

PRACTICAL TRAINING ON CONDUCTING ENERGY AUDITS OF PUBLIC BUILDINGS

8-11 December 2025

IQ Coworking, Astana, Kazakhstan

Programme

Day 1 – Monday, 8 December 2025

Introduction to Energy Audits of Public Buildings

Time	Theme	Name and Position
<i>Moderator: Ilze Purina, Key expert on Energy Sector Governance, SECCA</i>		
9.30 - 9.50	Welcome remarks	Paata Janelidze , Team Leader/Key Expert in Energy Engineering, SECCA Representatives of the Ministry of Industry and Construction of the Republic of Kazakhstan
9.50 - 10.50	Methodology for prioritizing entities of the State Energy Registry for in-depth monitoring and inspections	Zhaxylyk Tokayev , Energy expert, National Coordinator in Kazakhstan, SECCA
10.50 - 11.20	<i>Coffee break</i>	
11.20 - 12.00	The role and objectives of energy audits in the public sector. Specifics of auditing schools, hospitals, kindergartens and administrative buildings	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12.00 - 12.40	Stages of conducting an energy audit: preparation, data collection, site visit, analysis, reporting	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12.40 - 13.00	Questions and Answers, Conclusions	

Day 2 – Tuesday, 9 December 2025

Methodology for assessing energy efficiency and energy indicators

Time	Theme	Name and Position
<i>Moderator: Zhaxylyk Tokayev, Energy expert, National Coordinator in Kazakhstan, SECCA</i>		

9.30 - 10:15	Methodological foundations for assessing the energy efficiency of buildings	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
10:15 - 10:50	Energy efficiency indicators: specific energy consumption, specific losses, thermal characteristics	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
10:50 - 11:20	<i>Coffee break</i>	
11:20 - 12:00	Data collection methodology: thermal energy, electricity, water, area, climatic parameters	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12:00 - 12:40	Development of a database of the audited buildings, verification, and prioritization of facilities	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12:40 - 13:00	Questions and Answers, Conclusions	

Day 3 – Wednesday, 10 December 2025

Calculations of thermal engineering characteristics and energy certificate

Time	Theme	Name and Position
<i>Moderator: Zhaxylyk Tokayev, Energy expert, National Coordinator in Kazakhstan, SECCA</i>		
9.30 - 10:15	Fundamentals of Thermal Engineering Calculations: Principles and Input Data	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
10:15 - 10:50	Calculation of the thermal resistance of external building envelope structures	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
10:50 - 11:20	<i>Coffee break</i>	
11:20 - 12:00	Calculation of heat transfer for basements, ceilings, windows, and doors (based on Excel models)	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12:00 - 12:40	Development and structure of a building's energy performance certificate	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12:40 - 13:00	Questions and Answers, Conclusions	

Day 4 – Thursday, 11 December 2025

Environmental and economic assessment of energy efficiency measures

Time	Theme	Name and Position
<i>Moderator: Zhaxylyk Tokayev, Energy expert, National Coordinator in Kazakhstan, SECCA</i>		
9.30 - 10:15	Methods of environmental effects assessment: calculation of CO₂ emissions, energy savings	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
10:15 - 10:50	Economic efficiency of measures: simple and discounted payback	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
10:50 - 11:20	<i>Coffee break</i>	
11:20 - 12:00	Calculation of the profitability of energy-saving measures (working with an Excel model)	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12:00 - 12:40	Interpretation of results, preparation of the report and conclusions of the audit	Gulnara Saduakkasova , Expert in energy efficiency of public buildings, SECCA
12:40 - 13:00	Final discussion and review of the course outcomes	