

ESP Market Presentation – Monitoring & Targeting Systems





“Deregulation will deliver choice and lower prices to consumers”

Max Bradford 1990’s

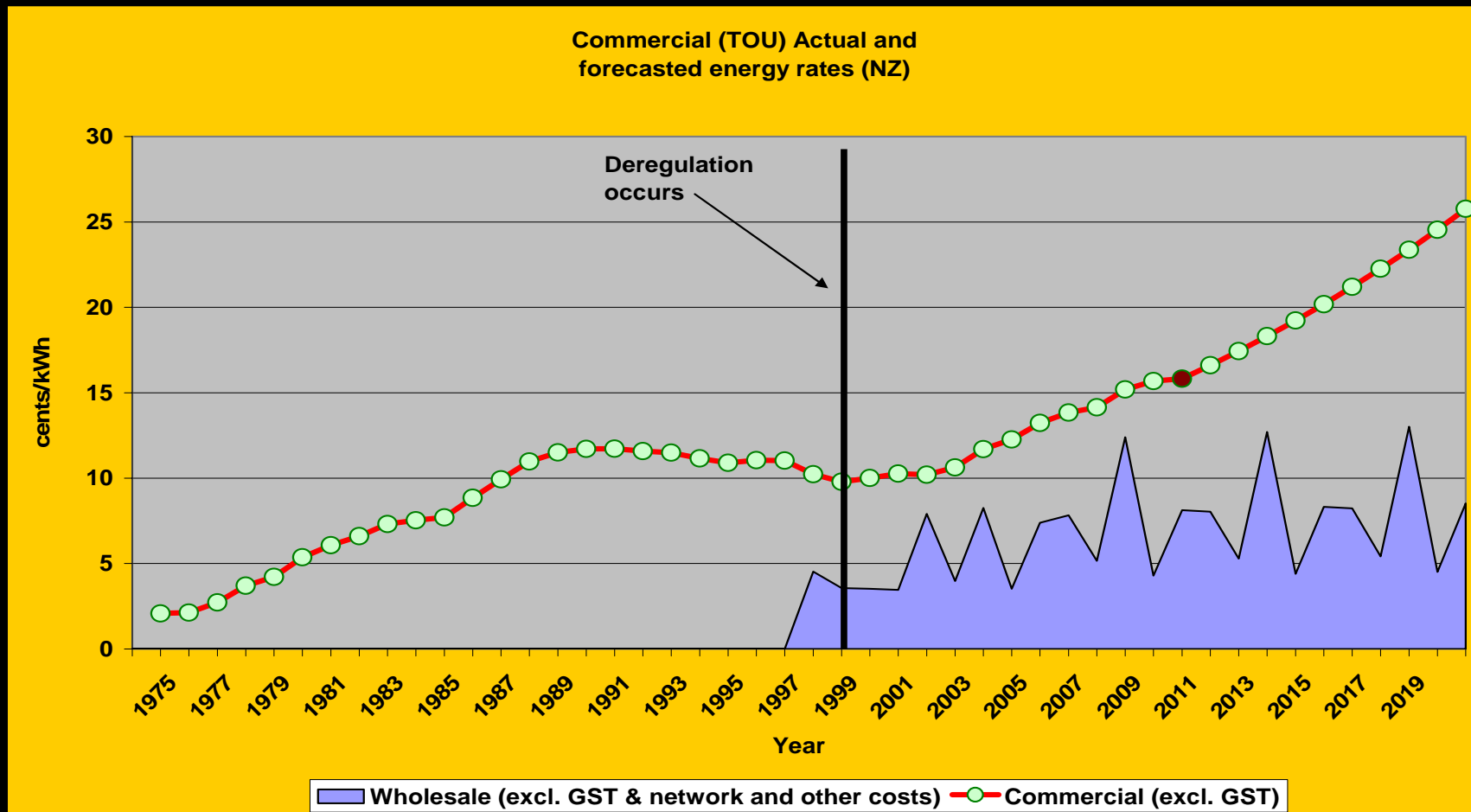
Yeah right.





- 1980s – Ministry of Energy was responsible for the production and supply of electricity
- 1987 – ECNZ was set up as an SOE to improve the delivery however constant government tinkering was problematic,
- 1999 – the electricity industry was deregulated and now we have
 - 💡 17 rules and regulations
 - 💡 9 Governance bodies
 - 💡 11 generation companies
 - 💡 1 transmission company
 - 💡 28 lines companies and
 - 💡 20 Retail companies

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Source : MED

ETS introduction 1 July 2010 – adds 5% to prices as of 1 July 2010

Contact Energy Announcements expects prices to increase by 5% each year to pay for new generation



Additional Cost to the New Zealand Economy when
compared with BC Hydro rates

4.32 Billion Dollars per annum

Or approximately \$2,646 per
household per annum

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“Improving energy efficiency may be the most profitable thing that you can do in the short term. How much you will actually benefit from this opportunity depends on how you approach it.”

Donald R. Wulfinghoff, *Energy Efficiency Manual*.

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Waitakere City Council Case Study

Total Greenhouse Gas Emissions

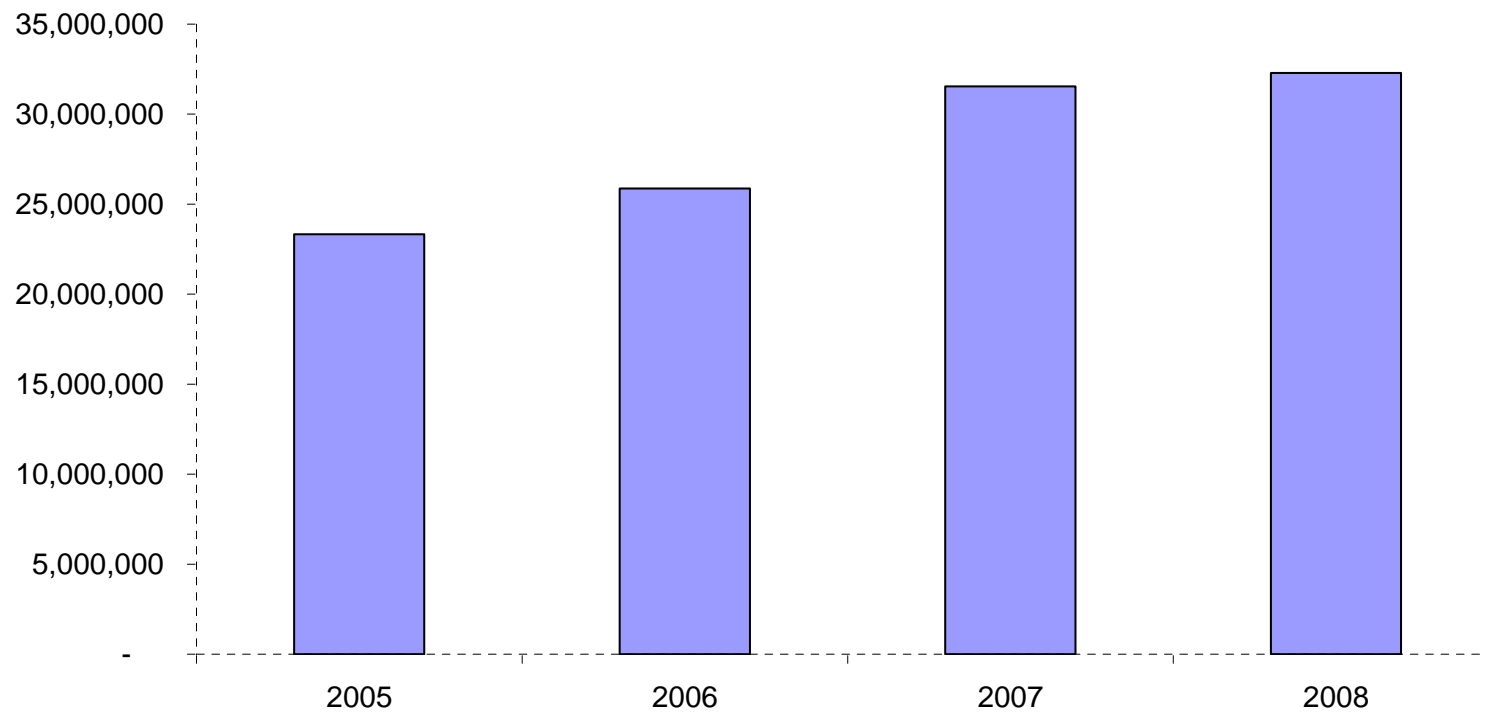
Target: stabilise total greenhouse gas emissions by 2010



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**ASB Bank Annual Electricity Consumption
Adjusted for production growth
Across all sites with Real Time Monitoring**



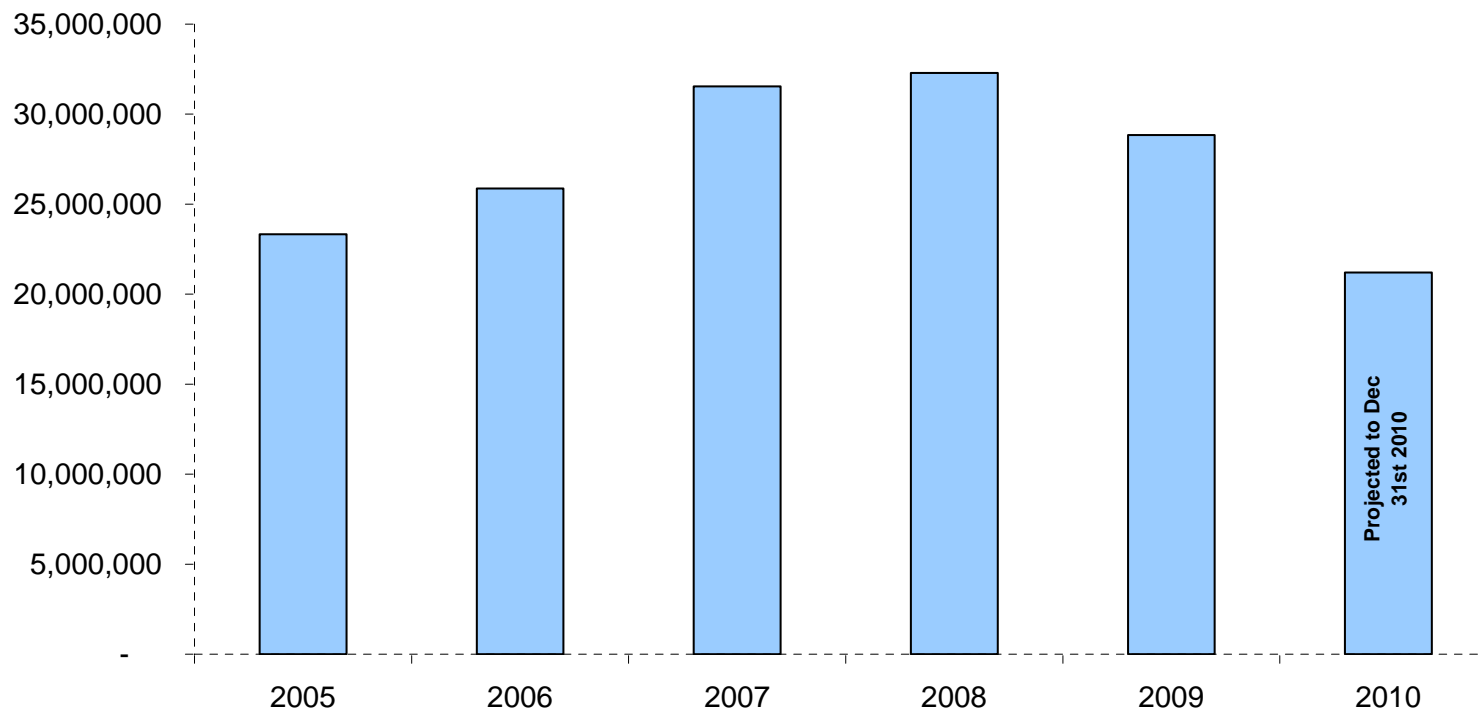


Real Time Monitoring & Targeting
(M & T) can make a difference for New
Zealand and help reach our emission
reduction targets by 2020.

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**ASB Bank Annual Electricity Consumption
Adjusted for production growth
Across all sites with Real Time Monitoring**





Why Real Time Monitoring & Targeting?

- You cannot manage what you cannot measure
- Pinpoint when and where energy is being used inefficiently
- Allow for targeted utility reduction initiatives
- Project tracking – to measure success of initiatives
- Measure GHG emissions

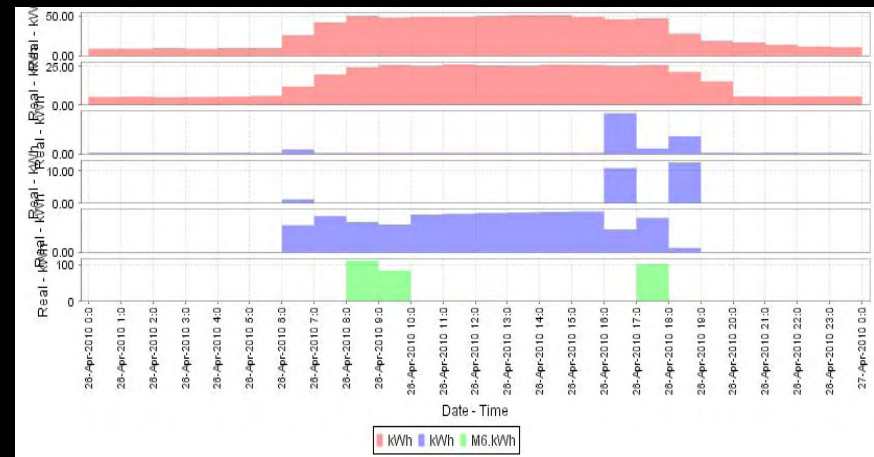
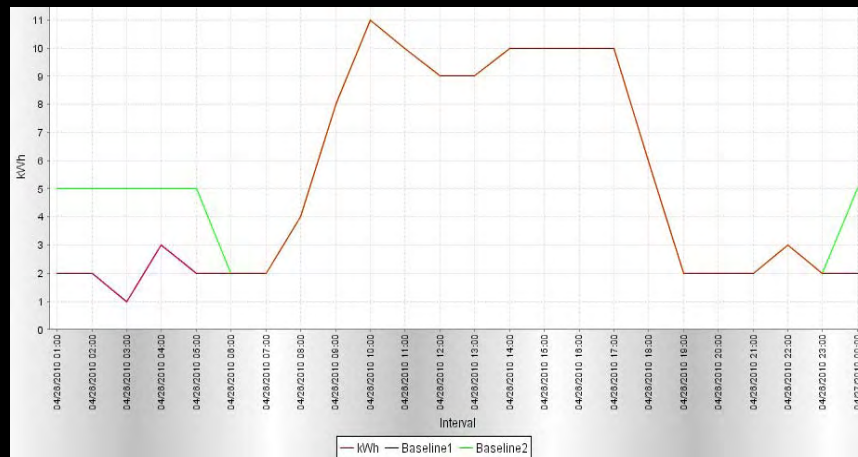
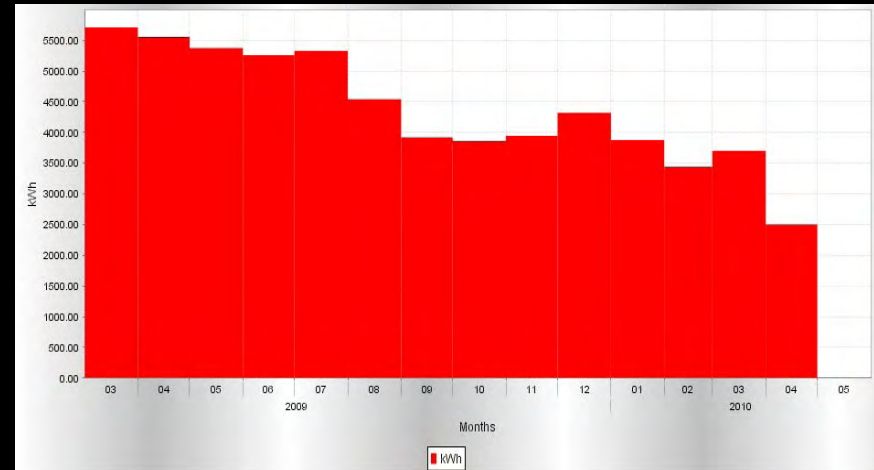
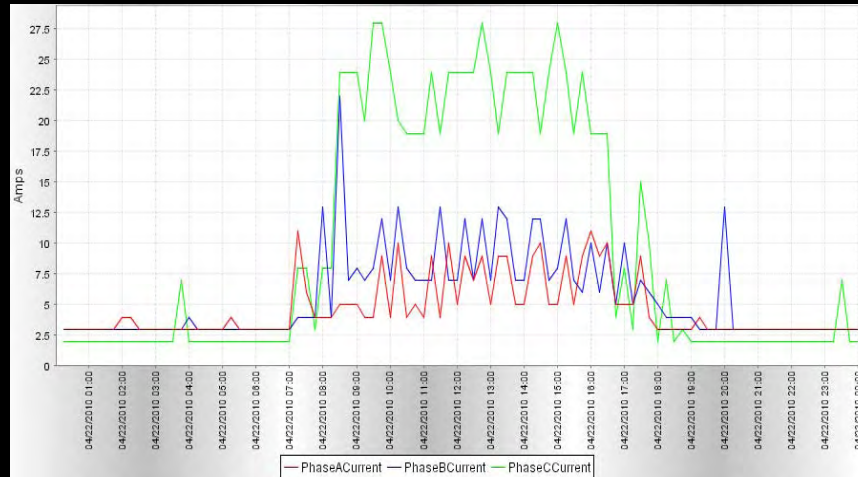
Real Time



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Data Visibility – online and real time



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Providing Tomorrow's
Energy Management Solutions, Today.

- Waitakere City
 - Waitakere City
 - West Wave Pools
 - Leisure Centre Plant Room AMPs
 - By Interval
 - 1:Current - Amps
 - 2:Voltage - Volts
 - 3:Report
 - Leisure Centre Plant Room energy
 - By Interval
 - 1:Energy
 - 2:Apparent - kVAh
 - 3:Real - kWh
 - 4:Reactive - kVARh
 - 5:Power Factor
 - 6:Report
 - By Week
 - Monthly
 - Week by Day
 - Main Plant Room AMPs
 - By Interval
 - 1:Current - Amps
 - 2:Voltage - Volts
 - 3:Report
 - Main Plant Room energy
 - By Interval
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 - 2:Apparent - kVAh
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 - 6:Report
 - By Week
 - Monthly
 - Week by Day
 - West Wave HVAC Lights General Power
 - West Wave High Flow Water
 - West Wave Low Flow Water
 - West Wave Main Incomer

Navigation

Date

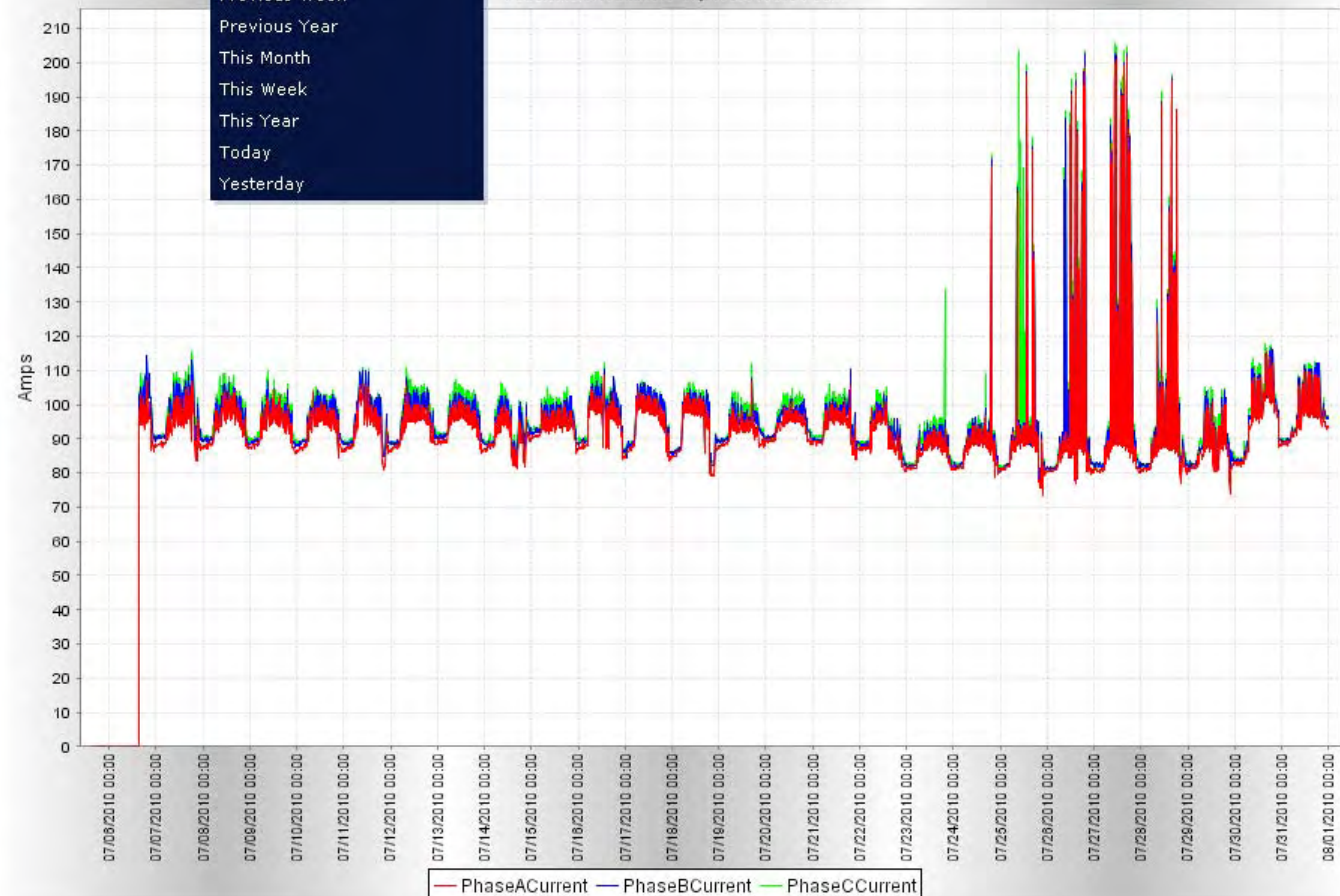
Extra

Logout

Plant Room AMPs: By Interval: 1:Current - Amps

[01/07/2010 00:00 - 01/08/2010 00:00]

/Customers/Waitakere City/West Wave Pools



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Providing Tomorrow's
Energy Management Solutions, Today.

- 5:Power Factor
- 6:Report
 - By Week
 - Monthly
 - Week by Day
- Main Plant Room AMPs
 - By Interval
 - 1:Current - Amps
 - 2:Voltage - Volts
 - 3:Report
- Main Plant Room energy
 - By Interval
 - 1:Energy
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- West Wave High Flow Water
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- West Wave Main Incomer
 - By Interval
 - 1:Energy
 - 2:Apparent - kVAh
 - 3:Real - kWh
 - 4:Reactive - kVARh
 - 5:Power Factor
 - 6:Report
- West Wave Plant Room energy total
 - By Interval
 - 1:Energy
 - 2:Apparent - kVAh
 - 3:Real - kWh
 - 4:Reactive - kVARh
 - 5:Power Factor

Navigation

Date

Extra

Logout

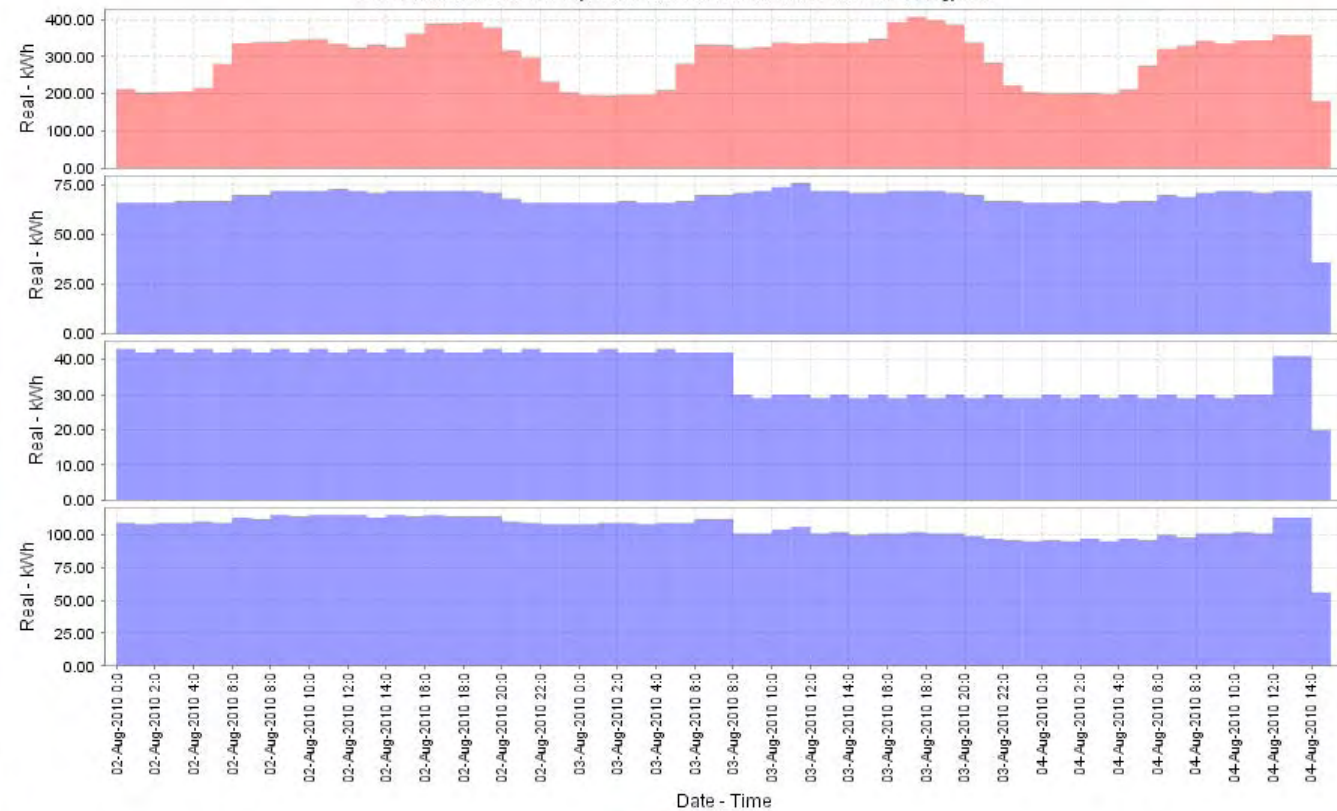
[02/08/2010 00:00 - 09/08/2010 00:00]

M1: /Customers/Waitakere City/West Wave Pools/West Wave Main Incomer

M2: /Customers/Waitakere City/West Wave Pools/Leisure Centre Plant Room energy

M3: /Customers/Waitakere City/West Wave Pools/Main Plant Room energy

M4: /Customers/Waitakere City/West Wave Pools/West Wave Plant Room energy total



M1.kWh kWh

Done

Internet

100%



Benefits of M & T Systems

ECONOMIC

Turn an expense into an income stream.



ENVIRONMENTAL

Sustainable best practice, for a clean green NZ.



FUNCTIONAL

Changing from a reactive system to a real-time one.



CURRENT

Reactive system based on historical data.
Slow to identify problems.



WITH ESP

Real-time data, allowing real-time decisions.
Increased savings and improved performance.

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Providing Tomorrow's
Energy Management Solutions, Today.

EIServer - ESP New Zealand

- Commissioning
- Configuration
- Customers

ASB

Regions

Main Branches_V6 installs

a) Northland Region

Dargaville Branch 2112

Groups

Summary Reports

Baseline Alarm

Dargaville Branch 2112

By Interval

1:Current - Amps

2:Voltage - Volts

3:Report

Dargaville Branch 2112: Energy

By Interval

By Week

Monthly

Week by Day

Dargaville Branch

Kaikohe Branch 2109

Kaitaia Branch 2108

Kamo Branch 2107

Kerikeri Branch 2110

Paihia Branch 2113

Report Templates

Walton St Branch, Regional & Rural 21

Warkworth Branch 1109

Wellsford Branch 2105

Whangarei Branch 2114

Northland League Table

b) North Harbour Region

c) Central Auckland Region

d) East Auckland Region

e) West Auckland Region

Navigation

Date

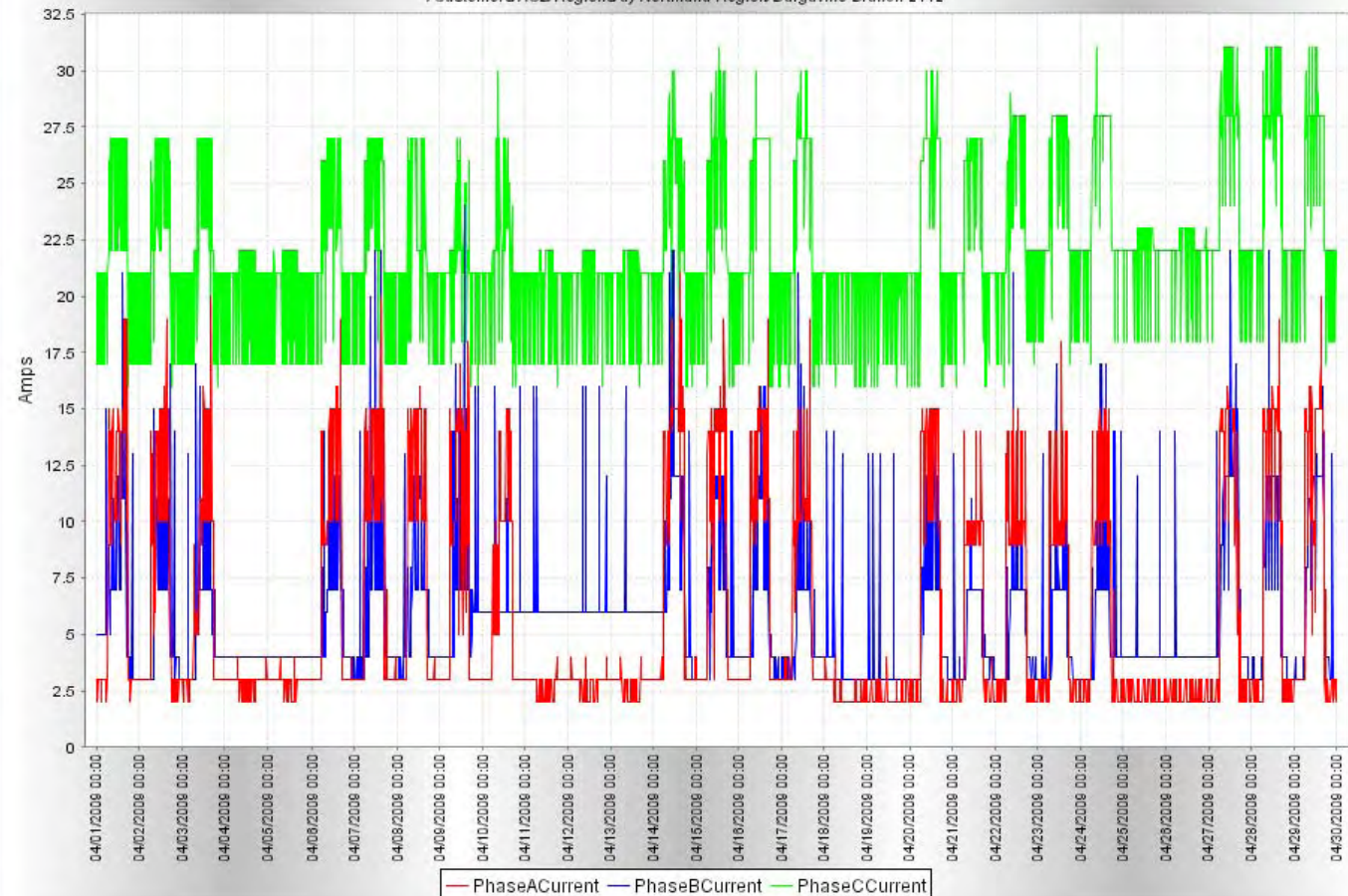
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Logout

Dargaville Branch 2112: By Interval: 1:Current - Amps

[01/04/2009 00:00 - 30/04/2009 00:00]

/Customers/ASB/Regions/a) Northland Region/Dargaville Branch 2112



ESP Market Presentation – Monitoring & Targeting Systems



Providing Tomorrow's
Energy Management Solutions, Today.

EIServer - ESP New Zealand

Commissioning

Configuration

Customers

ASB

Regions

Main Branches_V6 installs

a) Northland Region

Dargaville Branch 2112

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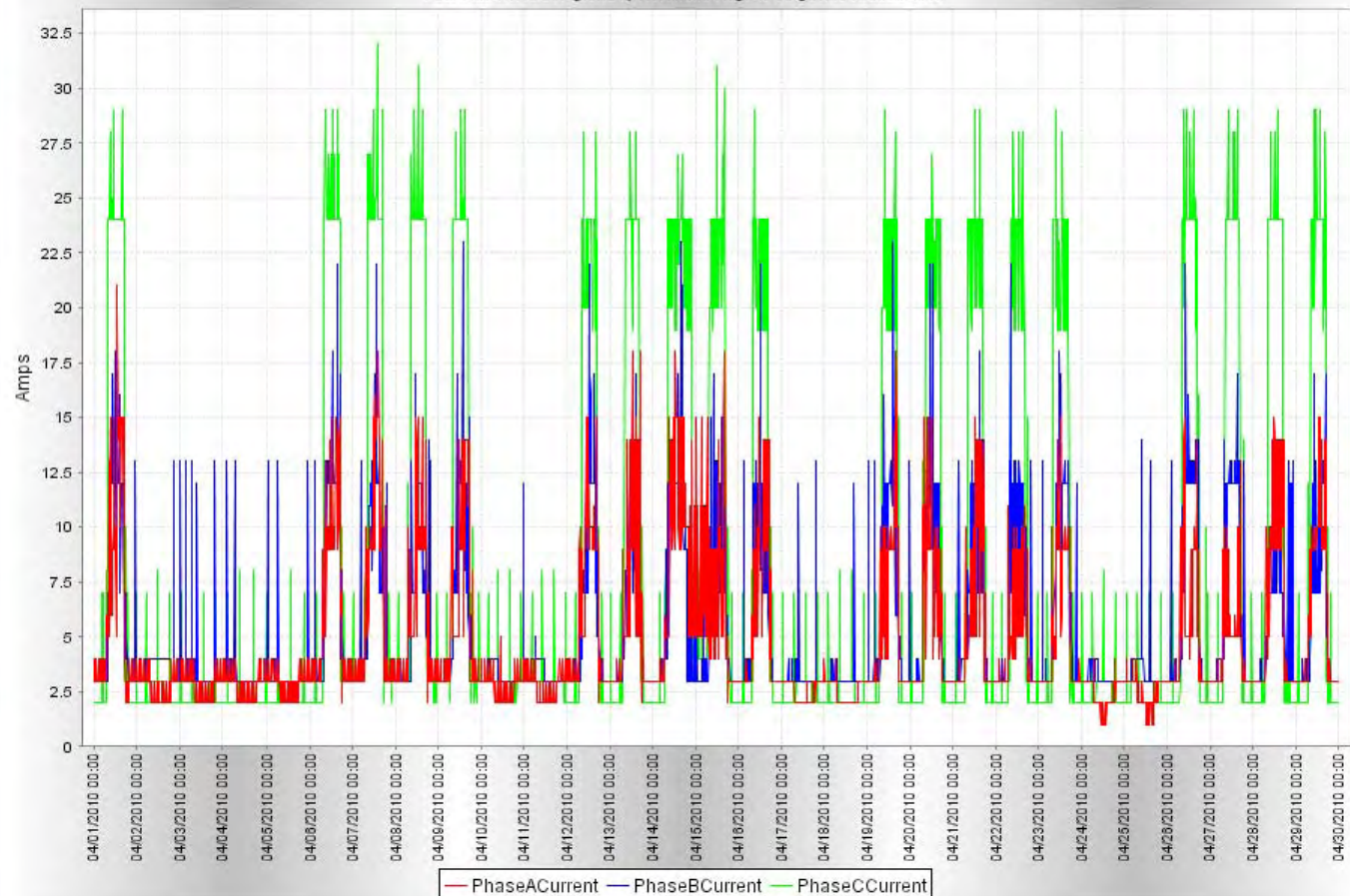
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Logout

Dargaville Branch 2112: By Interval: 1:Current - Amps

[01/04/2010 00:00 - 30/04/2010 00:00]

/Customers/ASB/Regions/a) Northland Region/Dargaville Branch 2112



Done

Internet

100%

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Providing Tomorrow's
Energy Management Solutions, Today.

- [-] Dargaville Branch 2112
 - [-] By Interval
 - 1: Current - Amps
 - 2: Voltage - Volts
 - 3: Report
 - [+] Dargaville Branch 2112: Energy
 - [+] By Interval
 - [+] By Week
 - [-] Monthly
 - [+] Energy by Month
 - [+] Week by Day
 - [+] Dargaville Branch
- [+] Kaikohe Branch 2109
- [+] Kaitaia Branch 2108
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- [+] Report Templates
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- [+] Warkworth Branch 1109
- [+] Wellsford Branch 2105
- [+] Whangarei Branch 2114
- [+] Northland League Table
- [+] b) North Harbour Region
- [+] c) Central Auckland Region
- [+] d) East Auckland Region
- [+] e) West Auckland Region
- [+] f) Counties Region
- [+] g) Central North Island Region
- [+] h) Lower North Island Region
- [+] i) Midland Region
- [+] j) South Island Region
- [+] Summary Graphs All Banks
- [+] ASB kWh Totals
- [+] Bayleys
- [+] ESP Demo Site
- [+] Landcare Research
- [+] Waitakere City

Navigation

Date

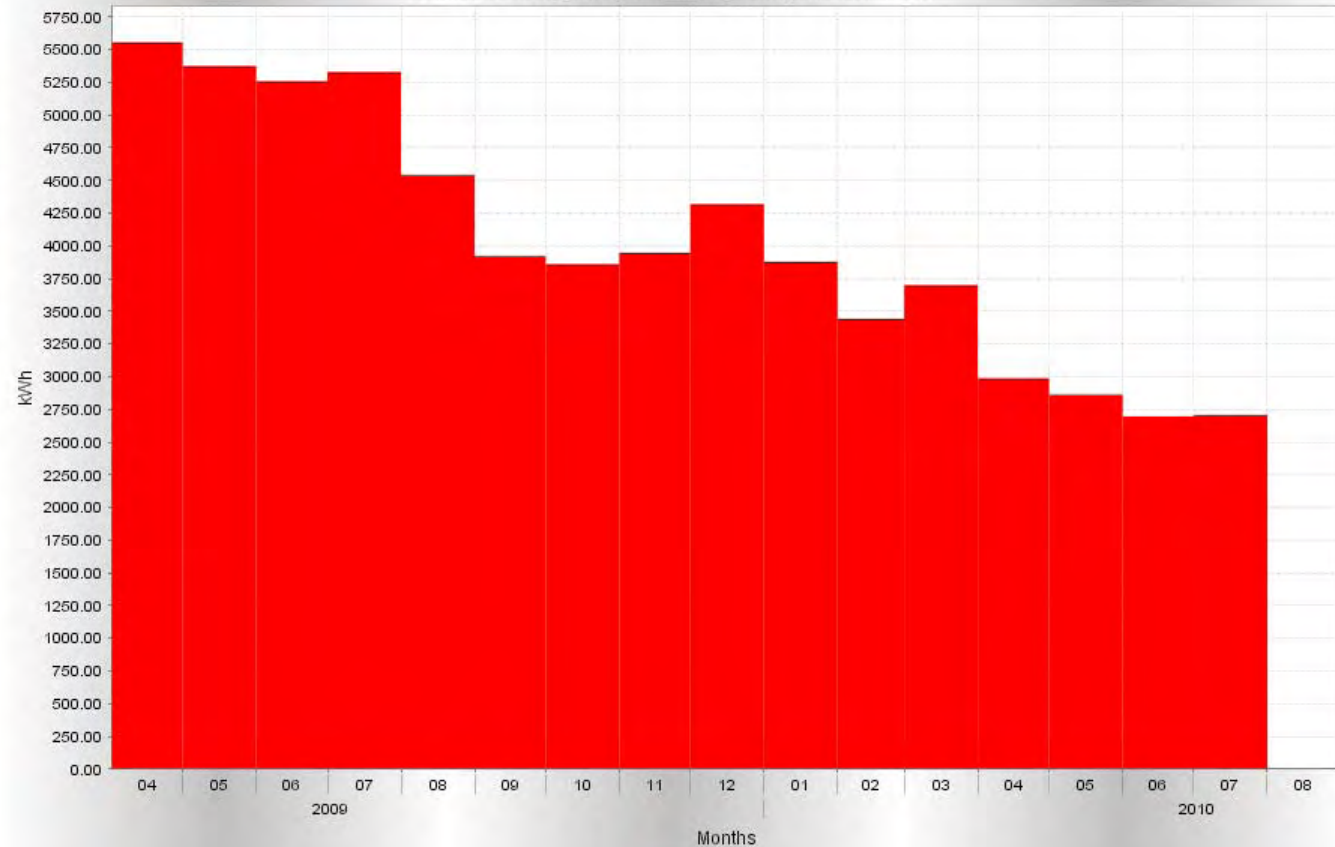
Extra

Logout

Dargaville Branch 2112: Energy: Monthly: Energy by Month

[01/04/2009 00:00 - 31/07/2010 00:00]

/Customers/ASB/Regions/a) Northland Region/Dargaville Branch 2112



ESP Market Presentation – Monitoring & Targeting Systems



- What will ESP do?
 - 💡 Eliminate energy inefficiencies in target businesses
- What is ESP's Core Purpose?
 - 💡 To Provide Definable Results, typically this would be;
 - 💡 A 25% kWh savings per annum
 - 💡 A financial savings of 25% per annum
 - 💡 A GHG reduction of 25% per annum (tonnes CO₂e)
- What is the key benefit that ESP will help deliver?
 - 💡 An exceptional financial and environmentally sustainable outcome
- Our Promise to you:
 - 💡 To provide the tools to empower our business partners
- Our Key Value is:
 - 💡 Operational Excellence

ESP Market Presentation – Monitoring & Targeting Systems



- ESP's clients include

