

CHP BUSINESS IMPACT SCENARIO

Swissôtel Chicago* Chicago, IL USA

Guest Rooms: 662
Estimated Square Feet: 1,200,000

Kilowatt Hours Intensity per SF: 14.8¹
Cubic Feet NG Intensity per SF: 39.6¹

	“As-Is” Utility-Sourced Electricity	“To-Be” Combined Heat & Power
Electricity Kilowatt Hours (kWh)²		
Total kWh Consumption	17,760,000	17,760,000
Cost per kWh	\$0.114	
Utility Service Charges	\$405,031	
Total Electricity Costs	\$2,531,444	\$1,200
Natural Gas Dekatherms (DTH)		
Electricity Generation (DTH)	-	60,600
CHP Recapture (DTH)	-	(40,392)
Space & Water Heating (DTH) ³	40,392	40,392
Cooking & Other (DTH)	7,128	7,128
Net DTH Consumption	4,7520	67,728
Cost per DTH ⁴	\$9.88	\$8.40
Total Natural Gas Costs	\$469,498	\$568,779
Total Energy Costs	\$3,000,942	\$569,979
Impact in Year 1 (Cash Flow)		2,430,964
Ten-Year Cash Flows from EBITDA, including maintenance costs		\$24,861,476
Impact on Sell Price in Year 11 @ EBITDA Selling Multiple x 12		\$34,588,545
Total Value Created from Ten-Year Cash Flows + Sell Price		\$59,450,021
Internal Rate of Return (IRR), not including incentives		45%
Metric Tons of Carbon Dioxide (CO2) Reduced Annually⁵		3,722 (75%)

*Disclaimer: The CHP Business Impact Scenarios are hypothetical examples based on publicly available data, primarily from the U.S. Energy Information Administration (EIA). Findings and calculations are independently derived without direct input from property owners. Actual results may vary.

1. Source: US Energy Information Administration kWh and NG intensity for lodging facilities in climate Zone 5A
2. Source: US Energy Information Administration kWh average commercial prices 2023 in IL, plus estimated utility service charge
3. Source: US Energy Information Administration average uses of natural gas in hotels
4. Source: US Energy Information Administration DTH average commercial prices 2023 in IL. “To-Be” scenario assumes 15% discount from hedging
5. Source: US Environmental Protection Agency Greenhouse Equivalencies Calculator