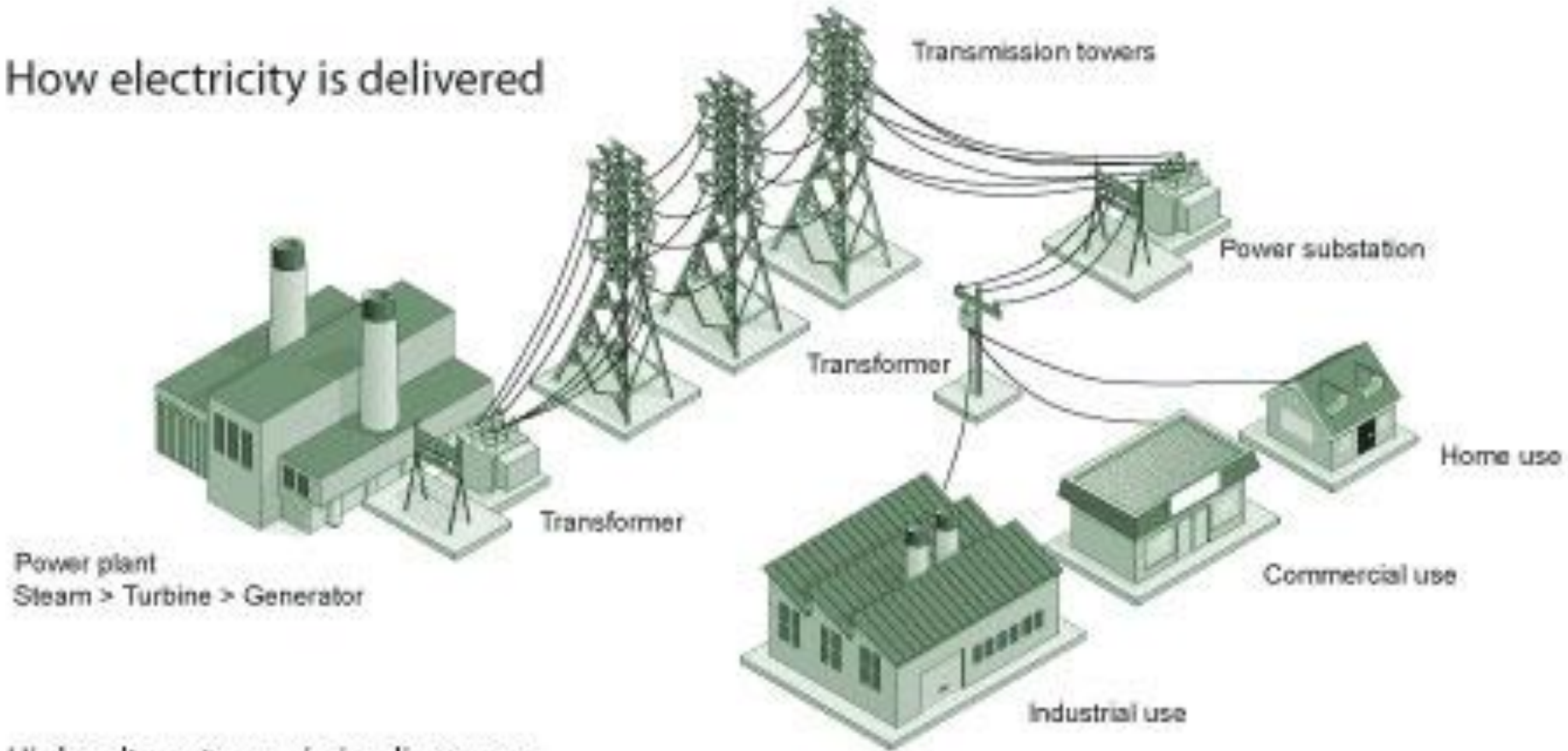# Smart meters in London

London Hydro

- London Hydro is a wholly owned subsidiary of the City of London
- Distribute Electricity to 149,471 customers
- Annual Consumption of 3,400,000 MWh
- Peak Load Demand of 675MW
- 49.65MW of distributed Generation
- $423M in property and plant assets
- Focused on Safety, Reliability, Customer Service and Competitive Rates

Measurement Canada Authorized Service Provider to perform inspections pursuant to the Electricity & Gas Inspection Act

How electricity is delivered

Transmission towers

Power substation

Transformer

Home use

Transformer

Power plant
Steam > Turbine > Generator

Commercial use

Industrial use

High voltage transmission lines carry
electricity from power plants to distribution
systems that feed the power to industrial,
commercial and domestic consumers.

Source of Image: ©Canadian Centre for Energy Information

Powering London.
Empowering You.

London Hydro

HISTORY

- **Installation of smart meter was mandated by the Ontario Government**

- **Who received Smart Meters**

    - **All customers with average monthly energy consumptions below 50 KW**

    - **Residential – approximately 135,000 customers**

    - **Small commercial & industrial – approximately 6,500**

- **When did we start**

    - **London Hydro started deploying smart meters in late 2009**

    - **We are now 100% deployed , one of the few in Ontario!!**

- **How were they installed**

    - **London Hydro contracted Honeywell to assist**

    - **During peak installation approximately 1000 meter were installed every day**

- **What did London Hydro have to consider before starting**
  - **Quality of the product**
    - **We tested several products approved for Canada**
    - **Worked with other Utilities – London Hydro headed up this group**
  - **What type of communication did we want on our product**
    - **Different types of communication were available on specific meters**
      - **Meter to tower / base station**
      - **Mess network**
  - **Cost of the meter & communication equipment**
  - **Availability & Reliability of the product**

Green Port Recycle

- **Where did the old meters go**

  - **London Hydro worked with Green Port Recycle**

  - **Every meter removed was shorted at the end of the day**

  - **Stored on site in large tracker trailers**

  - **Sent to Green port for separating & recycle up to 99%**

    - **Glass**
    - **Stainless steel**
    - **Copper**
    - **Metal**
    - **Plastic**
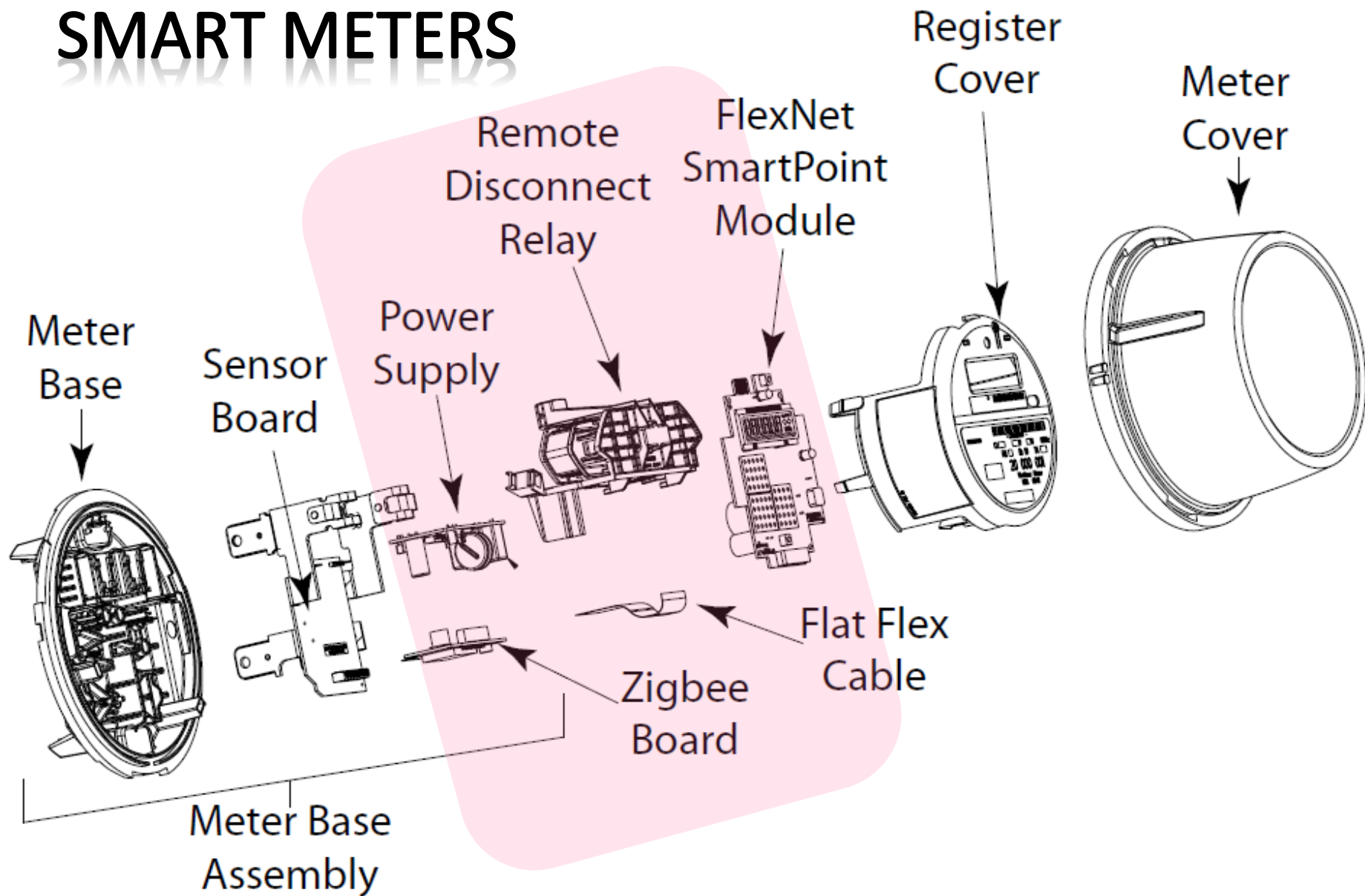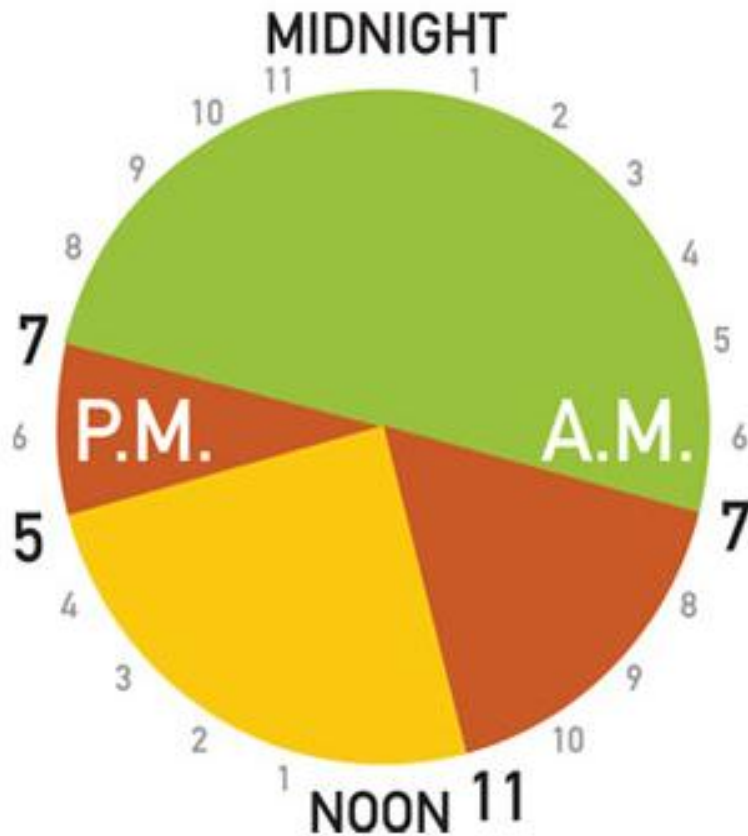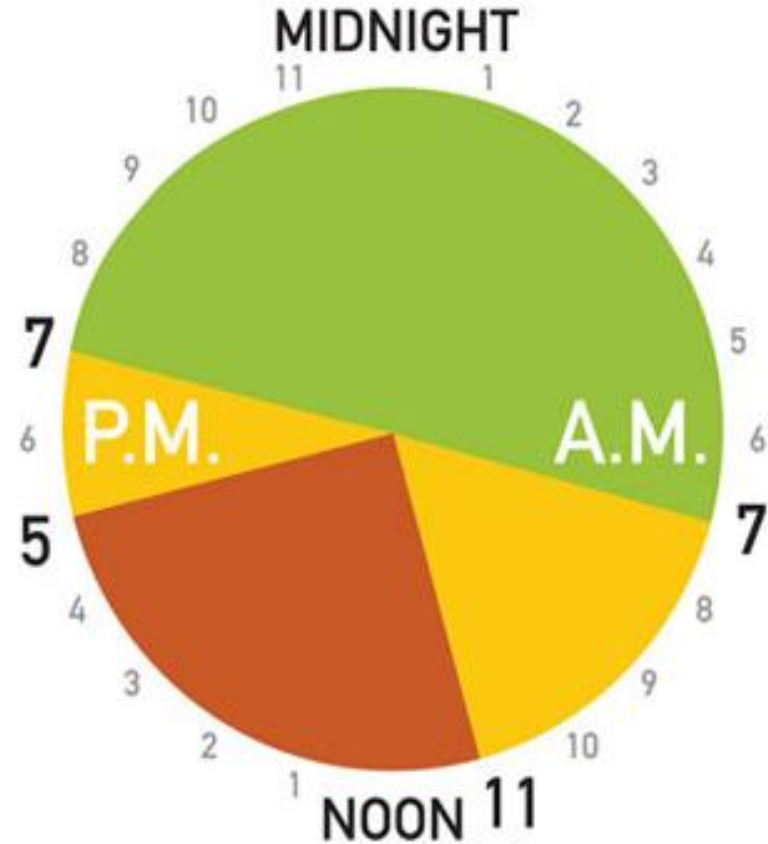   - **Electronic chips**

SMART METERS

Meter Base

Sensor Board

Power Supply

Remote Disconnect Relay

FlexNet SmartPoint Module

Register Cover

Meter Cover

Zigbee Board

Flat Flex Cable

Meter Base Assembly

Figure 1-3: iCon A Remote Disconnect with Zigbee Components

Time of Use Rates

Winter (Nov 1-Apr 30) - Weekdays

Summer (May 1-Oct 31) - Weekdays
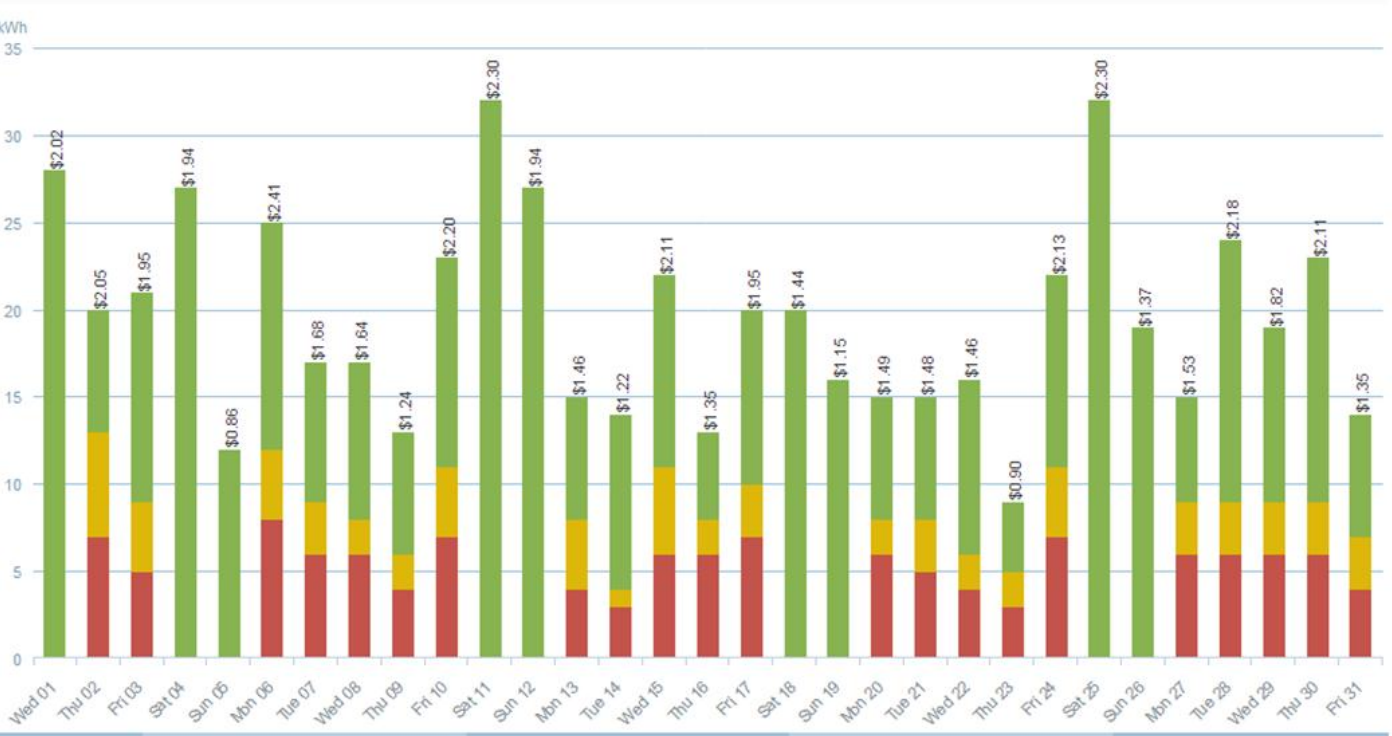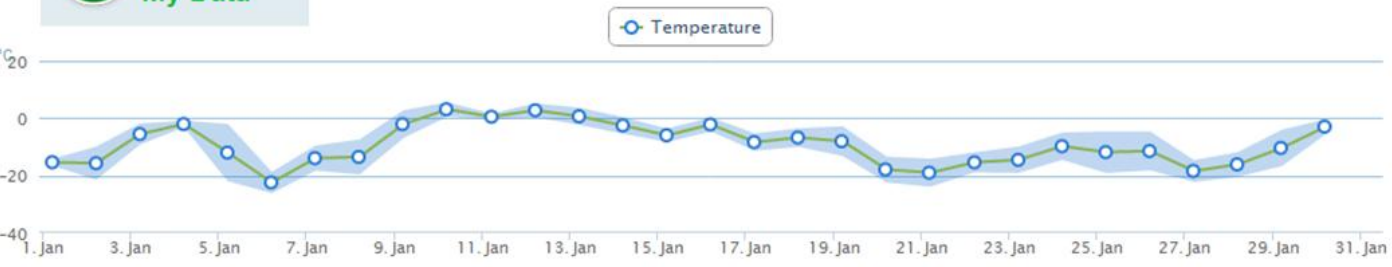
Pricing

Smartmeter System

Networks
- Metering Data
- Wireless Networks

Applications
- Billing
- Data Management

IT Infrastructure
- Servers
- Storage
- Security
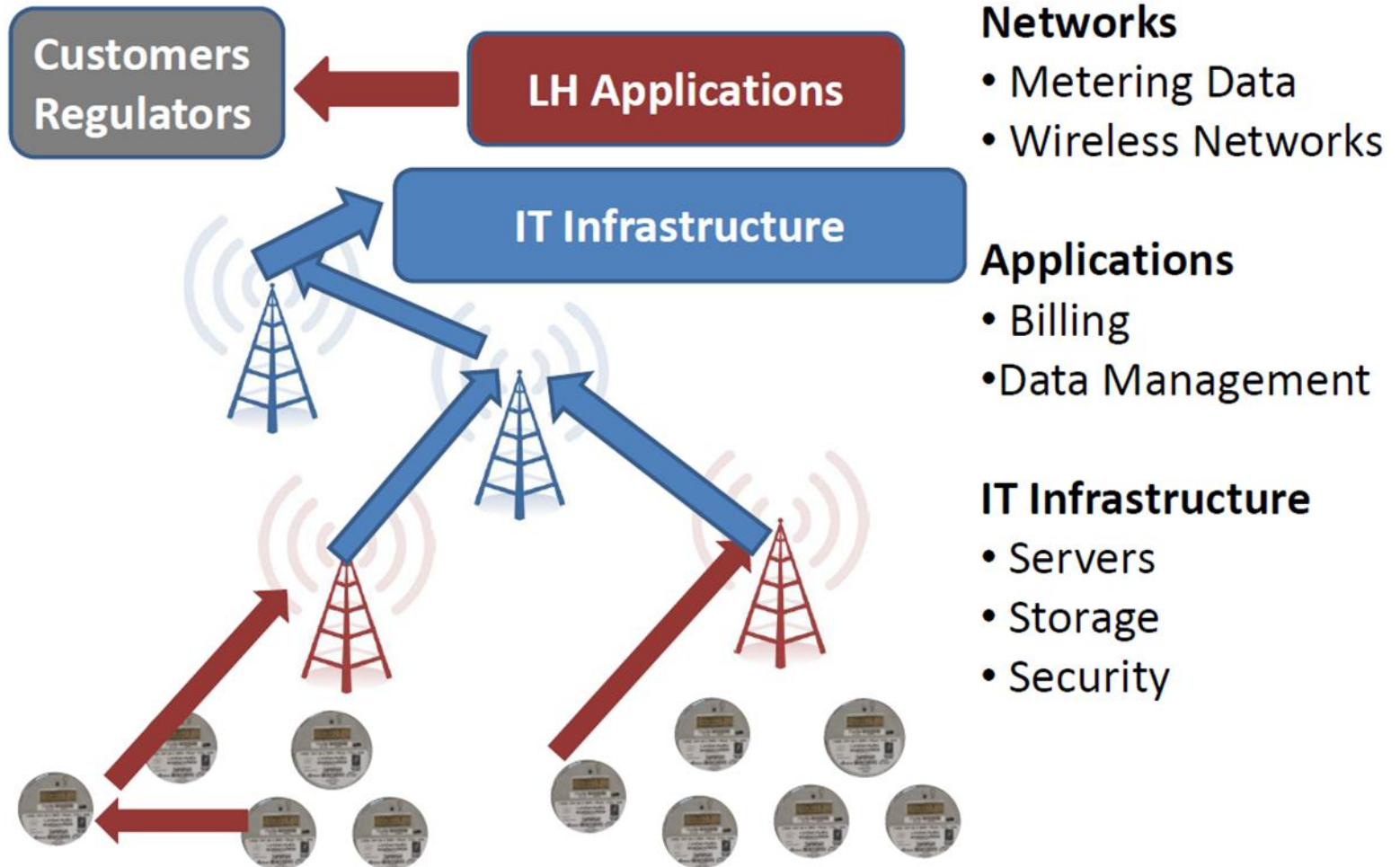
- Londonhydro.com

- Green Button Open Data

- Temperature

- Paperless billing

- Notifications

- Consumption Data

- Pricing

- Multiple Accounts

MyLondonHydro ⌄

Billing # : ▼

ELECTRICITY SERVICE:

Meter#: ▼

WATER SERVICE:

Meter#: ▼

- ☰ Dashboard
- 🗐 My Bills
- ᴥ My Energy Usage
- ◍ My Water Usage
- ✎ Account Details
- 🗓 **Account Notifications**
- 💬 Account Help
- ◉ Outage Map

Green Button Download My Data

Note: If there is a discrepancy between the time and energy price shown on this website and the Ontario Energy Board (OEB) site, the official OEB information will be deemed as the correct source. For your convenience, click here to link to the OEB's website.

NOTIFICATION CONTACT DETAILS

Notification Phone Numbers

Notification Number (Phone)   (519) 200-

Notification Number (SMS / Text)   (519) 200-

[Edit]

Notification Email Address:
@gmail.com

[Edit]

NOTIFICATION OPTIONS

These notification options will allow us to keep you updated on power interruptions when possible and estimated restoration times specific to your service address. These notifications represent London Hydro's best attempt and estimation of when power is off and when it may be restored. London Hydro Inc. does not assume legal responsibility for the use and accuracy of these notifications. Please be aware that our Privacy Policy precludes us from divulging detailed information about your account if you choose to be notified by phone.

NOTIFICATION TYPE	EMAIL	PHONE	SMS/TEXT
Outage Where possible we will notify you if there is an outage affecting your electric service.	ON	ON	ON
Outage Restoration Time Where possible, you will be notified of any changes in the expected time that power will be restored.	ON	ON	OFF

Powering London.
Empowering You.

London Hydro

Paperless Billing – Save Trees

BILLING HISTORY

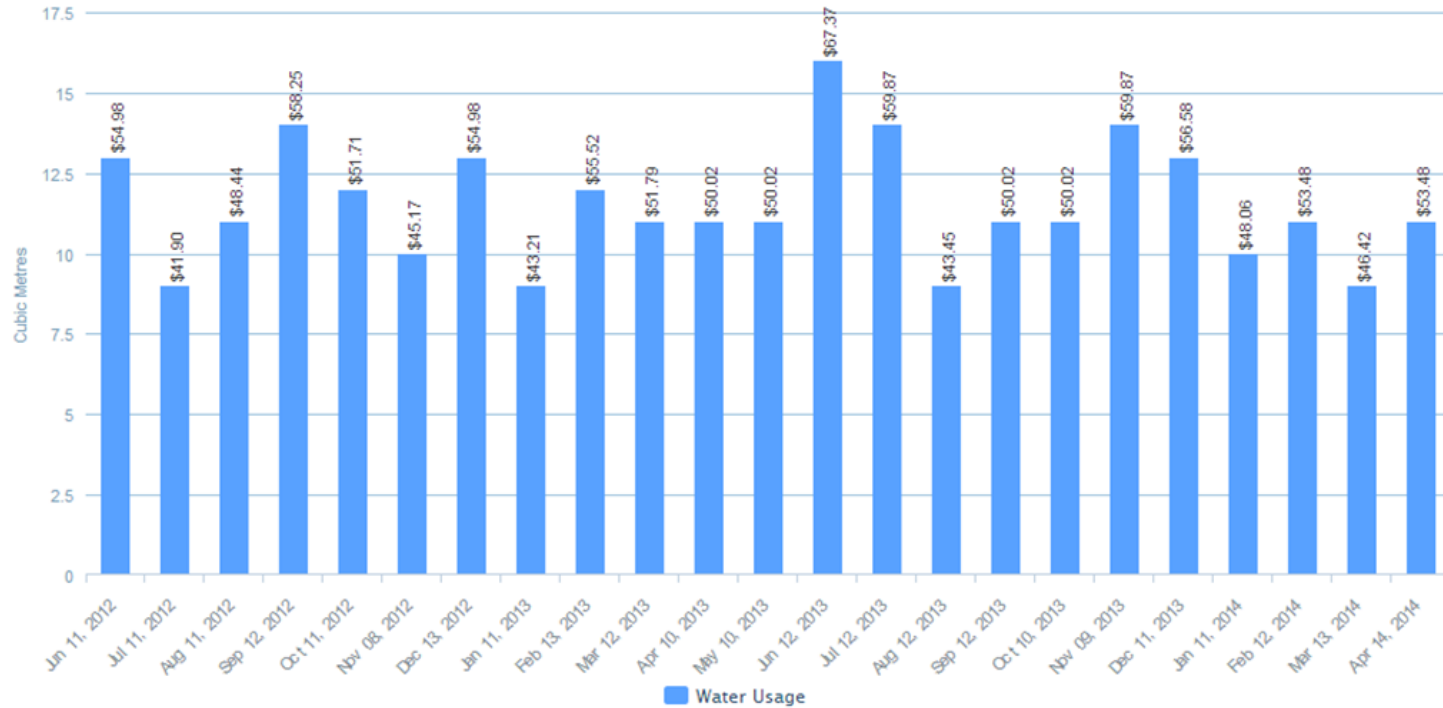Show: Last 6 Months ▼

BILLS	PAYMENTS

VIEW BILLING PERIOD CONSUMPTION CHART >   VIEW BILLING INSERTS >

Bill Date	Billing Period	Description	Amount	Due Date	Bill Copy
May 1, 2014	Mar 14, 2014 - Apr 11, 2014	Utility Bill	$135.58	May 20, 2014	VIEW BILL
Mar 28, 2014	Feb 14, 2014 - Mar 13, 2014	Utility Bill	$120.85	Apr 14, 2014	VIEW BILL
Mar 3, 2014	Jan 14, 2014 - Feb 13, 2014	Utility Bill	$145.88	Mar 19, 2014	VIEW BILL
Jan 28, 2014	Dec 14, 2013 - Jan 13, 2014	Utility Bill	$133.55	Feb 13, 2014	VIEW BILL
Jan 2, 2014	Nov 14, 2013 - Dec 13, 2013	Utility Bill	$149.01	Jan 20, 2014	VIEW BILL
Nov 28, 2013	Oct 12, 2013 - Nov 13, 2013	Utility Bill	$154.27	Dec 16, 2013	VIEW BILL

Water Meter Data

Questions?