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

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