



# **Financial Modeling and Asset Valuation in Oil & Gas Training Course**

**Ref: #OG9166**



## **Course Introduction / Overview:**

The oil and gas industry are known for its capital-intensive nature and exposure to significant market volatility. As a result, mastering financial modeling and asset valuation is essential for making sound investment decisions and managing risk effectively. This training course, offered by BIG BEN Training Center, provides a comprehensive framework for professionals to navigate the unique financial landscape of the energy sector. The curriculum starts with the fundamentals of industry-specific accounting and financial statement analysis, which are crucial for building accurate financial models. We then move into advanced topics like discounted cash flow (DCF) analysis and net asset valuation (NAV) modeling, which are the cornerstone of valuing oil and gas assets and companies. This program is informed by established academic practices, drawing on the insights of authors like Paul Pignataro and his book, *Financial Modeling and Valuation: A Practical Guide to Investment Banking and Private Equity*. By blending theoretical knowledge with hands-on, practical exercises, this course equips participants with the skills needed to create robust financial models and conduct in-depth valuations, which are critical for investment, mergers and acquisitions, and project financing decisions.

## **Target Audience / This training course is suitable for:**



- Financial analysts and managers.
- Investment bankers.
- Project managers in the oil and gas sector.
- Corporate finance professionals.
- Business development specialists.
- Accountants and auditors.
- Risk management professionals.

### **Target Sectors and Industries:**

- Upstream, midstream, and downstream oil and gas companies.
- Investment banking and private equity firms.
- Energy and natural resource consulting.
- Utilities and power generation.
- Government agencies and regulatory bodies.
- Financial services.
- Energy trading and marketing.

### **Target Organizations Departments:**

- Finance and accounting.
- Corporate strategy and planning.
- Business development.
- Mergers and acquisitions.
- Investment and portfolio management.
- Risk management.
- Treasury.

### **Course Offerings:**



By the end of this course, the participants will have able to:

- Build a comprehensive financial model for an oil and gas company.
- Conduct an in-depth valuation using discounted cash flow (DCF) and NAV models.
- Analyze and interpret oil and gas financial statements.
- Project revenue, expenses, and capital expenditures.
- Evaluate different investment opportunities using key metrics.
- Perform sensitivity and scenario analysis to assess risk.
- Understand the role of hedging and derivatives in financial modeling.

## **Course Methodology:**

This training course uses a practical, case study-based approach to financial modeling and asset valuation. Our methodology combines interactive lectures with hands-on workshops that focus on building financial models in Excel from scratch. Participants will work through a detailed case study of a real-world oil and gas company, learning to input historical data, make projections, and build the three core financial statements. We emphasize best practices in financial modeling, including efficient formula construction, clear formatting, and how to handle circular references. The program also includes a variety of group exercises where participants will apply valuation techniques to different oil and gas assets, such as a producing field or a pipeline project. Through these activities, participants will gain confidence in their ability to perform complex financial analysis and present their findings. BIG BEN Training Center is committed to providing a learning environment where theory is immediately translated into a usable, on-the-job skill set.



## **Course Agenda (Course Units):**

### **Unit One: Fundamentals of Oil & Gas Finance Industry and Financial Statements.**

- Overview of the oil and gas value chain.
- Key industry metrics and terminology.
- Understanding oil and gas accounting principles.
- Analysis of financial statements for energy companies.
- Drivers of revenue, costs, and capital expenditures.
- Financial and operational benchmarks.
- Hedging and its impact on financials.

### **Unit Two: Building the Financial Model the Core Framework.**

- Excel best practices for financial modeling.
- Structuring a three-statement financial model.
- Modeling revenue and operating expenses.
- Forecasting production, reserves, and prices.
- Building depreciation and tax schedules.
- Working capital and debt schedules.
- Connecting the three financial statements.

### **Unit Three: Asset Valuation Discounted Cash Flow and NAV.**

- Introduction to valuation methodologies.
- Discounted Cash Flow (DCF) analysis.
- Net Asset Value (NAV) modeling.
- Estimating cash flows for oil and gas projects.
- Calculating the Weighted Average Cost of Capital (WACC).
- Terminal value and its significance.
- Performing sensitivity and scenario analysis.



## **Unit Four: Advanced Valuation and Analysis Comps and M&A.**

- Comparable company analysis (Comps).
- Precedent transaction analysis.
- Sum-of-the-parts valuation.
- Introduction to merger and acquisition (M&A) models.
- Accretion and dilution analysis.
- Leveraged buyout (LBO) basics.
- Presenting valuation results.

## **Unit Five: Project Finance and Risk Case Studies.**

- Financial modeling for project financing.
- Projecting cash flows for a new drilling project.
- Analyzing project returns using IRR and NPV.
- Assessing and mitigating financial risks.
- Case study: valuation of an exploration and production company.
- Case study: financial analysis of a pipeline project.
- Final project and model review.

## **FAQ:**

### **Qualifications required for registering to this course?**

There are no requirements.

### **How long is each day session, and what is the total number of training hours for the course?**

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

### **Something to think about:**



In an era of energy transition, how can traditional asset valuation models for oil and gas companies be adapted to accurately reflect the value of renewable energy assets and their impact on long-term financial performance?

## **What unique qualities does this course offer compared to other courses?**

This training course is distinguished by its sharp focus on the specific complexities of financial modeling and asset valuation within the oil and gas industry. Unlike generic finance programs, our curriculum is tailored to address the unique accounting standards, operational metrics, and market dynamics of the energy sector. We go beyond basic spreadsheet skills to teach participants how to build dynamic and robust models that can handle the volatility of commodity prices and the uncertainty of reserve estimation. Our hands-on approach, centered on a comprehensive case study, ensures that you don't just learn about modeling; you do it yourself, from the ground up. The course provides a deep understanding of core valuation methodologies like DCF and NAV, which are essential for any professional looking to succeed in this highly specialized field. Our program provides the practical expertise and strategic insights needed to make informed financial decisions.