Energy Infrastructure Finance and Project Bankability

GExperts Learning Academy | EX-X05 | EX | 2-3 days

Course overview

2-3 days EX programme focused on Energy Infrastructure Finance and Project Bankability, using energy-sector cases and applied decisions.

Designed for: Boards, executives, public officials and senior managers

Learning outcomes

- Explain core principles and terminology for Energy Infrastructure Finance and Project Bankability.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Course guide

Work through each module objective, lesson and teaching note, complete the applied activity and assessment, then use the separate Academy practice page for practice questions and answer feedback.

Separate practice questions:
https://www.globalexpertsconsultoria.com/training/academy/courses/questions/?course=EX-X05

Academic and certification status

Draft learning resource for study and review. It does not confer accreditation, external certification, a regulated qualification, professional licence, safety-critical competence or site authorisation. Confirm approvals, current laws, standards, approved procedures and awarding-body requirements before delivery.

Module 1: Project finance and funding structure

Learning objectives

- Explain project finance and funding structure, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Project finance and funding structure
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Financing links investors, lenders, project cash flows and contractual risk allocation. Explain equity, debt, debt service, covenants and security conceptually. Financing availability depends on credible technical, commercial and environmental evidence.

Decision logic. Distinguish project economics from shareholder returns and loan serviceability. Debt can amplify returns and risk. Check downside cash available for debt service rather than assuming forecast revenue is free cash. No financing commitment is implied.

Worked example. Cash available for debt service of 120 and scheduled debt service of 100 gives a coverage ratio of 1.2.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Stress the ratio when available cash falls by 25% and discuss consequences.

Model answer guide. Coverage falls to 0.9; the project may not meet scheduled service without remedies under its actual agreements.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Stress the ratio when available cash falls by 25% and discuss consequences.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 2: Energy Infrastructure Finance and Project Bankability: Risk Contro

Learning objectives

- Explain energy infrastructure finance and project bankability: risk controls, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Infrastructure Finance and Project Bankability: Risk Controls
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Energy Infrastructure Finance and Project Bankability: Risk Controls describes a practical part of Energy Infrastructure Finance and Project Bankability. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy infrastructure finance and project bankability: risk controls. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy infrastructure finance and project bankability: risk controls while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy infrastructure finance and project bankability: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for energy infrastructure finance and project bankability: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 3: CAPEX OPEX and estimating

Learning objectives

- Explain capex opex and estimating, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of CAPEX OPEX and estimating
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Capital estimates cover assets and development; operating estimates cover recurring delivery and support activities. Define scope, price basis, location, currency, schedule and exclusions before estimating. A number without its basis is difficult to review.

Decision logic. Use analogous, parametric and bottom-up methods according to data maturity. Separate base estimate, identified risk contingency and other reserves under the adopted governance. Avoid implying that contingency is spare money for scope additions.

Worked example. A fictional equipment package is 10 million and installation is estimated at 40% of equipment cost; subtotal is 14 million before other scope.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Write an estimate basis and identify five excluded cost items.

Model answer guide. Include logistics, commissioning, taxes, spares and owner costs where appropriate; state assumptions rather than silently adding them.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Write an estimate basis and identify five excluded cost items.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 4: Risk assessment and uncertainty management

Learning objectives

- Explain risk assessment and uncertainty management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Risk assessment and uncertainty management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Define the activity and potential harm, identify hazards, evaluate existing controls, then decide further controls and ownership. A risk matrix supports prioritisation but does not prove a risk is tolerable. Include affected people and changing conditions.

Decision logic. Test whether controls are present and effective. Residual risk should be reassessed after control implementation, not merely after a promise. Escalate high-consequence uncertainty for competent review. Project risk also includes schedule, cost and opportunity effects.

Worked example. A permit lists a barrier that has not yet been installed. The claimed residual risk is premature.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Complete a risk register with cause, event, consequence, control, owner and verification.

Model answer guide. Keep hazard and consequence distinct and require evidence before taking control credit.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Complete a risk register with cause, event, consequence, control, owner and verification.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 5: Contract strategy and risk allocation

Learning objectives

- Explain contract strategy and risk allocation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contract strategy and risk allocation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Contracts define scope, deliverables, payment, acceptance, change and remedies. Lump sum, reimbursable and target-cost arrangements allocate uncertainty differently. Begin with scope maturity and market capability rather than choosing a familiar contract label.

Decision logic. Risk should be allocated to parties able to manage it, with realistic pricing and assurance. Unclear interfaces create disputes despite detailed clauses. Actual indemnity, liability, insurance and governing-law terms require qualified legal and commercial review.

Worked example. A supplier prices an undefined offshore interface as an exclusion; the owner's total risk remains unresolved.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draft a scope and interface schedule for a fictional package.

Model answer guide. Include deliverables, acceptance evidence, owner interfaces, change control and exclusions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Draft a scope and interface schedule for a fictional package.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 6: Energy Infrastructure Finance and Project Bankability: Data and Pe

Learning objectives

- Explain energy infrastructure finance and project bankability: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Infrastructure Finance and Project Bankability: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Energy Infrastructure Finance and Project Bankability: Data and Performance describes a practical part of Energy Infrastructure Finance and Project Bankability. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy infrastructure finance and project bankability: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy infrastructure finance and project bankability: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy infrastructure finance and project bankability: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for energy infrastructure finance and project bankability: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 7: Energy Infrastructure Finance and Project Bankability: Applied Cas

Learning objectives

- Explain energy infrastructure finance and project bankability: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Infrastructure Finance and Project Bankability: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Energy Infrastructure Finance and Project Bankability: Applied Case describes a practical part of Energy Infrastructure Finance and Project Bankability. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy infrastructure finance and project bankability: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy infrastructure finance and project bankability: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy infrastructure finance and project bankability: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for energy infrastructure finance and project bankability: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 8: Energy Infrastructure Finance and Project Bankability: Communica

Learning objectives

- Explain energy infrastructure finance and project bankability: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Infrastructure Finance and Project Bankability: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Energy Infrastructure Finance and Project Bankability: Communication and Escalation describes a practical part of Energy Infrastructure Finance and Project Bankability. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy infrastructure finance and project bankability: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy infrastructure finance and project bankability: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy infrastructure finance and project bankability: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for energy infrastructure finance and project bankability: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 9: Energy Infrastructure Finance and Project Bankability: Knowledge

Learning objectives

- Explain energy infrastructure finance and project bankability: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Infrastructure Finance and Project Bankability: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Energy Infrastructure Finance and Project Bankability: Knowledge Check describes a practical part of Energy Infrastructure Finance and Project Bankability. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy infrastructure finance and project bankability: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy infrastructure finance and project bankability: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy infrastructure finance and project bankability: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for energy infrastructure finance and project bankability: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 10: Energy Infrastructure Finance and Project Bankability: Competen

Learning objectives

- Explain energy infrastructure finance and project bankability: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Infrastructure Finance and Project Bankability: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Infrastructure Finance and Project Bankability

Detailed teaching notes

Teaching notes

Core explanation. Energy Infrastructure Finance and Project Bankability: Competence Review describes a practical part of Energy Infrastructure Finance and Project Bankability. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy infrastructure finance and project bankability: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy infrastructure finance and project bankability: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy infrastructure finance and project bankability: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for energy infrastructure finance and project bankability: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Facilitator close-out and resources

Facilitator close-out

Record attendance, assessment evidence, learner support needs, incidents and improvement actions according to approved provider processes. Do not sign learners off for regulated or safety-critical work without the authorised assessment and certification route.

Resources and references

- Supplied GExperts/IUM reference materials; verify reuse rights and currentness.
- Current applicable Namibian legislation, standards and approved site procedures supplied by the provider.
- Case worksheet and instructor slides must be produced and reviewed before course release.