CONCERTED ACTION
ENERGY SERVICES
DIRECTIVE

Working Group 3.3:
The benefits of using practical tools in the ICT area

3rd Plenary Meeting in Cyprus

ICT IMPACTS & OPPORTUNITIES

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UK Context

- Environment Audit Committee (2007)
  - Government footprint growing through greater use of ICT
- Ministers required depts to take action (Oct 2007)
- Formed an innovative cross-dept group of Green ICT leads – prepare and implement strategies for
  - Reducing ICT consumption – typically 10-15% of dept energy
  - Increasing use of ICT for organisational reductions – tackling the 85%
- Restrict future growth through development of UK Gov Buying Standards for ICT
- Driving marketplace (£16b spend pa on ICT services 2009)
- New Targets for C02 reduction on Government Estate 25& by 2015

UK HMG Green ICT Delivery Unit (GDU)

- Workbook of best practices
- Roadmap with targets and provision for monitoring and peer review
- Share experience/lessons learnt
- Green ICT recognised workstream in UK Gov ICT Strategy

Roadmap – key areas for improving practice
Target of 10 adopted by April 2015

Key target outcome	**Description**
1. ICT equipment and services procured using **Government Buying or International Standards** where appropriate.	At initial procurement or next refresh point for purchase/lease GBS applied where available. Where not available international standards for greener electronics applied , with use of accreditation schemes such as (eg EPEAT, or ECMA) to confirm compliance
2. Decisions to **replace equipment** based on business utility rather than set refresh points.	At refresh points, process in place to review whether to refresh equipment, balancing the footprint from continuing to use and support, against the footprint from procuring, installing and running more efficient kit and disposing of the existing devices
3. **Power consumption** minimised for end user access devices.	energy management strategies in place across ICT Estate encompassing as appropriate - behaviour change - operating system settings - networked automated energy saving tools
4. **Number of end user access** devices reduced to minimum necessary for business needs	Device intensity reduced through sharing and device reduction initiatives, adopting for example: - device pools - virtual desktop technologies - thin clients - PC hives - VOIP - Soft Phones
5. **Number of printers and volume of print reduced** to minimum necessary for business needs	Print reduction strategy developed and adopted incorporating - behaviour changes - print settings e.g. duplex - consolidation of print functions e.g. MFDs - technologies for efficiencies e.g. proximity printing, print volume reporting by organisation and individual - settings to reduce use of toner - measures to minimise colour printing

Roadmap – key areas for improving practice(contd)

6**. Networks audited**, reduced and shared with due regard to resilience needs.	Network infrastructure rationalised and shared - Audit existing provisions and resilience arrangements - Align networks and remove duplication - Match provisions to requirement - Power management efficiencies - Use shared/cloud based services and migrate to PSN provisions where appropriate
7. Suppliers engaged in monitoring and improving environmental performance of the **ICT supply chain.**	Improved environmental performance of the ICT supply chain through - incentivised contracts to deliver greener products, services and innovative behaviours - adoption of GBS for product types covered - reporting of energy/carbon footprints for products and services
8. Business needs met through **shared applications** hosted in-house, or as services on the web	Existing applications and services and business reqs , are audited and rationalised, those apps and services not required being decommissioning, and new development avoided by sharing those available within organisation and beyond
9. **Applications are virtualised and consolidated** onto fewer servers.	Applications virtualised where appropriate, removing/reducing hardware dependencies, and consolidated onto fewer servers that are loaded to maximum levels of utilisation with due regard to resilience needs
10. **EU Data Centre Code of Conduct** endorser status adopted.	Programme of energy efficiency improvements drawn up and implemented and Endorser status gained under EU CoC for energy efficient data centres and server rooms
11. **Server rooms** are run energy efficiently	The impact of data centres and server rooms on the environment is understood and managed with active supplier engagement continuously seeking efficiencies and reduced impacts.

Government Buying Standards – ICT

Government Buying Standards simplify sustainable procurement by:

- Providing minimum and best practice standards (lists of environmental criteria) for around 50 different products
- Providing Straightforward specifications to insert directly into tenders;
- Ensuring compliance with EU law
- Detailing how suppliers can prove compliance;
- Encouraging more suppliers to develop products that meet the standards – so increasing competitiveness and average environmental performances.

Impacts on 4 procurement stages

- Market assessment
- Requirements specification
- Proposal evaluation (tech)
- Bid evaluation (award criteria)

Government Buying Standards – ICT

- Currently cover PCs, laptops and printers with servers and network equipment under development

- Standard set on basis of whole life cycle cost benefit analysis and market capacity assessment agreed cross-government and after stakeholder review

- Not just energy performance, also covers components and materials, ease of upgrade, lifetime, emissions, ease of recycling etc

Government Buying Standards – ICT

Standards are set in 3 categories:

Mandatory standards – All central government departments and related bodies must ensure they meet the mandatory GBS when buying goods and services for those products covered.

Best practice – organisations that want to take the lead can choose products that meet best practice standards. These either set the bar higher or add further criteria, typically 25-50% of market)

Class Leader – this applies to only a few products and is aimed at signalling direction of travel for suppliers and buyers and encourage innovation

Government Buying Standards – ICT

An Excel tool allows Departments to input own technical specifications (combination of criteria) to develop award criteria

But some health warnings

⇒Tool only picks up what is communicated by manufacturers
•uses information that some suppliers may not
⇒Sourced from ECMA and EPEAT – self-selecting , those with products that don't perform well not picked up
⇒Stock keeping - works at a product family level – maybe a spread environmental performance amongst models within the family

Useful Web links

UK HMG Green ICT – First Annual Report

=> http://www.cabinetoffice.gov.uk/resource-library/uk-government-ict-strategy-resources

Government Buying Standards

=> http://sd.defra.gov.uk/advice/public/buying/