



APSE: Unmetered Energy Issues

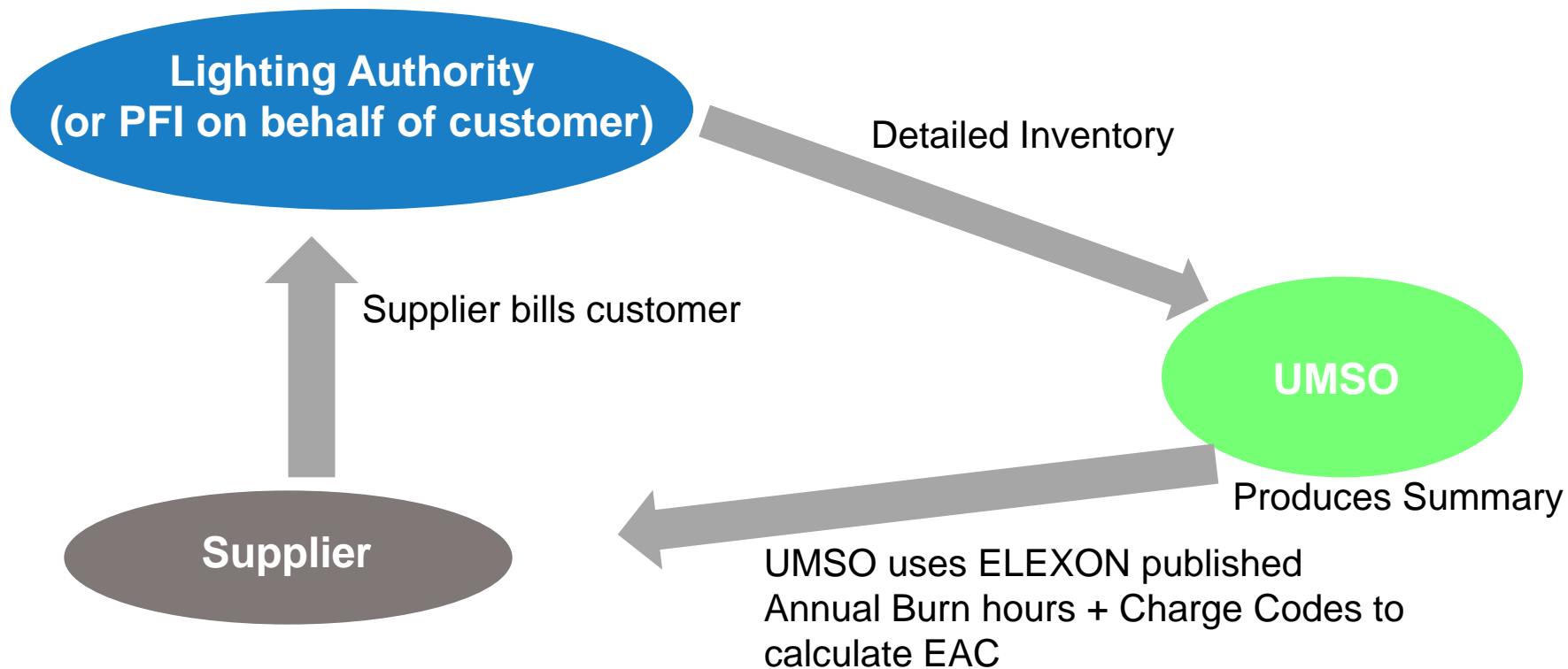
Presented by James Everley

What will be covered?

- ▶ Introduction to Power Data Associates
- ▶ Non Half Hourly and Half Hourly Explained
- ▶ Potential savings from DUoS
- ▶ Carbon Reduction Commitment
- ▶ ELEXON load research update
- ▶ Questions



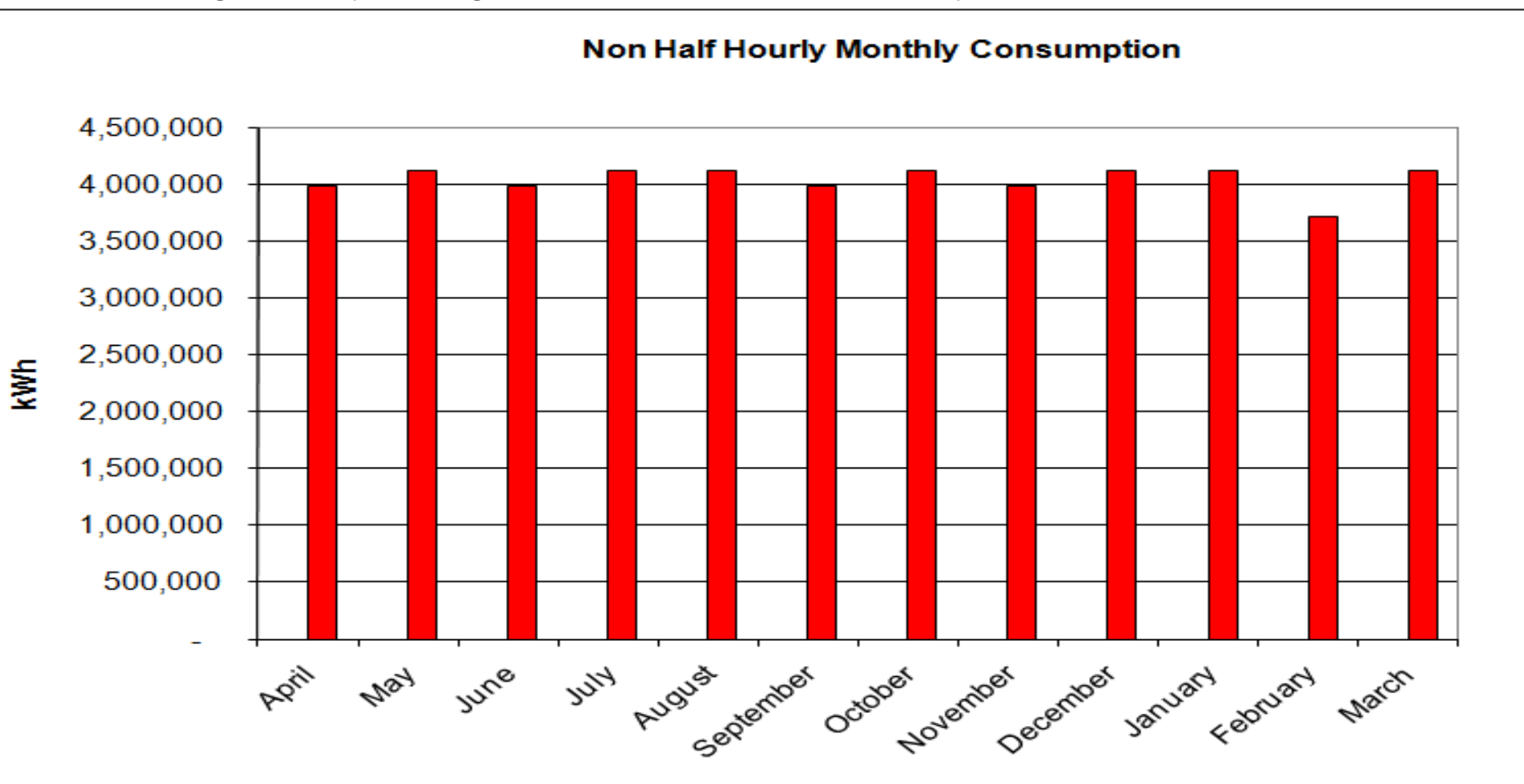
Non Half Hourly Trading



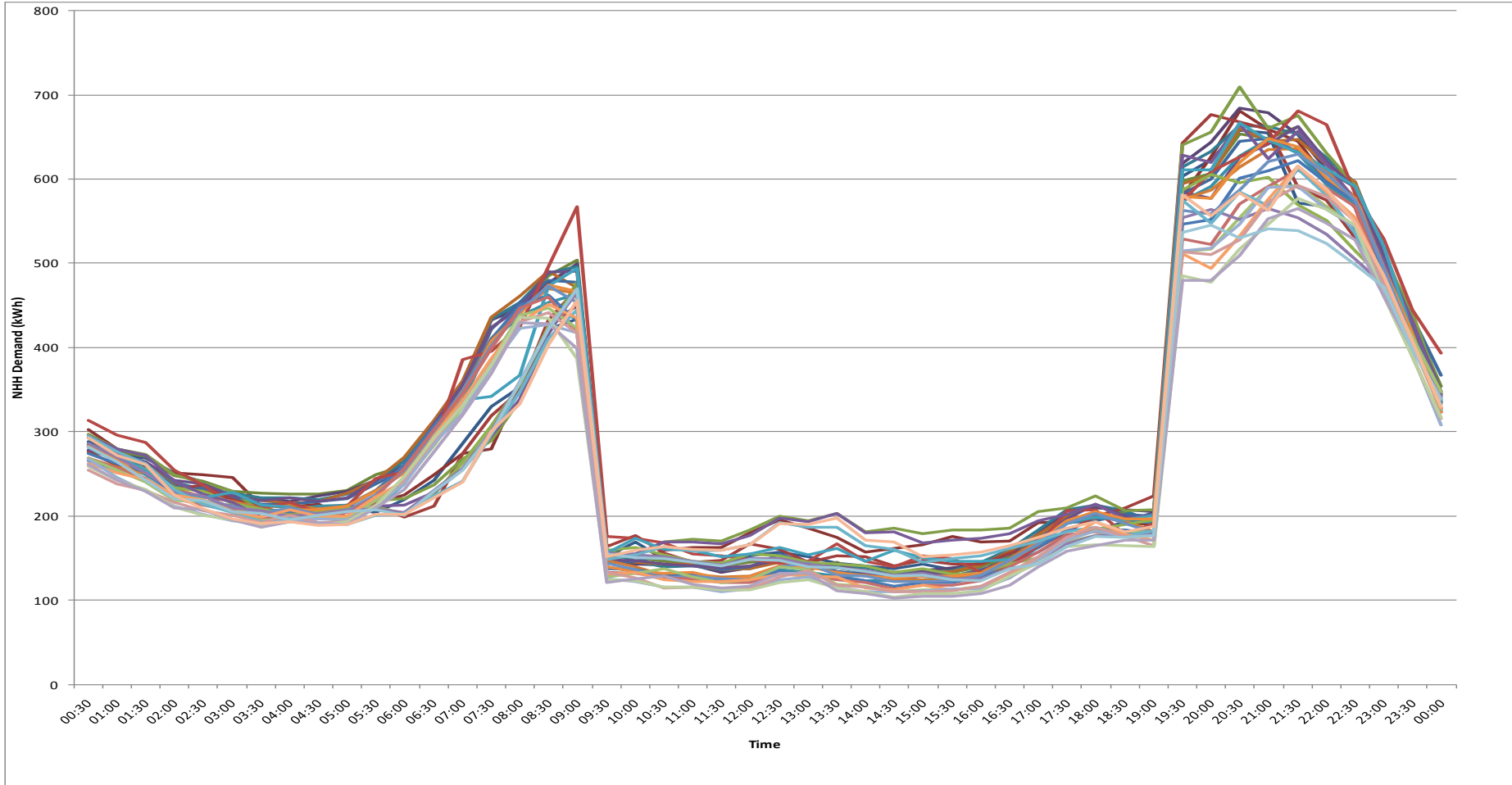
$$\text{Estimated Annual Consumption (EAC)} = \frac{\text{Circuit Watts} \times \text{Annual Hours} \times \text{No. Items}}{1,000} = \text{kWh}$$

NHH Billing

- ▶ NHH trading results in the EAC being divided by 365, then multiplied by the number of days in each month
- ▶ kWh figure only changes when a revised inventory is submitted

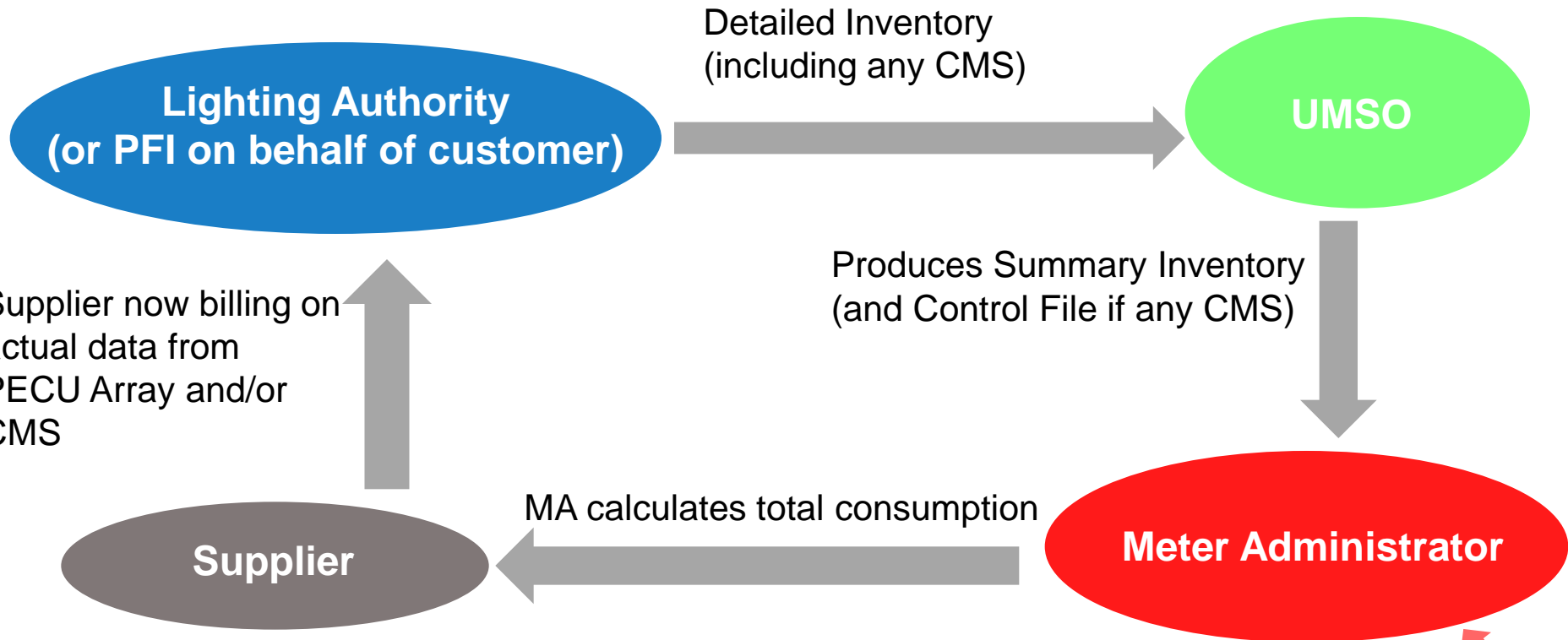


NHH Profile



Non Half Hourly Profile for a Dusk to Dawn Regime

Dynamic Half Hourly Trading



Any ELEXON Approved CMS



PECU Array





WARNING
Hazardous
Voltage
Safety
Precautions
Apply

North
↑

PECU Log
PECU Array & Telemetry System
1000 West 10th Street, Suite 1000, Anchorage, Alaska 99501
www.pecu.com

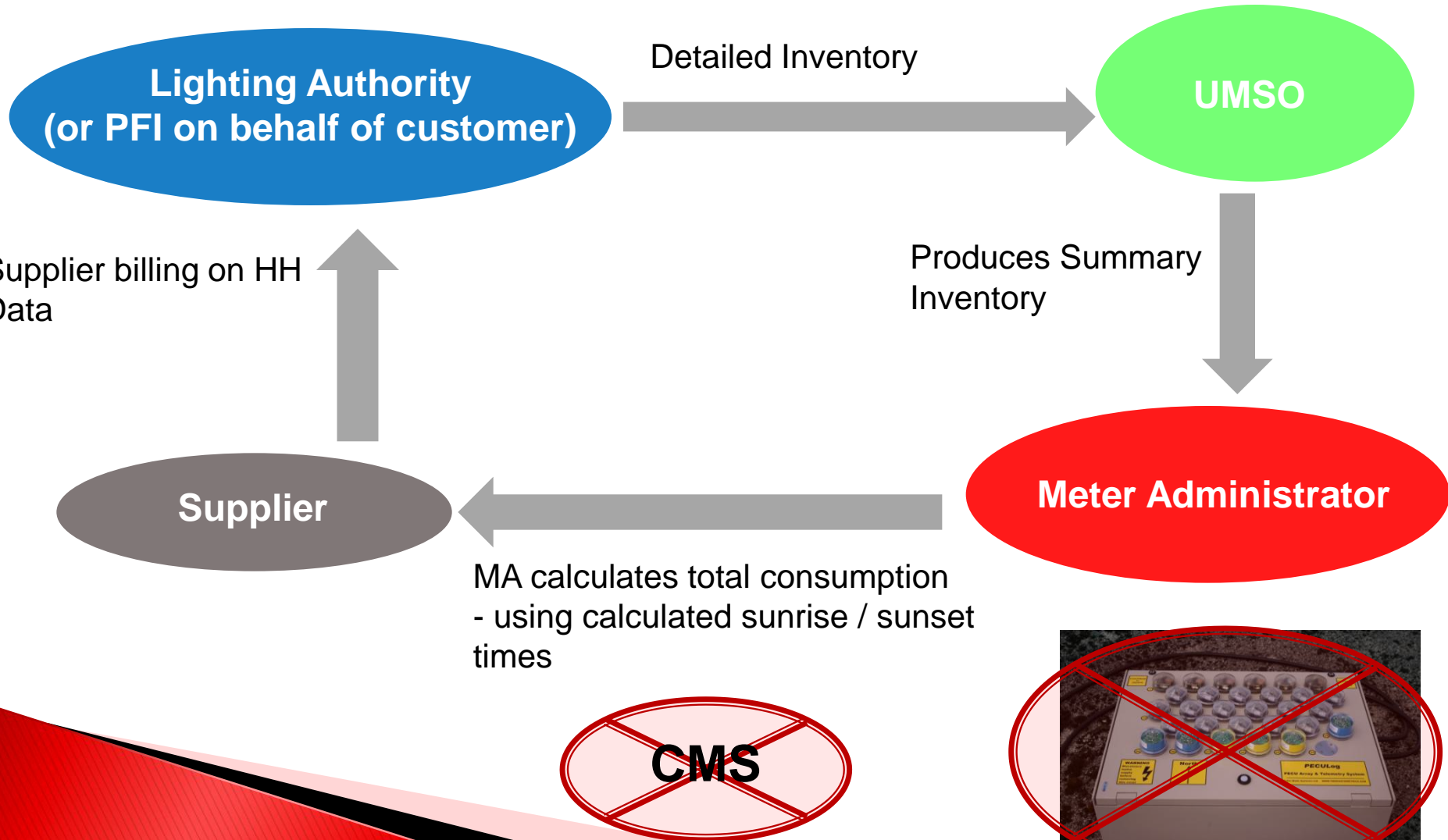
PECU Array

- ▶ Locating your PECU Array:
 - Should be on the authority's property on a one or two storey (flat) roof
 - Convenient / easy / safe access for authority
 - Requires a power line
 - Option of GSM (mobile sim card) or standard phone line

- ▶ Cost of the Array:
 - Will cost around £4,000 (slightly more for GSM option)

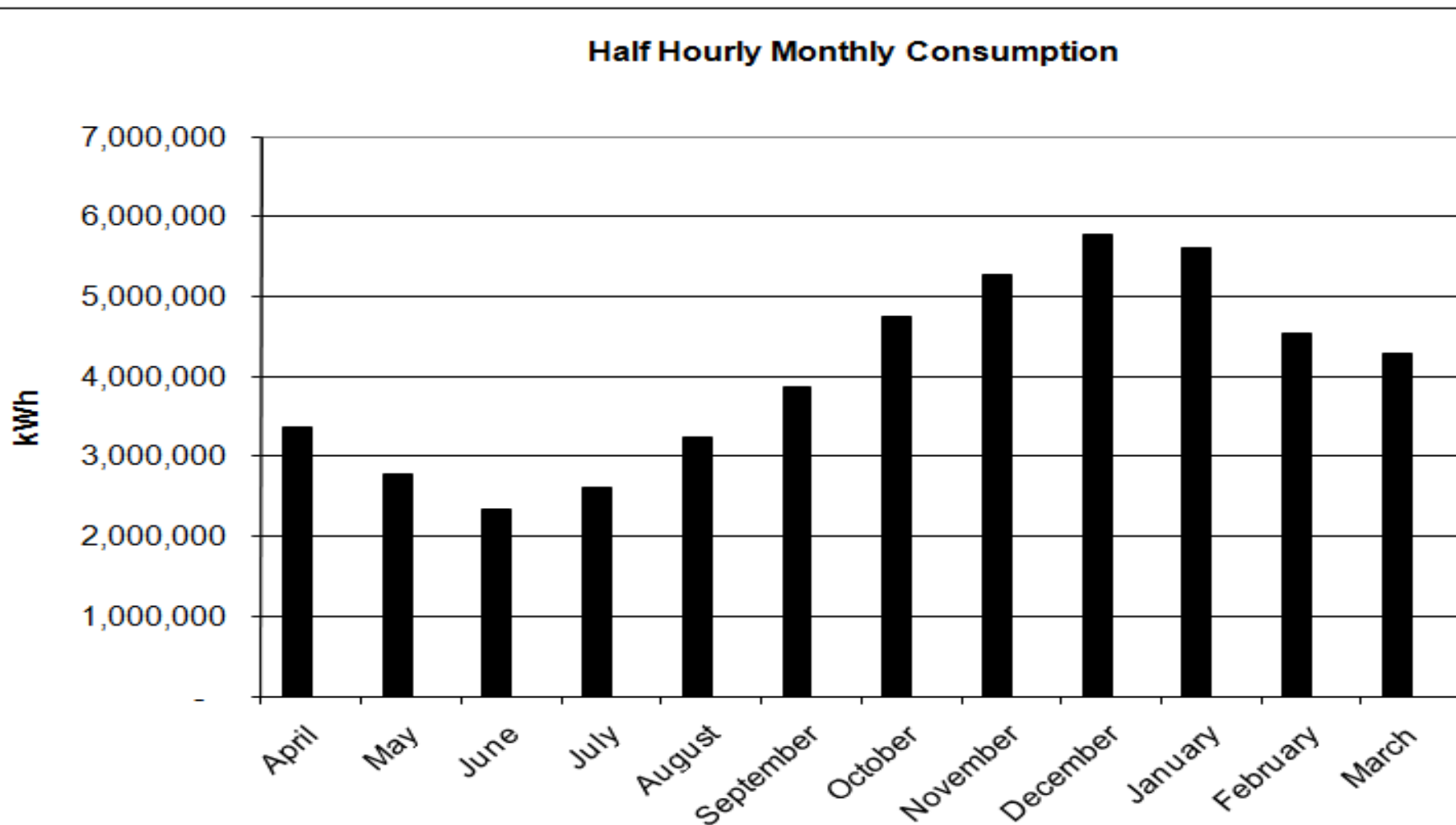


Passive Half Hourly Trading

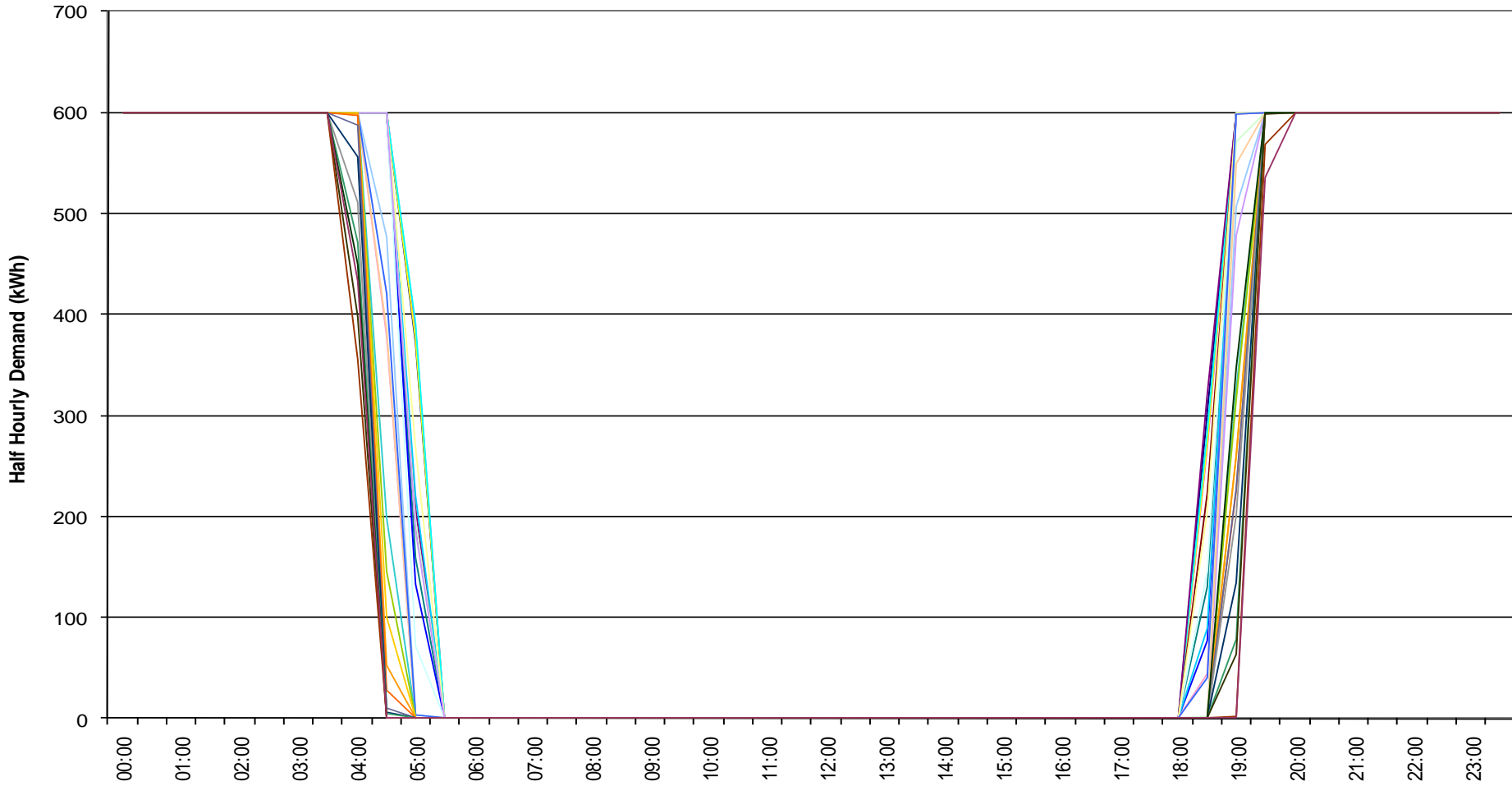


HH Monthly Billing

- ▶ HH trading reflects your energy usage accurately each month, lower consumption in summer and higher consumption in winter



HH Profile

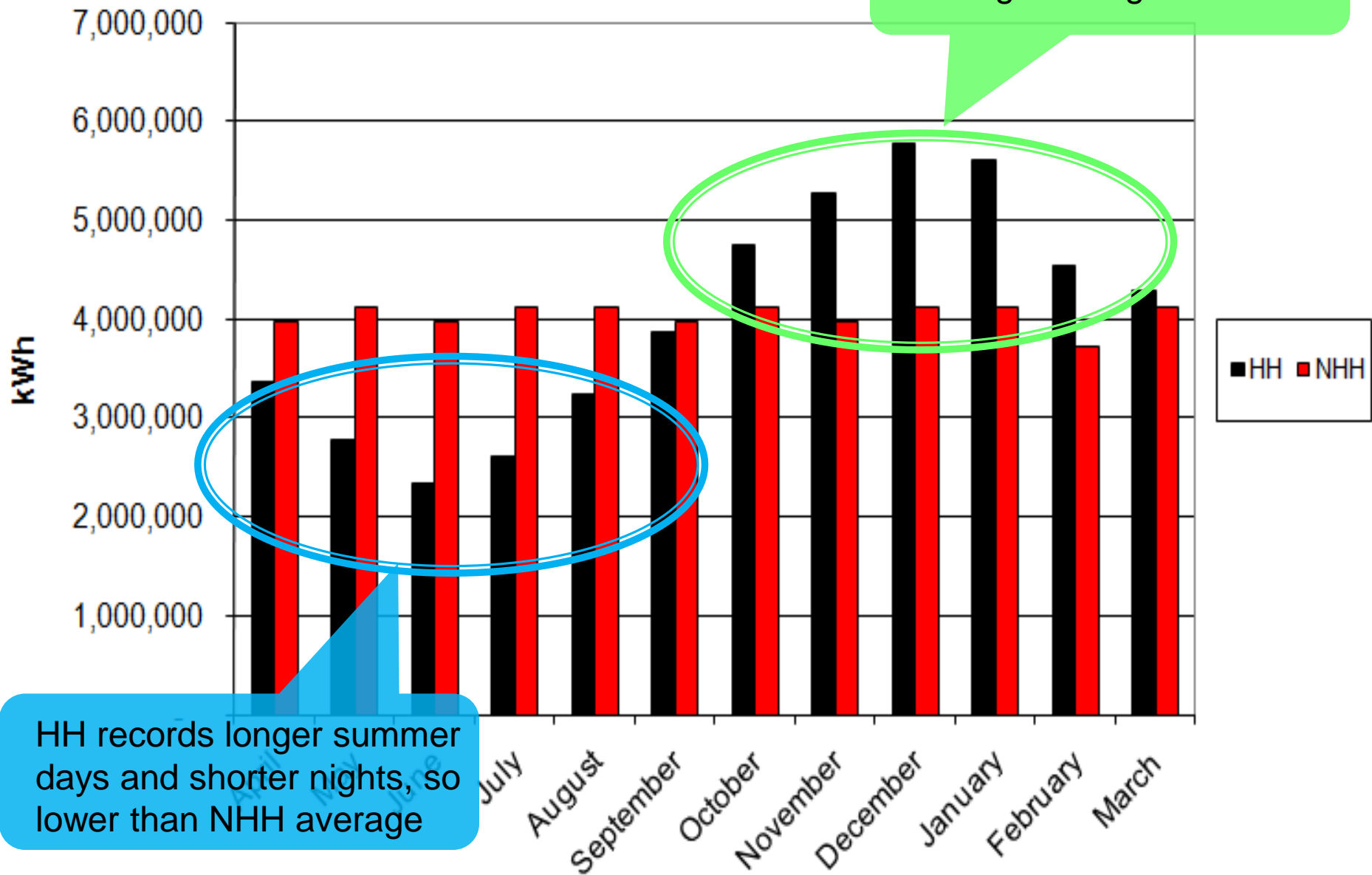


Half Hourly Profile for a Dusk to Dawn Regime

How do I switch?

- ▶ Switching to Half Hourly is a simple process:
 - Decide whether Passive or Dynamic, important to check that your DNO will facilitate Passive
 - CRC may be a factor (discussed later)
 - Contact Supplier to agree switchover date / kWh price
 - 1st April generally the best switchover date but depends on when the NHH contact started
 - Appoint a Meter Administrator
 - DNO will create new HH MPAN, Supplier will register MA appointment, everything is then in place...

Monthly Consumption



Revised Non Half Hourly Hours

- ▶ ELEXON revised the NHH Burning Hours
- ▶ Published early October 2010
- ▶ Based on PECU Array data
- ▶ Implementation of new hours varied by Distribution Business
- ▶ Hydro may be 1st April 2011

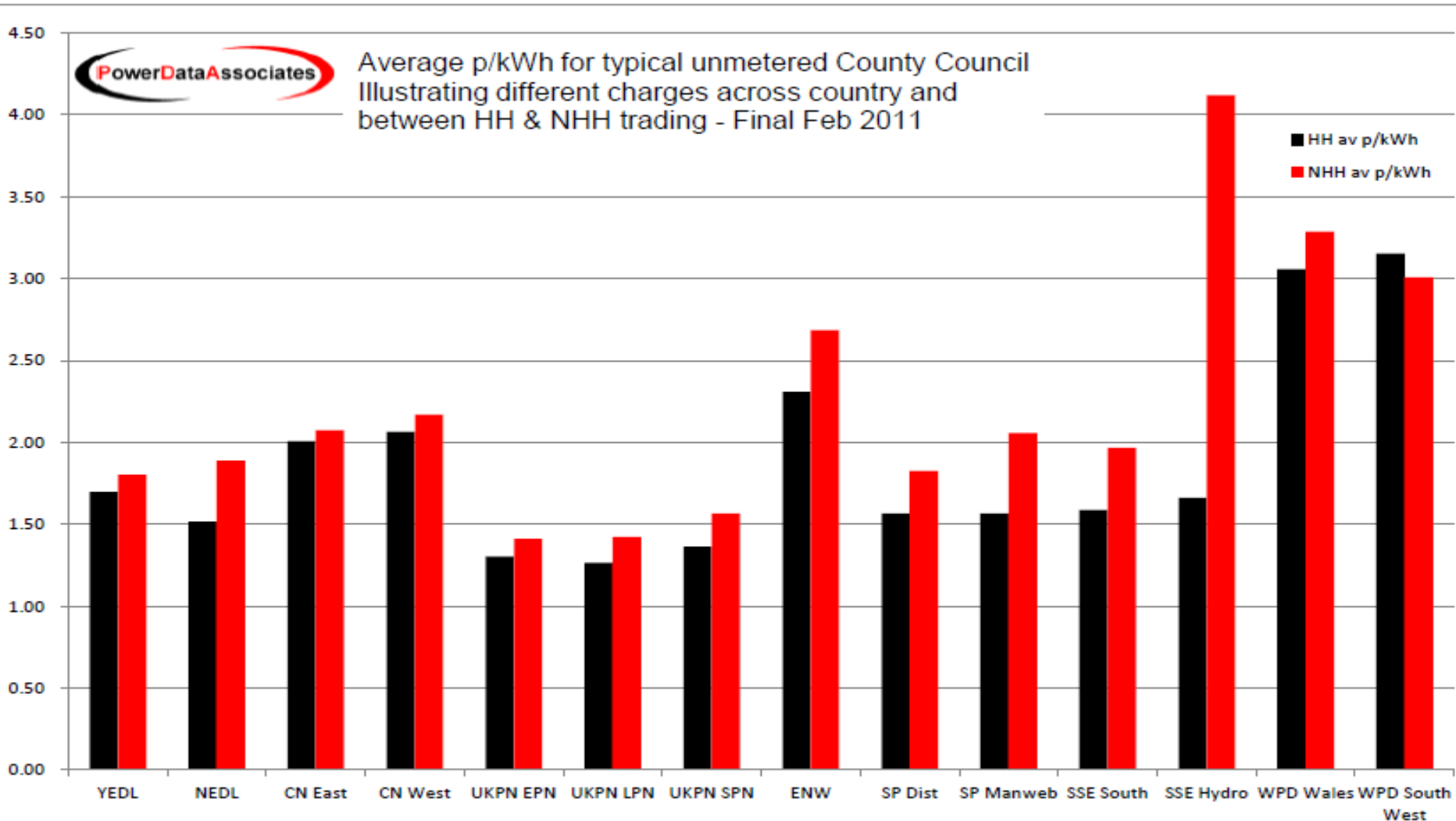
Distribution Area	Current	Proposed	Difference
Eastern	4084	4151	+ 67
East Midlands	4078	4149	+ 71
London	4187	4153	- 34
Merseyside & North Wales	4096	4147	+ 51
Midlands	4080	4150	+ 70
Northern	4139	4141	+ 2
North Western	4127	4147	+ 20
Southern	4091	4154	+ 63
South Eastern	4141	4154	+ 13
South Wales	4154	4152	- 2
South Western	4152	4156	+ 4
Yorkshire	4154	4145	- 9
South Scotland	4118	4138	+ 20
North Scotland	4107	4130	+ 23

Figures for electronic 70/35
(Switch Regime 821)

Distribution Use of System (DUoS)

- ▶ Currently there are differences around the country in DUoS charges
- ▶ These are the charges Distribution Businesses pass on to the Suppliers
- ▶ Under Procurement Scotland contract DUoS charges are a straight 'pass through' cost, so not included as part of an overall average p/kWh
- ▶ Potential savings from Half Hourly trading in Scotland (and elsewhere in GB)

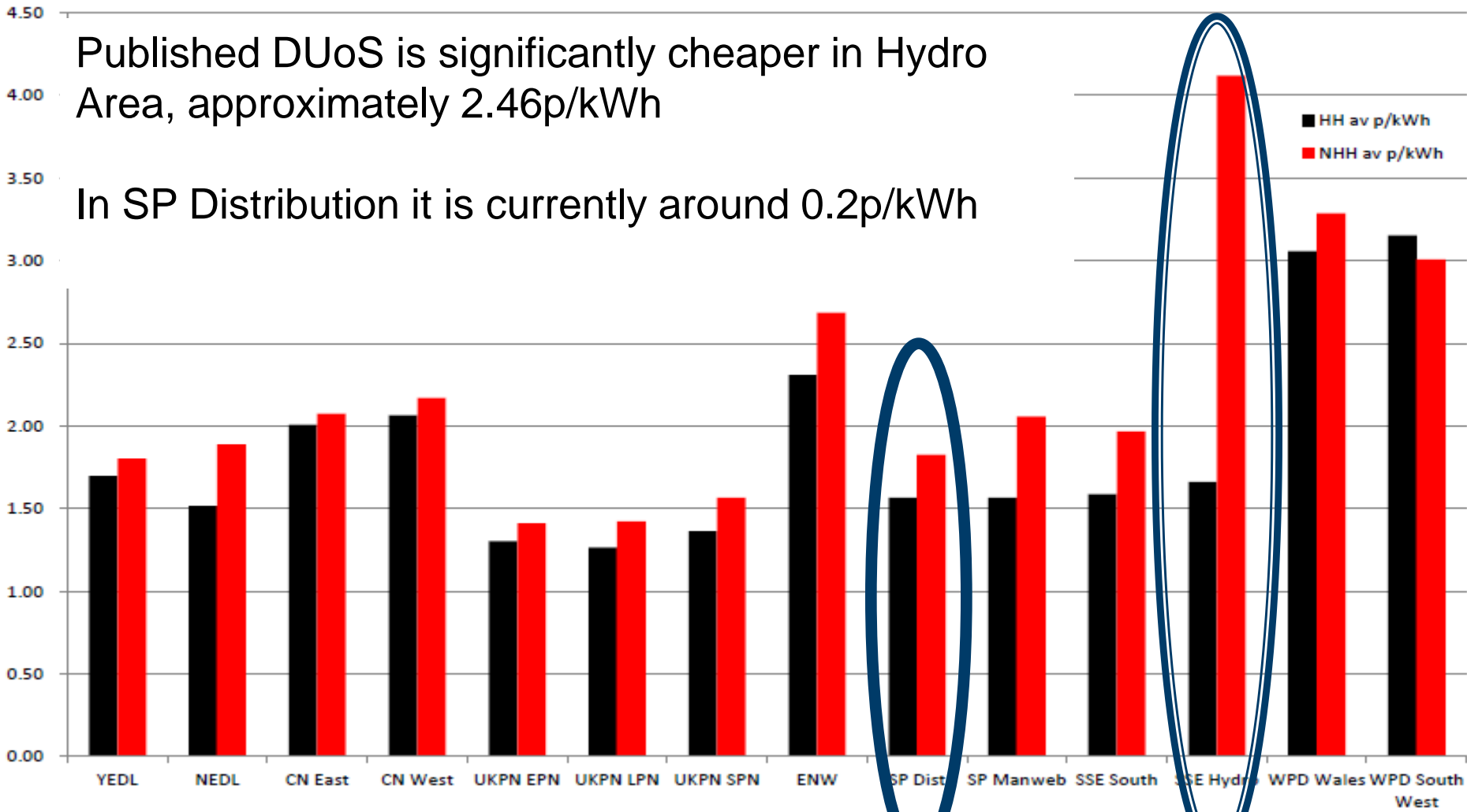
Potential Savings for 1st April 2011 to 31st March 2012



HH DUoS cheaper in Scotland than NHH

Published DUoS is significantly cheaper in Hydro Area, approximately 2.46p/kWh

In SP Distribution it is currently around 0.2p/kWh



CRC Energy Efficiency Changes

- ▶ On the 25th January 2010 DECC published a last minute addendum
- ▶ Removed Non Half Hourly and Passive Half Hourly from the scope of the CRCEE
- ▶ Thought all unmetered supplies will either be in or out of the scheme for the start of the second phase, 1st April 2014
- ▶ Important that all unmetered supplies treated equitably
- ▶ Opportunity to respond to DECC's consultation

ELEXON Load Research

- ▶ Back in 2010, ELEXON awarded a contract to begin investigating the load ratings (circuit watts) of the most common street lamps
- ▶ Looking at a range of lamps, starting with most common, on-going programme
- ▶ Initial results such a wide range of circuit watts and power factors

Nominal Watts	Unit Description 1	Unit Description 2	Company	Manufacturer's Designation	Old Charge Code	New Charge Code	Circuit Watts
70	High Pressure Sodium	SON SON/T	Generic	Standard	1400701	14 0070 1000 100	90

ELEXON Load Research

- ▶ Results will be presented to ELEXON/UMSUG for discussion
- ▶ Changes could be made to existing charge codes as early as Jan 2012
- ▶ Will be opportunity for local authority input via the customer representatives on UMSUG
- ▶ Potential impact on local authorities street lighting depending on how the ratings are adjusted
- ▶ Information should be available on ELEXON website

▶ Any Questions ?

James Everley

Account Manager

01525 862 990

07540 52 88 44

James.Everley@PowerDataAssociates.com

www.PowerDataAssociates.com

Wrest Park, Silsoe, Bedfordshire MK45 4HR



Wrest Park