**Key Benefits**
- Gain a solid appreciation of the international gas and power business fundamentals;
- Learn the various sources and quality of natural gas, including LNG imports, and their competitive market prices;
- Be able to describe the components and operating cycle of a combined-cycle power plant and why they are so efficient;
- Learn the commercial aspects of CCGT projects, how they are developed and managed through a complete life cycle;
- Gain an understanding of the legal agreements, sources of capital, regulatory compliance, markets for power and economics aspects of energy project development.
- Learn how to work as a team to collect and analyse data, make project decisions and present results.
- Appreciate the competing cost and value of renewable energy sources of power.

**Who Should Attend**
This program is designed for professionals from diverse backgrounds, who seek a comprehensive understand of gas-fired power plants and how the high efficiency of these plants and the availability of imported LNG or gas pipeline offer an ideal combination for countries who are seeking solutions to today's rapidly expanding power business.

**Instructional Format**
The instructional format consists of lectures by our very experienced faculty and team participation in our challenging power project “business game”. This unique design is the reason why IHRDC programs are consistently rated as the “best” in teh industry today. The business game typically takes almost one half of the instruction time and has been highly rated by past participants for its effectiveness in internalizing learning and generating discussion among team participants. This combination of lectures and interactive workshop sessions has proven to be an ideal way for participants to learn the practical needs of today’s international energy markets.

**Program Location and Schedule**
The program will begin on Monday morning and end on Friday afternoon. Participants may be asked to stay later in the evening to do workshop sessions.
Introducción al Programa

Introducción al Programa

Introducción al Programa

Introducción al Programa

Introducción al Programa
Power Business Learning Simulation

The Power Business Learning Simulations allows teams of participants to plan and build a 275 MW combined-cycle power plant, under a BOT arrangement, in a fictitious country in West Africa. Each team is asked to prepare and implement a business plan for the project which includes identifying the best course of gas (LNG or pipeline imports) and confirming project fundamentals including market assessment, technical design, fuel supply and power purchase contracts, equity and debt financing, government guarantees, environmental assessment, risk analysis, obtaining regulatory approval, permitting and negotiating the EPC and O&M agreements. Once constructed the teams operate the plant until its transfer to the government. During this operating period they are also offered the opportunity to build a parallel and sell power into a competitive market. On the final day each team summarizes its decisions and presents its financial results and the team with the “best” performance receives the workshop “prize”.

The sessions include:

- Project Description, Gas Supply Analysis & Options
- Project Fundamentals and Market Analysis
- Project Economics and Proforma Analysis
- Negotiating GSA, PPA and EPC Agreements
- Negotiating Equity and Project Economics Arrangements
- Securing Government Guarantees and Permits
- Initial Power Plant Development Decision
- Evaluation of New Capacity Additions
- Fifth Year Development Decisions
- Bilateral Contract Bidding & Power Pool Bids
- Evaluation of Performance & Presentation of Results

INSTRUCTORS

For this program there will be a senior lecturer. He will be assisted by a Workshop Facilitator who will direct the business simulation sessions. Their backgrounds are as follows:

Rick Squires, an IHRDC Senior Lecturer, is the founder of PiEnergy, which provides consulting services to the energy industry. He also holds three non-executive directorships related to the energy business. He was Non-Executive Chairman of a U.K. based offshore hybrid gas and wind power company (250 MW), which was sold to a major European power utility. Mr. Squires has extensive experience in the international energy sector at the senior management level across a wide range of activities and fuels. He also acts as a senior consultant to an international executive search company, focusing on the renewable energy and new technology business sectors. For four years, until early 2003, Mr. Squires was based in Boston, U.S. as Senior Vice President of InterGen, an international power company with more than 1000 employees and 16 GW of power plants in ten countries. Prior to joining InterGen, Mr. Squires headed the Power Business within Shell Gas and Power, London and was the leader of the team that acquired 50% of InterGen in 1997. His career in Shell spanned over 25 years and also included senior management positions in International Oil Trading, Coal Business Development, and Marketing. While principally based in London, he also had assignments with Shell companies in South Africa and Japan. Before joining Shell, he worked for the South Western Electricity Board in the U.K. Mr. Squires holds a First Class Honours Degree in Electrical Engineering from Lanchester University and a Masters Degree in Business Studies from Durham University, U.K. He is a member of the Institute of Engineering and Technology, the Institute of Directors, and the Energy Institute.

Dr. Y. Serdar Dogulu is Director of Innovative Learning Solutions at IHRDC. He is involved in the content and interface development of interactive Learning Simulators and other associated training products. Dr. Dogulu has been very active in building and teaching company-specific technical and project management programs for IHRDC clients and is the principal developer and instructor for IHRDC’s highly regarded E&P Learning Simulators. For the Arlington Group, an IHRDC affiliate, he was also actively involved in technical and financial modeling studies of underground gas storage projects. After earning his Ph.D. in Petroleum and Natural Gas Engineering from Pennsylvania State University, Dr. Dogulu held a postdoctoral researcher position with the Energy and Geo-Environmental Engineering Department at Penn State. His areas of interest include numerical simulation and reservoir management. Dr. Dogulu spent a summer as a Research Technologist at the Chevron Petroleum Technology Company developing reservoir simulation and management tools, including stream-tube simulation techniques for modeling large oil reservoirs.