Design and run energy projects

Mastère Spécialisé®
Post-Masters in Management of Energy Projects
Energy markets are going through major changes almost everywhere in the world. The energy industry needs well-rounded project managers to design, build and operate energy infrastructures.

If you are a professional wanting to get involved in the energy industry or an actor of the energy sector willing to boost your career, join the Post-Masters in Management of Energy Projects to combine your professional activity and a high level training covering the financial, regulatory and management aspects of leading energy projects in varied and ever-changing environments.

Manage energy projects in complex and evolving environments

The ‘Management of Energy Projects’ Post-Masters program aims to:

• Provide participants with a strong knowledge base and the interactions skills necessary to make informed decisions in the energy area (technologies, policies, regulations, financing, etc.) and to design robust energy projects in varied and ever-changing environments.

• Encourage a holistic approach of energy project management, with the knowledge and skills to avoid professional silos.

Program syllabus

Training takes place part-time from Wed. PM to Sat. AM from September to April: 320 hours of classes, projects and site visits run parallel to a large, 70 hours-case study. From May to September trainees work full-time for 5 months in the industry and write a professional thesis.

FROM DESIGN TO IMPLEMENTATION

LOCAL CONDITIONS, SOCIETAL ASPECTS
- policies and regulations
- industrial clusters
- stakeholders acceptance

PRELIMINARY FINANCIAL EVALUATION

EVOLUTION OF ENERGY MARKETS
- liberalization
- decentralization
- digitalization

TECHNOLOGIES
- pros and cons
- potential evolutions
- lifecycle characteristics

DETAILED FINANCIAL EVALUATION

OPTIMIZATION OF THE FINANCING STRUCTURE

FINANCIAL RISK ANALYSIS AND MANAGEMENT

COST CONTROL, PLANNING AND REPORTING
- project governance
- project team, skills
- suppliers and supply chain

MANAGEMENT, LEADERSHIP AND WORK CULTURES
- local authorities
- ethics
- acceptance
- risk management

Louis-François DURRET, Director of the program

According to the International Energy Agency, investments in the energy sector amounted to US$ 1.8 trillion in 2017. Energy projects are often technically complex, capital intensive and should be resilient to technological and policy innovation. The energy sector is undergoing many game-changing transformations. The transition from fossil to low carbon energies is accelerating accompanied by technical challenges to manage intermittency and decentralization, by an evolution of business models from subsidized tariffs to regular market competition to disruptive business models enabled by digitalization. Social acceptance issues and the emergence of energy production and storage at extremely local scale imply that new key stakeholders need to be involved in energy projects.
What you will learn

• To conceive energy solutions based on robust business models and adapted to local contexts
• To manage long term projects in contexts that are in permanent evolution, from technologies and supply chains to policies, using risk management approaches
• To steer local, national or international projects to a broad acceptance from the key stakeholders, including the management of social acceptability issues

Your career prospects

You will develop the skills to integrate the different areas of energy project management and engineering: conceptual and business development phases, marketing, financing, public acceptance, construction, operations, etc. You will also be able to work with public authorities at local, national or international levels and to energy regulatory agencies.

Program strengths

- Skills correspond to the current demand of employers from the energy sector
- Renowned academics and experienced professionals from the energy and finance sectors
- Modern training techniques, allowing students to develop, use and strengthen professional skills in project management while acquiring a strong knowledge base for decision-making, critical thinking and risk analysis abilities
- The complex human dimension of many energy projects is reflected in the diverse student population, from multiple cultures and disciplines, with classes in English
- Compatible with a professional activity

Careers

Graduates will work in Europe and abroad in:

• Energy generation, distribution, trading firms
• Energy equipment & services suppliers
• Construction industry
• Finance institutions, Banks, Investment Funds, Development Banks
• Audit and consulting firms
• Administrations and public sector institutions

IN HIS WORDS

Jean-Paul CHABARD
EDF Scientific Director of Research and Development
Patron of the 2019-2020 cohort

« Changes in the energy sector make projects even more challenging than before. The transition from fossil to low carbon energies brings in intermittency, new business models and stakeholders, etc. This evolving energy context requires strong skills in project management and a global vision of projects. Thanks to this new training program developed by the École des Ponts ParisTech, the next generation of managers and decision makers will be up to the challenge. I am very happy to be the patron of the 2019-2020 cohort.»
Profiles and required qualifications
Candidates must hold a 4/5-year higher education qualification: Bac+5 or Bac+4 with professional experience in the energy, finance or project management sectors.

Admission
Candidates can enroll in the program after selection of their application by a jury (apply online at http://energy-projects.enpc.fr/en). The selection process includes an interview that allows to judge the adequation between the program and the candidate's profile and professional project.

Timetable
Applications from February to July. The program starts in September. Duration: from September to September, including a 5-month industry placement (classes from Wednesday afternoon to Saturday morning).

Places
12 to 20.

Language
English.

Validation
390 hours - Professional thesis.
75 European Credit Transfer System (ECTS): 45 ECTS for classes, projects and case study, 30 ECTS for the professional thesis.

Class coordinators
Pierre Aubry, AREVA
Marc Boillot, Algorus Consulting
Hélène Bovais, Strat & Org Conseil, CEDEP, IEP Paris
Pierre Charretot, consultant, mediator
Thomas Cuingnet, Keolis
Christophe Croombette, EDF
Isabelle Delarbre, senior advisor, independant administrator
Philippe Duc, Egis
Jean-Pierre Favenne, consultant, author
Didier Folus, Université de Nanterre
Clive Gallery, École des Ponts ParisTech
Didier Kechenai, Consultant
Franck Lecocq, École des Ponts ParisTech
Jérôme Leparoux, Daher
Alain Nadaï, CIRED
Henri Philippe, Accuracy
Myriam Saadé, EIVP

Teaching venue
The program will be taught at:
École des Ponts ParisTech (Champs-sur-Marne). Some lectures will take place at other venues in Paris.

Costs
€12,000 for students who pay for the course themselves.
€15,000 for students for whom the course is paid for by a company or organization. These prices are subject to change and exempt from VAT.

Contacts
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