Metering and Settlements

Jeannette Briggs- Director, Settlements
July 2017

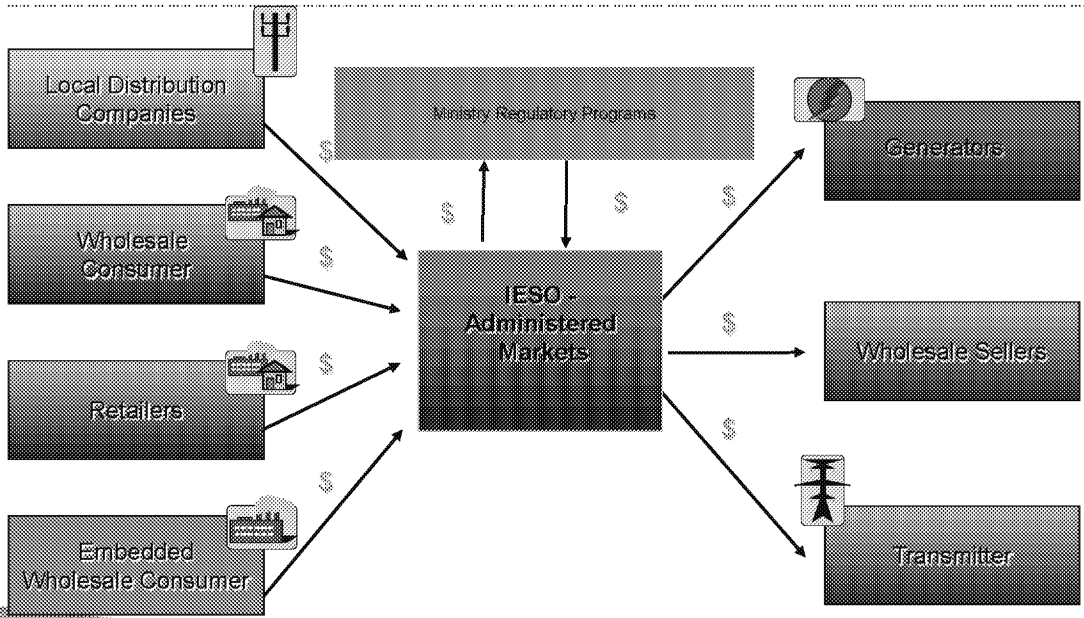
ieso
Independent Electricity System Operator

Agenda

- Settlement overview
- Metering
- Settlement Timelines
- Settlement Statements
- Notice of Disagreement
- Transmission Rights Market
- Other settlement activities

ieso
Independent Electricity System Operator

Overview - Who the IESO Settles



Metering – Start With Measuring Injection/Consumption

- IESO collects meter data nightly via modem and internet
- Approximately 4,140 meters are polled for meter readings
- Meter readings are on a 5 minute basis
- Each meter reading provides multiple pieces of information
- In excess of 8 million separate pieces of information is collected each night
- IESO issues meter trouble reports for any metering problems encountered (on average 22 reports are issued each business day) and resolves the issues quickly when possible

ieso
Independent Electricity System Operator

Metering

- Responsible for establishing metering standards – MOU with Measurement Canada
- Registered meters through online IESO, reviewing all supporting info and documentation
- Registering Meter Service Providers (MSP), including performance measurement and compliance (working closely with MACD)
- IESO audits approximately 5% of the meter installations every year (External auditors review the meters where the IESO is the Metered Market Participant for RES I/ RES II)
- IESO complete DR audits

ieso
Independent Electricity System Operator

Physical Market Settlement Statements – Moving Measurement to Settlement

- A settlement statement may contain up to four generic types of transactions:
  - Costs or revenues related to the operation of the IESO-administered market (e.g. energy and energy related charges);
  - Costs or revenues that the IESO collects and disburses under an Ontario Energy Board order (e.g. transmission charges);
  - Costs or revenues that the IESO collects and disburses under government legislation or regulation (e.g. global adjustment); and
  - Costs or revenues related to programs that the IESO settles on behalf of the Ministry funded programs e.g. 8% rebate, Ontario Electricity Support Program, Northern Development and Mines rebate etc.
- Volume of information contained within a settlement statement varies greatly depending upon the nature and size of the market participant
- Approximately 690 statements are issued per business day
- Approximately $17.5 billion was settled in the wholesale electricity market in 2016

ieso
Independent Electricity System Operator

Physical Market Settlement Timelines

Trading Day → 10 business days → Preliminary Daily Statement → 10 business days → Final Daily Statement

- Collection, validation, estimation and editing of metering data
- Other market data collected
- Reconcile markets

4 Business Days

Notice of Disagreement Submission Window

- MPs submit notice of disagreement
- Data adjustments
- Reconcile markets

Notice of Disagreement (NoD)

- A NoD allows an MP or the IESO to identify issues they have with a preliminary settlement statement – in 2016, 982 NODs received, 56% resulted in subsequent adjustment
- A market participant may disagree with among other things:
  - Meter readings
  - Application of price
  - Schedules
- A market participant **may not** disagree with the calculation of prices or the equations used in calculating charges – however can initiate a market rule amendment
- A NoD must be filed no later than 4 business days after the issuance of the preliminary statement – very quick turnaround so must be reviewing daily

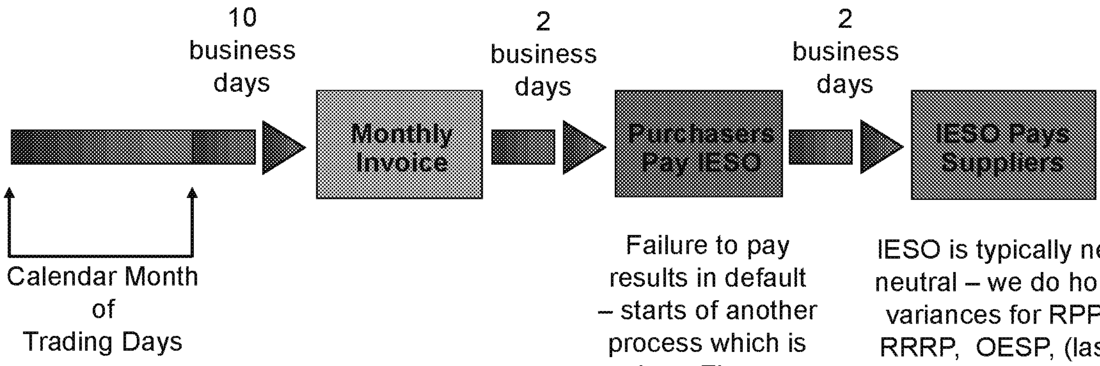
ieso
Independent Electricity System Operator

NoD

- IESO may agree with the adjustments proposed by the market participant, agree with the basic principle but implement a different solution, or determine that no correction is necessary
- If the issue is resolved before the final statement
  - the adjustment if required will appear on the final statement
- If the issue is resolved after the final statement
  - the adjustment if required will appear on a subsequent preliminary statement and related final statement
- IESO must close a NoD within 15 business days after final statement issue
- The Dispute Resolution Process exists for the market participant who does not agree with IESO's resolution to the NoD – we have six or seven open disputes working with Legal for resolution

ieso
Independent Electricity System Operator

Physical Market Settlement Moves to Invoices



Failure to pay results in default – starts of another process which is where Finance and Settlements works together

IESO is typically net neutral – we do hold variances for RPP, RRRP, OESP, (last three changing with OFHP) TR Clearing Account, and Adjustment Account

Financial Market – Financial Transmission Rights

- Buy rights to hedge against congestion at the interties
- Preliminary statements issued on 2nd business day after the trading day of auction
- NoD must be filed within 2 days after preliminary statement issued
- Notice of dispute must be filed within 20 business days of final statement being issued
- Congestion payments flows through Physical Market
- Auction revenues along with undisbursed congestion rents go to the Transmission Rights Clear Account and disbursed every six months by Settlements – in 2016 we disbursed $113M back to Ontario loads and exporters.

ieso Independent Electricity System Operator

Other Settlement Activities

- Processing MACD adjustments
- Disbursing adjustment account and over-collection of IESO fees
- Conservation/Contract (Ancillary Services and GA) settlement including most recently Hydro Quebec contract
- Ontario Rebate for Electricity Consumers Act (ORECA)
  - A program to rebate 8% off eligible consumer bills
- NEIRP for Ministry of Northern Development and Mines
  - A program designed to reduce electricity costs for certain businesses in northern Ontario that commit to increased energy efficiency.

ieso
Independent Electricity System Operator

Other Settlement Activities

- **Supporting Ontario's Fair Hydro Plan Act**
- Refinancing the Global Adjustment (GA) over a longer time period for Regulated Price Plan (RPP) and specified consumers, including families, farms and small businesses – similar to Ontario Rebate for Electricity Consumers (8% rebate)
- Enhancing competitiveness for NAICS small manufacturers and industrials by lowering the eligibility threshold to 500 KWs for Industrial Conservation Initiative (ICI). We calculate all the Peak Demand Factors for Class A customers
- Helping vulnerable electricity consumers by enhancing electricity support and conservation programs, and funding these programs from provincial revenues (RRRP, OESP and First Nations On-Reserve Delivery Credit). We developed forms to permit participants to submit amounts to be recovered and will be reporting to both OEB and Ministry

Day to Day Interactions Inside IESO

- Pretty much each part of the organization:
  - Corporate Relations (Stakeholder and Public Affairs), Finance, MACD, Legal, Contracts, Conservation (Performance and Program & Partner Services), Regulatory Affairs, Market & System Operations, Markets (including part in MRP), Planning (Resource and Transmission Integration), IT (a lot of IT interaction! – we are replacing the Commercial Reconciliation System in advance of MRP implementation), IA (many audits internal and external, including CSAE 3416 and SOC II),

ieso
Independent Electricity System Operator