minister of Energy (Minister).

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a) Basis of financial statement preparation

The accompanying financial statements have been prepared on a going concern basis and in accordance with Canadian public sector accounting standards (PSAB) and reflect the following significant accounting policies.

b) Revenue recognition

System fees earned by the IESO are based on approved rates for each megawatt of electricity withdrawn from the IESO-controlled grid (including scheduled exports) and embedded generation. System fees are recognized as revenue at the time the electricity is withdrawn. Rebates are recognized in the year in which the regulatory deferral account, before such rebates, exceeds regulated limits.

The Smart Metering Charge that is earned by the IESO is based on a rate approved by the OEB for each installed smart meter in the Province. Revenue is recognized in the year as it is earned.

These financial statements reflect the revenue and expenses of the financial transactions of market participants within the IESO-administered markets (IAM) on a net basis.

Other revenue represents amounts that accrue to the IESO relating to investment income on funds passing through market settlement accounts, as well as application fees. Such revenue is recognized as it is earned.

Interest and investment income represents realized interest income and investment gains or losses on cash, cash equivalents, short-term investments and long-term investments.

Government transfers are recognized as revenues in the financial statements in the period in which the events giving rise to the transfer occur, providing the transfers are authorized, any eligibility criteria have been met and reasonable estimates of the amounts can be made.

Market sanctions represent funds received to offset payments disbursed related to penalties, damages, fines and payment adjustments arising from resolved settlement disputes. Such revenue is recognized as it is earned.

c) Financial instruments

The IESO records cash and cash equivalents, long-term investments and foreign currency exchange forward contracts at fair value. The cumulative change in fair value of these financial instruments is recorded in accumulated surplus as remeasurement gains and losses and is included in the value of the respective financial instrument shown in the statement of financial position and the statement of remeasurement gains and losses. Upon disposition of the financial instruments, the cumulative remeasurement gains and losses are reclassified to the statement of operations and all other gains and losses associated with the disposition of the financial instrument are recorded in the statement of operations. Transaction costs are charged to operations as incurred.

Cash and cash equivalents comprise cash, term deposits and other short-term, highly rated investments with original maturity dates of less than 90 days.

The IESO records accounts receivable amounts due to and from market participant's, accounts payable and debt at amortized cost.

d) Regulated assets and liabilities

As a rate-regulated entity, the IESO, in appropriate circumstances establishes regulated assets or liabilities and thereby defers the impact on the statement of operations of certain expenses or revenues because they are probable to be collected or refunded to market participants through future billings. The IESO has applied guidance from United States Generally Accepted Accounting Principles (US GAAP) Topic 980, *Regulated Operations,* in this policy.

e) Market accounts – assets and liabilities

The IESO records the market accounts assets, liabilities and amounts due to and from market participants held on behalf of the IESO-administered markets in its statements of financial position. The IESO-administered markets is a balancing system, and as such, the net position of market accounts will settle to a $nil balance in accordance with market rules.

f) Tangible capital assets

Tangible capital assets are recorded at cost, which includes all amounts directly attributable to the acquisition, construction, development or betterment of the asset. The IESO capitalizes applicable interest as part of the cost of tangible capital assets.

g) Assets under construction

Assets under construction generally relates to the costs of physical facilities, hardware and software, and includes costs paid to vendors, internal and external labour, consultants and interest related to funds borrowed to finance the project. Costs relating to assets under construction are transferred to tangible capital assets when the asset under construction is deemed to be ready for use.

h) Amortization

The capital cost of tangible capital assets in service is amortized on a straight-line basis over their estimated service lives.

The estimated service lives in years, from the date the assets were acquired, are:

Class	Estimated Average Service Life 2017	Estimated Average Service Life 2016
Facilities	5 to 50	5 to 50
Market systems and applications	4 to 12	4 to 12
Infrastructure and other assets	4 to 10	4 to 10
Meter data management/repository	10	10

Gains and losses on sales or premature retirements of tangible capital assets are charged to operations.

The estimated service lives of tangible capital assets are subject to periodic review. The effects of changes in the estimated lives are amortized on a prospective basis. The most recent review was completed in fiscal 2017.

i) Pension, other post-employment benefits and compensated absences

The IESO's post-employment benefit programs include pension, group life insurance, health care, long-term disability and workers' compensation benefits.

The IESO accrues obligations under pension and other post-employment benefit (OPEB) plans and the related costs, net of plan assets. Pension and OPEB expenses and obligations are determined annually by independent actuaries using the projected benefit method and management's best estimate of expected return on plan assets, salary escalation, retirement ages of employees, mortality and expected health-care costs. The discount rate used to value liabilities is based on the expected rate of return on plan assets as at the measurement date of September 30.

The expected return on plan assets is based on management's long-term best estimate using a market-related value of plan assets. The market-related value of plan assets is determined using the average value of assets over three years as at the measurement date of September 30.

Pension and OPEB expenses are recorded during the year in which employees render services. Pension and OPEB expenses consist of current service costs, interest expense on liabilities, expected return on plan assets and the cost of plan amendments in the period. Actuarial gains/(losses) arise from, among other things, the difference between the actual rate of return on plan assets for a period and the expected long-term rate of return on plan assets for that period or from changes in actuarial assumptions used to determine the accrued benefit obligations.

Actuarial gains/(losses) are amortized over the expected average remaining service life of the employees covered by the plan. The expected average remaining service life of employees covered by the pension plans is 15 years (2016 – 15 years) and OPEB plan is 16.2 years (2016 – 16.2 years).

The IESO sick pay benefits accumulate but do not vest. The IESO accrues sick pay benefits based on the expectation of future utilization and records the accrual within accounts payable and accrued liabilities.

j) Foreign currency exchange

Transactions denominated in foreign currencies are translated into Canadian dollars at the rate of exchange prevailing on the date of the transaction. Items on the statement of financial position denominated in foreign currency are translated to Canadian dollars at the rate of exchange as of the financial statements date. The cumulative unrealized foreign currency exchange gains and losses of items continuing to be recognized on the statement of financial position are recorded in accumulated surplus as remeasurement gains and losses and shown in the statement of financial position and the statement of remeasurement gains and losses. Upon settlement of the item denominated in a foreign currency, the cumulative remeasurement gains and losses are reclassified to the statement of operations, and all other gains and losses associated with the disposition of the financial instrument are recorded in the statement of operations.

k) Use of estimates

The preparation of the financial statements in conformity with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities and the disclosure of contingent assets and liabilities as at the date of the financial statements. The IESO's accounts that involve a greater degree of uncertainty include the carrying values of tangible capital assets, accrued pension liability and accrual for employee future benefits other than pensions. Actual results could differ from those estimates.

3. REGULATED ASSETS

The IESO recognizes two regulated assets: 1) unrecovered smart metering expenses and 2) unrecovered PSAB transition items.

The smart metering expenses result from the IESO's role as the Smart Metering Entity. As such, the IESO funds its SME operating costs and capital investment in the meter data management/repository (MDM/R) through fees from users of smart meters in Ontario. The OEB approves the SME charge and the charge is intended to cover the costs of developing and operating the MDM/R.

In 2017, the smart metering expenses were fully recovered resulting in a $nil balance in the regulated asset account.

The unrecovered PSAB transition items result from the IESO's adoption of Canadian public sector accounting standards effective January 1, 2011. The adoption of PSAB was accounted for by retroactive application with restatement of prior periods subject to the requirements in Section PS 2125, *First-time Adoption by Government Organizations*. The corresponding change to pension and other post-employment benefits resulted in previously unrecognized actuarial losses and past service costs of $80,617 thousand at the date of transition.

Regulated assets consist of the following:

As of December 31 (in thousands of Canadian dollars)	**2017**	**2016**
	$	**$**
Unrecovered smart metering expenses	-	21,623
Unrecovered PSAB transition items	39,529	43,441
Closing balance	**39,529**	**65,064**

4. LONG-TERM INVESTMENTS

Long-term investments in a balanced portfolio of pooled funds are valued by the pooled funds manager based on published price quotations and amount to $44,811 thousand (2016 – $39,972 thousand). As at December 31, the market value allocation of these long-term investments was 62.8% equity securities and 37.2% debt securities (2016 – 62.3% and 37.7%, respectively).

Balanced portfolio of pooled funds

As at December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Opening balance	39,972	37,019
Net purchase of investments	2,240	2,667
Change in fair value	2,599	286
Closing balance	**44,811**	**39,972**

In addition to the balanced portfolio of pooled funds, the IESO has a long-term deposit with Canada Revenue Agency in the amount of $465 thousand (2016 – $383 thousand) pertaining to the Retirement Compensation Arrangements Trust (Note 8).

5. MARKET ACCOUNTS

a) In 2017, the Government of Ontario announced its Fair Hydro Plan, which was implemented through the Fair Hydro Act, 2017. Under the FHP, the IESO continues to settle the market and recover Global Adjustment from customers, but as a result of the fair adjustment applicable to specified consumers (defined in the Ontario Fair Hydro Plan Act*, 2017*) the IESO collects less than the full amount of the Global Adjustment. The IESO records the shortfall together with the costs of financing the shortfall, the amounts charged to the IESO by the Fair Hydro Trust in respect of the carrying costs of the Fair Hydro Trust, when applicable, and certain other amounts, in a Deferred Global Adjustment Variance account. The Regulated Price Plan Variance account balance as of July 1, 2017 was included in the Deferred Global Adjustment Variance. The FHP also shifted the cost of the Ontario Electricity Support Program (OESP) and most of the Rural or Remote electricity Rate Protection (RRRP) program costs from ratepayer to taxpayer-funded programs. These accounts comprise the market regulated assets.

The cumulative amount recorded in the Deferred Global Adjustment Variance account to the end of December 2017 was $1,378,000 thousand. On December 21, 2017, a regulatory asset in the amount of $1,179,000 thousand was transferred to the Fair Hydro Trust. As a result, as at December 31, the Deferred Global Adjustment Variance account balance was $199,475 thousand, including interest and carrying charges.

In consideration of the implementation of the FHP, on May 1, 2017 the OEB rescinded the OESP charge and determined to fund the program through the credit balance in the Ontario Electricity Support Program Variance account. Therefore only payments to OESP eligible customers are currently being made and the balance in the Ontario Electricity Support Program Variance account at December 31, 2017 was in a credit position of $24,892 thousand, net of interest.

A new rate for the RRRP program under the FHP was effective July 1, 2017. The balance in the RRRP variance account to June 30, 2017 was $6,626 thousand. The new rate has resulted in a further under collection of $5,994 thousand (net of interest) in the second half of the year, resulting in a cumulative balance in the variance of $12,620 thousand as at December 31, 2017.

Components of the market accounts are as follows:

As of December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Cash, restricted for market activities	454,174	244,755
Amounts due from market participants	1,253,417	1,384,407
Interest receivable	217	186
HST receivable	110,156	25,531
Regulated assets/liabilities	187,203	37,873
Total Market Assets	**2,005,167**	**1,692,752**
Market Debt	(13,252)	(150,501)
Amounts due to market participants	(1,855,206)	(1,385,790)
Other net liabilities	(136,709)	(156,461)
Total Market Liabilities	**(2,005,167)**	**(1,692,752)**
Closing balance	-	-

Regulated assets/liabilities consist of the following:

As of December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Deferred Global Adjustment Variance	199,475	-
Regulated Price Plan Variance	-	134,988
Ontario Electricity Support Program Variance	(24,892)	(92,443)
Rural or Remote Rate Protection variance	12,620	(4,672)
Closing balance	**187,203**	**37,873**

b) Market Debt

$475 Million Credit Facility with OFA

The IESO has an unsecured credit facility agreement with the Ontario Financing Authority (OFA), which will make available to the IESO an amount up to $475,000 thousand. Advances are payable at a variable interest rate equal to the Province of Ontario's cost of borrowing plus 0.25% per annum. The credit facility expires December 31, 2019. As at December 31, 2017 $12,281 thousand was outstanding (2016 – $150,501 thousand).

$2 Billion Credit Facility with OFA

During 2017, the IESO entered into a new unsecured credit facility agreement with the OFA, which will make available to the IESO an amount up to $2,000,000 thousand for the purpose of supporting the IESO's role in the Ontario Fair Hydro Plan. Advances are payable at a variable interest rate equal to the Province of Ontario's cost of borrowing plus 0.25% per annum. The credit facility expires September 30, 2022. As at December 31, 2017 $971 thousand was outstanding.

$150 Million Credit Facility with TD Bank

The IESO has an unsecured credit facility agreement with TD Bank, which will make available to the IESO an amount up to $150,000 thousand. Advances are payable at a variable interest rate equal to that of banker's acceptance plus a margin per annum. The credit facility expires April 30, 2020. As at December 31, 2017 no amount was drawn on the credit facility (2016 - $nil).

c) Related Party Transactions

The IESO records the market accounts assets, liabilities and amounts due to and from market participants held on behalf of the IESO Administered Markets (IAM) in its statement of financial position. Included in these accounts are amounts due to and from related parties.

The Province of Ontario is a related party as it is the controlling entity of the IESO. The OEFC, OEB, Hydro One, Ontario Power Generation Inc. (OPG), Fair Hydro Trust and Ministry of Energy are related parties of the IESO, through the common control of the Province of Ontario. Transactions between these parties and the IAM were as follows:

As of December 31, 2017, the IAM had a payable balance due to the OEFC for $31,025 thousand (2016 - $65,711 thousand).

As of December 31, 2017, the IAM had a payable balance with the OEB for $57 thousand (2016 - $ nil).

As of December 31, 2017, the IAM had a receivable balance with Hydro One of $25,018 thousand (2016 - $75,610 thousand).

As of December 31, 2017, the IAM had a payable balance with OPG for $356,611 thousand (2016 - $430,432 thousand).

In 2017 the Fair Hydro Trust paid $1,179,000 thousand and received $6,000 thousand. As at December 31, 2017, the IAM had a payable balance of $3,620 thousand (2016 - $nil).

As of December 31, 2017, the IAM had a receivable balance with Ministry of Energy for $93,854 thousand (2016 – $153 thousand).

6. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

As at December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Relating to operations	36,137	35,630
Relating to tangible capital assets	1,521	3,333
Closing balance	**37,658**	**38,963**

7. REBATES DUE TO MARKET PARTICIPANTS AND ACCUMULATED SURPLUS

In 2017, the IESO recognized $6,307 thousand in rebates due to market participants of system fees (2016 – $12,551 thousand). As at December 31, 2017, rebates due to market participants were $2,307 thousand (2016 – $12,551 thousand).

The IESO's approved regulatory deferral account balance has been historically maintained at a maximum of $10,000 thousand. However, in 2017 the IESO received a decision and order by the OEB to reduce the regulatory deferral account to $6,000 thousand. The 2017 approved regulatory deferral account balance at $ 6,000 thousand was approved by the OEB on October 31, 2017. In December 2017, the IESO rebated $4,000 thousand to Market Participants.

Prior to 2014, unrealized gains and losses from portfolio investments and foreign exchange were included in the balance of the regulatory deferral account (life-to-date total $4,144 thousand). As of January 1, 2014, only realized gains and losses are included in this balance.

As at December 31, the components of the accumulated surplus were as follows:

Accumulated Surplus

As at December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Regulatory deferral account (a)	6,000	10,000
Smart Metering Entity (b)	939	-
Accumulated market sanctions and payment adjustments (c)	641	726
Remeasurement gains	6,340	3,762
Accumulated surplus – end of year	**13,920**	**14,488**

a) Regulatory Deferral Account

As at December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Accumulated surplus – beginning of year	10,000	10,000
OEB decision and order	(4,000)	-
Revenues (before rebates due to market participants)	186,559	190,219
Rebates due to market participants	(2,307)	(12,551)
Core operation expenses	(184,252)	(177,668)
Accumulated surplus – end of year	**6,000**	**10,000**

b) Smart Metering Entity – Accumulated Surplus

As at December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Accumulated surplus – beginning of year	-	-
Smart metering charge	25,655	-
Smart metering expenses	(24,716)	-
Accumulated surplus – end of year	**939**	**-**

c) Accumulated Market Sanctions and Payment Adjustments

As at December 31 (in thousands of Canadian dollars)	2017	2016
	$	$
Accumulated surplus – beginning of year	726	492
Market sanctions and payment adjustments	3,176	3,889
Customer education and market enforcement expenses	(3,261)	(3,655)
Accumulated surplus – end of year	**641**	**726**

8. DEBT

Note payable to Ontario Electricity Financial Corporation (OEFC)

In April 2017, the IESO entered into a note payable with the OEFC. The note payable is unsecured, bears interest at a fixed rate of 1.767% per annum and is repayable in full on June 30, 2020. Interest accrues daily and is payable in arrears semi-annually in June and December of each year. As at December 31, 2017 the note payable to the OEFC was $120,000 thousand (2016 – $90,000 thousand).

For the year ended December 31, 2017, the interest expense on the note payable was $2,018 thousand (2016 – $1,841 thousand).

Credit facility with OEFC

The IESO has an unsecured credit facility agreement with the OEFC, which will make available to the IESO an amount up to $160,000 thousand. Advances are payable at a variable interest rate equal to the Province of Ontario's cost of borrowing for a 30-day term plus 0.50% per annum, with draws, repayments and interest payments due monthly. The credit facility expires June 30, 2020. As at December 31, 2017, no amount was drawn on the credit facility (December 31, 2016 – $nil).

For the year ended December 31, 2017, the interest expense on the credit facility was $nil (2016 – $nil).

Retirement Compensation Arrangements Trust

In July 2013, the IESO established a Retirement Compensation Arrangements (RCA) Trust to provide security for the IESO's obligations under the terms of the supplemental employee retirement plan for its employees. As at December 31, 2017, the IESO has provided the RCA trustee with a bank letter of credit of $33,141 thousand (2016 – $30,466 thousand) the trustee can draw upon if the IESO is in default under the terms of this plan.

9. POST-EMPLOYMENT BENEFIT PLANS

The IESO provides pension and other employee post-employment benefits, comprising group life insurance, long-term disability and group medical and dental plans, for the benefit of current and retired employees.

Pension plans

The IESO provides a contributory defined benefit, indexed, registered pension plan. In addition to the funded, registered pension plan, the IESO provides certain non-registered defined benefit pensions through an unfunded, indexed, non-registered plan.

Other employee future benefits

The group life insurance, long-term disability and group medical and dental benefits are provided through unfunded, non-registered defined benefit plans.

Summary of accrued benefit obligations and plan assets

(in thousands of Canadian dollars)	2017 Pension Benefits	2016 Pension Benefits	2017 Other Benefits	2016 Other Benefits
	$	$	$	$
Accrued benefit obligation	547,410	507,724	97,358	91,014
Fair value of plan assets	545,400	523,756	-	-
Funded status as of measurement date	(2,010)	16,032	(97,358)	(91,014)
Employer contribution/other benefits payments after measurement date	2,418	2,416	753	588
Unrecognized actuarial (gain)/loss	(29,637)	(53,068)	389	175
Accrued liability recognized in the statement of financial position	**(29,229)**	**(34,620)**	**(96,216)**	**(90,251)**
Market related value of plan assets (as at September 30, 2017)	537,587	506,791	-	-

Registered pension plan assets

As at the measurement date of September 30, the proportion of the fair value of registered pension plan assets held in each asset class was as follows:

	2017	2016
Canadian equity securities	20.6%	20.2%
Foreign equity securities	38.0%	39.9%
Canadian debt securities	34.7%	39.8%
Global infrastructure	4.8%	0.0%
Canadian real estate	1.3%	0.0%
Cash equivalents	0.1%	0.4%
Forward foreign exchange contracts	0.5%	(0.3%)
	100.0%	**100.0%**

Principal assumptions used to calculate benefit obligations at the end of the year are determined at that time and are as follows:

	2017 Pension Benefits	2016 Pension Benefits	2017 Other Benefits	2016 Other Benefits
Discount rate at the end of the period	5.50%	5.75%	5.50%	5.75%
Rate of compensation increase	3.50%	3.50%	3.50%	3.50%
Rate of indexing	2.00%	2.00%	2.00%	2.00%

The assumed prescription drug inflation was 8.00% for 2016, grading down to an ultimate rate 4.50% per year in 2030. Dental costs are assumed to increase by 4.00% per year.

Benefit costs and plan contributions for pension and other plans are summarized as follows:

(in thousands of Canadian dollars)	2017 Pension Benefits	2016 Pension Benefits	2017 Other Benefits	2016 Other Benefits
	$	$	$	$
Current service cost (employer)	10,089	11,117	3,247	3,107
Interest cost	29,487	29,292	5,343	5,120
Expected return on plan assets	(29,058)	(27,626)	-	-
Amortization of net actuarial loss/(gain)	(2,407)	(1,173)	11	(100)
Benefit cost	**8,111**	**11,610**	**8,601**	**8,127**

(in thousands of Canadian dollars)	2017 Pension Benefits	2016 Pension Benefits	2017 Other Benefits	2016 Other Benefits
	$	$	$	$
Employer contribution/other benefit payments	13,502	13,052	2,636	2,377
Plan participants' contributions	6,253	5,811	-	-
Benefits paid	25,457	23,317	2,636	2,377

The most recent actuarial valuation of the registered pension plan for accounting purposes was at September 30, 2017.

Principal assumptions used to calculate benefit costs for the year are determined at the beginning of the period and are as follows:

	2017 Pension Benefits	2016 Pension Benefits	2017 Other Benefits	2016 Other Benefits
Discount rate at the beginning of the period	5.75%	6.00%	5.75%	6.00%
Rate of compensation increase	3.50%	3.75%	3.50%	3.75%
Rate of indexing	2.00%	2.25%	2.00%	2.25%

10. TANGIBLE CAPITAL ASSETS

Net tangible capital assets consist of the following:

Cost of Tangible Capital Assets

(in thousands of Canadian dollars)	As at Dec. 31, 2016	Additions	Disposals	As at Dec. 31, 2017
	$	$	$	$
Facilities	55,973	631	(39)	56,565
Market systems and applications	306,993	3,825	-	310,818
Infrastructure and other assets	63,355	1,294	(32)	64,617
Meter data management/repository	36,911	906	-	37,817
Total cost	**463,232**	**6,656**	**(71)**	**469,817**

Accumulated Amortization

(in thousands of Canadian dollars)	As at Dec. 31, 2016	Amortization Expense	Disposals	As at Dec. 31, 2017
	$	$	$	$
Facilities	(24,301)	(1,694)	39	(25,956)
Market systems and applications	(263,546)	(12,134)	-	(275,680)
Infrastructure and other assets	(52,772	(4,375)	32	(57,115)
Meter data management/repository	(29,190)	(2,824)	-	(32,014)
Total accumulated amortization	**(369,809)**	**(21,027)**	**71**	**(390,765)**

Net Book Value

(in thousands of Canadian dollars)	As at December 31, 2016	As at December 31, 2017
	$	$
Facilities	31,672	30,609
Market systems and applications	43,447	35,138
Infrastructure and other assets	10,583	7,502
Meter data management/repository	7,721	5,803
Total net book value	**93,423**	**79,052**
Assets under construction	11,624	21,742
Net tangible capital assets	**105,047**	**100,794**

In 2017, there were no adjustments to management's estimates of remaining asset service lives (2016 – $nil). Interest capitalized to assets under construction during 2017 was $170 thousand (2016 – $260 thousand).

11. OTHER REVENUE

In its administration of the IESO-administered markets, the IESO directs the investment of market funds in highly rated, short-term investments throughout the settlement cycle. The IESO is entitled to receive the investment interest and investment gains, net of investment losses earned on funds passing through the real-time market settlement accounts. The IESO is not entitled to the principal on real-time market investments.

The IESO recognized investment income earned in the market settlement accounts of $3,441 thousand in 2017 (2016 – $ 2,508 thousand).

12. SEGMENT EXPENSES

Expenses by object for 2017 are comprised of the following:

(In thousands of Canadian dollars)	Core Operations 2017	Other Government Programs 2017	Smart Metering Entity 2017	Market Sanctions & Payment Adjustments 2017	Total 2017
	$	$	$	$	$
Compensation and benefits	113,617	212	2,803	2,151	118,783
Professional and consulting	19,516	2,445	14,209	407	36,577
Operating and administration	34,890	39	4,641	703	40,273
Amortization	18,204	-	2,825	-	21,029
Interest	1,801	-	238	-	2,039
Less: Recoveries	(3,776)	-	-	-	(3,776)
Total Expenses	184,252	2,696	24,716	3,261	214,925

In 2017, the IESO signed an agreement with the Minister of the Environment and Climate Change (MOECC) to deliver conservation and energy efficiency programs. The IESO recognized Government Transfers revenue of $2,696 thousand in 2017 (2016 – $nil).

Expenses by object for 2016 are comprised of the following:

(In thousands of Canadian dollars)	Core Operations 2016	Other Government Programs 2016	Smart Metering Entity 2016	Market Sanctions & Payment Adjustments 2016	Total 2016
	$	$	$	$	$
Compensation and benefits	107,402	-	2,661	2,180	112,243
Professional and consulting	18,810	-	14,659	770	34,239
Operating and administration	34,386	-	5,705	705	40,796
Amortization	19,577	-	3,861	-	23,438
Interest	1,341	-	540	-	1,881
Less: Recoveries	(3,848)	-	-	-	(3,848)
Total Expenses	177,668	-	27,426	3,655	208,749

13. RELATED PARTY TRANSACTIONS

The Province of Ontario is a related party as it is the controlling entity of the IESO. The OEFC, OEB, Hydro One, Ontario Power Generation Inc. (OPG) and The Ministry of the Environment Climate Change (MOECC) are related parties of the IESO, through the common control of the Province of Ontario. Transactions between these parties and the IESO were as follows:

The IESO holds a note payable and an unsecured credit facility agreement with the OEFC (Note 8). Interest payments made by the IESO in 2017 for the note payable were $2,018 thousand (2016 – $1,841 thousand) and for the credit facility were $nil (2016 – $nil). As of December 31, 2017, the IESO had an accrued interest payable balance with the OEFC of $nil (2016 – $315 thousand).

Under the *Ontario Energy Board Act, 1998*, the IESO incurs registration and license fees. The total of the transactions with the OEB was $3,146 in 2017 (2016 – $1,747 thousand).

The IESO performed connection and bulk electric system exception assessments for Hydro One in 2017. In 2017, the IESO invoiced Hydro One $694 thousand (2016 – $610 thousand).

The IESO procures short circuit studies and protection impact assessments as part of connection assessments, approvals and meter services on IESO-owned interconnected revenue meters from Hydro One. In 2017, the IESO incurred costs of $184 thousand (2016 – $188 thousand) for these services. As of December 31, 2017, the IESO had a net receivable balance with Hydro One of $137 thousand (2016 – $4 thousand).

The IESO performed connection assessment and approvals for OPG, administered telecommunication services to market participants to connect to the real-time market systems and provides market-related training courses. In 2017, OPG was invoiced $92 thousand (2016 – $124 thousand). As of December 31, 2017, the IESO had a net receivable balance with OPG of $61 thousand (2016 – $5 thousand).

For 2017, the IESO invoiced MOECC $2,257 thousand (2016 – $nil). As of December 31, 2017, the IESO had a net receivable balance with MOECC of $4,101 thousand (2016 – $nil).

14. FINANCIAL RISK MANAGEMENT

The IESO is exposed to financial risks in the normal course of its business operations, including market risks resulting from volatilities in equity, debt, and foreign currency exchange markets, as well as credit risk and liquidity risk. The nature of the financial risks and the IESO's strategy for managing these risks has not changed significantly from the prior year.

a) Market Risk

Market risk refers to the risk that the fair value or future cash flows of a financial instrument will fluctuate to cause changes in market prices. The IESO is primarily exposed to three types of market risk: currency risk, interest rate risk and equity risk. The IESO monitors its exposure to market risk fluctuations and may use financial instruments to manage these risks as it considers appropriate. The IESO does not use derivative instruments for trading or speculative purposes.

i) Currency Risk

The IESO conducts certain transactions in U.S. dollars, primarily related to vendors' payments, and maintains a U.S. dollar-denominated bank account. From time to time, the IESO may utilize forward purchase contracts to purchase U.S. dollars for delivery at a specified date in the future at a fixed exchange rate. In addition, the IESO utilizes U.S. dollar spot rate purchases in order to satisfy any current accounts. As at December 31, 2017, the IESO did not have any outstanding forward purchase contracts.

ii) Interest Rate Risk

The IESO is exposed to movements or changes in interest rates primarily through its short-term variable rate credit facility, cash equivalents' securities and long-term investments. Long-term investments include investments in a pooled Canadian bond fund. The potential impact to the securities' value had the prevailing interest rates changed by 25 basis points, assuming a parallel shift in the yield curve with all other variables held constant, is estimated at $659 thousand as at December 31, 2017 (2016 – $602 thousand).

iii) Equity Risk

The IESO is exposed to changes in equity prices through its long-term investments. Long-term investments include investments in pooled equity funds. A 30% change in the valuation of equities as at December 31, 2017, would have resulted in a change for the year of approximately $8,440 thousand (2016 – $7,468 thousand). The fair values of all financial instruments measured at fair value are derived from quoted prices (unadjusted) in active markets for identical assets.

b) Credit Risk

Credit risk refers to the risk that one party to a financial instrument may cause a financial loss for the other party by failing to meet its obligations under the terms of the financial instrument. The IESO is exposed directly to credit risk related to cash equivalents' securities and accounts receivable, and indirectly through its exposure to the long-term investments in a Canadian bond pooled fund. The IESO manages credit risk associated with cash equivalents' securities through an approved management policy that limits investments to primarily investment-grade investments with counterparty-specific limits. The accounts receivable balance as at December 31, 2017, included no material items past due and substantially all of the balance was collected within 30 days from December 31, 2017. The long-term Canadian bond pooled fund is comprised of primarily investment-grade securities.
Market Participants are required to provide non-voluntary pre-payments to reduce their electricity financial exposures as determined by the IESO. If collateral is not sufficient to remedy a default amount, the IESO summons a default allocation process which recovers the default amount from all remaining non-defaulting Market Participants.

c) Liquidity Risk

Liquidity risk refers to the risk that the IESO will encounter financial difficulty in meeting obligations associated with its financial liabilities when due. The IESO manages liquidity risk by forecasting cash flows to identify cash flows and financing requirements. Cash flows from operations, short-term investments, long-term investments and maintaining appropriate credit facilities help to reduce liquidity risk. The IESO's long-term investments are normally able to be redeemed within two business days; however, the investment manager of the pooled funds has the authority to require a redemption in-kind rather than cash and has the ability to suspend redemptions if deemed necessary.

Liquidity Risk – IESO's Market Accounts

i) Market Settlements

In cases where a Market Participant fails to pay, the IESO may utilize credit facilities to settle the market. If the IESO has exhausted its credit facilities availability then the IESO may pay creditors on a pro rata basis in proportion to the amounts owed to each market creditor.

ii) Fair Hydro – regulatory asset

In accordance with the FHP,

- the IESO will establish a regulatory asset based upon the IESO utilizing its credit facilities to fund a) the portion of the commodity price of electricity which is being deferred to future periods, b) the associated direct interest costs with the program, and c) the transferred asset's carrying costs up to July 2021; and
- the IESO is permitted to: a) transfer all or portion of the asset to a third party entity, and b) fully recover any non-transferred asset in a future period after May 2021 and subject to the Ontario Energy Board rates approval of the full recovery.

It is forecasted that that the IESO will incur more than $20 billion of funding between May 2018 and April 2047. The IESO has a current $2 billion line of credit with the Ontario Financing Authority (see Debt Note 7) with a maturity date of September 30, 2022 to fund these amounts. The third party entity is not obligated to purchase any transfer(s) offered by the IESO, and therefore the IESO is subject to liquidity risk.

15. COMMITMENTS

Operating commitments

The obligations of the IESO with respect to non-cancellable operating leases over the next five years are as follows:

As at December 31 (thousands of Canadian dollars)	
	$
2018	5,942
2019	4,972
2020	4,202
2021	718
2022	649

16. CONTINGENCIES

The IESO is subject to various claims, legal actions and investigations that arise in the normal course of business. While the final outcome of such matters cannot be predicted with certainty, management believes that the resolution of such claims, actions and investigations will not have a material impact on the IESO's financial position or results of operations.

17. COMPARATIVE FIGURES

Certain of the comparative figures have been amended to reflect adjustments made in the current year. As a result, cash has increased and accounts receivable has decreased by $5,909 thousand. There was no impact to the annual surplus for the year ended December 31, 2016 or the net liabilities and accumulated deficit at December 31, 2016.