Innovation and the Energy Transition

Responding to the Energy Demand Determinants

Introduction

A wide range of new energy solutions are emerging as the world and technology develop, supporting the essential framework for long-term prosperity, energy security, and the preservation of the environment and public health as the need for energy rises. Innovation and the Energy Transition policies have the potential to supply the market with a wide range of energy technology options, launch the best of these options, and fully utilise the potential of creative solutions to lower energy prices. Energy is essentially a technology industry, so it is important to know which policies promote energy technology innovation and help the industry shift to renewable energy sources without needlessly politicising the discussion.

Finding a way to address the factors that determine energy demand through sustainable energy generation and consumption is one of the biggest challenges facing society today. In order to assure sustainable energy supply, consumption, and development, it is necessary to provide a consistent supply of inexpensive, safe, and clean energy by addressing a number of intricate and important technological, social, political, economic, legal, and ethical concerns. These questions frequently arise in combination.

Through the development of new information, comprehension, and insights, this training course on Innovation and the Energy Transition aims to increase capacity and, as a result, be able to offer practical answers to challenging issues pertaining to the energy of the future.

Objectives

After completing this training programme on Course N Carry Innovation and the Energy Transition, you will be able to:

- List the energy sources, their contributions, and any problems.
- Discover how to create a route for a sustainable future.
- Get the information required to put the renewable energy projects into action.
- Study the energy consumption models.
- Accept the enhancement of energy production without requiring large financial outlays
- When designing your energy distribution, make use of the analytics on energy output and consumption.

Training Methodology

The aspects of Innovation and the Energy Transition that are now available, together with the newest trends, will be thoroughly covered in this training session for participants in energy transition and innovation. Active engagement in the analysis of energy production and consumption by various entities, as well as an introduction to novel approaches to energy distribution, are integral components of the training methodology.

Organizational impacts

The company will gain from the wisdom of its staff members since they won't be blindly adhering to the newest catchphrases but will instead be trying to implement really sustainable methods for the production, distribution, and consumption of energy.

Participants in this training programme on Innovation and the Energy Transition:

- Become more knowledgeable about the problems and prospects for conventional energy sources.
- Discover how to implement technology for renewable energy.
- Being able to completely utilise the potential of the switch to renewable energy sources
- Describe novel techniques for distributing energy.
- Compile information on energy generation, consumption, and system losses.
- Before implementing solutions in the actual world, complete the transition in the virtual world.
- The organisation will gain from avoiding excessive expenditures on novel technologies.

Personal Imapct

The following strategies can help the participants better grasp Innovation and the Energy Transition:

- Finding the energy sources that are accessible
- Acquiring the necessary skills to recognise energy waste spots
- Knowing how to effectively lower living spaces' energy usage
- Acquire the ability to identify feasible technologies.
- Recognise the needs for the future
- Apply practical fixes to real-world issues.

Who should attend?

The training programme is intended for researchers and consultants working in the fields of energy management and process optimisation, as well as all individuals involved in planning and decision-making.

A wide range of professionals can benefit from this Course N Carry Innovation and the Energy Transition training course, but the following will be especially beneficial:

- Energy researchers and practitioners, professionals in the applied sciences and technology, including engineers, CTOs, and CIOs
- Project managers and personnel for strategic development

Course Outline

Day 1

Overview of the Energy Sector

- Oil is the energy of today—yes, it still is—and natural gas is the pioneer of clean energy.
- Coal: the economics and energy
- The energy source for all energy market efficiency is electricity.

Day 2

Energy Shift

- Effectiveness in the industrial sector
- Efficiency in the field of living environments
- Effectiveness in the transportation industry
- The fuel transition strategy
- What lies ahead?

Day 3

Energy Sources That Are Renewable

- Wastes in the generation of electric energy
- Solar power
- Wind power
- Thermal energy
- Energy from biomass
- Hydroelectric power

Day 4

Innovation in the Energy Sector

- Blockchain in the sector of electricity distribution

- Facilities for storing energy
- Microgrids in conjunction with AI
- Energy administration
- The decrease in carbon emissions

Day 5

Buildings with Low Energy Use and Comfortable Areas

- Building energy flow
- Increasing energy efficiency
- Buildings and habitable space digital twins
- An energy system's digital twin
- The energy-efficient city's design

Shams Business Center, Sharjah Media City Free Zone, Al Messaned, Sharjah, UAE PO Box: 49638 **Tel: +971 55 323 6764** **Fax: +971 55 323 6764** **E-Mail: subhashini@itrobes.com**