

CHP BUSINESS IMPACT SCENARIO

Swissôtel Chicago

Chicago, IL USA

Guest Rooms: 662 **Kilowatt Hours Intensity per SF:** 14.8 ¹
Estimated Square Feet: 1,200,000 **Cubic Feet NG Intensity per SF:** 39.6 ¹

	“As-Is”	“To-Be”
	Utility-Sourced Electricity	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%)

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 service charge from utility
 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