


SusTech 2014



Mark Rossolo
Mark.rossolo@ul.com

A close-up shot of Homer Simpson from the chest up. He has a wide-eyed, open-mouthed expression of confusion or shock. His yellow skin, large nose, and white shirt are clearly visible. The background is a simple blue wall with a dark blue horizontal band and a dark blue rectangular shape above him.

I have absolutely no idea
what's going on.

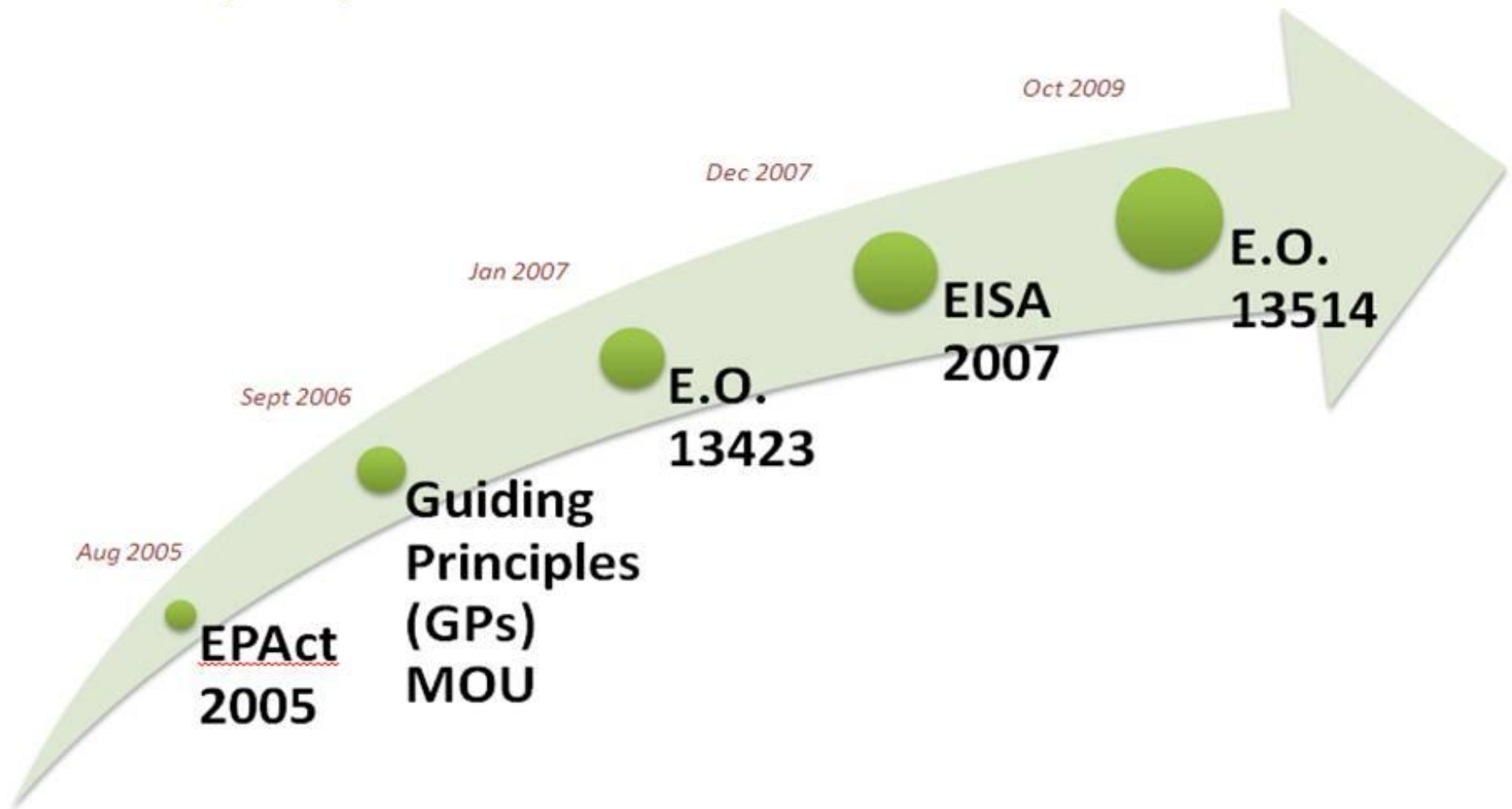
Government and other procurement professionals are demanding green electronics.



The Federal government spends over \$500 billion each year on products and services. Under executive orders 13423 & 13514, these dollars are to be spent on Environmentally Preferable Products.



Timeline of Major Federal Sustainability Mandates, Laws, and Orders.



**Courtesy of National Institute of Health*



Environmentally Preferable Purchasing (EPP)



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Draft Guidelines for Product Environmental Performance Standards and Ecolabels for Voluntary Use in Federal Procurement

- [Background](#)
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From November 20, 2013 through April 25, 2014, EPA received input from more than 75 individuals and organizations on its proposed [Draft Guidelines for Product Environmental Performance Standards and Ecolabels for Voluntary Use in Federal Procurement \(PDF\)](#) (5 pp, 137 K, [About PDF](#)) to help federal purchasers select greener products and meet sustainability purchasing goals. Read the [Federal Register Notice](#), [press release](#) and [blog](#).

Please, go to [Regulations.gov](#) docket #EPA-HQ-OPPT-2013-0579 to see comments received.

Background

The draft guidelines were developed by EPA, the General Services Administration (GSA), and other federal agencies following several listening sessions with a wide range of stakeholders. The sessions focused on how the federal government can be more sustainable in its purchasing and how federal purchasers can best meet the numerous federal requirements for the procurement of sustainable and environmentally preferable products and services.

General Questions and Answers

What is the purpose of the guidelines?

They are a set of criteria that could help identify which private sector standards and ecolabels federal purchasers should consider when buying greener products.

Why were the draft guidelines developed?

They are intended to help federal purchasers identify and buy environmentally preferable products. Federal agencies must meet federal mandates requiring that 95 percent of their acquisitions are sustainable, such as by buying environmentally preferable products.

Many federal agencies are buying products with federal ecolabels, such as Energy Star, Watersense, and Design for the Environment -- labels that identify products meeting strict federal standards for energy, water, and safer chemicals; however, there are many other products that are not covered by federal ecolabels. The challenge for federal buyers is sorting through these hundreds of other products with non-governmental standards and ecolabels that claim to be safer or environmentally friendly. The draft guidelines are intended to help federal buyers select those private ecolabels and standards that are environmentally preferable and appropriate for federal procurement.

How would the guidelines be used?

Under the proposed approach, one or more non-governmental (private sector) organizations with expertise in environmental standards and ecolabels would work with EPA and key stakeholders to develop a process for applying the guidelines to private sector environmental standards and ecolabels.

Government and Universities

STATE AND MUNICIPAL GOVERNMENTS



California



Michigan



Colorado



Wisconsin



New York

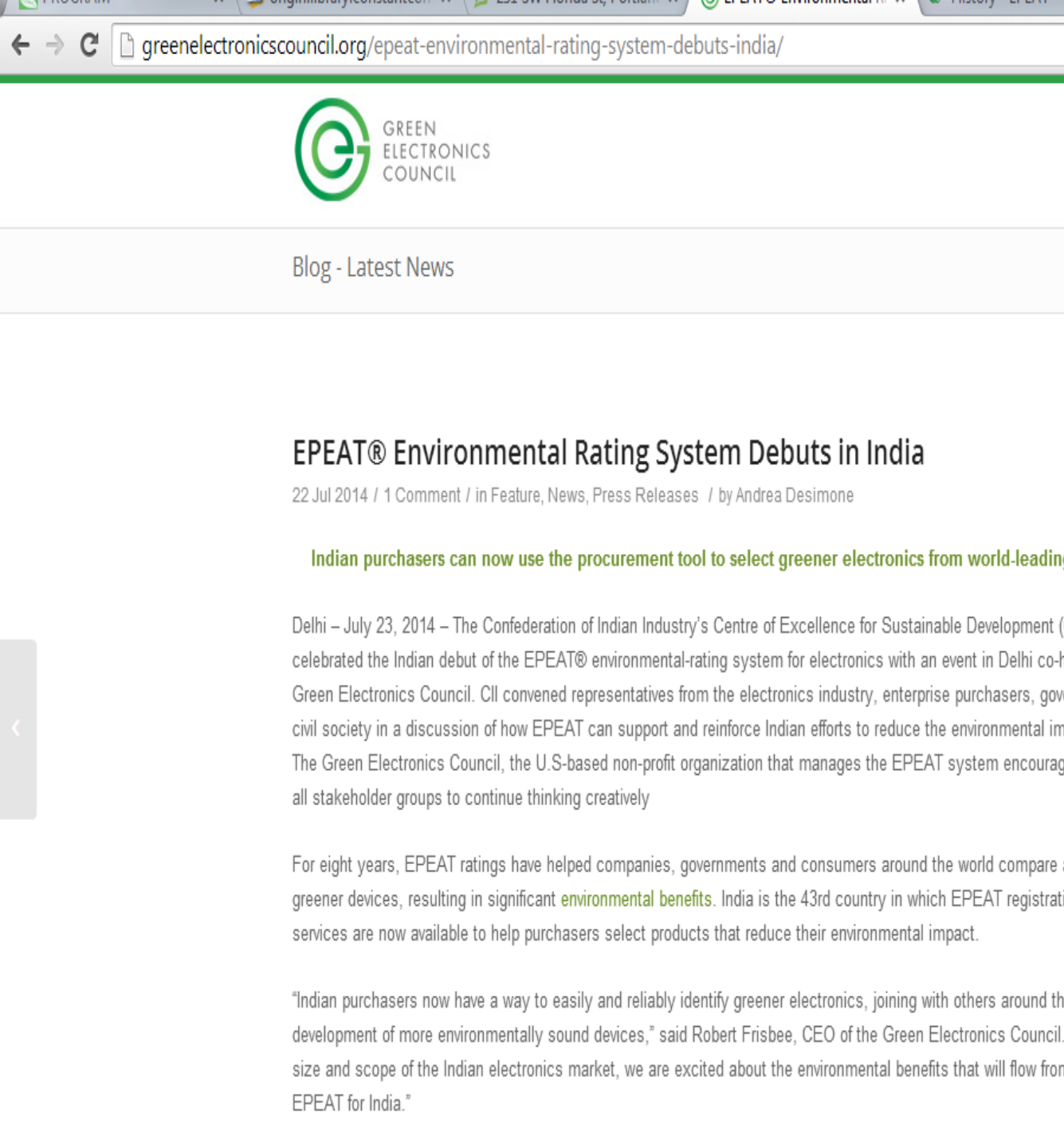
...dozens of others (Illinois, Massachusetts, Minnesota, New Hampshire, New Jersey, Ohio, Pennsylvania, Rhode Island, Vermont, Washington DC.

...Municipal Government examples...Los Angeles County, Keene NH, Phoenix, AZ, Seattle, WA, and Leeds, UK

UNIVERSITIES

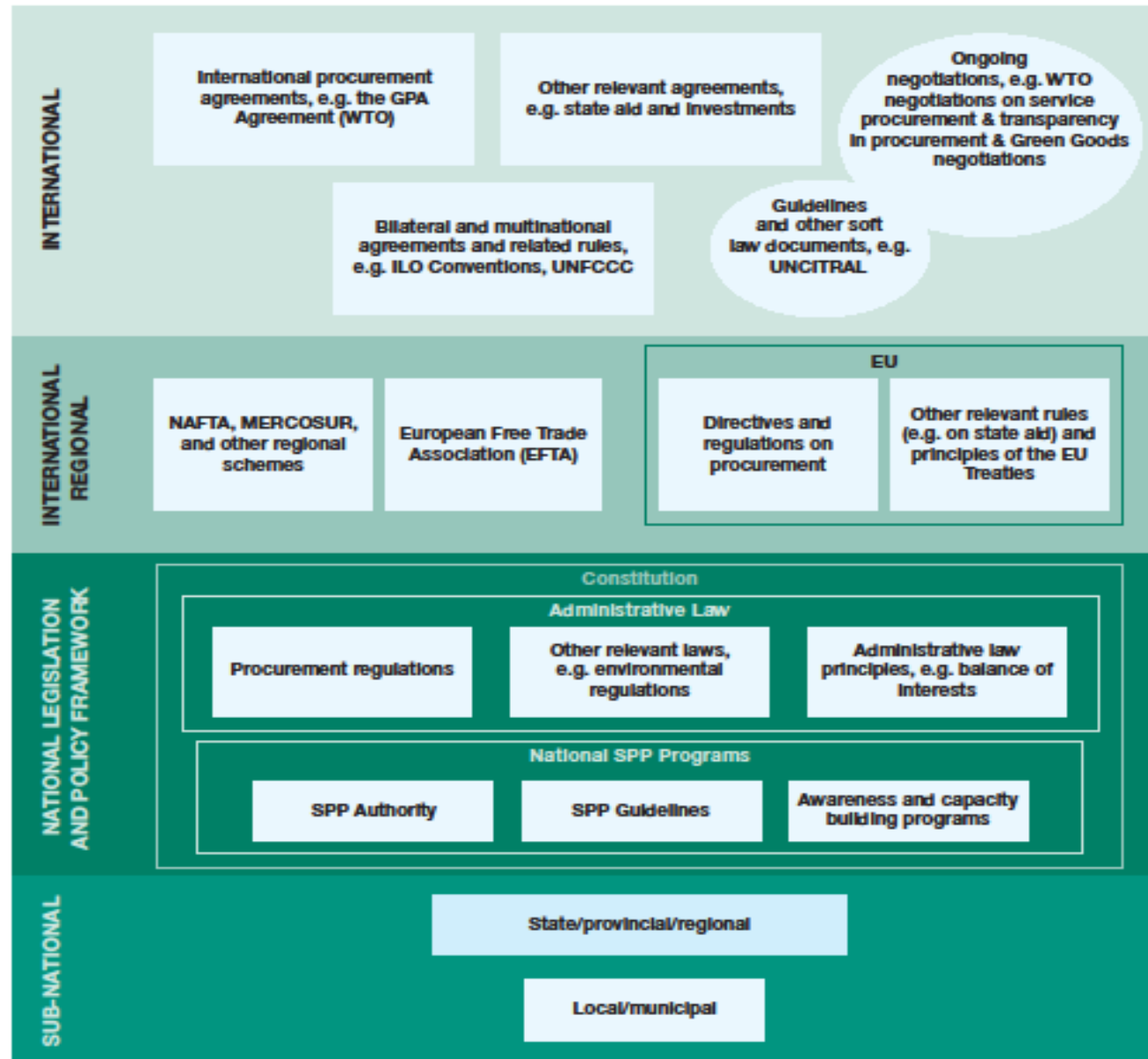
Of 300+ universities and colleges surveyed, 222 used EPEAT in their electronics purchasing decisions; of those, 70 purchased exclusively EPEAT-registered products (2010)

IT'S NOT JUST THE U.S.



3.2.1 Legal and Regulatory Framework

Figure 9 provides an overview of the different international, regional, national and sub-national regulatory and policy frameworks of relevance to SPP/GPP.



**UNEP est.
over 50
countries
with active
SPP/GPP**

Figure 9: The international, regional and national legal frameworks for SPP/GPP

Three out of four purchasers have a responsible purchasing policy and 75% of the rest expect to adopt one.



**71% of retailers
report that
they use
sustainability
activities to
enhance brand
and mitigate
risk.**





Sales of environmentally friendly products in the U.S. exceeded \$40 billion last year



Criteria maturing in new standard

Moving beyond compliance

- Then: RoHS
- Now: REACH, HFRs, and beyond

Increased supply chain transparency

- Then: Corporate Sustainability Reporting
- Now: Life Cycle Assessment (LCA), supply chain toxic declaration, auditing of suppliers and recyclers

Raising the bar

- Increased recyclability, recycled content, and bio-based standards

The Evolution of a Hipster



Enterprise Purchasing

- Companies REQUIRE EPEAT purchasing within institutional procurement guidelines.
- New requirements stating EPEAT Silver and Gold as minimum requirement.
- Examples of companies requiring EPEAT within their electronics purchasing guidelines*:



Deutsche Bank

charles SCHWAB



**does not constitute an endorsement to EPEAT.*



The Future

What's Next?

UL 110: Mobile Phones

- It is estimated that in 2012, over 108.8 million smartphones were purchased in the U.S. alone.



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UL Environment and Green Electronics Council collaborate to add UL 110 Mobile-Device Standard to EPEAT® Rating System



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UL is first new standards-development organization associated with EPEAT since 2006

MARIETTA, Ga., July 16, 2013 /PRNewswire-USNewswire/ -- UL Environment, a business unit of UL (Underwriters Laboratories), and the Green Electronics Council (GEC), announced today a collaboration to bring a mobile-device category to the EPEAT® registry of greener electronics. Together, the organizations will work with manufacturers, environmental groups, and purchasers to align the UL110 standard for mobile phones with GEC's requirement for EPEAT.

(Logo: <http://photos.prnewswire.com/prnh/20120209/MM50987LOGO>)

After approval, the updated standard is expected to debut in early 2014. UL 110 will serve as the basis for a new mobile-device EPEAT category. This is the first time the Green Electronics Council has incorporated an environmental standard from an organization not involved in the EPEAT system's 2006 launch.

"We are thrilled to be at the forefront of advancing health and sustainability as key priorities for manufacturers and purchasers of

More by this Source



UL Environment Awards First Closed Loop Validation to Dell
May 20, 2014, 15:00 ET

[View all news by UL Environment](#)

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Categories of Criteria

Categories are a combination of life cycle stages and key performance areas beyond traditional LCA impact categories

Environmentally Sensitive Materials

Energy Management

Health and Environment

Product Stewardship

Packaging

Manufacturing and Operations

Innovation

Environmentally Sensitive Materials

- Materials acquisition
- Known substances of concern
- Specific supply chain issues
- Recycled content

Prerequisites	Section/ Paragraph Reference	Title of Section / Requirement Description	Points (max)
Materials			
	<u>8.1</u>	Conflict Minerals	1
	<u>8.2</u>	REACH SVHC compliance	5
	<u>9.1.1</u>	Recycled or bio-based plastic in the product housing	5
	<u>9.1.2</u>	Recycled or bio-based content in the housing of the power supply	4
		Total	15

Energy Use

- Product energy use or performance
- Charging systems
- Potential energy savings

Prerequisites	Section/ Paragraph Reference	Title of Section / Requirement Description	Points (max)
Energy Use			
	<u>10.1</u>	Charger connector	2
	<u>10.2</u>	External Power Supply energy use	20
	<u>10.3</u>	Handset Connector	2
		Total	24

Health and Environment

- Specific restricted substances
- Product and accessories

Prerequisites	Section/ Paragraph Reference	Title of Section / Requirement Description	Points (max)
Substance Restrictions			
Required	<u>11.1</u>	RoHS Compliance	Required
Required	<u>11.2</u>	Extractable Nickel	Required
	<u>11.3</u>	Elimination of PVC	3
	<u>11.4</u>	Phthalates	2
	<u>11.5</u>	Low Halogen PWB	2
	<u>11.6</u>	Low Halogen Handset	3
	<u>11.7</u>	Low beryllium content	2
Required	<u>11.8</u>	Low Cadmium and Mercury batteries	Required
Required	<u>11.9</u>	Low Pentachlorophenol, dibutyltin and dioxycyltin, azo dyes, dimethylfumarate in accessories	Required

Health and Environment

- Overall performance of product
- Link key impacts with corporate performance and planning

Prerequisites	Section/ Paragraph Reference	Title of Section / Requirement Description	Points (max)
LCA			
	<u>13.1.1</u>	LCA	3
	<u>13.2</u>	Independent review of LCA	2
	<u>13.3</u>	LCA results reflected in CS plan	2
		Total	27

Product Stewardship

- All EOL topics including recycling and life extension
- Design feature that improve disassembly or separation of materials
- Design features that encourage life extension

Prerequisites	Section/ Paragraph Reference	Title of Section / Requirement Description	Points (max)
EOL Management and Life Extension			
	<u>14.1</u>	Take-back program	2
	<u>14.2</u>	Recyclability	5
	<u>14.3</u>	Replacement Parts	1
	<u>14.4</u>	Recycler auditing	1
Required	<u>14.5</u>	Battery removal	Required
	<u>14.6</u>	Easy disassembly	1
	<u>14.7</u>	Common plastics for whole product	1
	<u>14.8</u>	Memory erasure capability	1
		Total	12



Packaging

- Could include both POS and transport
- POS Design for recyclability in municipal systems

Prerequisites	Section/ Paragraph Reference	Title of Section / Requirement Description	Points (max)
Packaging			
	<u>15.1</u>	Fiber based Packaging	3
	<u>15.2</u>	Plastic packaging recycled content	2
Required	<u>15.3</u>	No Expanded polystyrene packaging	Required
	<u>15.4</u>	Fiberboard content, recycled material, certified, chlorine free, rapidly renewable.	3
Required	<u>15.5</u>	Low Cd, Pb, Hg, Cr(VI) packaging	Required
	<u>15.6</u>	Non-petroleum based ink	1
	<u>15.7</u>	Glue free or water based adhesive	1
	<u>15.8</u>	Packaging volume	3
		Total	13

Manufacturing and Operations

- Facilities performance
- Corporate Social Responsibility
- Supply Chain management for social issues

Prerequisites	Section/ Paragraph Reference	Title of Section / Requirement Description	Points (max)
Manufacturing and Operations			
	<u>16.1</u>	CSR Action Plan	4
	<u>16.2</u>	Publishing of CSR report	2
	<u>16.3</u>	Third party validation	1
	<u>16.4</u>	Supplier or ODM compliant with CSAP	2
Required	<u>17.1</u>	Publicly available EHS policy	Required
	<u>17.2</u>	Formal EMS program and certification	2
	<u>18.1</u>	Supply chain impacts	5
	<u>18.2</u>	Final assembly manufacturing site certification to ISO 14001 or EMAS	2
		Total	18

Innovation

Innovative ways to reduce impact that are not covered in the standard

- Energy offsets
- Applications that reduce environmental impact
- Alternative materials use

Must be able to show genuine sustainability benefit using LCA or other tool for assessing sustainability of the product

Overall Scoring

Mobile Phone Sustainability Achievement Matrix	
Title of Section / Requirement Description	Points (max)
Materials	15
Energy Use	24
Health and Environment	27
EOL Management and Life Extension	12
Packaging	13
Manufacturing and Operations	18
Total	109
Innovation	10

Level of Achievement	Points Required
Certified	55% of available (60 points)
Platinum	73% of available (80 points)



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Thank You

Mark Rossolo
Public Affairs Director

Mark.rossolo@ul.com

