Gartner

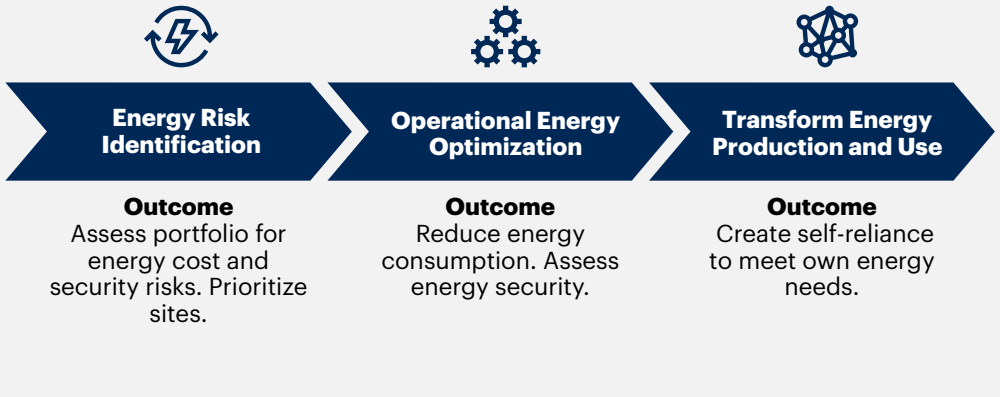
# Supply Chain Management Amid an Energy Crisis

## 3 Ways to Mitigate Escalating Energy Costs

## Introduction

Chief supply chain officers (CSCOs) can use a three-pronged approach to respond to an escalation in energy costs (see Figure 1). This approach — energy risk identification, operational energy optimization and transforming energy production and use — is designed to provide a holistic view of the business, allowing critical energy demand decisions to be made with full operational consideration.

Figure 1. Three-Pronged Energy Approach




Source: Gartner

Step 1 2 3

## Energy Risk Identification

CSCOs can ask the following questions to identify immediate energy risks:

- **Optionality.** Is it possible to switch between fuels to run our processes? What are the cost implications of alternative energy supply versus the enterprise risk appetite, considering the potential for energy failure?
- **Production plan.** When looking at the operational production plan for the next six months, are there any customers that we simply can't disappoint?
- **Inventory.** What is the current level of inventory? Could critical customer needs be met through inventory? What are the costs to the business of holding additional inventory?

Action taken following energy risk identification must prioritize the operations and suppliers that are experiencing the most impact. Determine the likelihood of energy supply failures and the impact of unit energy cost increases by manufacturing plant. Review and test business continuity plans. Understand the impact and response to failure of supply scenarios, either through planned or unplanned blackouts. Apply the same principles to the supply chain to identify any raw material continuity risks.

If energy costs are locked in today, understand when these contracts will end. Assess the business impact based on continued volatility in energy costs.

Most important is understanding that dynamic energy costs and security are business risks. Elevate the risk to the executive and board level where appropriate. At minimum, ensure that the risk is captured through the enterprise risk management process.

Step 1 2 3

## Operational Energy Optimization

Energy optimization activities focus on reducing consumption through process efficiency while also focusing on short-term security of supply. Energy optimization allows for immediate action to be taken to mitigate some of the energy cost increases while managing security concerns.

CSCOs can ask the following questions in an effort to diagnose the maturity of their organizations' existing optimization activities and explore future opportunities:

- **Partnership.** How can we leverage third-party partnerships and digital tools to gain more insight into energy consumption and potential future energy projects?
- **Learning.** What optimization activities and learning can be transferred between our sites?
- **Employees.** What additional support may we need to give to employees who are also experiencing significant energy costs at home?
- **Backup generation.** How dependent are sites on backup generation and what are the associated costs? What is the availability of backup generators and their fuel supplies?

CSCOs can focus operational energy optimization activities in the following three areas:

- **Identifying new projects.** Focus operations energy teams on identifying energy savings opportunities through engineering or ways-of-working types of solutions.
- **Reassessing projects.** Reexamine energy savings projects that have not passed previous capital investment appraisal. The financial dynamics have changed, and these projects may now be viable.
- **Leveraging new financing strategies.** Assess opportunities to use alternative financial strategies to advance energy savings and decarbonization.

Step 1 2 3

## Transform Energy Production and Use

Transformation activities focus on creating long-term energy security for manufacturing sites at a known cost.

Investment in transformation activities is contingent on seeing the energy crisis as a medium- to long-term risk. CSCOs must engage with senior executives and the board to work through a series of potential future scenarios to plan transformation actions.

Examples of transformation activities include:

- **Democratized energy generation.** The nature of energy generation is changing from linear production to an ecosystem of producers and consumers. Assess local manufacturing conditions for the suitability of on-site renewable energy generation or the opportunity to co-invest in larger projects.
- **Manufacturing transformation.** Work with R&D to understand the profile of manufacturing and expected energy consumption in the future. Evaluate existing processes, and set an energy and carbon reduction challenge per unit of good produced.
- **Investment decisions.** Include energy cost as a criterion in investment decisions. Prioritize markets where sound energy risk mitigation strategies are in place.

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