



TOWARDS RESPONSIBLE SOURCING: WHAT'S NEXT FOR THE RENEWABLE ENERGY SECTOR?

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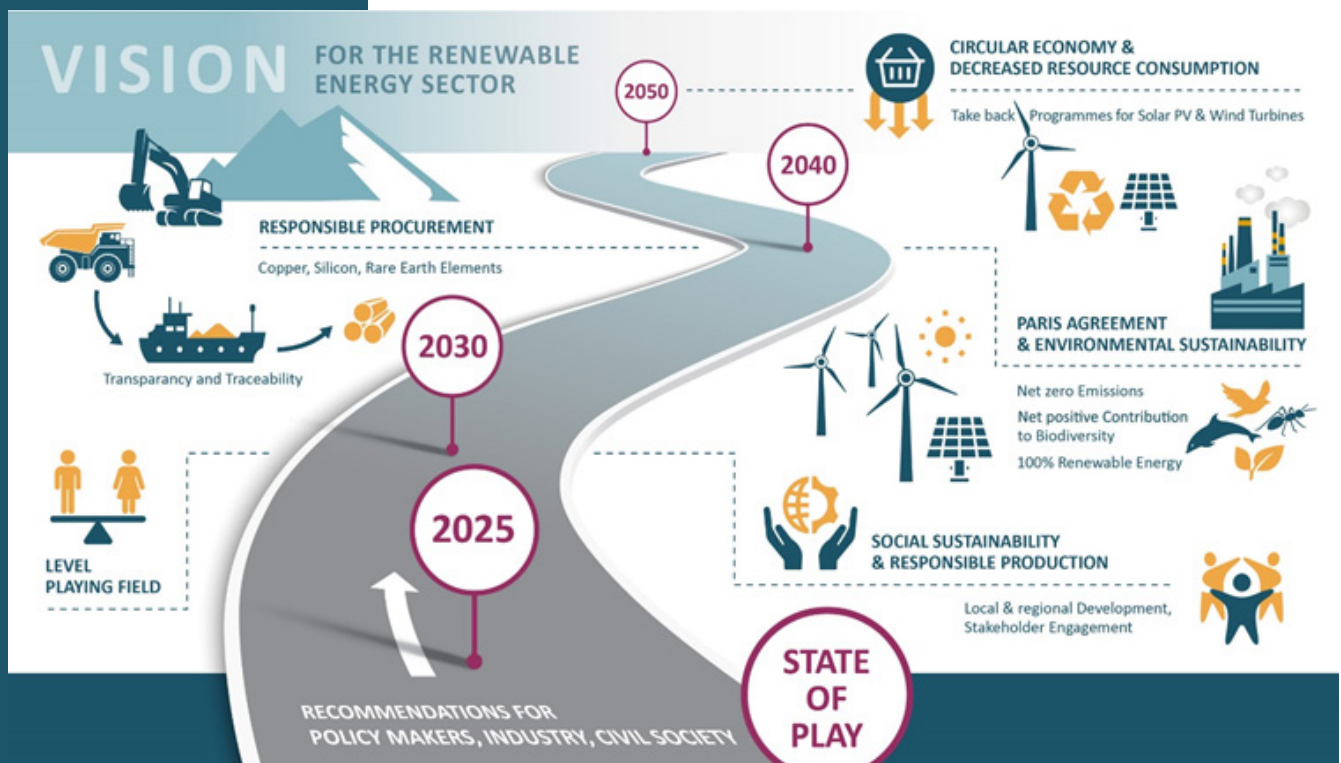


1. Introduction

Based on the concepts of [planetary boundaries](#) and [strong sustainability](#) as well as environmental justice considerations, the RE-SOURCING project has developed a Vision for the Renewable Energy Sector. This Vision contains essential considerations regarding the preservation of natural capital, the elimination of social and economic injustices, and sustainable practices for companies. But how do we get there? Starting from the [current state of the renewable energy sector supply chain](#), the RE-SOURCING project, together with actors from different stakeholder groups, regions, and nodes in the supply chain developed a [sectoral Roadmap](#). This Roadmap provides recommendations for EU policy makers, international industry, civil society organisations, research and academia on how to achieve the vision of a responsible and sustainable renewable energy sector.

The [Roadmap](#) is structured to achieve five overarching targets that are interlinked and need to be pursued simultaneously to achieve the Vision:

1. Circular Economy & Decreased Resource Consumption
2. Paris Agreement & Environmental Sustainability
3. Social Sustainability & Responsible Production
4. Responsible Procurement
5. Level-Playing Field & International Cooperation



Target 1 “Circular Economy & Decreased Resource Consumption”



Target 1 addresses the need for changes in behaviour and the economic system to stay within planetary boundaries. While the transition from fossil-fuel based energy generation to renewable energy sources is associated with positive effects, the negative impacts of the ever-increasing energy demand cannot be ignored. A successful transition to 100% renewable energy can only be achieved, if we significantly increase energy and resource efficiency. This requires the introduction of new systems for both consumption and production to satisfy human needs and universal well-being without permanently damaging climate and environment.



As the first milestones are due in 2025, all actors need to work together to develop policies for sustainable consumption and production (e.g. eco-design policies for solar PV and wind turbines). In this regard, also mining and waste policies need to be revised, updated, adapted and aligned. This should primarily serve to improve resource efficiency and reduce waste. NGOs can make important contributions to these efforts by increasing awareness and informing citizens about the impact of consumption patterns and possible alternatives. Industry actors need to initiate take-back programs for their products and foster collaboration with research and academia to advance recycling methods and resource efficiency. The next milestones must be reached by 2030: Closing material cycles and establishing a zero-waste culture are crucial steps to further increase resource efficiency. The EU recycling sector can make a significant contribution to these milestones by building infrastructure and increasing capacities.

Policy makers need to support these efforts and create a market for secondary raw materials. Reuse and recycling have to become financially more attractive than consuming primary resources and disposal. Exports of recyclable materials that are an important resource for the EU market need to be prevented, particularly if the proposed recipient has lower environmental and social standards in place. Research and academic institutions have a primary role in developing new technologies and advancing existing ones to reduce both the resources and the energy used in industrial processes.



Interdisciplinary cooperation and collaboration with other actor groups need to be strengthened to increase the efficiency of production and recycling processes. Decreasing energy intensity is a prerequisite to achieving a successful energy transition. Therefore, the Roadmap recommends a consistent and significant increase of resource efficiency along with a decrease in energy intensity by >70% by 2050 at the latest.

Target 2 “Paris Agreement & Environmental Sustainability”



Target 2 focuses on the expansion of renewable energy itself, the reduction of GHG emissions, biodiversity conservation, and land-use. Wind and solar PV are seen as the two main pillars carrying the energy transition and recommendations are based on currently available technologies. Technological advances and hydrogen are considered equally important for the transition but are out of scope of the Roadmap.

By the first milestones in 2025, government policies need to integrate and harmonise rules and objective for environmental sustainability, pollution prevention, biodiversity conservation, and water use. The ambitious targets set by many companies in transitioning to renewable energy sources need to be supported by policy makers (e.g. by subsidies and/or higher taxes). Land-use policies for renewables need to be revised, a solar rooftop program has to be implemented, and the impacts on undeveloped lands considered and minimized (including deforestation, land erosion, and biodiversity loss).

For industry actors, transparency is crucial for building trust with the public and enable a fast and sustainable transition to renewable energy. Developing synergies between communities and industry to expand and improve infrastructure will help to decrease both the negative environmental and social impacts of the industry. This also requires companies to not only ensure responsible and clean production, but to fully integrate and report on their environmental, climate, and social impacts throughout the product life cycle.



Concerning the mining sector, the sustainable development of raw material deposits needs to be ensured to provide critical raw materials for the energy transition. Thereby, special focus must be placed on the update of mining regulations, being informed by existing (voluntary) sustainability certification schemes. While environmental impacts need to be minimised, it is also important for NGOs to acknowledge the necessity of mining for the renewable energy transition as well as daily life. For the scientific community the support of industry in conducting research on and developing new technologies with smaller environmental impacts (including emissions reductions, replacement of coal in production processes, etc) must have a priority.

The 2030 milestones address the reduction of GHG emissions by more than 60%, increasing the renewable energy capacity to 80% as well as the general electrification of operations and performing mandatory Environmental, Health & Safety (EHS) auditing for all stages of the supply chain. Local knowledge is crucial for impact assessments and successful climate change mitigation plans. Cooperation between industry and local communities is a prerequisite to build resilience against the effects of climate change.

By 2040, the Paris Agreement’s 1.5°C target has to be reached by 100% renewable energy and net-zero emissions as well as the increase of the electrification rate of industry up to 40%.

Target 3 “Social Sustainability & Responsible Production”

For Target 3 a fair distribution of benefits and burdens derived from renewable energy sector supply chains and inclusive decision-making processes are the main objectives. This target includes considerations regarding occupational health and safety, meaningful stakeholder engagement, and the introduction of social life cycle assessments in product development and production processes.

By the first milestones in 2025, land-use policies need to consider aspects such as free-prior informed consent and fair compensation. The EU has already ratified the core ILO (International Labour Organization) conventions and with a continuous update of labour and social regulations, the harmonisation of regulations throughout the EU will be supported.

Similar to environmental LCAs, a social life-cycle assessment (S-LCA) evaluates socio-economic impacts throughout the supply chain of a product. The goal is to enable the detection of negative impacts (burdens) on all involved stakeholder groups at each stage of the product life-cycle.

For companies the implementation of a human rights management system is crucial to address human rights appropriately within an organisation. The support of external experts (including NGOs, labour unions, etc.) can help establish a robust system. Local NGOs should take on a mediating role and support a multi-stakeholder approach. This should ensure that, on the one hand, concerns of the local communities are heard, and on the other hand sustainable infrastructure and production developments by companies and policy makers are supported and promoted.

The introduction of effective grievance mechanisms is an important aspect for all supply chain stages. These can be based on: [The UN Global Compact Guidance](#) for designing an effective grievance mechanism against modern slavery; [IFC Guidance for Addressing Grievances From Project-Affected Communities](#); [EBRD Guidance for Employee Grievance Mechanisms](#).

Stakeholder engagement in general needs to be strengthened. The [International Association for Public Participation](#) developed a framework for effective public engagement in decision-making processes both for policy makers and industry. Companies need to support the region they are operating in and capacity building within local communities has to be an important aspect as well as ensuring long-lasting and self-sustaining socio-economic development of the affected regions.

Target 3 needs to be achieved by 2030. Further necessary measures include considerations regarding corrective justice, such as: ensuring damages to individuals and communities caused by policy decisions or companies are addressed in a fair and appropriate way; holding companies accountable for environmental and social damages; and ensuring adequate reparation of losses.

The well-known practice of shifting production to countries with lower environmental and social standards to save production costs is far from responsible production. International companies need to accept their responsibility and perform according to the highest possible standards whether or not required under a country’s regulations. Apart from environmental considerations, mining policies need to be reviewed considering the social impacts of mining operations. The UN Economic Commission for Europe (UNECE) policy recommendations for [‘Transforming Extractive Industries for Sustainable Development’](#) recognizes the positive impact mining can have on societal development and also recommends measures to realise this potential.



Target 4 “Responsible Procurement”



Target 4 focuses on the implementation of the other targets along the entire supply chain. It includes transparency as a prerequisite for supply chain due diligence. Responsible procurement includes the support for sustainable development as well as the development of resilient and risk-proof supply chains. It also requires engaging with and supporting suppliers and countries that do not adhere to adequate social and environmental standards, to improve their performance.

By 2025 policy makers need to develop guidelines for transparent mineral raw materials supply chains in collaboration with multi-stakeholder initiatives currently providing voluntary guidance or certification approaches. Trade agreements should include considerations and enforcement mechanisms on responsible and resilient supply chains. International companies need to be encouraged to support sustainable development and high labour standards along their supply chains.

While the EU has already integrated the [OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#) in EU law, the tracking and tracing of minerals and metals remains a big challenge. Raw materials and products imported from outside the EU need to fulfil the same sustainability requirements as operations inside the EU.

EU regulations for transparent reporting on labour practices along the supply chain should be put in place. Companies need to be able to prove that their input materials are produced under acceptable social and environmental standards to access the EU market.



When operating in or sourcing from non-EU countries, it is important to consider regional differences in standards and capabilities. Local procurement is crucial to support local and regional development in the host-country, as well as to improve the resilience of supply chains in case of supply disruptions. Mining companies have significant spending power, which they can and should use to support not only local businesses, but also local development. With strengthened business relationships, and cooperation with downstream actors as well as local communities, sustainability can be fostered and sustainable supply chains built.

Target 4 provides for mandatory supply chain due diligence for all international actors by 2040 at the latest. However, due diligence does not mean immediately terminating business relationships due to social or environmental issues. Instead, measures must be taken to make improvements (provided all actors are willing to cooperate).

Target 5 “Level Playing Field & International Cooperation”



Target 5 aims at harmonizing requirements for companies operating and trading across supply chains and sectors, in and with the EU. Creating a level playing field also implies supporting companies, regions, and countries in improving their practices and achieving the required standards. Creating a level playing field and improving international cooperation is paramount for achieving all other targets. Target 5 therefore only has a very short timeframe and needs to be achieved by 2025.

The introduction of border-tax adjustments to account for differences in the environmental performance and social standards (including occupational and community health and safety, fair wages, etc.) of production processes outside the EU is an important measure to improve competitiveness of European manufacturers. Due to the fact, that many minerals and metals crucial for the renewable energy sector are sourced from developing countries, border-tax adjustments also need to take capacities of developing countries into account. European companies are required to apply the same high social and environmental standards in every country they operate in, using lower standards in other countries should be penalised.

International NGOs can support the level playing field development by undertaking a mediating role between different countries and stakeholders. Both local and international NGOs should support information campaigns for the public on the necessity of raw material projects or the construction of wind and solar farms.

Due to the complex and global structure of the renewable energy sector's supply chains, it is important that international organisations such as the UN and the OECD are strengthened. These organisations have an important contribution to make in shaping the level playing field and harmonising the requirements for companies.



Conclusion



Even though recommendations are subdivided according to five targets and actor groups, one of the key results of the Roadmap is the necessity to simultaneously address all five targets in a coordinated manner. Falling behind on only one target will compromise the achievement of the others. Significant and systemic changes are needed now and over the next decade to achieve climate targets and make the renewable energy sector Roadmap more responsible and sustainable.

Another crucial finding of the Roadmap and the consultation process is the importance to engage the public in decision-making processes. The energy transition can only be successful if all actors are collaborating on this goal and the populations' active support is key. This can only be achieved if politics, industry, and civil society realize their responsibility on openly discussing with and informing affected communities to create trust. The Roadmap also recognizes the need for further research critical for advancing consumption reduction, resource, and energy efficiency where crucial information is still missing.

The RE-SOURCING project also developed “Good Practice Guidelines for the Renewable Energy Sector” to support the implementation of the Roadmap recommendations. The guideline outlines practices that the project considers ‘responsible’ to enable peer-learning and increase the uptake of responsible sourcing.

The good practice cases for the renewable energy sector address different stages of the supply chains. Each segment of the chain has a particular set of challenges and the selected good practices focuses on issues that have the highest priority:

- **Coherent Sustainability Approach for an Extractive Company:** Design, implement and report through a cohesive corporate sustainability approach.
- **Using a Life Cycle Assessment Business Model:** Develop a business model based around life cycle assessment, such that recycling and end-of-line issues are incorporated from the design phase of the product.
- **Supplier Assessment Through Shared Resources:** Capitalise on the economies of scale by using a shared supplier assessment standard and mechanism through an independently operated supplier database.
- **Consultative Approach to Designing National Mining Policy:** Develop a consultative approach for drafting mining national policy that takes stakeholder viewpoints into account before the drafting process begins.



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