

THE SET OF QUESTIONS ON THE M.SC. EXAM
field of study II level: ENERGETYKA ODNAWIALNA I ZARZĄDZANIE ENERGIĄ
speciality: Sustainable Energy Systems
1. Systemic approach in solving problems.
2. Methods of modelling: Mathematical programming, Systems dynamics, Econometrics.
3. Integrated Energy Resource Planning.
4. Demand side management.
5. Electrical load profile, load duration curve, residual load.
6. General market structures.
7. Key objectives of the global and EU energy policy.
8. Energy policy instruments.
9. Electricity and capacity markets.
10. EU Emissions Trading System (ETS).
11. Electricity price formation.
12. Relations energy – environment – economics.
13. Externalities of energy production.
14. Business plan and business model.
15. Value Proposition and Unique Selling Point.
16. Methods for Systematic Inventive Thinking.
17. Static and dynamic methods for economic evaluation of Investment projects.
18. Leadership theories and approaches.
19. Team building and management.
20. What are the ways to exploit solar energy?
21. Generation of photovoltaic systems.
22. Basics and methods of wind energy conversion.
23. Fuel cells
24. Discuss the difference between short-term and long-term marginal costs of electricity generation.
25. Explain market equilibrium.

26. What are the most important economic instruments for reducing emissions?
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27. Evaluate the impact of power generation on air quality.

28. Atmospheric pollutant transport modeling systems - division, application, input and output data.
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