

Higher transformer energy savings are at your fingertips!



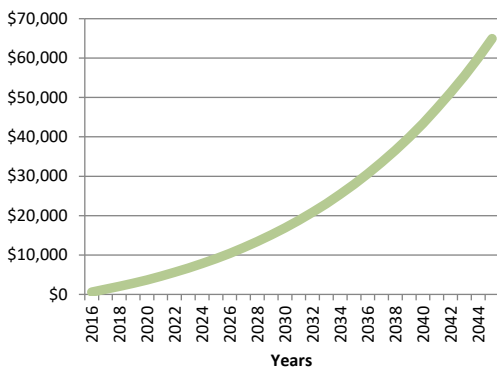
HPS Transformer Savings Analyzer Tool

Did you know?

Did you know that IEEE estimates the average lifetime of transformers to be 30 years.

Transformers have losses even during no load conditions and HPS transformers can help with reducing these losses.

Total savings resulting from upgrading a non-energy efficient 75kVA transformer to DOE 2016/NRCAN 2019



What you'll gain

When you replace your less efficient transformer with a HPS Sentinel® Series distribution transformer, you'll gain:



Improved profitability



DOE 2016/NRCAN 2019 compliant



Energy savings



Improved reliability

HPS Transformer Savings Analyzer

Calculate the benefits of using a HPS energy efficient transformer with the HPS Transformer Savings Analyzer online tool. Simply enter the application details and the analyzer will determine the:

- kWh reduction
- Demand reduction
- 5 & 25 year energy cost savings
- Simple payback
- Total energy savings including reduction in energy, demand, & HVAC costs
- Opportunity to estimate environmental benefit



Hammond Power Solutions

HPS Transformer Savings Analyzer

Input Data:

Enter the details of each transformer required for your project or you can use one of the preset project profiles.

Additional details such as cost per kWh, A/C system performance and monthly demand rate can also be considered if desired.

HPS Transformer Savings Analyzer

Step 1 | Step 2 | Results

Transformer Information

Will you provide transformer replacement costs for a payback calculation?
Yes

Enter the details of each transformer required for your project. More than one transformer can be entered by clicking the "Add New Row" button.

Transformer ID	Application Profile (Reference Table Below)	kVA	Qty	OP Hours Per Day	OP Days Per Year	% Load (OP Hours)	% Load (Non-OP Hours)	Customer Supplied Original OP Efficiency	Customer Supplied Original Non-OP Efficiency	Transformer Replacement Cost - Each (\$)	Installation Cost - Each (\$)
Example/Elect	Commercial	75	2	8	300	75	30	80	500	150	
Machine Line	Industrial 1	225	1	16	320	50	10		5340	500	X
Office	Commercial	75	1	12	220	50	10		2210	500	X

Add New Row (+)

If the Original Efficiency (OP Hours & Non-OP Hours) is not entered, HPS will estimate values. Values must be between 00-100%.

Reference Table for Application Profile

Application Example	Operating Hours Per Day	Operating Days Per Year	% Load During Operating Hours	% Load During Non-Operating Hours
Commercial 1 (Office)	12	260	50	10
Commercial 2 (School)	12	220	50	10
Commercial 3 (Medical Centre)	18	365	35	25
Industrial 1 (Light Industrial)	16	320	50	10
Industrial 2 (Heavy Industrial)	24	365	50	25

Cost per kilowatt-hour (\$): Estimated Cost per kilowatt hour: 14.1
Monthly demand rate (\$/kWh/Monthly): 10

A/C System Performance (kW/ton): 1.0
Energy Cost Yearly Escalation (%): 3

What efficiency standard would you like to compare the current transformers to?
DOE 2016

Note: Relevant to the most recent versions of C802.2

*Required Field

Calculate

Results:

Based on the input data entered, the results screen will estimate:

- Estimate of the typical number of operating years remaining on existing transformers
- kWh reduction
- Demand reduction
- 5 & 25 year total energy cost savings
- Simple payback
- Total project costs
- Graphical analysis

HPS Transformer Savings Analyzer

Step 1 | Step 2 | Results

HPS Transformer Savings Summary

Name: John Doe Address 2: City: Hartford
Company: ANY Electric State/Province: Connecticut
Email: j.doe@anyelectric.com Zip/Postal Code:
Phone Number: 555-123-4567 Country: United States
Address 1: 100 Main Street

Date of Results: 25/05/2018
Project Name: XYZ Industries
Project Notes: Replace older transformers

Results Based on the Following Input Data

Transformer ID	Application Profile	kVA	Qty	OP Hours Per Day	OP Days Per Year	% Load (OP Hours)	% Load (Non-OP Hours)	Customer Supplied Original OP Efficiency	Customer Supplied Original Non-OP Efficiency	Transformer Replacement Cost	Transformer Removal/Installation Cost	HPS Estimated Original OP Efficiency	HPS Estimated Original Non-OP Efficiency
Machine Line A	Industrial 1	225	1	16	320	50	10			5,340	500	97.63	93.69
Office	Commercial 2	75	1	12	220	50	10			2,210	500	96.62	91.68

Age of Current Units: 30 years
Note: Based on typical industry standards a transformer can last up to 30 years

Cost per kilowatt-hour: 14.1 cents
Monthly Demand Rate (\$/kWh/Monthly): \$10
A/C System Performance (kW/ton): 1.0
Energy Cost Yearly Escalation: 3%

Results Comparing DOE 2016

Transformer (ID, kVA, Qty)	kWh Reduction		Demand Reduction (kW)		Annual Total Including Reduction in AC Cooling and Demand Charges		5 Year Total Energy Cost Savings		25 Year Total Energy Cost Savings		Simple Payback (years)	Total Project Cost
	Each	Total	Each	Total	Each	Total	Each	Total	Each	Total		
Machine Line A, 225kVA, Qty 1	10,494	10,494	1.35	1.35	\$2,062	\$2,062	\$12,300	\$12,300	\$151,082	\$151,082	2.83	\$5,840
Office, 75kVA, Qty 1	4,420	4,420	0.7	0.7	\$886	\$886	\$5,295	\$5,295	\$64,917	\$64,917	3.06	\$2,710
Total	14,914	14,914	2.05	2.05	\$2,948	\$2,948	\$17,595	\$17,595	\$215,999	\$215,999	2.90	\$8,550

