

Energy & Mineral Resources

Users in energy and mineral resources deal with the harvesting of energy from **renewable resources** and **extractive industries** including **oil and gas** and **raw materials**. EO information helps them in exploring potential locations to build new mines or power plants, in identifying risks from infrastructure and in managing the environmental impact of their operations. Uses that apply to the extractive industries: a study of landforms, structures, and the subsurface, to understand physical processes creating and modifying the Earth's crust.

Market Sector	Composition	EO Services
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Oil and Gas	Offshore & onshore exploration and production, drilling and support services, oil and gas commodities trading, energy planners.	Assess environmental impact of human activities Asset infrastructure monitoring Map water depth / charting Monitor construction and buildings Monitor ocean quality and productivity Monitor the coast line Monitor atmosphere composition Monitor land ecosystems and biodiversity Forecast and monitor current movement and drift Baseline mapping Monitor vegetation encroachment Map geological features Measure detect land surface change Map and assess flooding Monitor forest resources Detect and monitor wildfires Detect and monitor hurricanes and typhoons Identify hydrocarbon seeps in soil Assess ground water and run-off Detect and monitor ice risk at sea Monitor land cover and detect change Forecast and monitor ocean winds and waves Detect and monitor oil slicks Monitor coastal ecosystem Monitor air quality & emissions Monitor marine habitats Forecast and map large waves Monitor ice on rivers and lakes Monitor oil rigs and flares Forecasting sunlight exposure Forecast weather Monitor pollution at sea Monitor urban areas Monitor sensitive risk areas Assess and monitor water bodies Detect and monitor ground movement Assess dredging operation impacts Map seismic survey operations Map and monitor transport networks
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Renewable Energy	Solar energy providers, wind energy providers, tidal energy providers, energy and carbon traders, local and regional planners, national policy makers.	Assess changes in the carbon balance Map and monitor solar energy (solar farms) Forecast and monitor current movement and drift Map and monitor wind energy (wind farms) Forecast and monitor ocean winds and waves Map hydroelectric sources
Raw Materials	Mining and quarrying companies, exploration and survey specialists, commodities traders, exploration and extraction equipment suppliers, drilling, excavation and support services, regional planners / policy makers.	Assess environmental impact of human activities Map geological features Detect and monitor ground movement Measure land use statistics Monitor land pollution Monitor mineral extraction