UNFC Progress in end-of-life secondary raw materials (2RM)s

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Iman Dorri, Soraya Heuss-Aßbichler
Ludwig Maximilian University of Munich (LMU)
Available documents pertained to the application of UNFC for 2RMs projects

Some case studies related to the application of UNFC for 2RMs

<table>
<thead>
<tr>
<th>Source of materials</th>
<th>Target material(s)</th>
<th>Country</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailings</td>
<td>Base metals</td>
<td>Germany</td>
<td>2022</td>
</tr>
<tr>
<td>Tailings</td>
<td>Copper, Pyrite, Tungsten</td>
<td>Portugal</td>
<td>2021</td>
</tr>
<tr>
<td>Tailings</td>
<td>Barite, Cobalt, Copper, Gallium, Inert Minerals, Indium, Lead, Pyrite, Zinc</td>
<td>Germany</td>
<td>2021</td>
</tr>
<tr>
<td>Bottom-ash from municipal solid waste incineration</td>
<td>Iron, Non-ferrous metals, Stainless steel, Glass</td>
<td>Switzerland</td>
<td>2020</td>
</tr>
<tr>
<td>Fly-ash from municipal solid waste incineration</td>
<td>Metals (Iron, Zinc, Lead, Copper, Cadmium), Mineral Materials (Gypsum, Limestone, Clay, Quartz), Salt</td>
<td>Austria</td>
<td>2018</td>
</tr>
<tr>
<td>Landfills</td>
<td>Refuse derived fuel, Plastic, Wood, Sand, Soil, Construction Materials</td>
<td>Belgium</td>
<td>2018</td>
</tr>
</tbody>
</table>

UNECE guidance document related to 2RMs projects

Main issues and challenges in using available documents to classify 2RMs projects by UNFC

- No standardized, clear, and comprehensive instruction to use UNFC for classification of 2RMs projects
- Inconsistency in factors’ selection
- Lack of Transparency
- Result reproducibility

Systematic procedure to classify 2RM projects by UNFC

Stage 1: Clarification
Stage 2: Impact on info inquiry
Stage 3: Impact on CFs selection
Stage 4: Compiling the list of CFs
Stage 5: CFs rating result
Stage 6: UNFC class
Stage 7: UNFC Reporting
Systematic procedure to classify 2RMs projects by UNFC

Stage 1: Clarification
- Project Profile (key information)

Stage 2: Impact on info inquiry

Stage 3: Impact on CFs selection

Stage 4: Compiling the list of CFs

Stage 5: CFs rating result
- E? F? G?

Stage 6: UNFC class

Stage 7: UNFC Reporting
- Transparency, Consistency & Results Reproducibility
- Impact on CFs selection
- Compiling the list of CFs
- CFs rating result
- Impact on info inquiry
- UNFC class

Results classification
- Results categorization
- Results classification
Webtool – an Online Tool for 2RM\textsubscript{S} Projects Classification Based on UNFC

Structured Anthropogenic Resource Assessment

Secondary Raw Materials Availability Assessment in Line with the UNFC

Developed as part of the FutuRaM project
Case studies to test the UNFC procedure and the webtool

Construction and Demolition waste (CD&W)

Slags and Ashes (SLASH)

Mining Waste (MINW)

Waste Electrical and Electronic Equipment (WEEE)
Thanks for your kind attention!

THE VIEWS EXPRESSED ARE THOSE OF [FutuRaM] AND DO NOT NECESSARILY REFLECT THE VIEWS OF THE UNITED NATIONS.

Iman Dorri
Scientific Researcher
Ludwig-Maximilians Universität
Munich, Germany
dorri.iman@lmu.de
heuss@lmu.de