

# Case Study

## In Excellence

One in a series from the NESC Library

### Hilton Hotels



#### THE CHALLENGE

Hilton Hotels Corporation wanted to reduce rising costs and environmental impact of laundry operations.

Corporate executives believed using ozone in the laundering process could help contain costs, but were not convinced that ozone laundry technology was advanced enough to provide a reliable, cost effective, eco-friendly answer.

#### THE SOLUTION

After investigating a variety of ozone laundry technologies, Hilton Hotels conducted a four-month test of the most promising technology: the Ozone Laundry System (OLS) by National Energy Services Company.

Daily measurements of water and chemical consumption, and qualitative assessments of linens washed in the OLS tracked the system's effectiveness.

#### THE TEST

The 821-room property processes an average of 3.5 million pounds of wash a year.

The four-month test monitored hot water consumption, energy consumption, softener use, linen quality and replacement, and environmental friendliness.

Hilton especially was interested in learning how the OLS would treat its new, deluxe Serenity Collection™ bed linens.

#### THE RESULTS

Monthly energy savings:

Hot water	<b>\$1,171</b>
Auxiliary steam	<b>\$337</b>
Total	<b>\$1,508</b>

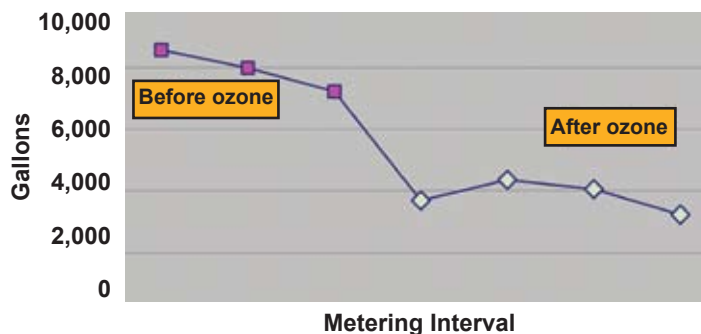
Investment results:

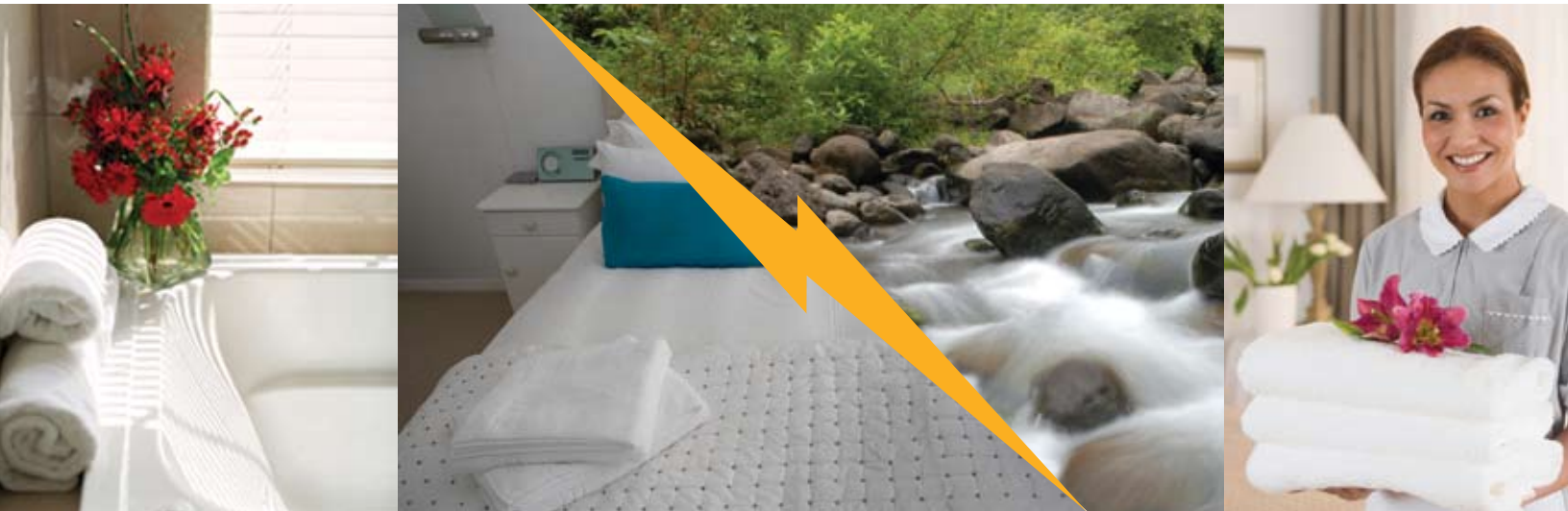
Payback	<b>13.5 months</b>
ROI	<b>89%</b>

The OLS reduced hot water consumption by more than 50 percent (from about 200 gallons to about 100 gallons per load) and cut reclaim wash requirements by half.

Annual operating costs dropped \$37,916, or nearly 24 percent (from \$158,788 to \$120,872), even though  
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Average Daily  
Hot Water  
Consumption  
Dropped  
Dramatically





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the number of loads processed during the test rose nine percent and the pounds processed climbed 10.7 percent.

There's no need to use softener with the Ozone Laundry System so eliminating softener costs added to the savings.

Qualitative assessments of the Serenity Collection™ bed linens showed the OLS produced very good results in terms of graying/whiteness, staining, softness and smell/odor.

Environmentally, the OLS cut the carbon footprint (CO<sub>2</sub>) by 209,000 lbs. Monitoring detected no offgassing.

## THE NUMBERS

### Hot Water Consumption

#### Average gallons per pound of wash per day

	Before ozone	After ozone	Gallons saved	% savings
Gallons	<b>0.92</b>	<b>0.42</b>	<b>.50</b>	<b>54.8%</b>

#### Average gallons per wash load per day (42 loads on average per day)

	Before ozone	After ozone	Gallons saved	% savings
Gallons	<b>198</b>	<b>89</b>	<b>109</b>	<b>55%</b>

## HILTON OVERSIGHT

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Corporate Director  
Laundry Operations  
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### Dale Nelson

Director  
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### Dan Truniger

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