

# UNFC and UNRMS: A Holistic Framework for Integrated Renewable Energy Development

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# Introduction



UNFC and UNRMS provide a common framework for assessing and reporting all energy and mineral resources



They offer a comprehensive system for managing all aspects of resource development, from exploration to production, recycling to decommissioning



UNFC and UNRMS can help to address technical, economic, environmental, social, and governance aspects of renewable energy development in a consistent, transparent, and holistic way.

A photograph of several wind turbines in a rural landscape with rolling hills and a forest. The sky is clear and blue. The text is overlaid on the left side of the image.

# Enhancing the viability and credibility of renewable energy projects

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- Renewable energy sources offer a unique opportunity to address grid stability, reliability, and flexibility challenges despite their intermittency.
  - Its long-term benefits are undeniable, and as it becomes more efficient and cost-effective, risks are reduced, making it an attractive investment option.
  - UNFC and UNRMS provide a common framework for assessing and comparing the viability and impact of renewable and non-renewable energy projects. This can help optimize the energy mix, reduce uncertainty, and increase transparency.

# Ensuring the sustainability and circularity of renewable energy resources

- Renewable energy resources have environmental impacts and depend on critical raw materials with high economic importance and supply risk
- UNFC and UNRMS can help ensure the sustainability and circularity of renewable resources and secure supply and availability of critical raw materials
- Incorporating principles of the water-energy-food-ecosystems nexus, better natural resource management, and integrating renewables in urban development can maximize positive outcomes and minimize negative impacts

Scientists have devised a method to upcycle lithium-ion batteries and expired solar panels into new solar cells. The method recovers valuable materials from the waste and converts them into perovskite solar cells, which are cheaper and more efficient than silicon-based ones. This could reduce the environmental impact of electronic waste and boost the renewable energy sector.

#Upcycling #SolarCells #Ewaste

[techtimes.com/articles/296114/...](https://techtimes.com/articles/296114/...)



# Aligning the renewable energy development with the 2030 Agenda for Sustainable Development

- Renewable energy development has social, environmental, and economic implications
- UNFC and UNRMS can help align renewable energy development with the 2030 Agenda for Sustainable Development by providing a holistic perspective that considers sustainability in all its dimensions
- This can help ensure that renewable energy development is inclusive, equitable, resilient, transformative, and coherent with other national and international commitments

# Cross-cutting nexus potential

- Improved food security and nutrition by strengthening the food supply chain
- Improved water security and sanitation by reducing pressure on freshwater resources and enhancing marine ecosystem protection
- Enhanced energy security and access by providing clean, reliable, and affordable power for various sectors,
- Enhanced climate action and adaptation by reducing greenhouse gas emissions, increasing carbon sinks, and improving the resilience and adaptation capacity.

# Conclusion

- UNFC and UNRMS are a holistic framework for integrated renewable energy development
  - Can help to address the technical, economic, environmental, social, and governance aspects of renewable energy development in a consistent, transparent, and holistic way
  - Can help to enhance the viability and credibility of renewable energy projects, ensure the sustainability and circularity of renewable energy resources, and align renewable energy development with the 2030 Agenda for Sustainable Development
  - Enhance cross-cutting nexus potential.

# Conclusion

## – Next steps

- Case studies on how UNFC and UNRMS can be applied to renewable energy projects to enhance the nexus potential
- Engage with the relevant stakeholders and experts to share experiences and best practices
- Support the implementation and dissemination of UNFC and UNRMS for integrated renewable energy development at the national, regional, and global levels.



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# Thank you

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