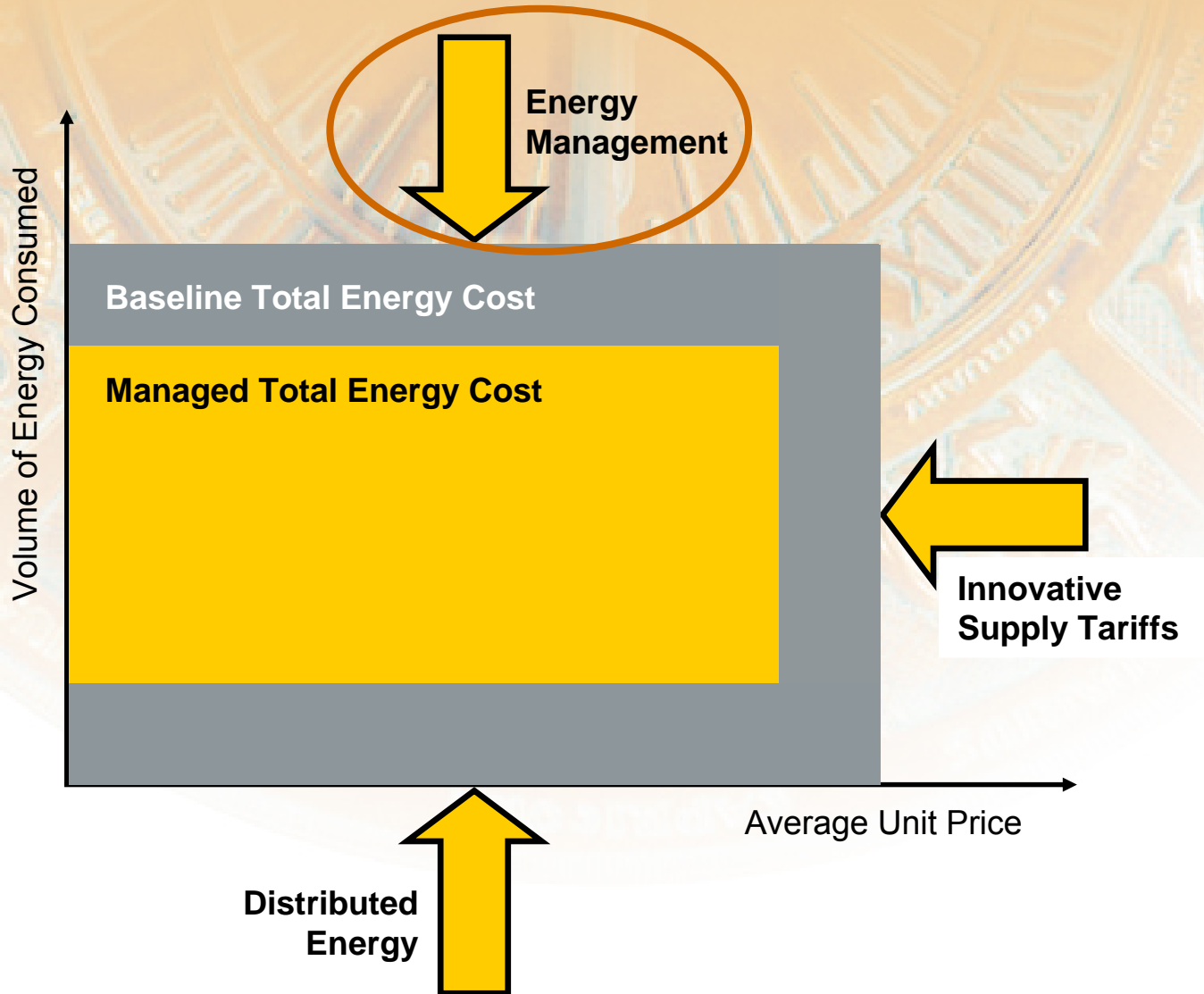


Creating Engagement: Peoples' role in reducing carbon footprint

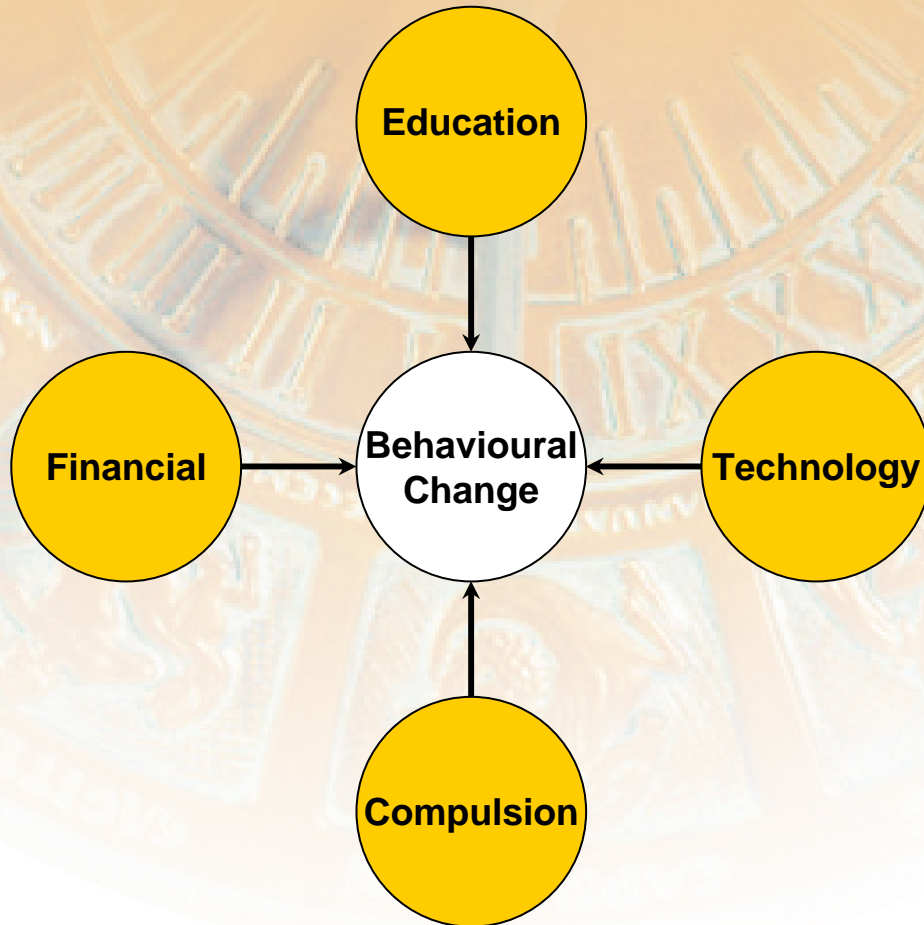
Richard Hampshire

UK Practice Leader – Smart Metering Solutions

Managing Energy Costs and Carbon Impact

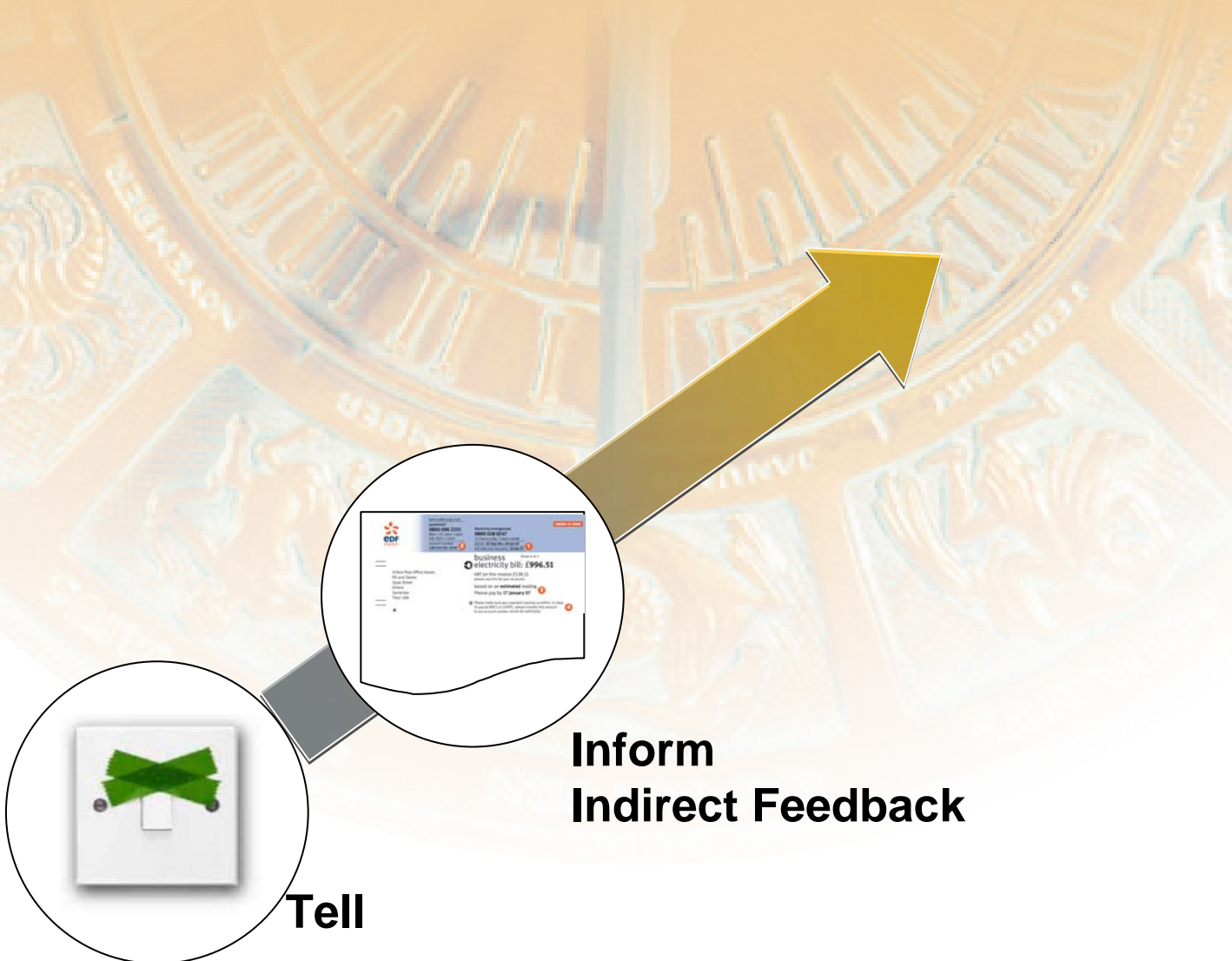


Changing Behaviour

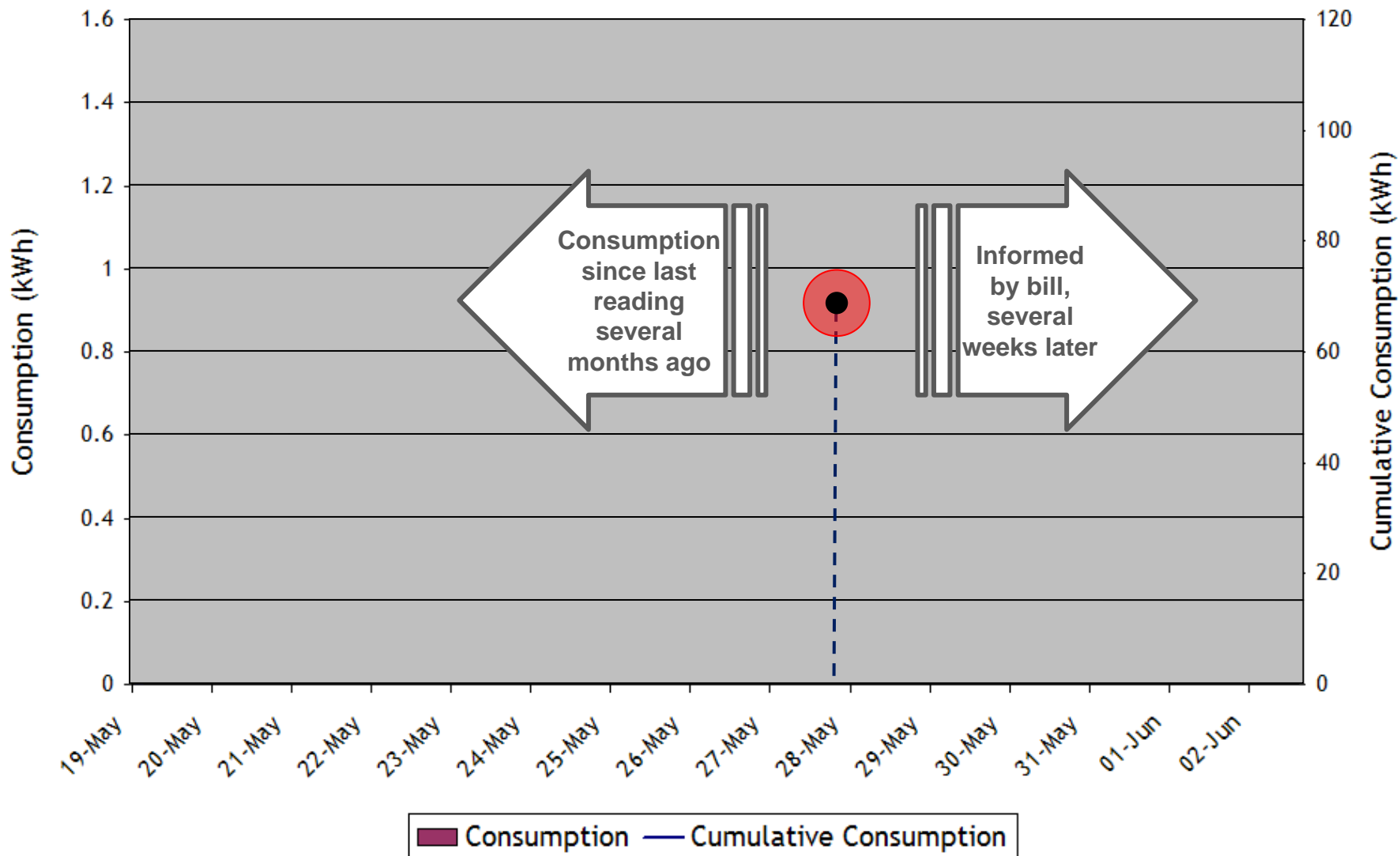


- Information underpins this and creates value by:
 - Motivating people through tracking progress against targets
 - Promoting ownership and empowering the right actions

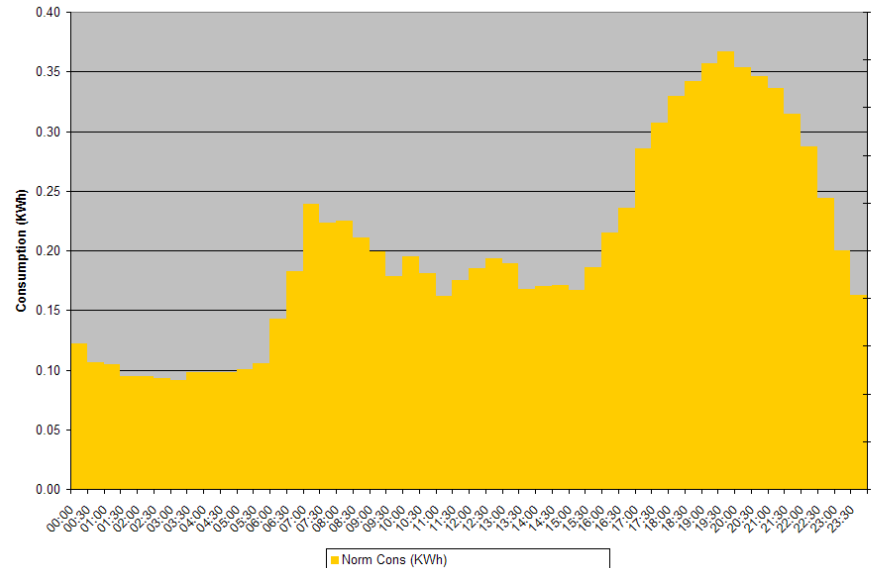
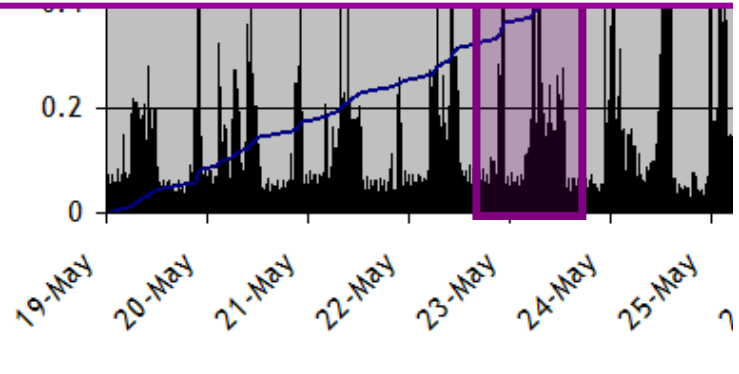
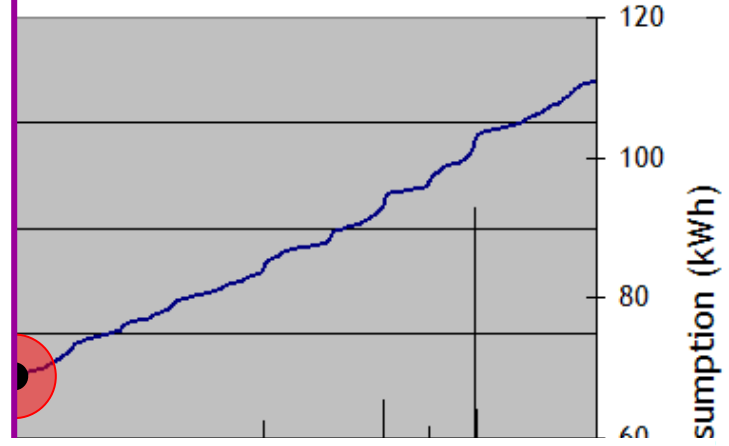
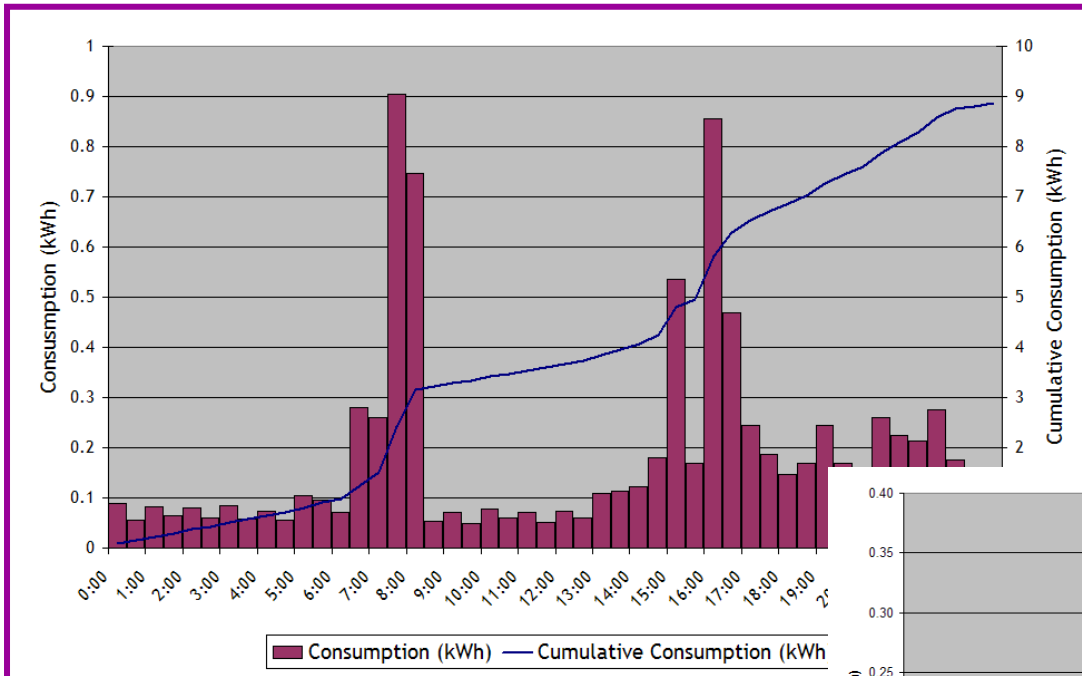
Creating Engagement



Not so smart – Conventional Quarterly Billing



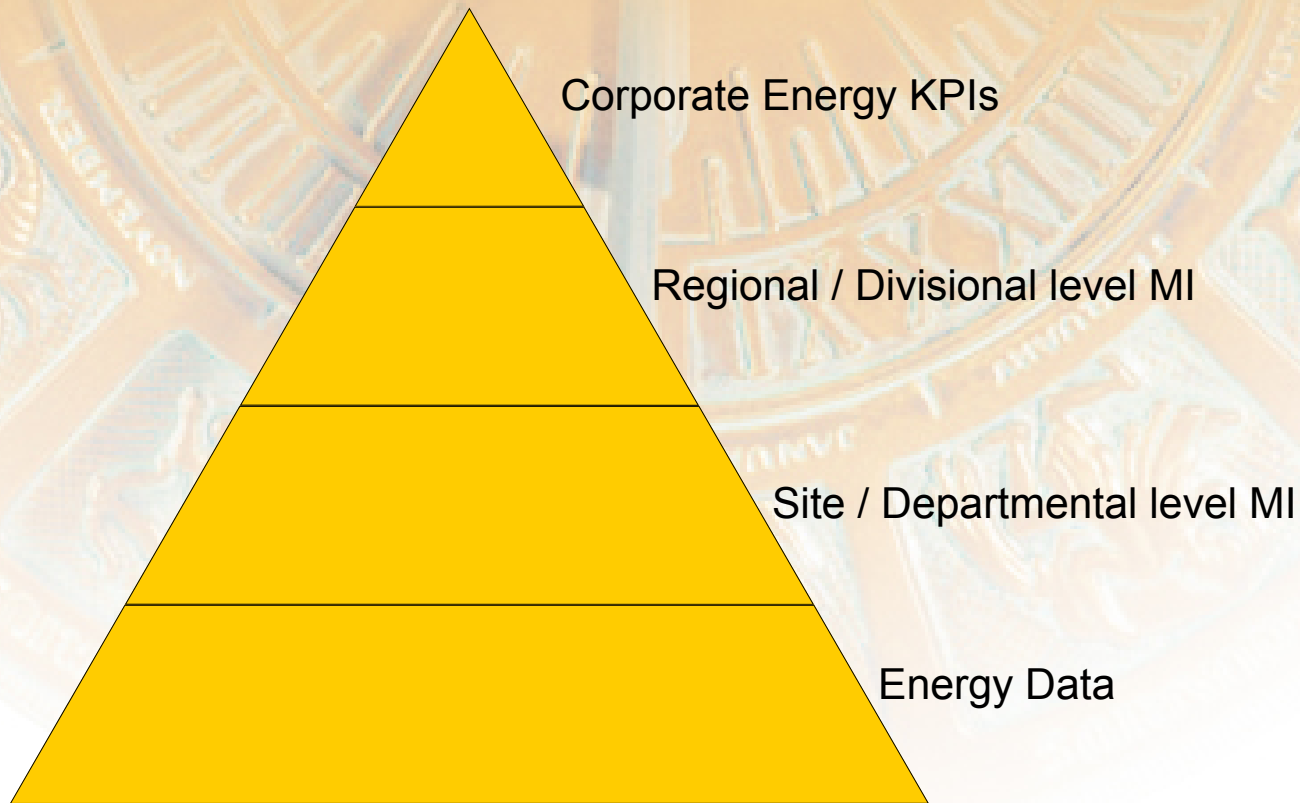
Not so smart – The reality of consumption



Consumption — Cumulative Consumption

Domestic Single rate profile

Creating Engagement - Motivating through Visibility



The right level of information provides feedback that can be used to motivate, reward, create accountability and empower people to take appropriate action.

Transforming data into information

A summary report providing visibility at Establishment, Campus, Faculty and Department level provides a consolidated view of performance and allows easy identification of issues to be addressed.

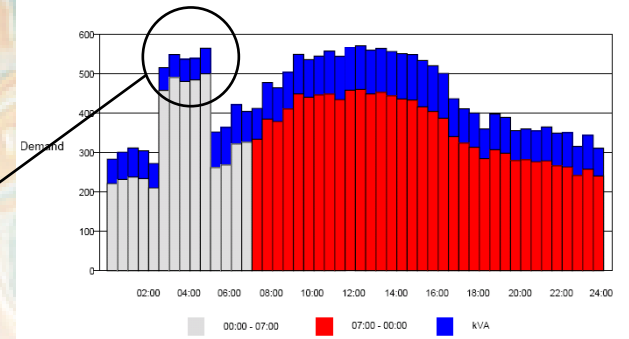
Your company							
2.1 Company Overview - Site Level - May 2006							
Site Name	Current Month (kWh)	Last Month (kWh)	Difference Between Consumption	Percentage Difference	Average Power Factor	Maximum Demand (kVA)	ASC (kVA)
Newstead	92944	80145	12798	15.97 %	0.87	194	250
Newlands House	64335	57865	6470	11.18 %	1.00	150	200
Evesham	3242	2941	302	10.26 %	0.98	6	50
Phoenix Call Centre	269817	248454	21363	8.60 %	0.98	549	700
Wvvern House - Phoenix	26078	24128	1950	8.08 %	1.00	72	220
Leicester Call Centre	132627	125387	7240	5.77 %	0.90	280	300
Sherwood Park	573864	542540	31324	5.77 %	0.89	1001	850

Intuitively colour coded alerters help you to quickly identify opportunities to make savings and any issues requiring your attention, saving you time and effort.

Providing the Detail

Graphics and written reports provide all the necessary detail to support decision making.
Highlights unusual consumption patterns

EON Plc - Rayleigh - Site Level						
5.1c Daily Electricity Analysis						
Thursday 04 May 2006						
Total Night Consumption (kWh)	Total Day Consumption (kWh)	Total Consumption (kWh)	CO2 emissions (kg)	Power Factor	Capacity Factor	ASC (kVA)
2,364	6,162	8,526	3,666	0.81	63.84 %	689
Meter Point Number		1023477006439	1023477006892			



Time	Read Type	kW	kVA	Time	Read Type	kW	kVA	Time	Read Type	kW	kVA
00:30	View Mpan Level	221	283	08:30	View Mpan Level	379	464	16:30	View Mpan Level	387	501
01:00	View Mpan Level	232	301	09:00	View Mpan Level	411	504	17:00	View Mpan Level	340	437
01:30	View Mpan Level	238	312	09:30	View Mpan Level	449	549	17:30	View Mpan Level	324	411
02:00	View Mpan Level	234	304	10:00	View Mpan Level	441	536	18:00	View Mpan Level	313	401
02:30	View Mpan Level	210	272	10:30	View Mpan Level	446	545	18:30	View Mpan Level	284	360
03:00	View Mpan Level	458	516	11:00	View Mpan Level	449	558	19:00	View Mpan Level	307	398
03:30	View Mpan Level	491	549	11:30	View Mpan Level	434	545	19:30	View Mpan Level	298	389
04:00	View Mpan Level	481	537	12:00	View Mpan Level	458	567	20:00	View Mpan Level	279	355
04:30	View Mpan Level	484	539	12:30	View Mpan Level	461	571	20:30	View Mpan Level	282	360
05:00	View Mpan Level	500	565	13:00	View Mpan Level	449	560	21:00	View Mpan Level	277	355
05:30	View Mpan Level	262	352	13:30	View Mpan Level	453	564	21:30	View Mpan Level	279	365
06:00	View Mpan Level	269	364	14:00	View Mpan Level	444	557	22:00	View Mpan Level	266	349
06:30	View Mpan Level	322	422	14:30	View Mpan Level	436	551	22:30	View Mpan Level	263	350
07:00	View Mpan Level	326	404	15:00	View Mpan Level	434	549	23:00	View Mpan Level	242	316
07:30	View Mpan Level	334	412	15:30	View Mpan Level	416	534	23:30	View Mpan Level	258	344
08:00	View Mpan Level	385	478	16:00	View Mpan Level	404	521	00:00	View Mpan Level	240	311

Daily Demand Analysis

To find the information you need

Bold colour mapping allows you to clearly identify your demand load and the remedial steps you need to take when necessary.

kVA as % of Agreed Supply Capacity

< 30	30-50	50-70	70-80	80-90	90-95	96-100	>100
------	-------	-------	-------	-------	-------	--------	------

5.2 Contour Report		For Period 01/05/2006 and 31/05/2006																																															
Agreed Supply Capacity (kVA):		850																																															
Meter Point Number(s):		1100057088607																																															
Read Date	Day Name	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00	23:30	00:00
01/05/2006	Monday	734	713	713	731	731	699	731	728	732	743	769	764	766	750	776	784	792	770	784	803	801	782	797	811	791	768	776	793	789	774	820	770	831	772	830	807	798	782	801	781	734	741	738	719	722	731	735	718
02/05/2006	Tuesday	701	730	730	710	712	723	728	693	730	770	761	745	762	769	781	766	819	838	853	828	885	858	877	881	885	877	877	877	881	821	894	858	856	842	832	780	808	807	780	784	798	802	762	790	794	791	745	766
03/05/2006	Wednesday	769	769	739	770	748	737	713	742	740	788	751	783	782	774	773	810	832	828	871	882	882	875	901	898	908	912	914	915	914	911	911	908	904	893	876	866	858	847	832	829	830	817	801	760	766	758	732	753
04/05/2006	Thursday	707	747	738	736	708	739	753	768	750	784	791	781	760	814	833	833	868	887	904	918	924	948	977	972	966	980	989	994	1001	985	970	959	951	935	918	885	886	873	849	849	844	857	842	825	826	833	797	837
05/05/2006	Friday	781	831	776	844	825	777	824	810	763	805	800	787	785	844	858	871	879	890	900	905	908	910	923	918	918	924	913	917	913	906	907	889	879	868	868	859	849	837	829	827	817	798	799	808	784	786	794	781
06/05/2006	Saturday	750	782	785	782	753	775	761	744	703	728	742	740	697	754	754	737	731	789	777	781	792	787	788	803	808	810	810	796	768	775	729	780	748	734	760	736	714	754	759	720	729	751	743	721	732	747	741	697
07/05/2006	Sunday	738	743	734	706	744	736	734	706	738	739	714	697	733	747	709	730	743	741	704	737	758	749	718	757	764	734	717	754	746	725	704	742	725	712	709	737	733	709	712	729	734	703	725	733	742	696	726	729
08/05/2006	Monday	726	692	732	736	726	708	779	807	770	734	780	780	775	769	824	823	857	855	859	877	883	886	891	884	884	882	866	862	848	852	829	824	821	805	807	807	758	774	784	748	771	778	771	738	767	777	762	732
09/05/2006	Tuesday	766	774	762	734	774	758	767	748	782	783	762	763	789	798	792	831	872	875	882	886	890	889	902	906	904	911	906	911	909	908	908	892	876	853	847	845	838	821	813	821	760	816	801	765	779	791	772	733
10/05/2006	Wednesday	758	759	740	700	738	734	749	744	761	767	768	755	782	806	823	821	888	882	878	889	900	918	915	915	921	924	922	942	948	946	896	896	876	870	869	847	845	826	819	810	766	809	775	757	782	787	772	729
11/05/2006	Thursday	760	766	759	730	757	766	769	760	775	782	777	767	774	812	833	823	904	883	888	904	919	925	924	927	932	931	952	953	958	951	941	913	902	885	870	870	861	845	836	830	830	777	838	796	772	809	792	773
12/05/2006	Friday	728	764	760	738	711	744	753	794	750	783	779	790	779	824	845	871	885	894	922	922	938	947	955	949	968	925	926	920	952	918	901	879	860	852	849	844	840	831	834	819	813	794	830	802	793	771	768	798
13/05/2006	Saturday	781	750	781	757	733	732	748	750	724	721	742	738	712	745	768	765	731	759	764	768	737	762	770	776	744	762	771	768	729	772	776	763	735	789	762	739	715	751	732	735	702	733	736	738	696	737	736	726
14/05/2006	Sunday	699	728	738	732	702	731	740	702	716	730	728	693	725	729	731	690	728	732	713	717	734	734	711	726	736	742	701	734	736	751	714	729	759	748	712	739	744	745	703	733	745	737	707	741	734	736	695	731
15/05/2006	Monday	734	735	696	733	740	703	737	792	788	742	782	789	778	771	819	840	826	859	838	859	863	863	868	858	864	863	848	847	836	826	830	814	802	758	783	769	737	779	775	748	752	796	786	745	791	799	773	759
16/05/2006	Tuesday	801	788	779	762	796	799	785	766	795	793	767	771	815	808	799	883	878	880	883	867	881	891	894	902	911	917	910	909	897	898	879	867	852	835	832	827	823	827	827	796	809	776	825	772	776	799	778	754
17/05/2006	Wednesday	788	796	783	762	796	790	788	761	794	786	779	754	806	812	813	857	871	873	878	884	892	900	899	903	895	886	883	869	863	865	845	833	814	805	795	772	791	746	782	776	743	774	789	751	766	794	755	773
18/05/2006	Thursday	793	783	758	801	800	784	769	800	789	761	781	801	795	783	859	843	877	878	151	0	13	874	897	902	909	904	897	886	882	872	855	835	832	818	828	829	777	821	793	770	788	780	777	743	787	772	769	
19/05/2006	Friday	730	768	760	741	717	753	761	771	762	784	781	755	789	818	818	831	856	865	868	874	876	872	879	879	877	879	868	861	855	855	840	842	837	793	805	817	775	783	784	787	756	786	773	773	737	765	757	751
20/05/2006	Saturday	718	755	746	730	700	740	735	713	702	715	724	691	728	729	726	699	736	734	698	742	745	731	710	754	751	722	719	747	746	709	741	748	735	702	740	736	718	698	736	724	693	736	733	714	730	739	732	695
21/05/2006	Sunday	737	743	694	734	734	692	726	737	693	724	728	698	724	734	712	662	0	0	644	692	711	708	684	697	702	697	668	696	698	664	692	699	661	697	697	666	690	705	684	694	716	703	691	708	684	697	705	
22/05/2006	Monday	685	710	708	677	711	703	692	762	748	721	749	759	728	778	791	787	784	825	825	803	842	846	844	841	852	839	838	831	834	827	785	808	766	742	768	762	723	758	756	744	724	755	759	714	732	727	686	692
23/05/2006	Tuesday	716	672	713	708	710	688	737	753	719	738	748	733	767	797	782	799	783	830	864	822	866	866	864	853	859	859	853	845	838	818	813	808	803	757	769	777	778	734	729	724	772	772	722	729	755	750	714	681
24/05/2006	Wednesday	720	716	678	711	718	679	717	765	734	744	757	752	732	766	790	784	784	825	830	826	821	873	815	884	854	855	851	842	841	836	835	826	813	795	782	751	789	783	775	735	768	767	742	752	739	731	715	685
25/05/2006	Thursday	712	708	682	708	707	682	713	751	721	753	755	719	766	777	789	790	882	857	863	865	875	866	873	870	866	869	875	880	873	873	858	853	842	829	816	807	810	814	790	770	751	784	773	726	739	740	730	684
26/05/2006	Friday	720	718	711	694	715	711	686	768	754	746	720	750	759	765	751	797	834	816	816	861	860	865	861	853	846	837	839	832	830	826	816	816	808	808	807	799	796	772	800	787	764	786	751	762	711	717	718	710
27/05/2006	Saturday	679	717	716	681	705	709	704	683	709	698	677	697	703	702	682	714	714	681	723	735	731	693	746	759	738	725	752	756	725	747	765	715	781	746	718	759	741	703	724	734	723	689	727	730	693	716	725	716
28/05/2006	Sunday	684	725	720	680	709	716	705	682	712	706	676	716	711	678	715	716	714	690	726	727																												

EnergiKollen - A Practical Solution from Sweden

EnergiKollen – “Carbon Smooth”

- Information provision via a web portal
 - Encourages consumers to engage with their energy consumption
 - Benchmarks energy consumption
 - Like for like; average and best practice
 - Creates competition –rewards successful behavioural change
 - Available to 20,000 consumers with smart meters in Växjö in the South of Sweden
 - EnergiKollen has won the European Utility Award for Customer Excellence
 - Strategic objective: EnergiKollen underpins initiatives to reduce aggregate energy consumption by 5%
 - EnergiKollen winners have typically achieved reductions of 30%!



Creating Engagement – the energy efficiency portal

ENERGIKÖLLEN

Mitt hushåll

Mina uppgifter

Tävlingen!
Hur ligger du
till?

VEAB

Inloggad: Martin Magnusson

[Logga ut](#)

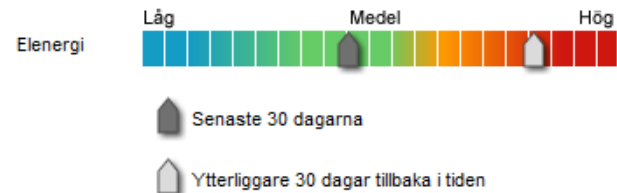
[Ordlista](#)

OVERSIKT

EL

Väderkvarnsbacken 167

Senaste två månadernas energianvändning för Väderkvarnsbacken 167. För detaljer kring energianvändningen se flikarna ovan. Om värden saknas visas ingen statuspil, vi arbetar kontinuerligt med att ansluta samtliga kunder till detta system.



Energispartips

ENERGIKÖLLEN

VEAB

Tävlingsöversikt

Tävlingsstatus "Marstävling"

El energi

Nu kan du genom att minska din elförbrukning under mars vinna en digitalkamera samtidigt som du sparar pengar.

Priser:

Plats:	Pris:
1	Digitalkamera
2-3	MP3-spelare
4-10	Biobiljetter

Ingen bild

Regler:

Den som under tävlingsperioden procentuellt minskar sin elförbrukning mest vinner. Hushållet måste anses leva under normala omständigheter, d v s familjen får inte vara bortrest eller liknande.

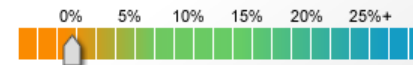
Tävlingsstart: 2008-03-01 Tävlingsstopp: 2008-04-01

Ditt registrerade användarnamn:

Användare_A

Ditt resultat hittills

Sedan du anmälde dig till tävlingen har du sparat 0,3% energianvändning jämfört med din normalförbrukning.



Informing action – the energy efficiency portal

ENERGIKOLLEN
VEAB

Tävling

[Kolla resultat Tävling 2](#) [Kolla resultat Tävling 3 \(namn på tävling\)](#)

Växjömästerskapet i smart energianvändning är avgjort!

Tävlingen "Växjömästerskapet i smart energianvändning" är nu avslutad. Vi gratulerar den lycklige vinnaren och vill passa på att tacka för visat intresse och hoppas att du lärt dig något nytt om din energianvändning.

Nedan ser du slutresultatet för lopp 5 och ditt eget resultat.

Användarnamn	Besparing
1. Kalle El	45%
2. Kalle Kund	34%
3. Lisa Visa	23%
4. Flitiga Lisa	21%
23. Du	2%

13,7%

Sammanlagt sparande
Tillsammans har alla i tävlingen sparat en årförbrukning av elenergi som motsvarar 80 000 kWh!
Planeten Jorden tackar och bockar!

Miljö
Minskningen av belastningen på miljön från denna tävling motsvarar en besparing på 28 800 kg koldioxid, eller användningen av en tv i 800 000 timmar.

Stäng

Smart meter information,
accessability, competition

Individual

→ Knowledge

Community

→ Perspective

Environment

→ Altruism

Engagement, awareness,
sustained improvement

Getting smart – the smart meter

Read manually

Read remotely

Typically 2-3 readings per year

Better information

Bills often estimated

More accurate bills

Basic 'one-size-fits-all' tariffs

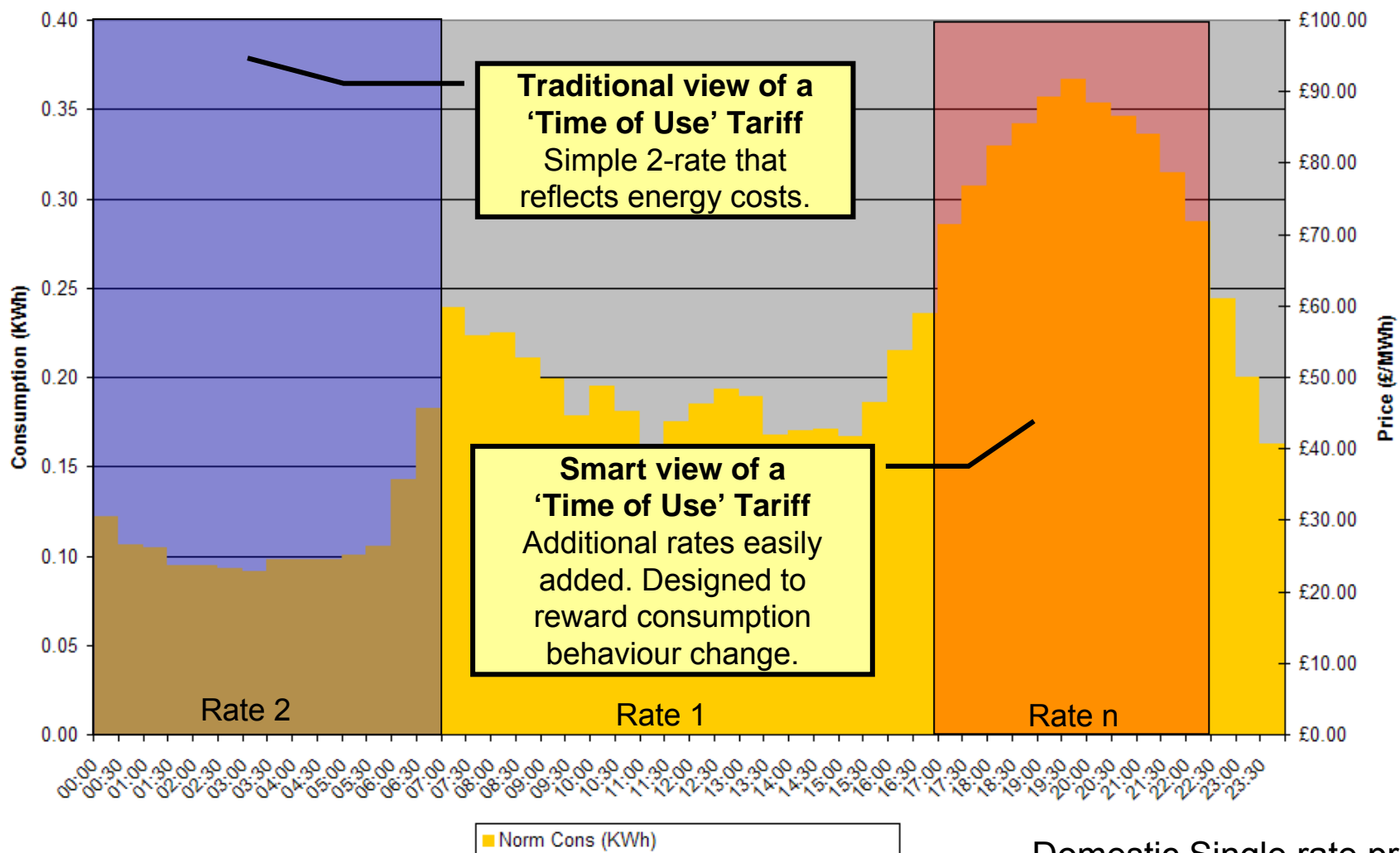
'Lifestyle' tariffs

Service often poor

Better service

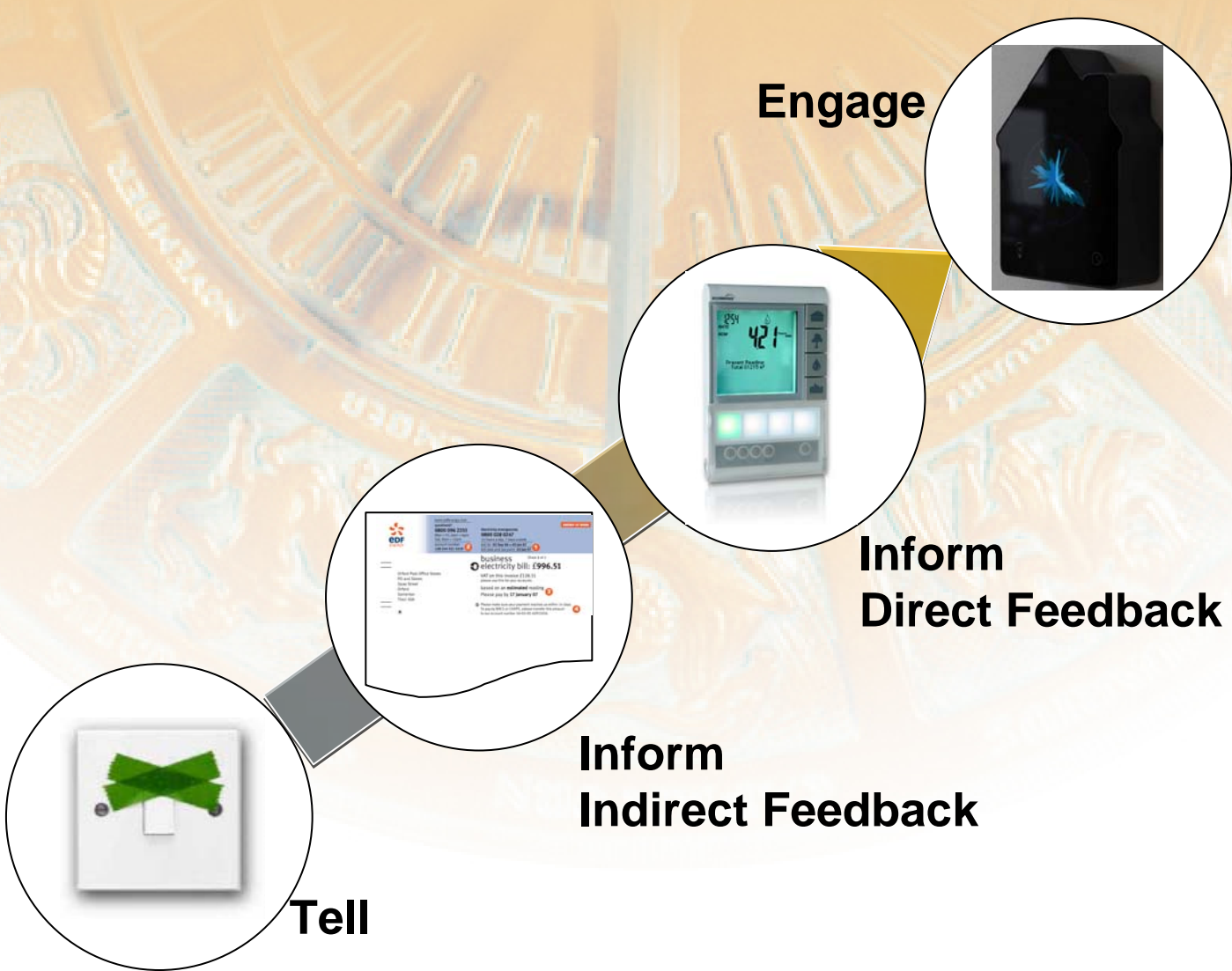


Tariff Structure Options: Time of Use Tariffs



Domestic Single rate profile

Creating Engagement



Creating Engagement - The Future?



Courtesy of The Interactive Institute
www.tii.se



Survey - "Turning concern into action"



The insights ...

- **80%** of consumers concerned about climate change
 - **75%** believe their energy use affects the climate
 - **70%** claim to do a lot to reduce their energy use, ...
 - ... yet, on average, participants carry out only **1.4 of 6** key energy efficiency behaviours
 - Almost **half** have no idea how much energy they are using
- ... but people know they can make a difference**
- **68%** increase over 18 months in consumers wanting to know what they can do

Summary

'If you can't measure, you can't manage'

- Provide people with the ability to take action with the appropriate level of energy consumption information on which to base decisions and act
- Provide 'immediate' feedback on energy saving measures
- Re-enforce 'good behaviour' through peer comparison and competition
- Provide individuals with appropriate education training

Benefits

- Consumers become 'energy savvy' – empowered and incentivised to manage their consumption
- Reduced consumption
- Reduced emissions – delivering compliance with targets
- Reduced bills
- Ability to measure RoI and inform future investment decisions to maximise return

Parting Thoughts

“Give me the right information at the right time and I will win any battle.”

- Napoleon Bonaparte

“...success can be attained only by the attention to the most minute details; and by tracing every part of every operation from its origin to its conclusion, point by point, and ascertaining that the whole is understood by those who are to execute it.”

- The Duke of Wellington



Company Address:

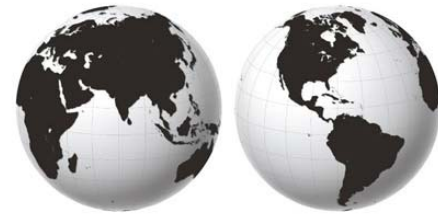
Logica UK

Stephenson House
75 Hampstead Road
London
NW1 2PL
UK

Contact person:

Rich Hampshire

UK Practice Leader – Smart Metering
T: +44 (0) 7711 035 899
E: rich.hampshire@logica.com
www.logica.com



Logica is a leading IT and business services company, employing 39,000 people across 36 countries. It provides business consulting, systems integration, and IT and business process outsourcing services. Logica works closely with its customers to release their potential – enabling change that increases their efficiency, accelerates growth and manages risk. It applies its deep industry knowledge, technical excellence and global delivery expertise to help its customers build leadership positions in their markets. Logica is listed on both the London Stock Exchange and Euronext (Amsterdam) (LSE: LOG; Euronext: LOG). More information is available at www.logica.com.