

Unit 10 - Week 8 - Energy and Financing

Course outline

How does an NPTEL online course work?

Practice Assignment

Week 1 - Introduction

Week 2 - Energy and quality of life, Country energy balance

Week 3 - Energy Economics

Week 4 - Energy Resources

Week 5 - Non-Renewable Resource Economics

Week 6 - Preferences, Utility and Social choices

Week 7 - Public and private goods, Externalities

Week 8 - Energy and Financing

Lecture 15B: Revision paper-1 (Part 3)

Lecture 16A: Energy Project Financing - Part 1

Lecture 16B: Energy Project Financing - Part 2

Lecture 17: Energy Project Financing - Tutorial

Download Videos

Weekly Feedback

Quiz : Assignment 8

Additional learning

Assignment - 8 solutions

Week 9 - Input-Output Analysis

Week 10 - Primary Energy Analysis, Net Energy Analysis

Week 11 - Net Energy Analysis (Continued), Energy Policy

Week 12 - Energy policy (continued), Future Energy Systems

Text Transcripts

Assignment 8

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2020-03-25, 23:59 IST.

1) Which of the following is an example of Project finance? 1 point

- Funding of salaries of a company
- Funding of the electricity expenses of a company
- Funding of the outstanding loans or deficit of a company
- Funding of a rooftop PV power plant
- None of the above

No, the answer is incorrect. Score: 0

Accepted Answers: *Funding of a rooftop PV power plant*

2) A company is planning to take a loan for an energy project, which of the following does the load repayment not depend on? 0 points

- Interest rate
- Tenor (duration) of the loan
- Discount rate
- Amount of the loan

No, the answer is incorrect. Score: 0

Accepted Answers: *Discount rate*

3) Which of the following are examples of financing instruments? 2 points

- Multilateral development banks
- Soft loans
- Market based loans
- Grants

No, the answer is incorrect. Score: 0

Accepted Answers: *Soft loans*

Market based loans

Grants

4) If a bank is financing a large project of a reputed corporate, which of the following is true? 1 point

- Risk would be the same for non-recourse and recourse funding
- Risk would be greater for recourse funding
- Risk would be lesser for recourse funding

No, the answer is incorrect. Score: 0

Accepted Answers: *Risk would be lesser for recourse funding*

5) The majority of climate fund investments have been for" 1 point

- Adaptation
- Mitigation
- Waste management
- Carbon Capture and Storage

No, the answer is incorrect. Score: 0

Accepted Answers: *Mitigation*

6) What is the source of the majority of renewable energy finance? 1 point

- Public markets
- Corporate R&D
- Government R&D
- Asset finance

No, the answer is incorrect. Score: 0

Accepted Answers: *Asset finance*

7) Which investor has the highest expectation of returns? 1 point

- Development banks
- Large corporations
- Venture Capital
- Mutual funds

No, the answer is incorrect. Score: 0

Accepted Answers: *Venture Capital*

8) For a long term project with relatively low returns, which investor is more likely to invest? 1 point

- Hedge funds
- Insurance companies
- Large corporations
- Private equity

No, the answer is incorrect. Score: 0

Accepted Answers: *Insurance companies*

9) Which technology received the largest share of Renewable investment in the year 2018? 1 point

- Wind
- Biomass
- Small Hydro
- Solar

No, the answer is incorrect. Score: 0

Accepted Answers: *Solar*

10) A comparison of the debt and equity cost in India and the US for energy projects shows: 1 point

- Cost of debt and equity are similar in both countries
- Cost of debt is higher in the US than in India
- Cost of debt is lower in the US than in India
- None of the above

No, the answer is incorrect. Score: 0

Accepted Answers: *Cost of debt is lower in the US than in India*

11) A PV power plant in Tamil Nadu has a capacity of 648MW. The Capital investment is Rs4550 crores, assuming a capacity factor of 24%, with a power purchase agreement guaranteeing a price of Rs7/kWh, assuming a lifetime of 25 years, neglecting O&M costs, answer the following questions. What is the Internal Rate of Return (IRR) of the project?

Hint

No, the answer is incorrect. Score: 0

Accepted Answers: *(Type: Range) 20.60,20.90*

2 points

12) Based on the data given in Question 11 and given debt at 15% interest and a tenor of 15 years, and assuming a Debt:Equity ratio of 50:50, find the IRR on the equity of the project.

Hint

No, the answer is incorrect. Score: 0

Accepted Answers: *(Type: Range) 25.1,25.4*

2 points

13) Based on the data given in Question 11 and given debt at 20% interest and a tenor of 10 years, and assuming a Debt:Equity ratio of 70:30, find the IRR on the equity of the project.

Hint

No, the answer is incorrect. Score: 0

Accepted Answers: *(Type: Range) 21.40,21.70*

2 points

14) Based on the answer in question 12 and 13, which project has a higher internal rate of return? 1 point

- Debt at 20% interest, tenor of 10 years and Debt:Equity ratio 70:30
- Debt at 15% interest and a tenor of 15 years and Debt:Equity ratio of 50:50

No, the answer is incorrect. Score: 0

Accepted Answers: *Debt at 15% interest and a tenor of 15 years and Debt:Equity ratio of 50:50*