Energy Transition
2-day course

Renewable Energy Development

Possible breakthroughs in technologies of solar and wind and future cost projections. Developments in hydropower, ultra-deep geothermal, biomass and biofuels.

Energy Storage

Lithium-ion batteries, sodium-ion batteries, flow batteries, and other types of storage. Future costs of energy storage.

Hydrogen

Production of hydrogen based on fossil fuels and green hydrogen. Possible breakthroughs in technologies and future costs of hydrogen. Hydrogen storage, transportation, distribution, and markets. Large hydrogen projects.

Carbon Capture and Storage or Utilization

Carbon capture methods and metal-organic frameworks. Large CCS projects. Northern Lights Project. Bio Energy Carbon Capture and Storage. Exomad Green Project. Direct Air Capture. CO_2 utilization.

Climate Change

Carbon neutrality commitments and proposals of the various countries.

Energy Supply and Demand

Penetration of low-cost renewables. Projected increases in energy storage. Electrification of transport. Renewables for cement, iron, and steel production. Large green ammonia projects. Green hydrogen for the transport sector.

Energy Forecasts

IEA scenarios. Energy forecasts and future oil and gas production. Forecasts of crude oil and natural gas prices.

Energy Transition – Companies

Roles and strategies of companies involved in energy transition: petroleum companies, power companies, and independent wind, solar and hydrogen producers. Future competitive framework for petroleum companies.

Government Policies

Maintaining and effective petroleum industry. Promotion of feedstock production. Carbon trading and carbon taxes. Elimination of subsidies and export duties. Changes in petroleum land management and duration of petroleum contracts. Natural gas promotion. Reduction of energy emissions. R&D requirements.

Petroleum Energy Arrangements

Development of comprehensive new upstream petroleum energy contracts. Incorporation of renewable energy in petroleum agreements. Petroleum energy package deals.