Energy and Markets



The energy sector is in the midst of a profound transformation and is seeking to hire young professionals equipped with both practical skills and **a comprehensive understanding of the field**. Our Energy and Markets program provides an outstanding education. It offers you the chance to acquire high-level, energy, environment, economy, business modeling skills and an in-depth understanding of the industrial dynamics observed in the renewables energy sector (wind, solar, etc), but also in oil, gas, energy efficiency and related markets. You will be equipped to play an important role in the energy transition, supporting technological advances with an economic and financial mindset that is essential to succeed.

Typical class profile

Students in this program are almost all supported by companies through an apprenticeship contract or a scholarship to help finance their living expenses.

Main partners

Students in the Energy and Markets program have recently been sponsored by the following companies (non-exhaustive list):

- Agregio

- Airbus
- Air Liquide
- Alpiq Énergie France
- Arkema
- Axpo
- BP
- Cepsa
- CGG
- Crédit Agricole
- Ecometering
- EDF
- Electrabel
- Électricité de Strasbourg
- Elengy
- Enedis
- Engie
- Enexflow
- Esso
- ExxonMobil
- GRT Gaz
- IFPEN
- Orano
- Qair
- Reservoir Sun
- RTE
- Saipem
- SEO
- Shell
- Spie
- Storengy
- Technip Energies
- TotalEnergies
- Vallourec...

Les points clés du cursus

Actor in the energy transition

Project management

Technical and economic skills

Les débouchés pour le programme

32%	30%	15%
Renewables and electricity	Oil & Gas	Consulting / financing
15%	8%	
Public institutions	Other industries	

Programme & Calendrier

Program content

The lectures are given in French

Economy: theory and applications

- Microeconomics and industrial economics
- Macroeconomics and the economic environment
- Economics of energy and the environment
- Climate Economics

Energy and environmental management

- Geopolitics of energy
- Development of projects on renewables and energy efficiency
- Technico-economics of energy systems (renewables, electricity, gasoline, natural gas, etc.)

Corporate finance

- Capital budgeting and investment modeling
- Financial analysis
- Financial policy and structuring

Market finance

- Energy commodities and carbon markets
- Risk management on commodities markets

Quantitative techniques

- Massive data processing
- Mathematical programming and applications in the energy sector
- Econometrics

Technology

- Decarbonated energy production (solar, wind, hydrogen, biogas...)
- Extraction and valorization of exhaustive resources
- Operation of the network industries (electricity and natural gas)

Transverse skills and professional attitudes

- Experience Sharing Module

Schedule

The two examples of schedules shown below correspond to the most frequently encountered cases for students in the program:

- a 16-month alternating school/company program for students with a 5-year engineering degree;
- a 22-month alternating school/company for an engineering student in the penultimate year of a major European school or university having signed a double-degree agreement with IFP School.

There are other possible cases, such as: an 18-month alternating school/company program for an engineering student who has completed four years of higher education, enrolled in a major European school or university under an agreement with IFP School and who has completed one year of professional work experience.

Opportunités de carrières

New

What next after the Energy and Markets program? Check out the interviews with our graduates on LinkedIn.

Fields

- Utilities (electricity, natural gas)
- Energy infrastructure operators
- Oil companies, oil equipment manufacturers and service providers
- Energy trading companies
- Consulting companies
- Major energy consumers
- Investment banks
- Transportation sector
- Regulatory agencies

Jobs

Our program provides students with both technical and economic skills, so there is a wide range of employment opportunities, both in terms of industrial sectors and types of jobs.
A few key examples:

Energy Project Finance Manager / Structured Finance Manager

- Define customized financing solutions for clients (private or public) while taking into account the deadlines, costs and risks inherent to each energy project.

Renewable Project Development

- Identify suitable sites for the setting-up of wind or solar farms and carry out, in close collaboration with local authorities, the technical, environmental and legal studies necessary for the project to go ahead.

Energy Economist

- Monitor the energy economy, perform market research and technical/economic feasibility studies for industrial projects in energy, engineering or industrial consulting firms.

Energy Market Analyst

- Collect, consolidate and analyze data in order to identify trends in the various energy markets and enable the company to plan its sales or marketing strategy.

Energy Consultant/Energy Manager

- Carry out energy and environmental audits for private or public entities.

Gas and Electricity Transmission and Distribution Design Engineer

- Carry out studies to analyze how transmission and distribution networks are evolving and coordinate power system connection or integration studies.

Gas and Electricity Portfolio Manager

- Manage a portfolio of gas and electricity sales on the short-term market (optimizing and hedging positions) and coordinate with clients their medium and long-term management strategy.

Purchase Contract Manager

- Carry out benchmarking activities, do competitive analyses and negotiate purchasing conditions with energy suppliers.