



Integrating aspects of a Circular Economy with Gender Lens into New Zealand's Regulatory Regime

Peter Morfee Principal Technical Advisor EnergySafety WorkSafe New Zealand



UNECE disclaimer

- The author and the speaker of this presentation confirm that they have authorization to use all photos and visual elements.
- The material is either copyright-free or the author / speaker holds the necessary copyright.
- The UNECE will remove any material from its events and supporting websites if there is unlawful use of copyrighted material.
- The author / speaker takes responsibility for any infringements on copyright and holds the UNECE harmless to this effect.





This presentation expands on presentations given to the UNECE in the context of Regulatory Risk Management and was also presented to the APEC Joint Regulatory Agencies Committee (JRAC)

It focuses on appliances that are commonly used by domestic (residential) consumers, although it will take a quick guided tour into underground Coal Mining Equipment



Gender & SDGs

NEW ZEALAND

Contraction of the second

Bringing Gender responsive considerations into standards and technical regulations will support the achievement of Goal 5 of Agenda 2030: "Achieve gender equality and empower all women and girls"

In addition to SDG5, the gender dimension is reflected across other SDGs

- Fighting against women poverty (SDG1)
- Decreasing maternal mortality (SDG3)
- Ensuring girls and women access to education (SDG4)
- Creating employment opportunities for women (SDG8)
- Fighting against gender-based violence (SDG16)



Standards & SDG 5



Standards help achieve SDG 5 by making policies and business strategies become more: **Participatory:**

Challenge: Low numbers of women in TCs, governance bodies, secretariats

Key: Present it as a dimension of women's effective participation in decision-making (SDG5.5)

Informed:

Challenge: Gender blind standards & implementation Key: Embedding standards in tailored & inclusive solutions Accountable:

Challenge: Stakeholders place a lower priority on gender Key: Integrating gender-responsive standards in Environmental, Social and Governance reporting (ESG reporting)

Sustainability Development Goals (SDGs)

NEW ZEALAND

Contractive ©

As the world responds to climate change, a number of challenges will be encountered by Energy Safety Regulatory Agencies

Regulatory regimes, particularly those for household and similar appliances, apply Standards that are based on both assessed risks and the analysis of incidents

This system of evolving standards, also makes the assumption that appliances have a finite lifetime after which time the appliances are scrapped



The Circular Economy

The circular economy will however see used energy consuming appliances being refurbished, used for parts, converted to other applications or simply, used for materials recovery

With this change will come a change of risk where guidelines will be needed to ensure that safety and gender responsiveness are maintained and continue to evolve



Mutual Recognition Arrangements

Consideration will also need to be given in respect to Mutual Recognition arrangements that implement different standards or editions of Standards.



Co-operation Agreement on Conformity Assessment in Relation to **Electrical and Electronic Equipment** and Components



NZ's Regulatory Regime

The New Zealand Regulatory regime requires that <u>all</u> low and extralow voltage electrical appliances that are sold are safe

This requirement applies to all new, used and also to appliances not suitable for reuse

The repair of appliances must be carried out by, or under the supervision of, a competent and licensed individual, or in accordance with instructions supplied by the manufacturer

The process of manufacture is not controlled



Safety Standards

Standards are recognized for all new appliances and a three tier regulatory system of compliance verification intervention levels is applied.

A generic safety standard based on the EU Low Voltage Directive applies where no specific Standard is available (AS/NZS 3820)

There will however be need for standards to identify whether they are gender responsive





Second-hand Sales

In addition to the standards that are applied to new appliances, New Zealand has a standard for the testing and labeling of used (Second-hand) appliances (AS/NZS 5761)

This standard also lists some particular appliances that are not allowed to be sold for reuse, because they cannot be verified to be safe

Examples are: Electric blankets, and Plastic bodied portable fan heaters



Unsafe Appliances

Where an appliance is not suitable, or safe, for reuse, another standard is recognized that requires the appliance to be disabled and labelled as unsafe

This standard, AS/NZS 4701, provides for parts recycling transactions and also for historic collections.





Appliance Repairs

A Standard is also recognized for the testing of an appliance after repair (AS/NZS 5762)

This standard however may not be entirely suitable for a circular economy





Circular Economy

Through these Standards, New Zealand, and Australia, have the basis of the Standards that will be needed for a circular economy that recycles appliances back into the market





But does such a system of Standards provide what is needed for a Circular Economy?

Does a circular Economy require more than repair?

In the Mining world, the term that applies to equipment intended to be returned to use is:

Overhaul







Actually, I am not going to take you into a coal mine

The relevance here really comes from the applicable risk management principles, so we can just borrow the principles and refine them for household appliances





Overhaul Principles

The most comprehensive Standard for the principles of an overhaul is the joint Standard AS/NZS 3800, a standard that applies to mining equipment overhaul

AS/NZS 3800 Electrical equipment for explosive atmospheres Repair and overhaul





Overhauling Facilities

Using AS/NZS 3800 as a guide, the following gives advice on the requirements that could be used for an appliance overhauling operation

The Recognized Service Facilities Program provides the means for facilities that overhaul, repair or modify electrical appliances to demonstrate they have the premises, tools, equipment, management systems, work practices and competencies necessary to restore electrical appliances to a condition that complies with any approval or certificate of conformity (CoC) and to demonstrate compliance with the relevant Product Standard.

Do we add the gender issue in here as well?





Overhauled Appliances

Standards will be needed that set out what safety features need to be added to an appliance when it is overhauled and any changes that are needed to make the appliance gender resilient

For example; While we can test self resetting thermal cutouts, it may be necessary for safety devices such as thermal fuses, to be replaced with new units during an overhaul



SDG 5 – Gender Equality

In the same way as safety features may need to be added, the suitability of the appliance for use by women and girls may also require the appliance to be changed or special features to be added

Some appliances may not be able to be made compliant with the requirements of a gender responsive standard and may need to be marked accordingly



Gender Resilience Data

In order to determine what requirements need to be added when a product is overhauled, it will be necessary to collect information/data on product changes that have been introduced to achieve gender responsiveness

The collection of this information/data may require contact with regional or national standards bodies that are earlier adopters of gender responsiveness into their standards

This will be particularly important for gas appliances, as they have no international standards available and will be subject to substantial changes resulting from the introduction of hydrogen as fuel gas





Without an upgrading strategy, the introduction of circular economy risks slowing the achievement of gender responsiveness to almost half of the speed that would otherwise be achievable

For this reason, the UN SDGs may need to be refined to work alongside the changes necessary to address global climate change





The evolution of Electrical appliance Safety needs to be accompanied by the introduction of requirements for Inclusivity, Resilience and Sustainability



T<mark>hank you</mark>

There is work to be done as we start our journey

