Intervention Recommendation Brief

Generated: 2026-01-01 23:43

Input: data/sample_inputs.csv

Executive Summary

- Scenarios evaluated: 3
- SLA outcomes: 2 met, 1 missed
- Projected total cost (recommended actions): $68,714
- Recommended actions: SCN_001 (SITE_A): overtime — $5,350; SCN_002 (SITE_B): outsource — $63,000; SCN_003 (SITE_C): overtime — $364

Decision Rules

- If any feasible option meets SLA, select the lowest total-cost SLA-met option.
- If no option can meet SLA, allow a controlled premium over the cheapest option.
- Within that premium window, minimize unmet units; tie-break by total cost.
- Total cost includes intervention cost, late cost, and SLA breach penalties.

Recommended Actions (Overview)

Scenario	Site	Action	Gap	Recov	Unmet	SLA	Base	Cap	Total	Rationale
SCN_001	SITE_A	overtime	2,000	1,500	500	MET	$5,350	$6,152	$5,350	Overtime recovers 1500 units (~30.0 OT hours).
SCN_002	SITE_B	outsource	3,000	2,000	1,000	MISS	$59,940	$68,931	$63,000	Outsourcing recovers 2000 units.
SCN_003	SITE_C	overtime	500	500	0	MET	$364	$418	$364	Overtime recovers 500 units (~9.1 OT hours).

Legend: Recov = recovered units; Base = baseline total cost; Cap = premium cap; costs in USD.

Scenario Drilldown: SCN_002

Option Comparison

Option	Recovered	Unmet	SLA	Within Cap	Intervention	Service	Total
★ outsource	2,000	1,000	MISS	YES	$14,000	$49,000	$63,000
reroute	1,000	2,000	MISS	YES	$2,500	$58,000	$60,500
overtime	900	2,100	MISS	YES	$1,040	$58,900	$59,940
temp_labor	900	2,100	MISS	YES	$4,500	$58,900	$63,400
do_nothing	0	3,000	MISS	YES	$0	$67,000	$67,000

★ indicates the recommended option.