MODUL 6: Energy Policy

1. Module Objective

The objective of this module is to enhance participants' policy analysis and decision support capacities by addressing the formation and implementation processes of energy policies at national, regional, and international levels within a holistic framework. Within the module, energy supply security, market designs, capacity mechanisms, and regulatory tools are examined using data-based analysis and a comparative policy approach. Furthermore, the relationship between energy diplomacy, international agreements, and energy law with geopolitical and economic dynamics is evaluated, aiming to enable participants to produce implementable policy notes and scenario analyses.

2. Scope and Content Framework

• Holistic view of the energy ecosystem: supply-demand, grid, efficiency, storage, and transformation dynamics

• Data and digitalization: collection, cleaning, analysis, and visualization of energy data

• Policy-market-technology interaction: public interventions, regulatory tools, investment, and financing

• Applied output: mini-project / case study / policy note

3. Responsible University and Expertise Contribution

Responsible institution: Batman University.

Batman University's approach, focused on internationalization, cultural diplomacy, and regional development; Energy diplomacy allows for the implementation of critical policy analysis of topics such as negotiation, international agreements, and governance.

4. Learning Outcomes

• Students will be able to explain the formation processes of energy policies at the national and international levels within a conceptual and historical framework.

• Students will be able to relate energy supply security, capacity mechanisms, and market designs to policy instruments.

• Students will be able to interpret the basic principles of international energy agreements and energy law from a policy perspective.

• Students will be able to analyze energy economics indicators in the context of international relations and geopolitics.

• Students will be able to evaluate the strategies used in energy diplomacy and negotiation processes through case studies.

• Students will be able to prepare a policy note, scenario analysis, or decision support output for a regional or international energy problem.

5. Target Audience and Prerequisites

Target audience:	**Associate degree, undergraduate and graduate students, public/private sector employees, and those interested in the energy field.**
Prerequisites:	Basic level of numerical literacy; basic statistics and Excel/Python are useful (not mandatory) for advanced content.
Method:	Synchronous lecture + practice + case analysis + assignment/project
Assessment (recommendation	Midterm exam + Final exam
Certification	Certificate of Participation/Achievement for participants who meet the attendance and success requirements

6. Program

Subject	**Aims**	**Outcome**
Vision and Policies in Energy	To compare energy policy instruments and develop a strategic vision aligned with energy transition goals.	Comparing policy tools and developing a sectoral vision in line with energy transition goals.
Energy Systems Analysis	To evaluate energy systems using technical and economic indicators and assess system performance from a policy perspective.	Evaluating energy systems with technical and economic indicators and conducting system performance analysis.

Artificial Intelligence Applications in Energy	To examine how artificial intelligence supports energy policy design through forecasting, optimization, and decision support.	Establishing AI-based prediction and classification models on energy data and applying optimization.
Energy Efficiency	To analyze energy efficiency policies and instruments aimed at reducing losses and improving system performance.	Using energy efficiency study methods and developing an improvement plan to reduce losses.
Oil Refinery Technologies, Energy Management and Sustainability	To assess refinery energy management practices and sustainability strategies within regulatory and policy frameworks.	Describing refinery processes and energy management practices and evaluating sustainability indicators.
Energy Infrastructures and Advanced Technologies	To analyze advanced energy infrastructure technologies and their implications for policy and regulatory planning.	Identifying advanced technologies in energy infrastructures and designing digitalization-based solutions.
Sustainability and Resilience of Electricity Distribution Networks	To evaluate policies and technical approaches that enhance sustainability and resilience in electricity distribution networks.	Analyzing resilience and sustainability approaches in distribution networks and proposing measures to increase resilience.
Strategic Management and Vision Development in the Energy Sector	To examine strategic management tools and policy-driven decision-making processes in the energy sector.	Using strategic management tools in the energy sector and conducting strategic planning for competition and investment decisions.
International Relations and Energy Policies	To analyze how energy policies are shaped within international relations and global power structures.	Analyzes how energy policies are shaped within international relations and evaluates their impacts.

Electricity Market	To explain the structure, functioning, and regulatory framework of electricity markets.	Describes the structure and operation of the electricity market and identifies its components.
Energy Economy through International Relations	To interpret energy-economic indicators through the lens of international relations and comparative analysis.	Interprets energy-economic indicators through an international relations lens and conducts cross-country comparisons.
Energy Supply Reliability and Capacity Mechanism	To analyze energy supply security concepts and evaluate capacity mechanism designs from a policy perspective.	Explains energy supply reliability concepts and evaluates capacity mechanism designs.
Energy Law and International Agreements	To examine the framework of international energy law and assess major energy-related agreements.	Explains the framework of international energy law and interprets major energy-related agreements.
International Cooperation in Renewable Energy Investments	To compare bilateral and multilateral renewable energy investment frameworks and analyze implementation cases.	Students compare bilateral and multilateral investment frameworks and analyze practical application cases.
Artificial Intelligence Applications in International Relations	To apply artificial intelligence methods to international relations data for energy-related policy analysis and decision support.	Applies AI methods to international relations datasets and performs decision-support analysis.
Energy Diplomacy and Negotiation Processes	To analyze energy diplomacy dynamics and develop negotiation strategies in international energy governance.	Explains energy diplomacy dynamics and develops negotiation strategies.