

# Improved Energy Management with Changeover Engineering

Using Transition Engineering to Enhance Energy Performance

## Introduction

Participants in this training course on Improved Energy Management with Changeover Engineering will get the skills necessary to enhance the effectiveness of current environmental and energy management systems in order to facilitate strategic business shifts towards sustainability. With the aid of these tools, they will be able to better assist strategic decision-making, comprehend the system dynamics of their companies, and execute change with more assurance of positive results. Delegates will be able to approach the problems of "unsustainability" in a new way, recognise and address risks, and participate in change initiatives that will secure long-term corporate success in a changing global environment.

Participants will learn about the engineering discipline and practice known as Transition Engineering and Innovation, which helps businesses to adjust to a changing forward-looking operational environment. Operating personnel and engineers can assist the process from beginning to end with the help of this transition engineering training course. Initially, participants will be able to supply information to aid in decision-making and execute strategic change initiatives into daily energy and environmental management systems. It will provide participants the tools they need to handle "wicked problems" with assurance. Wicked problems are ones with lots of intricately intertwined variables, no clear-cut answer, and many of possibly conflicting parties.

### **This training session on Course N Carry will emphasise:**

- System Dynamics: How does your company respond to outside change?
- How to improve the utility of the current energy and environmental management systems
- Asking the appropriate questions and challenging implicit assumptions
- Supplying strategic decision-makers with increased operational assistance
- How to incorporate change initiatives into routine management systems

## Objectives

### **Upon completion of this training programme, you will be qualified to:**

- Gather and analyse system dynamics data to assist those making strategic decisions.
- Pose pertinent queries, refute implicit presumptions, and develop improved metrics

- Recognise the Transition Engineering discipline's operational facets.
- Provide strategic decision makers with guidance and assistance on the execution of change initiatives.
- Make a positive impact on business sustainability by "thinking differently."

## Training Methodology

This training programme uses a variety of methods to maximise comprehension, recall, and application skills. These methods include reading recommendations, presentations, individual and group activities, videos, and group discussions.

The participatory nature of this training programme will push participants to "think differently" about "sustainability" and their role in carrying out the organization's strategic objective. The teacher will assist delegates in putting what they have learned and their comprehension of their own organisations to use.

## Organizational impacts

**Based on the following, organisations will be more equipped to thrive in a changing future:**

- Improved resources to comprehend the organization's operations within the larger operational environment
- The capacity to perceive the future in areas of ambiguity with clarity
- The capacity to replace an ambiguous faith in "business as usual" with judgements that are well-supported by facts
- Capacity to carry out a solid DIRECTION of future business plan
- The potential to enhance current capabilities for creating and executing change
- The capacity to steadily and confidently support long-term business strategy

## Personal Impact

**The following will provide participants fresh perspectives and more fulfilment in their "sustainability" work:**

- Discover new ways of thinking; this in and of itself may be enlightening.
- Learn about Transition Engineering, a new field of engineering.
- Acquire the capacity to produce more valuable data and management systems.
- Discover from the Global Association for Transition Engineering's co-founder
- Join a worldwide community of experts addressing "unsustainability" issues.
- Become the team member with the most distinct future vision.

## Who should attend?

**A wide range of professionals can benefit from this Course N Carry training course, but the following are particularly noteworthy:**

Employees at companies whose operations—such as transportation, food production, buildings, and manufacturing—rely on designed systems and are confronted with "wicked problems" such as energy supply, climate change, or other problems with the environment or natural resources.

- Employees in operational positions in charge of quality, energy, and environmental systems supporting strategic decision makers
- Employees in charge of integrating change initiatives into daily management procedures

## **Course Outline**

### **Day 1**

#### **Overview: The Significance of System Dynamics**

- "Sustainability"—what is it?
- An Overview of the World's Unsustainable Problems
- The Operating Environment and Systems Thinking
- Energy's Significance to Industry, Society, and Engineered Systems
- Background History of the World's Current Challenges
- Overview of Transition Engineering Techniques

### **Day 2**

#### **Risks of "Un-sustainability" Identification - ISO Management Tools**

- Knowing an Organisation in Its Operating Environment: Changes in the Past, Present, and Future
- Population, Climate, and Energy: Why won't the future resemble the past?
- Future Scenarios and Their Use in Examples
- The Unsustainability Issues with "Business as Usual" in My Organisation
- Potential Benefits of Energy and Environmental Management Instruments
- Gathering information about an organization's past, present, and future

### **Day 3**

---

#### **Creating Metrics, Gathering Information, and Outlining Prospective Situations**

- Data-Driven System Description and Unstated Assumption Challenge
- How to Define the Forward Operating Environment via Data
- Data-Driven Description of Upcoming System Restrictions
- Models of Capital and Economic Activity that are Both Unsustainable and Sustainable
- How to Become Resistant to Outside Change

## Day 4

### **Synopsis of Strategic Planning and Launching a Transformation Initiative**

- Innovation in Transition and Development of Path Break Solutions
- Creating a Worked Example of a Path Break Solution for my Organisation
- Back casting and Creating a Change Programme
- Safe Operating Environments for Programmes of Organisational Change
- Redefining the Benefit of Competition
- How to Initiate a Change Process in an Organisation: Set Off Activities

## Day 5

### **Course Assessment: Tools for Implementation and Management**

- How Management System Foundations Aid in Putting Change Into Practice
- Back casting and Converting a Change Initiative into Daily Operations
- Examples of Management Tools for the Creation and Development of New Products
- Organising and Leading Teams to Promote Change
- Communicating to Keep the Pace Going
- Multiple-choice assessment