

## An LDI Training Course

# Project Economic Evaluation and Risk Analysis (Upstream Oil & Gas Business In Indonesia)

by

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### Background

Indonesia's economy heavily relies on the oil and gas industry, which greatly contributes to the country's revenue and energy stability. Nevertheless, the industry confronts various obstacles such as volatile international oil prices, dynamic regulatory frameworks, and the imperative for sustainable development strategies. In this dynamic environment, professionals involved in the upstream oil and gas business must possess a deep understanding of project economics and risk analysis to navigate complexities and make informed decisions. Designed for participants at an intermediate level, this 3-day intensive training course aims to equip individuals with essential knowledge and practical skills for efficient management of economic and financial aspects in upstream projects within Indonesia.

### Objective

The primary objective of this training is to provide participants with a thorough grounding in the fundamentals of oil and gas project economics, focusing on the unique context of Indonesia. The course aims to improve participants' skills in analyzing and optimizing upstream projects by addressing important subjects such as the Plan of Development (POD), project financing, and Production Sharing Contracts (PSCs). Furthermore, the training will provide a comprehensive understanding of advanced economic analysis techniques and risk management strategies, empowering participants to assess project feasibility and effectively mitigate potential risks.

## **Course Structure**

The course is structured over three intensive days, each dedicated to different facets of project economics and risk analysis. The first day focuses on introducing the fundamentals, including an overview of the oil and gas industry in Indonesia, the importance of economic analysis, and the intricacies of project financing. The second day delves into PSCs, exploring both traditional cost recovery and the gross split mechanisms, their economic implications, and best practices. The final day is dedicated to advanced analysis and risk management, with practical applications through case studies and group exercises to solidify participants' understanding and application of the concepts learned.

## **Expected Outcomes**

Participants will develop a strong comprehension of the economic principles that govern upstream oil and gas projects in Indonesia by the conclusion of the training. They will have the ability to carry out comprehensive financial analyses, which encompass cash flow analysis, NPV and IRR calculations, and sensitivity analysis. Additionally, participants will develop competence in evaluating and effectively managing risks related to upstream projects, employing both quantitative and qualitative methodologies. Furthermore, the course will offer valuable practical knowledge on the implementation of PSC mechanisms, empowering participants to effectively apply industry-leading strategies and enhance project profitability in practical situations. The objective of this training is to empower professionals in the oil and gas industry to make strategic decisions based on data, thereby improving project feasibility and supporting the sustainable growth of Indonesia's oil and gas sector.

## **Course Agenda**

### **Day 1: Introduction and Fundamentals**

- 1. Introduction to Oil and Gas Project Economics**
  - Overview of Oil and Gas Industry in Indonesia
  - Key Economic Concepts and Terminologies
  - Importance of Economic Analysis in Upstream Projects
- 2. Plan of Development (POD)**
  - Understanding the Plan of Development
  - Key Components of a POD

- Regulatory Framework and Approval Process in Indonesia
- Case Studies of Successful PODs

### **3. Project Financing**

- Overview of Project Financing in the Oil and Gas Sector
- Types of Financing Options: Equity, Debt, and Hybrid
- Financial Structuring and Modelling
- Risk Assessment and Mitigation in Project Financing

## Day 2: Production Sharing Contracts (PSCs)

### **1. Introduction to PSCs in Indonesia**

- Evolution of PSCs in Indonesia
- Key Features and Objectives of PSCs
- Comparison with Other Contractual Arrangements

### **2. PSC Cost Recovery**

- Understanding Cost Recovery Mechanisms
- Types of Recoverable Costs
- Procedures for Cost Submission and Approval
- Challenges and Best Practices in Cost Recovery

### **3. PSC Gross Split**

- Overview of PSC Gross Split Mechanism
- Comparison with Traditional Cost Recovery PSCs
- Economic Implications of Gross Split PSCs
- Case Studies and Practical Examples

## Day 3: Advanced Analysis and Risk Management & PSC Implementation

### **1. Economic Analysis of Upstream Projects Under PSC Cost Recovery and PSC Gross Split**

- Cash Flow Analysis and Discounted Cash Flow (DCF) Techniques

- Net Present Value (NPV) and Internal Rate of Return (IRR) Calculations
- Sensitivity Analysis and Scenario Planning
- Break-Even Analysis and Profitability Indicators

## **2. Risk Analysis and Management**

- Identifying Risks in Upstream Oil and Gas Projects
- Quantitative and Qualitative Risk Assessment Methods
- Risk Mitigation Strategies
- Real Options Analysis and Decision Tree Analysis

## **3. Case Studies and Practical Applications**

- Detailed Analysis of Real-Life Oil and Gas Projects
- Group Exercises and Role-Playing Scenarios
- Discussion on Lessons Learned and Best Practices

### **Your Course Leader:**

**Dr. A. Rinto Pudyantoro is the author of:**



2012: A to Z Bisnis Hulu Migas  
2014: Proyek Hulu Migas: Analisis dan Evaluasi PetroEkonomi  
2015: Dialog Tanya Jawab Migas  
2019: Bisnis Hulu Migas – Mengurai Persoalan dan Memahami Masa Depan Bisnis Hulu Migas Indonesia  
2019: Kebijakan Perpajakan: Optimalisasi Insentif & Kesimbangan Fiskal (collaboration with fiscal policy Agency)  
2021: Bisnis Migas Menakar Persoalan

He has been working over 31 years in the upstream Oil and Gas Industry, including 10 years in Vico Indonesia, 4 years in BP Indonesia and in 2004 he worked as a Senior Manager - Revenue Accounting and Government Income at BP Migas and Senior Manager Taxation and Levy in SKK Migas.

In 1997 he was assigned by SKK Migas as head of SKK Migas for the Papua and Maluku areas. Finally, before retiring, Rinto served as Head of the Program and Communications Division of SKK Migas.

Currently, apart from being a permanent lecturer at Pertamina University, Rinto is the chairman of a Research Institute at Pertamina University called C-BEPES (center for business and economics of petroleum and energy studies)

His Graduate of the Accounting University of Gajah Mada (UGM) – Yogyakarta and Magister Management International Finance from Business Institute of Indonesia (IBII) – Jakarta. He obtained S3 Degree - Ph.D. in Resources Economics from Bogor Institute of Agriculture (IPB). 2011

His experience in Lecture and Trainer from 2005 – current, in Economics such as Resources Economics, Petroleum Economics, Fiscal and Regional Economics. And also in Financial and Accounting Oil & Gas: PSC accounting, Project Economics and Plan of Development, Budgeting & Reporting, PSC Taxation, International Oil & Gas Petroleum Accounting.

### Who Should Attend

Oil & gas professionals such as Engineers, support managers & their staff, auditors, inspector, geologists, economists, accountants, technicians who need to learn how to conduct economic evaluation and to understand the role of petroleum economics in investment decision making. This program is also recommended for non-technical financial professionals whose work relates to the petroleum industry, supervisors & managers in the Exploration, Production, Financing and Bank & Insurance Company.

### TRAINING CONFIRMATION

LDI Training will provide a Confirmation Letter after we receive registration according to the required quota.

**For registration and more information please contact**

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