PNACE-896
10127

Investment Appraisal And Risk Analysis For The Power Sector

March 26, 1998

Task Order No 804
Contract No PCE-1-00-96-00002-00

Investment Appraisal And Risk Analysis For The Power Sector

Course Presented at
National Institute for Financial Management
Faridabad, India
January 5 to January 23, 1998

Prepared By
Glenn P Jenkins and Associates
Cambridge, MA USA 02140

March 26, 1998

For
USAID/India
Mr N V Seshadri

Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ)
Partners International Resources Group Winrock International
and Harvard Institute for International Development

Subcontractors PADCO Management Systems International and Development Alternatives Inc

Collaborating Institutions Center for Naval Analysis Corporation Conservation International KNB Engineering and Applied Sciences Inc Keller-Bliesner Engineering Resource Management International Inc
Tellus Institute Urban Institute and World Resources Institute

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FINAL REPORT

INVESTMENT APPRAISAL AND RISK ANALYSIS FOR THE POWER SECTOR

Course Presented at

National Institute for Financial Management

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Sponsored by

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through

Environmental Policy and Institutional Strengthening IQC (EPIQ)
PCE-I-00-96-00002-00
Task Order

Regulatory Reform and Restructuring Activities
Task Order No 804 under Contract No
OUT-PCE-I-804-96-00002-00 Project No 1613

with

Glenn P. Jenkins and Associates
Cambridge, MA USA 02140
March 26, 1998

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INVESTMENT APPRAISAL AND RISK ANALYSIS FOR THE POWER SECTOR

1 Objectives of Course

This intensive three week course was designed to give the participants operational skills in the preparation and analysis of feasibility studies in the Power Sector The course covered the financial, economic, risk and distributive analysis aspects of such feasibility studies By the end of the program all the participants should be able to do such analysis using the computer based spreadsheet EXCEL and the software package RISKMASTER These two software packages are important tools to assist the participants in carrying out an integrated analysis of investments

In the process of completing the program each participant was expected to complete two cases dealing with the evaluation of a project from alternative points of view and the determination of the appropriate time to begin and end projects In addition, each participant is expected to complete a comprehensive case that required a financial, economic, risk and distributive analysis that was done in an integrated fashion

2 Course Outcomes

The total number of participants in the course was 39 (See Attachment A for a list of the course participants) All of the participants successfully completed the course, and received a certificate indicating their achievement A list of final grades of participants is included in Attachment A Each of the participants completed all of the assignments and all aspects of the comprehensive case Fifteen of the participants, working in teams of two, completed seven comprehensive cases that are part of the ongoing work of their organizations These cases were all completed with a high level of professional competence

Each of the special comprehensive cases was presented at the end of the course In addition, both of the standard comprehensive cases were presented, exhaustively examined and discussed by the participants At the end of the course, a series of presentations of comprehensive cases were made with representatives of the Power Ministry, the Power Finance Corporation, some representatives of the State Electricity Boards, and USAID present and participating in the discussions

All topics of the syllabus (See Attachment B) were covered during the three-week course In addition, the participants were able to go further in the economic appraisal of power projects than was initially planned Different types of power purchase agreements, based on actual power projects, were built into the comprehensive cases so that the participants were dealing with real life issues rather than pure academic problems

The over all evaluation of the course by the participants was highly favorable (See Attachment C) They felt that the course exceeded their expectations in most of its aspects They were under great time pressure to learn and master the materials covered But that is an integral part of the design of this intensive executive program

3 Suggestions for Future Courses

The suggestions we would like to make are rather minor in nature We would recommend that the microcomputers made available for use by the students be at level of pentium processors in speed This year some of the microcomputers were still 386 were very slow keeping in mind that we run specially designed software for risk analysis This deficiency did not cause any of the participants to not complete their work, but the faster machines would have reduced their stress

We would also inform the participants earlier, and in more detail, of the nature of the special comprehensive cases they might be able to complete during the program A number of participants would have liked to work on a case from their parent organization, but did not have time to prepare the necessary materials ahead of time

In summary, this was a professionally satisfying and intellectually exciting experience for all of the faculty who were involved in this program The group of participants, with much in common in terms of their work experience and problems they face, created an atmosphere of enthusiasm about what they were learning that was far beyond what we had anticipated The participants worked for more than 12 hours a day, six days a week, without any complaints

Please note that copies of all the training materials used in the course have been given to USAID (Delhi), Power Finance Corporation and International Resource Group)

ATTACHMENT A

LIST OF PARTICIPANTS AND PERFORMANCE IN COURSE

Investment Appraisal and Risk Analysis for the Power Sector

No	Participants	GRADE
1	Rajeev Mehrotra	A
2	Shrawan Kumar Urmalia	A
3	Jyoti Kumar Mehta	A
4	Avkash Saxena	A
5	R Murahari	A
6	Pradeep Jindal	A
7	Swapan Kumar Bera	A
8	Braja Sundar Mohapatra	A
9	Sanjiva Mandilwar	A
10	R S Batra	A
11	S R badri Narayana	A
12	R S Johri	A
13	Asit Baran Daripa	A
14	Akshaya Kumar Sahoo	A
15	K Sundaravadhanam	A-
16	A K Rampal	A-
17	Rajiv Kumar Chandok	A-
18	Rajendra Kumar Jain	A-
19	Ali Shah	A-
20	B V Ramesh	A-
21	C N Jyothi Laxmi	A-
22	Arun Kumar Kundu	A-
23	P Solomon Herme	A-
24	P C Gupta	A-
25	V K Joshi	A-
26	Vijay Kumar Shah	A-
27	S N Gaikwad	B+
28	C V Ramanan	B+
29	Krishan Kumar Mahto	B+
30	R Jarard Kishore	B+
31	M Subrahmanyam	B+
32	S S Gupta	B+
33	Sudhindra Nath Mohanty	B+
34	A R K Moorthy	B+
35	P Subba Rao	B+
36	Nihar Kumar Mohapatra	B+
37	Subhas Chandra Behera	B+
38	Pradeep Kumar Mohapatra	B+
39	B Krishna Murthy	B

PROJECT APPRAISAL AND RISK ANALYSIS FOR POWER SECTOR
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Time	Venue	Programme	Week One
SUNDAY, January 4			
18 30-21 30		Course Opening	
MONDAY, January 5			
09 00-10 00	Class	Introductory Session	
10 00-10 30		Tea Break	
10 30-12 30	Class	Components of Project Evaluation (power project appraisal modules) *Readings* Manual, Jenkins & Harberger(1992), Cost-Benefit Analysis of Investment Decision Chapter 1 & 2, pg 2 1 - 2 3 *Additional Readings* Curry and Weiss (1993), Project Analysis in Developing Countries, Chapter 1	
12 30-13 45		Lunch	
13 45-15 00	Class	The Components of Cash Flow Analysis (financial profiles, cash flow statements, interest during construction, capitalization) *Readings* Manual, Chapter 2, pg 2 3 - 2 16, Chapter 3, pg 3 1 - 3 3	
15 00-15 30		Tea Break	
15 30-17 00	Class	Analysis of Cash Flows (treatment of land and final year values) *Readings* Manual, Chapter 3, pg 3 3 - 3 10 *Additional Readings* Curry and Weiss (1993), Project Analysis in Developing Countries, Chapter 2, pg 14-34 Henderson & Maness (1989), The Financial Analyst's Deskbook, Chapter 1 & 3	
17 00 onward	Lab	Distribution & Analysis of Case I (Due Thursday, January 8, 20 00 PM in Computer Lab)	
TUESDAY, January 6			
09 00-10 30	Class	Analysis of Cash Flows Continued (alternative points of view, financial, economic, total investment, utility) *Additional Readings* Curry and Weiss (1993), Project Analysis in Developing Countries, Chapter 2, pg 11-14	
10 30-11 00		Tea Break	

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Time	Venue	Programme	Week One
11 00-12 30	Class	Analysis of Cash Flows Continued (alternative points of view, utility, BOT, economy)	
12 30-13 45		Lunch	
13 45-15 00	Class	Evaluation of Power Projects from Alternative Points of View (the BUI Hydro Power Project) *Readings* Manual, Chapter 3, pg 3 10 - 3 20	
15 00-15 30		Tea Break	
15 30-16 30	Class	Review of Case I (thermal power project, alternative points of view)	
16 30 onward	Lab	Analysis of Case I continued	
WEDNESDAY, January 7			
09 00-10 30	Class	Discounting and Other Investment Criteria (choice of discount rates for power projects, proper discount rate when interest rate changes, traditional profit-and-loss statement, ROE, BOTs use IRR) *Readings* Manual, Chapter 4, pg 4 1 - 4 21 *Additional Readings* Curry and Weiss (1993), Project Analysis in Developing Countries, Chapter 2, pg 34-43 Turvey, R (1968), Optimal Pricing and Investment in Electricity Supply, Ch 3, "The Background Plan "	
10 30-11 00		Tea Break	
11 00-12 30	Class	Discounting and Other Investment Criteria Continued (discount rates and choice of technology, project life) *Readings* Jenkins, G P , "Public Utility Finance And Economic Waste *Canadian Journal of Economics*, August 1985 Curry and Weiss (1993), Project Analysis in Developing Countries, pg 34-73	
12 30-13 45		Lunch	
13 45- 15 00	Lab	Analysis of case I continued	
15 00- 15 30		Tea Break	
15 30-onwards	Lab	Analysis of Case I completed	

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Time	Venue	Programme	Week One
THURSDAY, January 8			
09 00-10 30	Class	Determination of Optimal Scale of Power Projects (NPV, incremental NPV, optimal scale) *Readings* Manual, Chapter 5, pg 5 1 - 5 8	
10 30-11 00		Tea Break	
11 00-12 30	Class	Determination of Optimal Scale of Power Projects Continued (economic dispatch, optimal stacking, optimal scale) *Readings* Harberger, A C , *Project Evaluation*, 1976, Ch 9, "Marginal Cost Pricing And Social Investment Criteria For Electricity Undertakings " Jenkins, G P and Lim, H B F ,"The Choice Of Scale, Technology And Timing For Electric Power Projects," 1996	
12 30-13 45		Lunch	
13 45-15 00	Class	Timing and Separable Components of Projects (timing, complementarity and substitutability of power projects) *Readings* Manual, Chapter 5, pg 5 8- 5 12	
15 00-15 30		Tea Break	
15 30-17 00	Class	Presentation of Case 1, Distribution of Case 2 (Optimal scale and timing of power projects) (Due Monday, January 12, 9 00 in Class)	
17 00-18 00	Class	Review of Case II	
18 00-onward	Lab	Analysis of Case II	
FRIDAY, January 9			
09 00- 10 30	Class	Integrated Financial Analysis of Investment Projects (inflation, real and nominal prices and exchange rates) *Readings* Manual, Chapter 6	
10 30-11 00		Tea Break	
11 00-12 30	Class	Integrated Financial Analysis of Investment Projects Continued (inflation and investment appraisal)	
12 30-13 45		Lunch	

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Time	Venue	Programme	Week One
13 45-15 00	Class	Integrated Financial Analysis of Investment Projects Continued (impact of inflation)	
15 00-15 30		Tea Break	
15 30 onward	Lab	Analysis of Case II	
SATURDAY, January 10			
09 00-10 30	Class	Project Financing (project financing components) *Readings* C W Beale (1984), "Trends in Limited and Non-Recourse Financing" John M Niehuss (1982), "An Introduction to International Project Financing"	
10 30-11 00		Tea Break	
11 00-12 30	Class	Project Financing Continued (financing sources and the HUB POWER case study) *Readings* M Crisell, *HUB Power - An Innovative Approach To Project Financing*, Euromoney Publication Plc , Essex, UK, 1996 Nevitt, P K and Fabozzi, F , *Project Finance*, Euromoney Publications, Rochester, UK, 1995, Ch 10, "Sources of Equity and Debt " Nevitt, P K and Fabozzi, F , *Project Finance*, Euromoney Publications, Rochester, UK, 1995, Ch 11, "Instruments Used in Project Financing "	
12 30-13 45		Lunch	
13 45 onward	Lab	Completion of Case II	

END OF WEEK ONE

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PROJECT APPRAISAL AND RISK ANALYSIS FOR POWER SECTOR
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Time	Venue	Programme	Week Two
MONDAY, January 12			
08 30-10 00	Class	Fundamentals of Economics (demand, supply, demand for electricity) *Readings* Manual, Appendix A & B *Additional Readings* Lim, H B F , "Cost-Benefit Analysis For Peak-Load Pricing And Load Management," 1979, Appendix C, "Capital Stock And The Demand For Electricity By Households And Industry"	
10 00-10 30	Class	Presentation of Case II	
10 30-11 00		Tea Break	
11 00-12 30	Class	Negotiation of Power Purchase Agreements (PPA)	
12 30-13 45		Lunch	
13 45-15 00	Class	Preparation for the Evaluation of Power Purchase Agreements (PPA) (please read and study case material beforehand) *Readings* Lim, H B F , Glenn Jenkins, 'An Integrated Analysis of Power Purchase Agreements The SPPL Power Project in India", November 5, 1997	
15 00-15 30		Tea Break	
15 30- 16 30	Class	Negotiation Assignment 1	
16 30-17 00	Class	Presentation of Negotiation Assignment 1	
17 00-17 30		Tea Break	
17 30- 19 00	Class	Negotiations Assignment 2	
19 00-21 00	Class	Presentation and Discussion of Negotiation Assignment 2	
TUESDAY January 13			
09 00-10 30	Class	Integrated Financial and Economic Analysis (three postulates, distortions) *Readings* Kuo, C (1978), "A Conceptual Framework for the Economic Evaluation of Industrial Projects", Jenkins, G P (1993) "Economic Parameters for the Appraisal of Investment Projects Bangladesh, Indonesia and the Philippines," Chapter 1	

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Time	Venue	Programme	Week Two
10 30-11 00		Tea Break	
11 00-12 30	Class	Estimating the Economic Prices and Conversion Factors for Traded Goods Readings Jenkins, G P (1993), "Economic Parameters for the Appraisal of Investment Projects Bangladesh, Indonesia and the Philippines," Chapter 4 Manual, pg 10 1 - 10 9	
12 30-13 45		Lunch	
13 45-15 00	Class	Demonstration of an Integrated Appraisal of a Comprehensive Case	
15 00-15 30		Tea Break	
15 30 onward	Lab	Distribution and Analysis of Comprehensive Cases (Due Saturday, January 17, 2 00 PM in Lab)	
WEDNESDAY, January 14			
09 00-10 30	Class	Economic Prices and Conversion Factors for Non-Traded Goods *Readings* Jenkins, G P , (1993), "Economic Parameters for the Appraisal of Investment Projects Bangladesh, Indonesia and the Philippines," Chapter 5 Manual, Chapter 8, Chapter 9, pg 9 1 - 9 14	
10 30-11 00		Tea Break	
11 00-12 30	Class	Economic Prices and Conversion Factors for Non-Traded Goods Continued (valuation of electricity, outages, shortage and non-shortage electric energy)	
12 30-13 45		Lunch	
13 45-15 00	Lab	Analysis of Comprehensive Cases continued	
15 00-15 30		Tea Break	
15 30 onward	Lab	Analysis of Comprehensive Cases continued	
THURSDAY, January 15			
09 00-10 30	Class	Electricity Economics (monopoly, competition, regulatory policy and pricing) *Readings* Joskow, P , "How Will It All End? - The Electric Utility Industry In 2005," *The Electricity Journal*, January/February 1996 Granger, R M and Lim, H B F , "A Framework For Electric Utility Marginal Cost Analysis," *Public Utility Fortnightly*, April 1, 1982	
10 30-11 00		Tea Break	
11 00-12 30	Lab	Analysis of Comprehensive Cases continued	

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Time	Venue	Programme	Week Two
12 30-13 45		Lunch	
13 45-15 00	Lab	Analysis of Comprehensive Cases continued	
15 00-15 30		Tea Break	
15 30 onward	Lab	Analysis of Comprehensive Cases continued	
FRIDAY, January 16			
09 00-10 30	Class	Electricity Economics Continued (long run and short run marginal costs, time of day pricing, marginal cost pricing) *Additional Readings* Lim, H B F , "Measuring The Marginal Cost of Joint Power Production Across Time , 1981 Lim, H B F , 'The Marginal Cost Of Electricity Transmission And Distribution' , 1981	
10 30-11 00		Tea Break	
11 00-12 30	Lab	Analysis of Comprehensive Cases continued	
12 30-13 45		Lunch	
13 45-15 00	Lab	Analysis of Comprehensive Cases continued	
15 00-15 30		Tea Break	
15 30 onward	Lab	Analysis of Comprehensive Cases continued	
SATURDAY, January 17			
09 00-10 30	Lab	Analysis of Comprehensive Cases continued	
10 30-11 00		Tea Break	
11 00-12 30	Lab	Analysis of Comprehensive Cases completed	
12 30-13 45		Lunch	
13 45-14 45	Lab	Analysis of Comprehensive Cases completed	
15 00-15 30		Tea Break	
15 30-17 00	Class	Presentation of Comprehensive Cases	
17 00-	Class	Review for Quiz (Quiz on Monday, January 19, 9 00 AM)	

END OF WEEK TWO

PROJECT APPRAISAL AND RISK ANALYSIS FOR POWER SECTOR
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Time	Venue	Programme	Week Three
MONDAY, January 19			
09 00-10 30	Class	Quiz	
10 30-11 00		Tea Break	
11 00-12 30	Class	Risk and Project Analysis - Introduction to Sensitivity and Risk Analysis *Readings* Savvakis Savvides (1993), "Risk Analysis in Investment Appraisal" Spinney, P J and Watkins, G C , "Monte Carlo Simulation Techniques And Electric Utility Resource Decisions," *Energy Policy*, Vol 34, No 2, 1996	
12 30-13 45		Lunch	
13 45-15 00	Class	Introduction to Risk Analysis Software	
15 00-15 30		Tea Break	
15 30-17 00	Lab	Risk Analysis Software Tutorial	
17 00 onward	Lab	Risk Analysis of Comprehensive Cases (Due Thursday, January 22, 12 30 PM in Lab)	
TUESDAY, January 20			
09 00-10 30	Class	Principles of Contracting, Risk Sharing and Risk Reduction Continued *Readings* C Blitzer, D Lessard, J Paddock (1984), "Risk-bearing and the Choice of Contract Forms for Oil Exploration and Development" Graham Glenday (1989), "Monte Carlo Simulation Techniques in the Valuation of Truncated Distributions in the Context of Project Appraisal" *Additional Readings* Donald R Lessard (1987), "The Financial Component of Foreign Direct Investment Costs and Benefits"	
10 30-11 00		Tea Break	
11 00-12 30	Class	Principles of Contracting Continued	
12 30-13 45		Lunch	
13 45 onward	Lab	Risk Analysis of Comprehensive Cases	

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Time	Venue	Programme	Week Three
WEDNESDAY, January 21			
09 00-10 30	Class	The Use of Financial and Economic Analysis for Estimating Distributional Impacts *Readings* Jenkins, G P , (1992), "Integration of Distributive Analysis with the Financial and Economic Appraisal of Projects"	
10 30-11 00		Tea Break	
11 00-12 30	Lab	Risk Analysis of Comprehensive Cases continued	
12 30-13 45		Lunch	
13 45 onward	Lab	Risk Analysis of Comprehensive Cases continued	
THURSDAY, January 22			
09 00-10 30	Class	Evaluation of Environmental Impacts and Control of Power Projects *Readings* Asian Development Bank, *Economic Evaluation Of Environmental Impacts - A Workbook,* Asian Development Bank, Manila, 1966, Ch 7, Appendix G, H & I Fay, J A and Golomb, D , 'Air Pollution Control For Indonesia Fossil-Fuel Power Plants', Cambridge, 1988 *Additional Readings* Rosen, H S , *Public Finance,* 1995, Ch 6, ' Externalities	
10 30-11 00		Tea Break	
11 00-12 30	Lab	Risk Analysis of Comprehensive Cases completed	
12 30-13 45		Lunch	
13 45-16 00	Class	Presentation of Risk Analysis of Comprehensive Cases	
16 00-17 00	Class	Presentation of Risk Analysis of Comprehensive Cases	
FRIDAY, January 23			
09 00-10 00	Class	Presentation of Risk Analysis of Comprehensive Cases	
10 00-11 00	Class	Presentation of Risk Analysis of Comprehensive Cases	
16 00 - 17 30		Valedictory Function	
17 30 onward		Departures	
		END OF PROGRAMME	

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Course Evaluation

POWER FINANCE CORPORATION, NEW DELHI, INDIA

USAID Assisted Programme on "Project Appraisal & Risk Analysis" for the Power Sector at the National Institute of Financial Management, Sector-48, Pali Road, Faridabad

January 4-23, 1998

1 *Quality of lectures*

[a]	Excellent	(1) (2) (4) (5) (6) (7) (8) (10) (11) (12) (13) (14) (15) (17) (18) (19) (21) (22) (23) (24) (27) (28) (29) (31) (32) (33) = 26 of 33
[b]	Very Good	(3) (9) (16) (30) = 4 of 33
[c]	Good	(20) (25) (26) = 3 of 33
[d]	Average	= 0 of 33
[e]	Poor	= 0 of 33

2 *Relevance of course material*

[a]	Excellent	(2) (3) (4) (5) (6) (7) (8) (10) (12) (13) (14) (15) (17) (18) (19) (21) (22) (23) (24) (27) (29) (31) (32) (33) = 24 of 33
[b]	Very Good	(1) (9) (11) (16) (20) (26) (28) (30) = 8 of 33
[c]	Good	(25) = 1 of 33
[d]	Average	= 0 of 33
[e]	Poor	= 0 of 33

3 *Usefulness of problem sets as a learning tool*

[a]	Excellent	(2) (3) (4) (5) (6) (7) (8) (10) (11) (12) (13) (14) (15) (16) (17) (19) (21) (22) (23) (24) (27) (29) (31) (33) = 24 of 33
[b]	Very Good	(1) (18) (25) (26) (28) (30) (32) = 7 of 33
[c]	Good	(9) (20) = 2 of 33
[d]	Average	= 0 of 33
[e]	Poor	= 0 of 33

4 *Faculty support in the computer lab*

[a]	Excellent	(1) (2) (4) (5) (6) (7) (9) (10) (11) (12) (13) (14) (15) (18) (21) (23) (24) (27) (28) (29) (30) (33) = 22 of 33
[b]	Very Good	(8) (22) (31) (32) = 4 of 33
[c]	Good	(3) (16) (17) (19) (20) (25) (26) = 7 of 33
[d]	Average	= 0 of 33
[e]	Poor	= 0 of 33

5 *Usefulness of the exercise on your comprehensive case*

[a]	Excellent	(2) (4) (5) (6) (7) (8) (10) (11) (12) (13) (14) (15) (18) (19) (21) (22) (23) (24) (27) (28) (29) (32) (33) = 23 of 33
[b]	Very Good	(1) (3) (9) (17) (20) (31) = 6 of 33
[c]	Good	(16) (25) (26) (30) = 4 of 33
[d]	Average	= 0 of 33
[e]	Poor	= 0 of 33

6 *Overall course rating*

[a]	Excellent	(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (17) (19) (21) (22) (23) (24) (27) (28) (29) (31) (32) (33) = 27 of 33
[b]	Very Good	(16) (18) (20) (25) (30) = 5 of 33
[c]	Good	(26) = 1 of 33
[d]	Average	= 0 of 33
[e]	Poor	= 0 of 33

7 *Relevance of the course to your work*

[a]	Excellent	(4) (5) (6) (7) (9) (10) (14) (15) (17) (19) (21) (22) (23) (27) (29) (33) = 16 of 33
[b]	Very Good	(12) (13) (18) (24) (28) (30) (31) (32) = 8 of 33
[c]	Good	(1) (2) (3) (8) (11) (16) (20) (25) (26) = 9 of 33
[d]	Average	= 0 of 33
[e]	Poor	= 0 of 33

8 *Lodging arrangements*

[a]	Excellent	(5) (12) (13) (14) (15) (18) (21) (23) (24) (29) (30) = 11 of 33
[b]	Very Good	(1) (2) (3) (6) (7) (9) (16) (25) (26) (28) (32) = 11 of 33
[c]	Good	(11) (17) (19) (20) (31) = 5 of 33
[d]	Average	(33) = 1 of 33
[e]	Poor	(4) (8) (10) (22) (27) = 5 of 33

9 *Boarding arrangements*

[a]	Excellent	(5) (12) (13) (14) (15) (18) (21) (23) (24) (29) (30) = 11 of 33
[b]	Very Good	(2) (3) (6) (7) (9) (16) (22) (25) (26) (28) (31) (32) (33) = 13 of 33
[c]	Good	(1) (4) (8) (10) (11) (17) (19) (20) (27)= 9 of 33
[d]	Average	(27) = 1 of 33
[e]	Poor	(8) = 1 of 33

10 *Any other Comments ?*

Nil (9) (10) (11) (20) (21) (22) (26) (27) (29) (30) (31) (32) (33) = 13 of 33

Comments	Participant
Instead of allowing the participants to raise their doubts in between the lectures, some time may be allowed (say 15 or 20 minutes) at the end of each session in order to ensure continuity of lectures We lost some valuable time because of the above fact, which deprived us, the benefit of getting more information from the faculties Since all of us are new to computers, some tips are essential to us as to how to approach a problem in the lab so that we could save some time On the whole we had a very good experience Special thanks to Professor Glenn and his team members	1
Since we are learning a new methodology of presenting and analysing the project, it is suggested that instead of comparing each and every item with the present way of doing it in our country which is different and to spent more time on the new methodology Hence, even if the participant diverts to the present situation, we will spend more time on the new method The computer phobia has really gone	2
Such training programmes in addition to providing an excellent tool for project appraisal, gives a sense of promoting international integration through participants of far and wide and in understanding the weakness and strength of all for sharing this earth and preserve it to posterity	3
Too much has been squeezed in too little time, which becomes very taxing Course duration should be about 5 weeks, to do the justice with the course contents Particularly Economic-Analysis & Risk Analysis part needs to be given more time, without reducing the time allocated to other topics	4
I am ending the course with a satisfying element I am able to translate part of my dream of developing a computer model to assess the likely projection of a real MESB project Thanks a lot to the faculty	5
Duration of course needs to be extended to minimum 4 weeks, 4th week being utilised for review and critical analysis of individual comprehensive cases for better understanding	6
The course is vast enough and it requires further more time The time is very short and within short time such type of vast course could not be covered and grasp by the people If the time is further extended and lecture is given in two spells, it will be better for us	7
It should be extended	8

Comments	Participant
1 Course not to be contracted 2 Daily written assignment on the days topic 3 Restrict to 7 00 PM on any day work so that the study material could be read by the participant 4 If faculty would present one test case the participant can improve by observing as to how the case has to be presented	12
The overall course was very fine and we learnt a lot from the course The co-operation from the faculty members of Harvard and staff members of NIFM was very good We shared our views with faculty members of Harvard and participants also It would be better if the duration of the course is increased	13
1 Study materials should be sent before the course started at least 15 days before so that the participants could be aquainted 2 Length of the course should be at least 5-6 weeks 3 Thanks	14
The programme was excellent and rich in contents It not only oriented us toward the integrated analysis of projects It also told us how to use the computing power of computers to our advantage while appraising the projects The participants also worked very hard along with the faculty throughout the duration of the programme However, the duration of the programme was only three weeks and it was not sufficient We were rushed through and at times, overburdened It is, therefore, recommended that we may increase the duration of this project to four weeks	15
The course is very useful for finalisation of Power Purchase Agreements But the duration of the course is not sufficient There was no time to study even the course material	16
The course should be expanded to 5 to 6 weeks with much practical works and understanding of the problems relevant to the Indian standards The solved problems of the Major case both hard and soft copy should be provided	17
1 The course may be extended to 4 weeks 2 The manual is very very useful The same may be sent one month ahead of course starting to the participants	18
Course should be expanded	19
Please send a solution of the (Amta & Nirmal) two comprehensive cases in a floppy so that this can be referred in future	23
1 Course was good but the period was too short 2 A sample case could be shown for our better understanding 3 The cooperation from the faculty was excellent and unforgettable	24
Lack of basics in Economics/Finance/Accounting/Computer etc has caused limitations to derive full benefits	25
It would be better if 'duration' of the course is increased	28

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