

# **Risk Policy and Governance Procedures**

Design Document

Version V1.0

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Target Audience: M&V (Measurement & Verification) Engineers

Training Duration: 30-45 minutes

Training Goal: To recognize the risks associated with Solutions Projects

High-Level Content Rendition Strategy: Scenario-driven

Topic Name	Explanation Strategy	Visual Strategy
Solutions Governance	<b><i>What is it?</i></b>  Solutions Governance is a policy that was rolled out in the first quarter of FY 2012. It was later updated in May 2013.  >	Clicking the launch.html icon will take the user to a launch page that has the name of the training displayed. To begin the training, the user will click the "Let's Begin" tab.
	<b><i>Why should I know it?</i></b>  <ul style="list-style-type: none"><li>• To recognize the risks associated with Solutions projects</li><li>• To take appropriate actions to mitigate and reduce those risks</li></ul> >	The subsequent page will have two text boxes: "What is it?" and "Why should I know it?" Instead of the regular <b>Next</b> and <b>Previous</b> buttons, the training will have the forward (>) and backward (<) symbols.
Recognizing Risks	<b><i>Case 1</i></b>  Two Development Engineers are walking through an old hospital.  DE1: Wow, this place is old. When was it built?	The conversation will be *animated.  *Two characters will be shown. Background images and speech bubbles will change as the conversation proceeds.

	<p>DE2: I heard the customer say 1954. It is even on the historic register. They don't make hospitals like this anymore; this one is 10 stories high.</p> <p>DE1: Some of this HVAC equipment looks original. This looks like a great project. We can look at putting in a combined heat and power plant since they have year-round steam needs.</p> <p>DE2: With all this equipment being so old, there should be operations and maintenance savings and capital cost avoidance.</p> <p>DE1: We should look at optimizing the chiller plant by putting in new chillers and controls. The plant has six chillers now.</p> <p>DE2: It does look like they did a lighting upgrade at one time, like maybe the 1970s. Let's get ABC in to look at the lighting.</p> <p>DE2: Good idea.</p> <p>DE1: If we do well with this hospital, it should open all kinds of doors since the county owns the hospital.</p> <p>&lt; &gt;</p>	
	<p><b><i>Your Judgment</i></b></p> <p>Do you think the two Engineers have benefitted from the walkthrough? If yes, how?  Select the answer that seems correct to you.</p> <p>A. <u>Yes, they have successfully recognized the risks the hospital is exposed to.</u></p>	<p>Each option will be hyperlinked, and the same feedback will be provided for each selection.</p> <p>The idea here is not to "judge" the response as correct or incorrect. Instead, the focus is on leading the user toward the content.</p>

	<p>B. <u>Yes, they have realized that successful execution of the hospital project will help promote their career in ABC.</u></p> <p>C. <u>No, they have only discussed the history of this hospital and its construction.</u></p> <p>&lt; &gt;</p>	
	<p><b><i>The Reality</i></b></p> <p>The two Engineers intelligently used information to recognize the risks the hospital is exposed to: non-optimized equipment (technology), outdated construction (constructability), and possibility of capital cost avoidance (commercial). Let's look at a few examples for each of these three risks.</p> <p>&lt; &gt;</p>	<p>The response will be displayed on the screen (against a background of the two Engineers standing).</p>
Risks	<p><b><i>Types</i></b></p> <p><b>Technology</b></p> <p>Technology risk is related to Facility Improvement Measures (FIMs) itself.</p> <p>Beware of the following situations:</p> <ul style="list-style-type: none"> <li>• FIMs we have limited or no experience in developing and installing</li> <li>• FIMs we have had negative experiences</li> <li>• Commercialized technology operating at scale for less than five years</li> </ul>	<p>Three tiles will be displayed, each titled Technology, Constructability, Commercial.</p> <p>Clicking each tile will take the learner to a new page (from where s/he can navigate back to the main tiles page) that displays the definition and examples of the risk.</p> <p>For each risk type, a relevant graphic (using a couple of given situations) will be displayed.</p>

- Any technology that is not readily available from multiple suppliers

**Constructability**

Constructability risks could increase project costs or construction time.

Beware of the following situations:

- Seismic Zone 2 or greater
- Building height greater than seven stories
- Constructed before 1982 not adhering to the ABC policy
- Building structural modifications required
- Underground work required (except water meters)
- Non-commercial construction
- Restricted site accessibility
- Compressed construction schedule
- Building listed in the Historic Register
- Immediate vicinity of hazardous material or environment
- Extensive site security requirements, secret, or above

**Commercial**

Commercial Risks are related to legal or financial risks.

Beware of the following situations:

- Any revenue enhancement FIM

- Any project where 15% or more of contract value is associated with FIMs that do not save energy
- Non-measured savings, including capital cost avoidance, greater than 15% of project savings, or per FIM, non-measured savings are greater than \$50,000 per year
- Savings calculations performed by someone other than a ABC employee using commercially available software
- Weather-dependent FIMs with baseline data less than 24 months
- Non-traditional FIMs with a guarantee
- Performance Contracts utilizing Purchased Power Agreements, Sale of Receivable and Shared Savings contract, and similar financing structures
- Custom Measurement & Verification (M&V) protocols
- Fuel price risk accepted by ABC
- Any project without well-developed baseline and M&V
- New construction where ABC acts as a design-build contractor
- Third-party ownership contract structures
- Non-measured savings not well documented and unlikely to withstand a third-party audit

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**Note to SME:**

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1. We recommend providing a one/two-line description of each risk type.
2. The list of examples is too long. Is the objective of this training to have the users “memorize” this list? If not, then can we mention only the critical ones on the screen, and direct them to a consolidated list in the Resources section of the training? Please advise.

*Can I recognize these risks?*

The table below lists the Technology, Constructability, and Commercial risks described by the two Engineers in their walkthrough.

Identify the option that provides the correct categorization of each risk type. When done, click **Submit**.

Options	Technology	Constructability	Commercial
A.	<ul style="list-style-type: none"> <li>• Chiller plant optimization</li> <li>• Combined heat and power plant</li> </ul>	<ul style="list-style-type: none"> <li>• 10-storey high building</li> <li>• Asbestos in the building</li> <li>• Historic Register</li> </ul>	<ul style="list-style-type: none"> <li>• O&amp;M savings and Capital Cost Avoidance not allowed under enabling legislation</li> </ul>
B.	<ul style="list-style-type: none"> <li>• Lighting</li> <li>• New chillers</li> </ul>	<ul style="list-style-type: none"> <li>• Old lighting</li> <li>• 10-storey high building</li> </ul>	<ul style="list-style-type: none"> <li>• Using ABC not allowed under</li> </ul>

The knowledge check question is designed to make the learners apply their knowledge of the three types of risks.

		<ul style="list-style-type: none"> <li>• Asbestos in the building</li> </ul>	enabling legislation
C.	<ul style="list-style-type: none"> <li>• Combined heat and power plant</li> <li>• Lighting</li> <li>• New chillers</li> </ul>	<ul style="list-style-type: none"> <li>• Historic Register</li> </ul>	<ul style="list-style-type: none"> <li>• Combined heat and power plants not allowed under enabling legislation</li> </ul>

**Note to the SME: The correct answer is in green font.**

**Feedback**  
 First Incorrect Attempt: How about if you tried again?  
 Second Incorrect attempt: The correct answer is displayed.  
 Correct Attempt: You got it!

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**Note to SME: The remaining three types of risks will also be treated in the same style.**

**Our recommendation, therefore, is to provide a scenario that has integrated information on Execution, M&V, and Marketing, Communication, and Customer Reference risks.**