



# Module 2 - Setting the framework for Energy management in your company

## At the end of this module you will be able to...

- Set-up an Energy Team in the factory
- Conduct preliminary assessment of existing energy management system in their companies.

### Resources

- [How to Higg Guide – Energy & GHG section](#)
- [ISO 50001:2018 – Energy management system, Requirements with guidance for use](#)
- [ISO 50004:2014 – Guidance for implementation, maintenance, and improvement of an energy management system](#)

## Content

- Pre-requisites for energy management
- Relevant requirements of ISO50001 and Higg FEM
- Key factors for bringing change
- Cycle of Change on Energy Management
- Complete a quick-check/mini-audit

## Pre-requisites for energy management

1. Understanding the organizational context
2. Leadership by top management
  - a. Create in-house awareness and willingness to change
  - b. Set energy policy, objectives and targets
  - c. Constitute your energy management change team
3. Complete a quick-check/mini-audit

# 1. Understand organizational context

## a. Internal and external issues relevant to the organization

### These may include;

- Market trends and business prospects
- Organizational mission, vision, and growth targets
- Internal capacities
- ...

# 1. Understand organizational context

## **b. Understanding needs of interested parties**

May include;

- regulatory bodies – enforcing laws and regulations related to pollution control
- Customers – setting targets for de-carbonizing supply chain, introducing renewable energy etc.
- Shareholders – expecting return on investments
- Communities – nearby communities getting effected by emissions
- Employees – expecting safe working conditions
- .....

# 1. Understand organizational context

## c. Set scope and boundaries

Set boundaries of organisation to which energy management system (EnMS) applies

- entire organization or any specific operating units?
- Any processes to exclude? And why?
- Ensure the authority to control energy efficiency, energy use and energy consumption within the scope and boundaries
- **Do not exclude** an energy type within the scope and boundaries.

Some sub-contractor activities can be excluded from scope, e.g.;

- Boiler owned and operated by a sub-contractor; in such case, Steam purchased from sub-contractor shall be considered as energy source.

## 2. Leadership by top management

### a. Create in-house awareness and raise readiness to change

Key factors influencing the willingness to change in your company

- degree of dissatisfaction with current situation
- clear or publicly announced desired state (situation) in the future awareness about first practical steps into direction of desired future state (situation)
- the 'costs' of change (both financial and emotional)



## 2. Leadership by top management

### Key factors influencing the willingness to change in your company

- **C** is change
- **D**issatisfaction with current situation (D)
- **V**ision of what is possible (V)
- **F**irst concrete steps that can be taken towards the vision (F)
- **R**esistance to change (R)

Change will take place when

$$C = D \times V \times F > R$$

Gleicher Formula (Dannemiller version)

## 2. Leadership by top management

### b. Set energy policy, objectives and targets

#### **Higg FEM: Environmental Management section**

Question: Does your facility have a company environmental management strategy that guides long-term decision-making on environmental management?

- address facility's significant environmental impacts and compliance obligations as prioritized in environmental impact assessment
- Must include all aspects of Energy, Water, Wastewater, Chemical management, air emissions, and solid waste
- supported by facility leadership and communicated to all employees.
- include plans for achievement that detail: actions, resources required, responsibilities, timelines, and how results will be evaluated and plans for 3+ years into the future
- Reviewed with facility managers annually

## 2. Leadership by top management

### b. Set energy policy, objectives and targets

#### **ISO 50001:2018: Energy Policy**

- is appropriate to the purpose of the organization
- provides a framework for setting and reviewing objectives and energy targets
- includes a commitment to ensure the availability of information and necessary resources to achieve objectives and energy targets
- includes a commitment to satisfy applicable legal requirements and other requirements related to energy efficiency, energy use and energy consumption
- includes a commitment to continual improvement of energy performance and the EnMS
- supports the procurement of energy efficient products and services that impact energy performance
- supports design activities that consider energy performance improvement

## 2. Leadership by top management

### c. Form a (energy management) change team having clear mandate from management

Functions/department to be represented

- Procurement
- Human Resources
- Legal/compliance
- Finance
- Production
- Engineering
- Maintenance
- EHS/CSR

It is important to identify roles and responsibilities of all team members regarding energy management. Making a responsibility matrix helps a lot!

## 2. Leadership by top management

### Typical questions to ask while picking your team

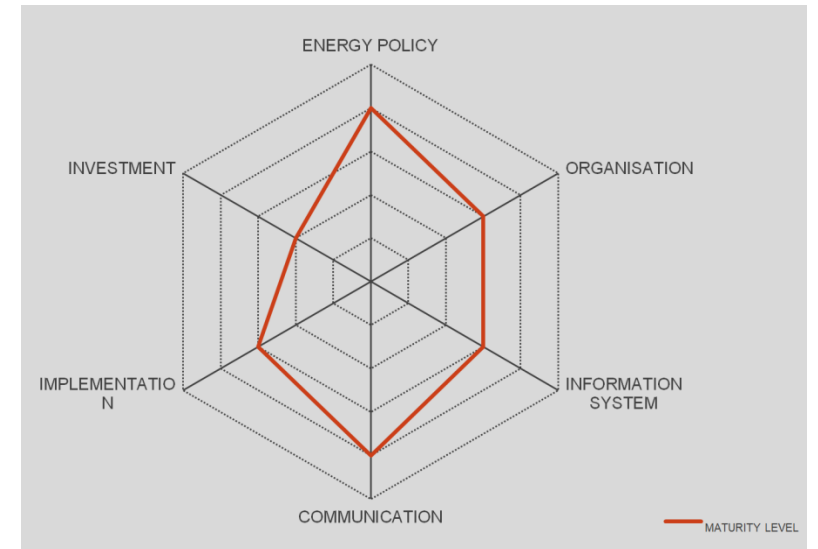
- What are the most critical issues and where are they in the organization?
- Who can issue policies and/or allocate resources?
- Who has responsibility for energy issues?
- Which managers are most directly concerned with and/or potentially affected by energy issues?
- Who can bring credibility to your program?
- Who do employees trust?
- Who has strong operational knowledge and experience?
- Who outside the fence line should be involved in EnMS decisions? (e.g., external experts)

## 3. Complete a quick check

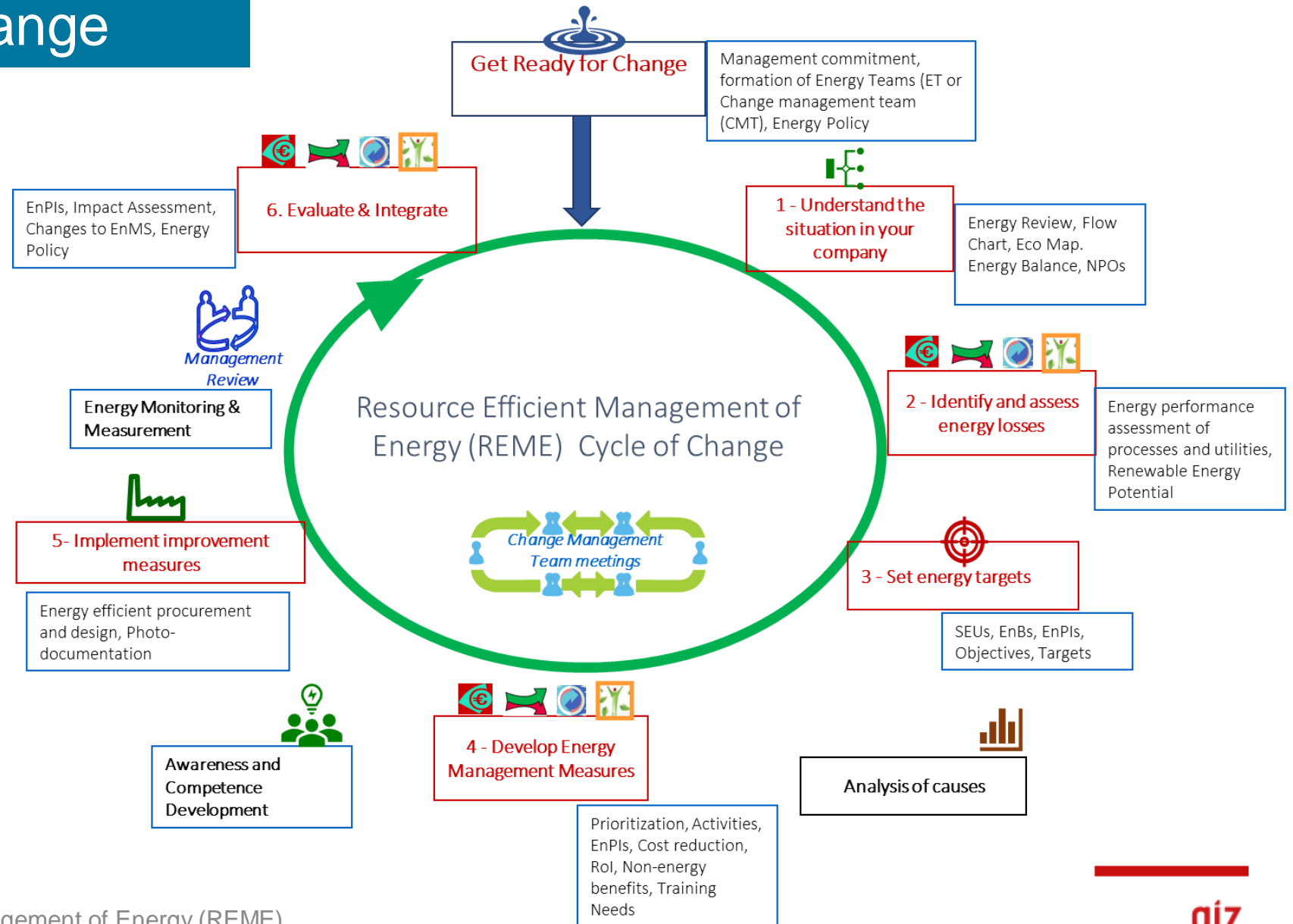
### Conduct preliminary assessment of your existing energy management

Example of tools available:

- Espire EnMS Maturity Matrix
- Higg Facility Environmental Module (Energy & GHG)
- Carbon Trust Energy Management Self-Assessment Tools



# REME Cycle of Change



# GETTING READY FOR CHANGE

## Exercise


Assess the current energy management situation in your organization using the EnMS maturity matrix

Time 30 min



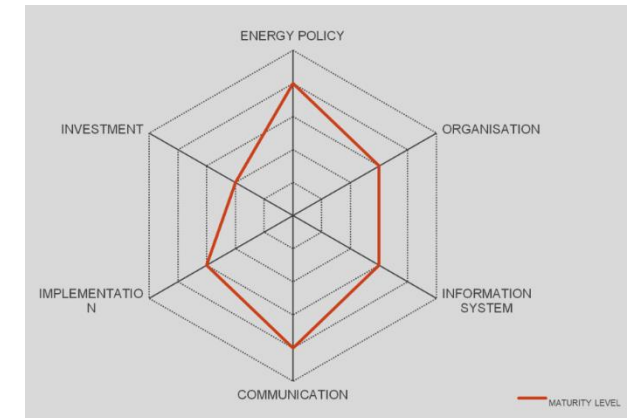


# Key takeaways

- It is important to understand the organizational context before starting the efforts on energy efficiency or energy management. This includes,
  - ✓ identifying the internal and external issues relevant to the organization
  - ✓ understanding needs of interested parties
  - ✓ setting the scope and boundaries of Energy actions
- Developing a cross-functional team is critical for  across-the-board involvement and ownership
- Resistance to change could be due to many factors including financial and emotional. Top management need to address all types of resistance for successful implementation of energy management system

## Next steps

- With your energy team, assess the current energy management situation in your organization using the EnMS maturity matrix or any other presented tool and publish the results as baseline
- Identify and prioritize areas which require immediate attention and discuss solutions withing the team and with top management.



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