Managing Sustainable Facilities

Introduction........................................................................................................................................... 1

Chapter 1: Sustainability Policy Development
Topic 1: Sustainability Policies .................................................................................................................. 4
Topic 2: Policy Development...................................................................................................................... 6

After completing this chapter, students will be able to:
- Describe the typical elements of a sustainability policy.
- Explain the advantages of creating a topic matrix.
- Summarize the ten steps of creating a sustainability policy.
- Discuss the difference between hard and soft benefits and the techniques of using each type in a business case.

Chapter 2: Applying Sustainability to FM Plans
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Topic 2: Sustainability Initiatives ............................................................................................................ 26
Topic 3: Implementing the Strategy .......................................................................................................... 29

After completing this chapter, students will be able to:
- List the development phases of a sustainability plan.
- Describe the activities in the planning stage.
- Discuss how each aspect of the Triple Bottom Line fits into a business case.
- Explain the creative financing mechanisms available to reduce the initial cost of implementing sustainability initiatives.
- Discuss the importance and process of baselining the initiatives.
- Explain the difference between program management and project management and the role each plays in implementation.
Chapter 3: Sustainability Program Development and Implementation

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Topic 2: Sustainability Program Implementation ....................................... 42
Topic 3: Monitoring Sustainability Programs ........................................... 49

After completing this chapter, students will be able to:
- Define the structure of a sustainability program.
- Discuss the process of implementing a sustainability program.
- Explain the use of a SWOT analysis.
- Discuss methods of gaining support for the sustainability program.
- Describe how to monitor a sustainability program.
- Explain the process and elements of evaluating the program.

Chapter 4: Change Management

Topic 1: Managing Change .................................................................. 57
Topic 2: Leading Change ..................................................................... 58

After completing this chapter, students will be able to:
- Define change management.
- List the three keys to leading change.
- Describe the five things that successful leaders must do well to manage change.
- List the phases of change.
- Discuss how to monitor and evaluate change.

Chapter 5: Performance Management Tools

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Topic 3: EPA ENERGY STAR Portfolio Manager ...................................... 76

After completing this chapter, students will be able to:
- Describe the balanced scorecard, including its four perspectives, its parts and barriers to its use.
- Describe strategy mapping.
- Explain how the sustainability balanced scorecard differs from the traditional balanced scorecard.
- Explain how to prioritize initiatives on the sustainability balanced scorecard.
- Describe how the EPA’s ENERGY STAR Portfolio Manager is used to evaluate buildings.
Chapter 6: Finance for Sustainable Facilities

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Topic 4: Financial Tools and Calculations ............................................................ 92

After completing this chapter, students will be able to:

- Define the concept of the time value of money (TVM).
- Describe the four financial tools most commonly used for decision making regarding sustainability initiatives.
- Explain the difference between a capital budget and an operating budget.
- State how accounting is used to support sustainability initiatives.
- Define net operating income (NOI) and explain how it might be used to make the case for a sustainability initiative.
- Explain the use of net present value (NPV), internal rate of return (IRR) and total cost of ownership (TCO).
- Define asset value and describe its importance in making decisions regarding sustainability initiatives.
- Describe incentives and penalties that may influence decision making.
- Explain why the SFP’s role is pivotal in helping to formulate, sponsor and lead policy development and implementation strategies.

Chapter 7: Purchasing and Procuring for Sustainable Facilities

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Topic 2: Sustainability Claims ............................................................................... 116

After completing this chapter, students will be able to:

- Define purchasing and procurement and explain the differences between them.
- Describe the steps in the procurement process.
- List the benefits of and barriers to sustainable procurement.
- Discuss the steps in building a sustainable supply chain.
- Define greenwashing.
- Discuss the importance of an organization’s carbon footprint.
Chapter 8: Sustainability Standards, Systems and Support

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Topic 3: Continuous Education and Training Programs ........................................................................ 145

After completing this chapter, students will be able to:

- Define the purpose of standards.
- Describe the key ISO standards related to sustainability.
- Define the purpose of building rating systems.
- Discuss the main building rating systems, such as BREEAM, LEED, CASBEE, Green Globes, Green Star, Green Mark and the Three Star System.
- Discuss training and development opportunities for facility managers.

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