

Energy Transition Expert

The Energy Transition Expert in the automotive industry supports the shift from fossil fuels to renewable and sustainable energy solutions. Their main activities include developing strategies for clean energy integration, assessing environmental impacts, conducting audits, and ensuring compliance with international and EU-level regulations. They are responsible for aligning corporate operations with sustainability goals, such as the EU Green Deal, by implementing renewable energy systems like solar, hydrogen, and waste heat recovery technologies.

Key responsibilities involve advising on policy and strategy, designing roadmaps for energy transition, leading renewable energy projects, and coordinating with cross-functional teams. Essential competences cover green competences (sustainability, green technologies, energy transition policies), digital competences (to be developed in future iterations), soft skills (communication, teamwork, leadership, problem-solving), and transversal competences (project management, stakeholder engagement).

ESCO Mapping

<https://esco.ec.europa.eu/select-language?destination=/node/1>

ID	NAME	Concept URI

Context

EQF Level	7
Departments	Sustainability

ID	Name	Type	Description	Level	ESCO
C02 8	Sustainability	Knowledge	Describe principles and practices that meet present needs without compromising future generations. ▪ Explain sustainability concepts in industrial contexts ▪ Analyse environmental, social, and economic impacts of energy use ▪ Recommend renewable energy solutions for factories ▪ Lead integration of low-carbon technologies.	3	Link
C02 5	Green technologies	Knowledge	Describe innovations aimed at reducing environmental impact. ▪ Identify renewable energy technologies relevant to automotive production ▪ Analyse effectiveness of green technologies ▪ Support integration of carbon capture or waste heat recovery ▪ Promote eco-innovation across operations	3	Link
C03 0	Energy transition policies and regulations	Knowledge	Describe policies and regulations guiding the shift to renewable energy. ▪ Monitor EU and national frameworks (e.g. EU Green Deal) ▪ Analyse impact of policies on automotive plants ▪ Support compliance with regulatory standards ▪ Recommend strategies for regulatory alignment	3	Link
C03 1	Conduct environmental impact assessments	Skill	Evaluate environmental consequences of energy-related projects. ▪ Apply EIA standards and procedures ▪ Assess impact of renewable energy installations ▪ Propose mitigation measures ▪ Ensure compliance with biodiversity and land use standards	3	Link
C03 2	Perform energy audits	Skill	Assess energy usage and propose improvements. ▪ Apply audit methodologies to factories	3	Link

ID	Name	Type	Description	Level	ESCO
			- Identify inefficiencies in equipment - Recommend upgrades for energy efficiency - Report results to sustainability managers		
C033	Develop energy transition roadmaps	Skill	Design and implement strategies to move from fossil fuels to renewables. - Create phased transition plans - Evaluate costs and benefits of renewable adoption - Ensure operational continuity during transition - Collaborate with stakeholders on roadmap design	3	

Soft Skills

ID	Name	Type	Description	Level	ESCO
C127	Communication	Knowledge	Describe principles and methods of effective communication - Explain technical content to varied stakeholders - Adapt communication to audience - Use clear, concise language - Support cross-functional collaboration	1	Link
C128	Work in teams	Skill	Collaborate effectively with others to achieve shared goals. - Coordinate with engineers, sustainability officers, and suppliers - Resolve conflicts constructively - Contribute to team decisions - Share expertise to achieve common goals	2	Link
C129	Solve problems	Skill	Identify and implement solutions to complex challenges. - Analyse energy transition barriers - Develop innovative solutions for renewable integration - Test alternatives for feasibility - Recommend corrective actions	2	Link

ID	Name	Type	Description	Level	ESCO
C139	Lead teams	Skill	Guide and motivate teams to achieve energy transition goals. ▪ Define strategic objectives for projects ▪ Motivate and support team members ▪ Resolve conflicts effectively ▪ Ensure alignment with organisational goals	2	Link
C148	Strategic planning	Knowledge	Describe principles and practices of defining objectives and allocating resources. ▪ Set priorities for energy projects ▪ Monitor progress against objectives ▪ Adjust plans to meet changing conditions ▪ Align energy transition with corporate strategy	3	Link

Transversal Competences

ID	Name	Type	Description	Level	ESCO
C188	Project management	Knowledge	Describe principles of managing and coordinating projects. ▪ Define project scope and objectives ▪ Allocate resources efficiently ▪ Monitor budgets and timelines ▪ Deliver results within defined scope	2	Link
C175	Engage stakeholders	Skill	Involve stakeholders effectively in project decision-making. ▪ Build trust with stakeholders ▪ Facilitate workshops and consultations ▪ Ensure inclusion in planning ▪ Monitor satisfaction and feedback	2	Link