

# Energy Transition and Fiscal Systems for Oil and Gas

**Course leader: Pedro van Meurs**

## **TRAINING COURSES: 2023**

### **Computer interactive 5-day training courses**

*Run over 40 years now, these courses provide participants with an intimate knowledge of petroleum upstream fiscal systems. At the same time the rapid current developments in energy transition requires significant attention to this issue. Therefore, the course consists of 2 days – Energy Transition and 2.5 days – Oil and Gas Fiscal Systems.*

*The aim of the course is to teach participants:*

- *Detailed information on renewables, hydrogen and carbon capture and storage,*
- *Impacts of renewable resources and hydrogen on the petroleum industry,*
- *Structuring of new petroleum-energy arrangements,*
- *The nature and details of all important fiscal features in the world,*
- *The wide variety of fiscal systems based on concessions, production sharing contracts, joint ventures, service contracts and other arrangements,*
- *The underlying economic characteristics of the various fiscal systems,*
- *Advanced economic analysis based on Excel Spreadsheets,*
- *Competitive world frameworks for investing in the petroleum sector, and*
- *Future trends in petroleum fiscal terms,*

*The courses are structured to be useful to a wide range of professions: geologists, petroleum engineers, bankers, accountants, negotiators, economists, and lawyers.*

## **COURSE LEADER**

**The course leader is Dr. Pedro van Meurs. He received his Ph.D. in economic geology (cum laude) in the University of Utrecht in the Netherlands in 1970. During the last 53 years he has worked on fiscal oil and gas issues for more than 90 governments and has recently specialized in energy transition. He was lead consultant in:**

- **Opening of the Newfoundland offshore for exploration and production**
- **Development of the first model contract for offshore China**
- **Production-sharing, SPT and tax terms in Trinidad and Tobago**
- **PSC's in Gabon and Bangladesh**
- **Creation of fiscal terms in Thailand and Pakistan**
- **Development of service contracts in Mexico and Kuwait**
- **New Alberta royalty system**
- **Nigeria Petroleum Industry Act**

# Detailed Course Program

## 5-day Energy Transition and Fiscal Systems for Oil and Gas.

### Day 1 – Energy Transition

Morning-Energy Transition	Afternoon-Energy Transition
<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• General course overview</li> </ul> <p><b>Energy Transition:</b></p> <p><b>Renewable Energy Developments</b></p> <ul style="list-style-type: none"> <li>• Renewable energy economics.</li> <li>• Current costs of solar and wind</li> <li>• Anticipated solar energy developments</li> <li>• Future costs of solar energy</li> <li>• Concentrated Solar Power</li> <li>• Anticipated onshore and offshore wind developments</li> <li>• Future costs of wind energy</li> <li>• Hydropower</li> <li>• Geothermal energy</li> <li>• Biomass</li> <li>• Biofuels</li> <li>• Conclusions on renewable energy economics</li> <li>• Range of estimates of role of renewables in energy production.</li> </ul> <p><b>Energy Storage</b></p> <ul style="list-style-type: none"> <li>• Energy storage economics</li> <li>• Problems with expensive and rare metals</li> <li>• Large variety of energy storage methods</li> <li>• Current energy storage costs</li> <li>• Battery storage cost trends</li> <li>• Future utility scale energy storage costs</li> <li>• Estimates of future storage availability</li> <li>• Impact of storage costs on electricity production and transport sector</li> </ul>	<p><b>Hydrogen</b></p> <ul style="list-style-type: none"> <li>• Hydrogen basics</li> <li>• Grey, blue and green hydrogen</li> <li>• Costs of grey and blue hydrogen production</li> <li>• Green hydrogen production methods</li> <li>• Current costs of producing hydrogen</li> <li>• Hydrogen production economics</li> <li>• Low-cost countries</li> <li>• Current projects</li> <li>• Estimates of future hydrogen production costs</li> <li>• Hydrogen storage</li> <li>• Transport of hydrogen</li> <li>• Hydrogen fuel cells</li> <li>• Green hydrogen for electricity production</li> <li>• Green ammonia</li> <li>• Green hydrogen for the transport sector</li> <li>• Green hydrogen to produce fuels</li> <li>• Hydrogen to replace natural gas</li> <li>• Forecasts of future green hydrogen production</li> </ul> <p><b>Carbon Capture and Storage</b></p> <ul style="list-style-type: none"> <li>• Variety of measures of carbon capture and underground storage</li> <li>• BioEnergy Carbon Capture and storage (BECCS)</li> <li>• Biochar</li> <li>• Direct Air Capture (DAC)</li> </ul> <p><b>Misconceptions about Future Energy</b></p> <ul style="list-style-type: none"> <li>• Misconceptions about future energy</li> </ul>

## Day 2 – Energy Transition

Morning	Afternoon-Oil and Gas Fiscal Systems
<p><b>Worldwide Future Trends</b></p> <ul style="list-style-type: none"> <li>• Anticipated world and petroleum industry developments</li> <li>• Unconventional resources</li> <li>• Long term fiscal trends</li> </ul> <p><b>Climate Change</b></p> <ul style="list-style-type: none"> <li>• Oil and gas demand under climate change scenarios</li> <li>• Net Zero by 2050 or 2060</li> <li>• IEA roadmap 2050</li> </ul> <p><b>Forecasts of Energy, Oil and Gas Developments – 2050</b></p> <ul style="list-style-type: none"> <li>• IEA Scenarios: STEPS, APS, NZE</li> <li>• Forecast of world energy production</li> <li>• Forecast of world oil production</li> <li>• Forecast of world natural gas production and consumption</li> <li>• Forecast of the crude oil price</li> <li>• Forecast of the level of government take</li> </ul> <p><b>Energy Transition Process</b></p> <ul style="list-style-type: none"> <li>• New structure of the petroleum industry</li> <li>• Type of companies involved in energy transition</li> <li>• Petroleum companies who are diversifying</li> </ul>	<p><b>Energy Transition Process</b></p> <ul style="list-style-type: none"> <li>• Petroleum industry restructuring</li> <li>• Power industry restructuring</li> <li>• Wind companies</li> <li>• Solar companies</li> <li>• Independent hydrogen producers</li> <li>• New competitive environment</li> </ul> <p><b>Role of Government in Energy Transition</b></p> <ul style="list-style-type: none"> <li>• Organization of Ministries</li> <li>• Energy transition policies</li> <li>• Elimination of subsidies</li> <li>• Petroleum land management</li> <li>• Decommissioning</li> <li>• CBAM</li> <li>• Natural gas development</li> <li>• R&amp;D</li> </ul> <p><b>Petroleum Energy Arrangements</b></p> <ul style="list-style-type: none"> <li>• Narrow scope future petroleum energy arrangements</li> <li>• Wide scope future petroleum energy arrangements</li> <li>• Package deals on energy and petroleum</li> </ul>

## Day 3 – Oil and Gas Fiscal Systems

Morning-Oil and Gas Fiscal Systems	Afternoon-Oil and Gas Fiscal Systems
<p><b>Oil and Gas Fiscal Systems:</b></p> <p><b>Introduction to Student Model</b></p> <ul style="list-style-type: none"> <li>• Introduction to Excel based spreadsheet for “stand alone” analysis</li> <li>• Review of profitability indicators, such as NPV, IRR, EMV and profitability ratios</li> <li>• Price sensitivity and Divisible Income analysis</li> <li>• Government take and government revenue analysis</li> </ul> <p><b>Royalties, Bonuses, Rentals</b></p> <ul style="list-style-type: none"> <li>• Fixed and sliding scale royalties, royalties in kind and cash, Royalty concepts: Louisiana, Algeria, Nigeria, Colombia, US Gulf of Mexico,</li> <li>• Price sensitive royalties: Alberta, Mexico</li> <li>• Progressive, regressive and neutral royalty systems</li> <li>• Signature bonuses through bidding, negotiation and directly determined by government: Brazil.</li> <li>• Rentals and acreage management: Alberta and Cambodia</li> </ul>	<p><b>Corporate Income Tax</b></p> <ul style="list-style-type: none"> <li>• Consolidation and Ring-fencing: UK and Pakistan</li> <li>• Gross revenue determination</li> <li>• Deduction of other payments to government:</li> <li>• Deduction of operating costs and headquarter costs</li> <li>• Alternative capital depreciation methods and MACRS</li> <li>• Deduction of interest</li> <li>• Loss carry forward and carry backward: Hungary, Russia, Brazil, USA, Canada.</li> <li>• Refunds for tax value of exploration (Norway)</li> <li>• Tax rates and globalization of corporate income tax</li> <li>• Tax credits: USA and Canada</li> <li>• Worldwide corporate income tax systems, tax credits,</li> <li>• Tax treaties: the Netherlands, Cyprus</li> </ul>

## Day 4 – Oil and Gas Fiscal Systems

Morning-Oil and Gas Fiscal Systems	Afternoon-Oil and Gas Fiscal Systems
<p><b>Production Sharing</b></p> <ul style="list-style-type: none"> <li>• The original Indonesian concept</li> <li>• Profit Oil and sliding scales: Philippines, Egypt, Vietnam, Nigeria, Malaysia</li> <li>• Price Sensitive Profit Oil: Trinidad and Tobago, Brazil Pre-Salt.</li> <li>• Cost Oil, cost oil limits and sliding scales: Vietnam, Syria, Oman, Nigeria, Egypt, Angola and Yemen</li> <li>• Uplifts: Angola</li> <li>• Special terms for gas: Malaysia and Indonesia</li> <li>• Production sharing and royalties: Malaysia, Pakistan, Gabon, and Vietnam</li> <li>• Production sharing and corporation income tax: Bangladesh, Indonesia, China, Malaysia and Nigeria</li> </ul> <p><b>Joint Ventures and Carried Interest</b></p> <ul style="list-style-type: none"> <li>• Joint stock companies and joint operating agreements</li> <li>• Joint stock companies: Venezuela, Saudi Arabia</li> <li>• Participation from Day 1: Petoro – Norway</li> <li>• Fixed rate carried interest: Colombia, Malaysia and China</li> <li>• Special state company financing features: PNG and Gabon</li> <li>• Carried interest and corporate income tax</li> <li>• Carried interest and production sharing: China</li> </ul>	<p><b>Progressive and Special Taxes and Profit Shares</b></p> <ul style="list-style-type: none"> <li>• Gross Revenue Taxes: USA, Pakistan, Colombia</li> <li>• Surtaxes, Hydrocarbon Tax: Norway, Denmark,</li> <li>• Special Taxes: UK, Brazil, the Netherlands</li> <li>• IRR based taxes: PNG, Ghana and Australia</li> <li>• IRR based profit oil and royalties: Russia-Sakhalin, Azerbaijan, Angola, Mexico</li> <li>• R-factors: Peru, Azerbaijan, India and Thailand</li> <li>• Combination scales: Libya</li> </ul> <p><b>Flexible Gross Revenue Splits</b></p> <ul style="list-style-type: none"> <li>• Special Sessions on Indonesian Gross Split Contract</li> </ul> <p><b>General Taxes and Duties</b></p> <ul style="list-style-type: none"> <li>• Value added taxes, credits, refunds: Mexico</li> <li>• Value added tax problems: Russia, China, Brazil</li> <li>• Import duties,</li> <li>• Export duties: Russia, Argentina</li> <li>• Property taxes</li> <li>• Carbon Taxes</li> </ul> <p><b>Service contracts</b></p> <ul style="list-style-type: none"> <li>• Iraq 1996 single fee model</li> <li>• Iraq 2018 – 5<sup>th</sup> bidding round TSC</li> </ul> <p><b>Profit Sharing Contracts</b></p> <ul style="list-style-type: none"> <li>• Bolivia</li> </ul> <p><b>Abandonment, Booking of Reserves</b></p> <ul style="list-style-type: none"> <li>• Abandonment issues, Booking of Reserves</li> </ul>

## Day 5 – Oil and Gas Fiscal Systems

Morning -Oil and Gas Fiscal Systems	Afternoon – Free
<p><b>Incremental analysis</b></p> <ul style="list-style-type: none"> <li>• Incremental analysis: corporate income tax,</li> </ul> <p><b>Differential analysis</b></p> <ul style="list-style-type: none"> <li>• Incremental analysis: production sharing and carried interest, IRR and R-factor based features</li> <li>• Analysis of gold-plating: PNG and India</li> </ul> <p><b>Classification of fiscal systems</b></p> <ul style="list-style-type: none"> <li>• Legal and Economic classification</li> <li>• Concessions, PSCs, JOAs</li> </ul> <p><b>Country review of fiscal systems</b></p> <ul style="list-style-type: none"> <li>• Alberta, Norway, Egypt, China,</li> </ul> <p><b>Nature of Government Take</b></p> <ul style="list-style-type: none"> <li>• Sharing of divisible income: progressive, neutral, regressive and hybrid systems</li> <li>• Fiscal health: cost and price efficiency, maximum economic recovery</li> <li>• Fiscal structure policies: Front end and back end loading, Geological risk and government take</li> </ul> <p><b>Level of Government Take</b></p> <ul style="list-style-type: none"> <li>• Determination of level of government take</li> <li>• Fiscal Stability</li> </ul> <p><b>Government Policies</b></p> <ul style="list-style-type: none"> <li>• Risk sharing</li> <li>• Resource policies</li> <li>• Economic policies</li> <li>• Administrative policies</li> </ul> <p><b>Future Petroleum Fiscal Terms</b></p> <ul style="list-style-type: none"> <li>• Fiscal systems for energy transition</li> <li>• Long term global tax developments</li> <li>• Importance of price progressivity</li> <li>• Importance of reducing front end loading</li> </ul>	

## COURSE FEES

The fee includes tea, coffee and lunch, a free copy of student model software and electronic class materials.

Liability: No liability in case of force majeure situations, such as illness or travel interruptions.

### For courses in Amsterdam and Dubai:

The course fees are US \$ 3900 per participant. For 2 days Energy Transition only – US \$ 1900 per participant. For 2.5 days Oil and Gas Fiscal Systems only – US \$ 2400.

We have the following discounts for more than one participant from the same entity or government for each of the participants attending the course: 2 participants – 10%, 3 participants – 15%, 4 participants – 20% and 5 participants – 25%. For more participants ask us for the discount.

## **DATES AND LOCATION**

The course dates will be:

May 8-12, 2023, Amsterdam

September 25-29, 2023, Rio de Janeiro

November 6 -10, 2023, Dubai

## **CONTACT**

**Interested parties can contact us for more information as follows:**

**Email - [info@vanmeursenergy.com](mailto:info@vanmeursenergy.com)**

**Phone - + 507 6897 5597**