



GLOBAL
ELECTRONICS
COUNCIL

Sustainability for a Connected Future



LEVERAGING ECOLABELS TO DRIVE SUSTAINABLE ELECTRONICS: APPROACH TO CHEMICALS & PFAS

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Patty Dillon
Vice President
Criteria & Category
Development



Rachel Simon
Senior Manager
Technology Assessment &
Resource Development

Agenda

- Introduce GEC & EPEAT®
- Value of ecolabels for sustainable procurement
- EPEAT approach to chemicals of concern
- PFAS: drivers, opportunities and challenges

OUR PURPOSE

The Global Electronics Council® (GEC) is a mission driven not-for-profit that collaborates to achieve a world of only sustainable electronic products and services.

Founded in 2006, GEC is an **independent, impartial nonprofit** that advances sustainable electronics by leveraging the power of the purchaser.

GEC manages **EPEAT**, a global **Type 1 ecolabel**, recognized by ANAB (ANSI National Accreditation Board) as meeting the standards defined by **ISO 14024: Environmental Labels and**



Largest Selection of More Sustainable Electronics



COMPUTERS &
DISPLAYS



IMAGING
EQUIPMENT



SERVERS



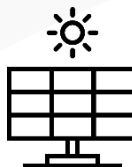
NETWORK
EQUIPMENT



MOBILE
PHONES



TELEVISIONS



PHOTOVOLTAICS

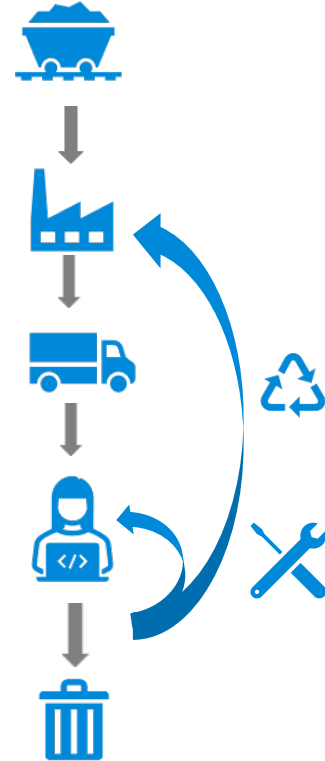
EPEAT is recognized by the U.S. Federal Government in its [Recommendations of Standards, Specifications, and Ecolabels for Federal Purchasing](#)

More than US \$2 billion spent on EPEAT registered products annually.

Leveraging Ecolabels for Sustainable Procurement

ISO 14024 defines key requirements for ecolabels

- Product life cycle focus
- Address multiple environmental attributes
- Criteria based on science and evidence of sustainability impacts
- Define leadership in the market
- Reference existing standards, when available
- Require public consultation
- Assess conformance to criteria, providing assurances that products meet the performance requirements
- Regularly updated



Key Components of EPEAT



Performance Criteria



Developed in multi-stakeholder voluntary consensus processes

3rd Party Validation



Conformity assessment bodies (CABs) provide independent verification that criteria are met

Online Registry & Purchaser Resources



Public searchable platform allowing easy identification of sustainable products

EPEAT Sustainability Impact Criteria



Climate



Reducing greenhouse gas emissions in the manufacturing supply chain and product use.



Sustainable Use of Resources



How products are designed for reuse and recycling, and which ones responsibly address packaging, water, and waste.



Chemicals of Concern



Eliminating the use of toxic chemicals that are hazardous to human health and the environment.



Corporate ESG Performance



The responsible sourcing of materials, fair labor practices, and worker health and safety in the electronics supply chain.






EPEAT Tiers



All EPEAT-registered products meet rigorous sustainability criteria. Products that meet all required criteria achieve Bronze tier status. Should products meet additional criteria, they achieve Silver or Gold tier status based on the number of optional criteria they meet.



EPEAT TIER SYSTEM	
	EPEAT Bronze products meet all required criteria and less than 50% of optional criteria.
	EPEAT Silver products meet all required criteria and a minimum of 50% of the available points for optional criteria.
	EPEAT Gold products meet all required criteria and a minimum of 75% of the available points for optional criteria.

Chemicals of Concern & PFASs

EPEAT Approach to Chemicals of Concern



- Increase supply chain knowledge and transparency
 - Increase product manufacturer's awareness of substances in products and manufacturing processes to enhance proactive management
 - Collect chemical substance inventory (e.g., IEC 62474)
 - Promote supply chain communication and transparency
- Restrict or eliminate substances
 - Leverage existing best practices and leading regulation (e.g., EU REACH)
 - Focus on key substances (e.g., halogenated substances)
- Identify safer alternatives

Demand for Addressing PFAS in Electronics

GENERAL TRENDS REGARDING PFAS

- Increasing regulatory and voluntary actions to restrict PFAS in products
- Greater demand to understand the many applications of PFAS
- Growing concerns by advocates regarding the health and environmental impacts of PFAS as a functional class
- Greater desire to understand the hazard traits of PFAS and possible replacements

RAPIDLY EVOLVING POLICIES

- Federal commitments under Biden administration (see *John Reeder's [Aug. 3 presentation](#)*)
- U.S. states varied approaches
 - California, Senate Bill 343 - prohibits products from being labelled "recyclable" if they contain PFAS
 - Maine, by 2030, "a person may not sell, offer for sale or distribute for sale" products where PFAS has been "intentionally added"
- EU restriction proposal to ban on both the use and production of PFAS (published by ECHA, Feb. 2023)

Complex, Global Electronics Supply Chain

GENERAL CHALLENGES FOR PFAS

- ❑ Complex, global electronics supply chain; product manufacturers struggle to obtain information and understand full breadth of PFAS uses from all suppliers
- ❑ Ubiquity of PFAS - defining scope/definition; which chemicals are considered? Should all PFAS be included, or should efforts be focused on a discrete list, and if the latter, which list? Should copolymers be in scope?



Proposed Approach #1: Increase Supply Chain Knowledge and Transparency for PFAS



Chemical Substance Inventory

- Collecting information on presence of PFAS
 - ✓ At a minimum, a requirement to identify the presence of 600+ PFAS listed in IEC 62474*
 - ✓ More substances likely to be added over time to IEC 62474 based on Maine legislation
 - ✓ Considering other lists such as OECD and EPA's CompTox Chemical's Dashboard
- Public disclosure of PFAS inventory

Proposed Approach #2: Restrict or Eliminate PFAS

Restrict or Eliminate Substances

Restricting total fluorine in plastic parts

- ✓ Possibly focusing on select components
- ✓ Considering exemptions for essential uses
- ✓ Possible allowances in recycled content

CHALLENGES

- ❑ Conflicting compliance obligations (i.e., fire safety)
- ❑ Competing sustainability goals such as recycling
- ❑ How to demonstrate PFAS are not in components, including the limitations of testing methods. Is total fluorine a proxy for PFAS?
- ❑ Lack of existing feasible alternative serving the same function
- ❑ What should be the threshold limit?

Proposed Approach #3: Identify Safer Alternatives to PFAS



Identify Safer Alternatives

Using Chemical Hazard Assessment to consider the impacts of PFAS replacements to avoid regrettable substitutes

- ✓ Considering select applications and applications with feasible substitutes

CHALLENGES

- ❑ Lack of hazard information on PFAS and alternatives.
- ❑ Do all PFAS have the worst Chemical Hazard Assessment “score?”
- ❑ How to prioritize for impact
 - ❑ Incentivize any/all efforts?
 - ❑ Focus on industry efforts for key substances/uses to encourage collaboration?
 - ❑ Focus on greatest quantity, or most frequent in applications?

Contact Us

Patty Dillon
VP, Criteria & Category Development
pdillon@gec.org

Rachel Simon
Sr Manager, Technology Assessment and Resource Development
rsimon@gec.org

GEC website: GEC.org
EPEAT Registry: EPEAT.net

Questions?