Master's Project

Developing Environmental Sustainability Metrics

A Study of Harley-Davidson Motorcycle Dealerships

By

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Abstract

The Harley-Davidson dealership network has 600 locations in the United States. Currently there is no common methodology to measure the impact that these dealerships have on the environment. With no method to measure the environmental impact there is little that can be done to reduce impact.

This project developed a common way to assess environmental sustainability at a Harley dealership. Any environmental sustainability metric has to be relevant to the business, simple to use, provide dynamic feedback, and reveal performance levels. Examples of environmental sustainability metrics and similar dealership programs were reviewed to see if the knowledge was transferable.

Once a metric was developed a survey was sent out to Harley dealerships to validate the metric performance. The metric uses both non-normalized and normalized energy, waste and water data to complete the environmental picture. Due to inconsistent waste and water data in the sample, only the energy metric was tested. The non-normalized energy metric is the annual energy consumed BTU per square foot of building (building performance). The normalized energy metric is annual energy consumed BTU per square foot / annual dealer revenue (operational performance).

The metric is able to detect both good and poor performance and provide information to help dealers make decisions to make improvements. This metric can be used at any dealership regardless of size or location. Additional research using the metrics developed could be used to develop an environmental strategy guide for Harley-Davidson dealerships.

Introduction

A Harley-Davidson dealership is unique among retail stores in that motorcycle, leather goods, parts and service sales all take place. Each dealer is an independent business that is franchised to sell Harley-Davidson Motorcycles, licensed parts and apparel. Currently there is no single methodology or metric for a dealer to measure environmental performance. Each dealer operates differently so there may be as many ideas on how to manage environmental issues as there are dealers. Without a common metric a dealer cannot evaluate environmental performance, envision the benefits of improving or make plans to improve. Nor can a dealer compare their environmental performance to another dealer of similar size, region or sales volume to learn best practices. It is like a motorcycle or a car without a speedometer; without this gauge you cannot tell how fast or slow you are going. Without the information you cannot make smart decisions on what to do next.

This project creates a metric to measure the environmental sustainability of the Harley-Davidson Dealership network. This metric can be used in any dealership across the country to measure environmental performance. The lessons learned from the environmental sustainability metric development and lessons from its application will help the Harley dealerships reduce their impact on the environment and may reduce operating costs.

Objective:

This project explores the unique nature of a Harley dealership, the services offered, and the impact the dealership has on the environment. The project explores what environmental sustainability characteristics are appropriate to measure for Harley-Davidson dealerships. The goal of the project was to use these characteristics to craft a metric that is easy to use and meaningful for dealership management and staff. The project will specifically focus on developing key performance indicators that dealers can use to assess their environmental sustainability performance "score". In the future this score can be used to create an action plan tailored to the needs of the dealership to reduce environmental impact.

Harley-Davidson Motor Company & Dealership Network – Background

The first Harley-Davidson motorcycle was built in Milwaukee, Wisconsin--still the location of the company's headquarters--in the early 1900s. The Davidson brothers William, Walter, and Arthur along with William S. Harley, designed and developed the bike and its three horsepower engine in their family shed. The machine went through many refinements until 1903, when the men established the Harley-Davidson Motor Company and produced three of their motorcycles for sale. Two years later the company produced a new model featuring a V-twin engine that produced a low, deep rumble now identified as the signature Harley-Davidson sound. Such capabilities served to set the company's motorcycles apart from the competition (Davidson, 2002).

Today Harley-Davidson Motor Company manufactures over 200,000 motorcycles per year (Harley-Davidson, 2010). Harley-Davidson motorcycles are marketed and sold through a worldwide network of dealerships. In the United States there are more than 600 dealers in operation (McNair, 2010). Each dealer is an independent business. Harley-Davidson dealers sell a variety of items including: Harley-Davidson® motorcycles, parts and Harley-Davidson® MotorClothes®. Harley dealers also provide maintenance and repair services and the Rider's Edge® riding training course.

What makes Harley-Davidson dealerships different than other types of retail franchises is that Harley dealers promote and sell a lifestyle. An example of this lifestyle is the Harley Owners Group® or HOG. This is the largest company sponsored motorcycle club in the world (Harley-Davidson, 2010). Through local chapters sponsored by authorized Harley-Davidson dealers, HOG enhances the motorcycling experience for enthusiasts worldwide. Year-long programs and events provide the opportunity for customers to gather at their local dealerships to shop, ride and have fun.

Harley dealership activities and services generate waste, and use water and energy resources. A dealer will generate trash, used oil, packaging waste and other waste. Dealers use water for washing parts, prepping bikes for delivery and for customer events. Energy is used to temper the building, lift bikes on benches for repair, and run air compressors. Some dealers have small data centers to run cash registers, audio video equipment, e-mail and inventory services.

Harley-Davidson maintains a support system for dealers with a number of training and services offerings. Harley-Davidson University trains mechanics in the latest repair techniques. The Retail Environment Group (REG) helps dealers with their building and remodeling plans, creating profitable and highly functional floor plans and displays (Harley-Davidson Retail Strategy Guide, 2010). REG provides hands-on assistance, materials and educational opportunities that attract customers and drive sales.

REG had developed a guide for green construction which employed many of the aspects of Leadership in Energy and Environmental Design (LEED). The guide was tied to a program that awarded points to a dealer depending on how many green construction strategies were used. A dealer could earn enough points to be recognized with a plaque designating them as either silver or a gold dealership building. The REG guide was not widely accepted by the dealerships. An environmental metric to measure ongoing dealership performance would give dealers visibility to the value of the green construction program.

Measurements and Data

Environmental Sustainability Metrics

There remains some confusion among the general population about what environmental sustainability metrics are and how they are used. The root of the confusion with sustainability metrics may have something to do with how the word sustainability is used in today's lexicon. The word sustainability has three main definitions:

- Biologist's definition: Sustained yield of resources that derive from the exploitation of populations and ecosystems (Gatto, 1995).
- Ecologist's definition: Sustained abundance and genotypic diversity of individual species in ecosystems subject to human exploitation (Gatto, 1995).
- Economist's definition: Sustained economic development, without compromising the existing resources for future generations (Gatto, 1995).

With these different definitions of sustainability it is quite understandable that there is confusion. Some of this confusion transfers to environmental sustainability metrics. Multiple and confusing metrics is listed as a top reason why companies are not more sustainable (Laughland & Bansal, 2010).

The following definitions framed the research on which environmental sustainability metrics would be suitable for the Harley-Davidson Dealer network.

Coatanea, Kuuva, Makkonnen, Saarelainen and Castillón-Solano (2006) developed six broad categories of environmental sustainability metrics.

- Financial metrics estimate environmental impacts in terms of currency so that they may be compared with currency transactions.
- Thermodynamic metrics indicate the energy resource requirements of activities or services. Often these metrics relate to the loss or use of energy to perform work.
- Environmental metrics estimate the potential damage to the ecosystem from activities or services.
- Ecological metrics attempt to estimate the effects of human interactions on nature.
- Socio-political metrics evaluate whether activities align with political or ethical goals.
- Aggregated metrics may mix features of the other metrics categories.

Using the right metrics can drive positive behavior and improvement. A famous scientist coined this phrase about metrics "If you can not measure it, you can not improve it." Sir William Thomson, Baron Kelvin of Largs (Thompson, 1910). Without a means of measuring an impact, efforts to affect positive change are hap-hazard.

Examples of the positive influence of metrics can be found in quality award programs like the Malcolm Baldridge National Quality Award. Winners of this award have found that linking the right metrics to their operations have allowed them to boost profits; increase customer and employee satisfaction (Brown, 1996). The power of measurement is highly relevant to the concept of

environmental sustainability. Measuring environmental data can help in decision making, improving performance, inspiring behavior changes and avoiding backsliding (Zapico, 2010).

Studies have shown that organizations that set environmental goals are more likely to continue to set environmental goals. This is significant as the setting of goals often results in better environmental and economic performance and can inspire positive behavior changes in employees (Ransom & Lober, 1999).

Environmental Sustainability Metrics at Vehicle Dealerships

There are currently no comprehensive environmental sustainability performance studies on entire dealer (car, boat, farm equipment) chains. The Ford Motor Co announced in February 2010 that it was in partnership with the Rocky Mountain Institute to create an environmental sustainability blueprint for its dealer network. While no details on this blueprint is available to the public the overall intent is to provide an assessment, offer improvement ideas and provide information on where grant funding can be located. (Ford Motor Co, 2010). This blueprint could provide additional insight on how to improve Harley dealership environmental performance in the future.

The National Automobile Dealers Association (NADA) encourages member dealerships to join the NADA Energy Stewardship Initiative (Energy Star, 2010). Energy Star is a joint program between the US Environmental Protection Agency

and the US Department of Energy. The Energy Star program encourages businesses to join as a partner to use less energy or manufacture energy efficient products. The Energy Star programs certify energy efficient appliances for home or business owners. To assist building owners Energy Star has developed a building energy efficiency rating program. The rating system for buildings is on the Energy Star website and is called Energy Star Portfolio Manager. The Portfolio Manager tool measures the energy intensity of a building by normalizing energy use with the square foot of the building. The normalizing process allows a dealer of any size to be compared to another dealer in an equitable way. The ability to compare and learn from other dealers regardless of size is a powerful learning tool for sharing best practices.

NADA has developed four steps for dealers to take to reduce their energy consumption (Energy Star, 2010).

1. Join Energy Star.
2. Measure energy use utilizing the energy star portfolio manager.
3. Develop and implement a plan to reduce energy use.
4. Earn recognition for energy reductions.

NADA has also commissioned “A Dealer Guide to Energy Star Putting Energy into Profits” (Energy Star, 2010). This guide is a comprehensive tool for a dealer to measure, plan and reduce energy from their operations. The NADA guide is a good starting point it for shaping metrics for a Harley dealership however, it only

addresses energy. A Harley dealership has more environmental issues such as waste and water that should be measured.

Comprehensive Environmental Sustainability Metrics

There are many different environmental metrics but there are only a few metrics that transcend business size and type. These universal environmental metrics are able to measure environmental performance regardless of business type or business size. One example of universal metrics was developed by Corporate Knights. Corporate Knights is a magazine that helps to foster understanding of the environmental impacts of business decisions, highlights environmental leaders in business, attempts to identify solutions that benefit the environment, society and the economy (Corporate Knights, 2011). To compile the list of the world's 100 most sustainable companies Corporate Knight's measures environmental intensity of companies. The measurements used by Corporate Knights normalize waste, water and energy with sales revenue. These financial comparisons can be used to assess the operational performance of a business relative to environmental sustainability. Corporate Knights has developed the following universal Key Performance Indicators (KPIs) to measure any business: (Corporate Knights, 2010).

- Energy Productivity
- Water Productivity
- Carbon Productivity
- Waste Productivity
- Safety Productivity

- CEO to Worker pay
- Taxes Paid
- Sustainability Pay Link to Executives
- Leadership Diversity
- Innovation Capacity
- Transparency

The metrics used by Corporate Knights can be used to compare any business regardless of size or industry. Perhaps the most important aspect of the Corporate Knights metric design is that the KPIs can be evaluated independently or combined. The combined metric evaluation gives a view of overall environmental performance. The independent metric evaluation offers a company the opportunity to understand which metric needs improvement. This insight provided by this metric design can shape decision making and making plans to improve environmental performance.

Environmental Sustainability Metric Development For Harley-Davidson Dealerships

Studies have shown that a business's energy use has the largest impact on operating cost and the environment. The Electric Power Research Institute estimates that an aggressive energy reduction program can reduce electricity 25% - 45% (Sitarz, 2008). When looking at how to begin an energy efficiency program one must examine how energy is used. Choices in lighting, heating cooling and ventilation, insulation, doors, windows and operational practices

should all be considered when assessing changes. Retail companies spend nearly $20 billion dollars on energy annually. It is estimated that a 10% drop in energy cost can boost profits by nearly 2% (Sitarz, 2008). Energy use should be part of an environmental performance metric for Harley-Davidson dealerships.

The environmental impacts of a Harley-Davidson dealership (energy, waste and water) can be measured with the Corporate Knights Universal KPIs. Because the Universal Corporate Knights KPIs are normalized they can be applied to any size organization. Following the Corporate Knights example, the measures that were incorporated into the Harley dealer environmental metric set include:

- Energy Intensity
- Waste Intensity
- Water Intensity

The next step in developing the environmental metric was to decide how to assess performance. The Corporate Knights KPIs normalizes environmental performance with a financial measure. Normalizing the data offers the opportunity for learning and the sharing of best practices. Normalization of data is an important technique for tracking environmental performance (GEMI, 1998). Normalized data can describe how operations are performing versus an accounting of resources consumed. In other words normalizing can describe how an organization utilizes resources (energy, raw materials, water) to deliver the desired product or service. Normalized metrics prevents overstatement of environmental performance. Tying emissions, releases, and resource

consumption to a unit of production helps clarify whether positive environmental trends are the result of pollution prevention activities or simply the effect of decreased activity (for example from plant closings) (GEMI, 1998). Normalizations allow for a comparison between organizations of different sizes, locations and industries. Normalization of environmental metrics allows direct comparisons between dealers regardless of size or location.

As business owners each dealer measures their operational performance in terms of sales revenue. Measuring environmental performance in terms of sales revenue links environmental impacts to the business. Normalizing the environmental performance with sales revenue would provide an accurate view of operational trends at a dealership. Changing behaviors and operational actions at the dealership will reduce the environmental intensity of the dealership. Some operational actions could include reducing heating and cooling set points to conserve energy, recycling paper and reusing water from washing motorcycles to water landscape.

Each Harley dealer building is designed to consume energy and water and to generate waste. Assessing a dealer‘s building performance would measure the energy, water and waste intensity of a dealer per square foot. The Energy Star Portfolio manager tool measures energy intensity per square foot of building space. An example of an energy intensity measure could be expressed as BTU/Sq ft. This type of assessment can help a dealership make plans in capital

investment to reduce the environmental intensity of the dealership building. Some actions that could be taken to improve building performance could include installation of solar hot water heater, water conserving toilets and purchasing balers to enhance recycling of cardboard.

The metric for Harley dealerships should take into account both building performance and operational performance. Both types of environmental performance are important. Operational performance can influence the habits of the dealership staff to reduce environmental impact. Building performance can shape building investment or construction plans to reduce environmental impact. The proposed Harley dealership environmental performance metric incorporates both building performance and operational performance. The metric set will measure both building (non-normalized) and operational (normalized) performance. An analysis of both the building and the operations provides a complete view of dealer environmental performance.

The metrics are designed to reflect energy, waste and water intensity at the dealership the lower environmental intensity will mean a lower metric score. For example the best performing dealers will consume less energy and will have a lower score.

- Energy Metric Non-Normalized = Total BTU / Sq Ft
- Energy Metric Normalized = Total BTU / Sq Ft/ $ Revenue
- Waste Metric Non-Normalized = Total Waste Tons / Sq Ft
- Waste Metric Normalized= Total Waste Tons / Sq Ft / $ Revenue

- Water Metric Non-Normalized = Total Water Gallons / Sq Ft
- Water Metric Normalized = Total Water Gallons / Sq Ft / $ Revenue

The metrics above can be used to assess overall intensity and can be broken into sub-parts to assess specific environmental areas. These sub-metrics can include assessing different types of energy such as electrical or heating intensity.

- Electrical Energy Metric Non-Normalized = Electrical BTU / Sq Ft
- Electrical Energy Metric Normalized = Electrical BTU / Sq Ft/ $ Revenue
- Heating Energy Metric Non-Normalized = Heating BTU / Sq Ft
- Heating Energy Metric = Total Heating BTU / Sq Ft / $ Revenue

The value of the sub-metric analysis is that a dealer will learn where to focus resources to make improvements. The same sub-part method can be applied to waste and water.

Dealership Survey

A survey was developed to measure energy, waste, and water at a Harley dealership. The criteria for selecting dealers were dealer location, dealer size in square feet and age of building. The survey was emailed along with instructions requesting the following data:

- The age of the building in years.
- Location of the building (Which Harley Region).
- The size of each dealership in square feet.
- How much energy was consumed in 2010?
- How much water was consumed in 2010?
- How much waste was generated in 2010?

The Harley-Davidson dealership network has 600 dealers in the United States. These dealerships are broken into 6 different geographic regions; Northeast, Southeast, Central, Northern Plains, Southern Plains and West. (McNair, 2010) This project gathered information from dealerships representing each of these regions. A total of 16 dealers participated in the survey which is 2.6 % of the total dealerships in the US. The dealerships varied in building size as well as building age. One dealership, Frieze Harley-Davidson has attained LEED silver certification.

Region	Dealer Name	Location	Total Facility SF
C	Adventure H-D	Dover, OH	33352
C	Legacy H-D	Effingham, IL	23684
C	Z&M H-D Sales	Greensburg, PA	54000
C	H-D of Valparaiso	Valparaiso, IN	19500
NE	Wilkins H-D	Barre, VT	11000
NE	Williams H-D	Lebanon, NJ	30000
NP	Suburban H-D	Thiensville, WI	38491
NP	House of H-D	Greenfield, WI	47578
NP	Frieze H-D	O'Fallon, IL	33000
NP	Wisconsin H-D	Oconomowoc, WI	36651
SE	H-D of Fort Myers	Fort Myers, FL	46000
SE	Stone Mountain H-D	Conyers, GA	31000
SE	H-D of Naples	Naples, FL	32480
SP	Longhorn H-D	Grand Prairie, TX	40520
W	Thunderbird H-D	Albuquerque, NM	27000
W	Sound H-D	Marysville, WA	30180

Figure 1: Dealership Survey Respondents by Region

Figure 2: Dealership Survey Respondents Location. Map created on Google Maps.

Survey Results

The Harley dealers that were involved in this study were surveyed to provide waste generation, energy and water consumption data. Many dealers have a waste service agreement in which the waste is removed for a flat fee per month regardless of the amount of waste generated. As a result only 2 of the dealers surveyed had quantifiable waste data to analyze. More than half of the dealers in the survey group were not connected to municipal water service, but rather used private wells. The dealers with wells did not have water meters installed to measure water consumption. The inconsistency of the water and waste measures created a problem calculating the comprehensive environmental metric. Measuring both the waste and the water from Harley dealerships should be part of a next phase of a dealership environmental sustainability program. For the purpose of this project the focus will thus be on the energy metric:

Energy Metric Non-Normalized = Total BTU / Sq Ft

Energy Metric Normalized = Total BTU / Sq Ft / $ Revenue

Once all the surveys were returned the information was placed into a master data sheet and analyzed.

Survey Analysis

Energy Metric

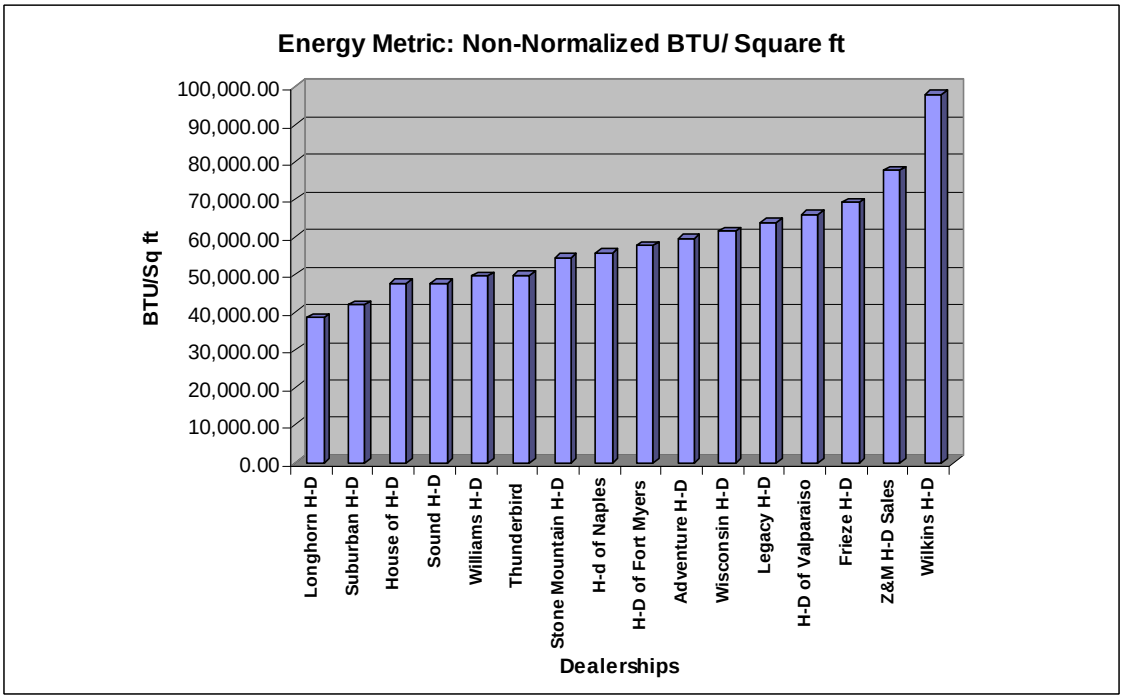

Figure 3: Non-Normalized Energy Metric Ranking. The chart above is sorted by overall energy intensity performance. Dealerships that consume more energy resources will have a higher score. The best performing dealers will consume less energy and will have a lower score.

A dealer that uses more energy resources will have a higher score which indicates higher energy intensity. The results of the overall energy metric in Figure 3 shows a wide spread among dealers surveyed. The results range from 98K (poor performance) to 38K (good performance). This is favorable because it demonstrates that the metric can identify a difference between good performance and poor performance. The top five dealers surveyed come from three different

regions and four different states (Texas, Wisconsin, Washington, New Jersey). This shows that the metric can be used to compare dealers from across the country in a meaningful way.

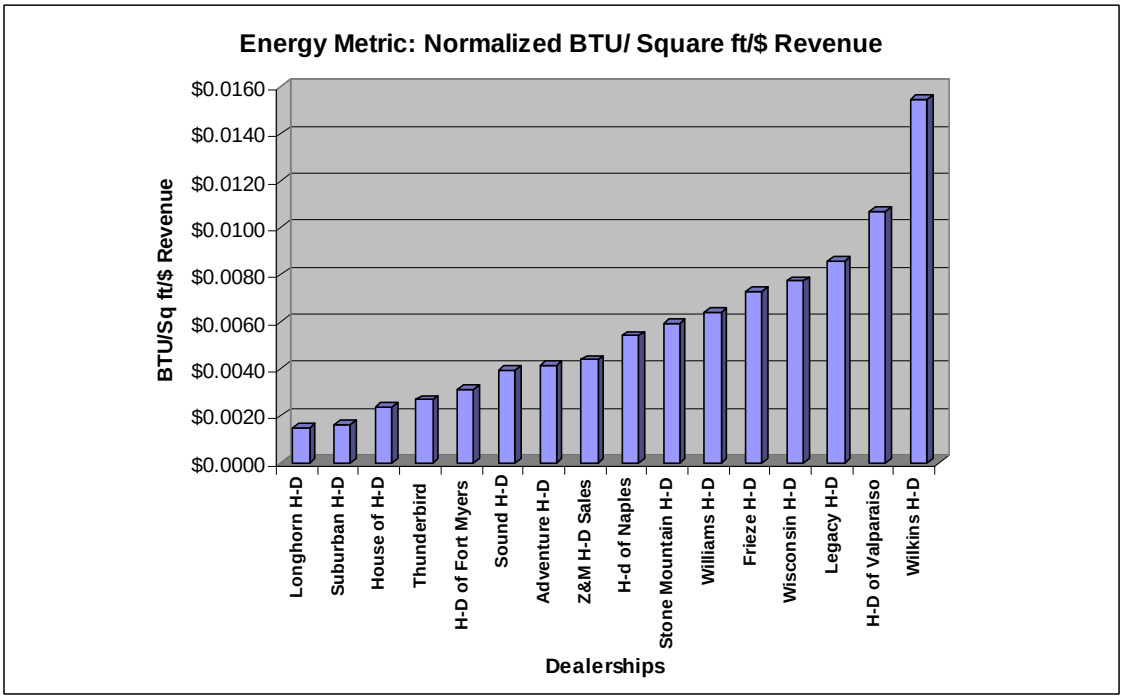

Figure 4: Normalized Energy Metric Ranking. The chart above is shows the normalized energy ranking of dealers surveyed. The energy metric is able to detect good performance and poor performance.

Comparing the non-normalized data in Figure 3 to the normalized data in Figure 4 you can see some common trends. Longhorn H-D is consistently the best performer within both sets of data. H-D of Ft. Myers performs in the middle of the survey group in the non-normalized data on Figure 3 and when the data is normalized on Figure 4 this dealer falls in the top 5 best performers. This shows the value of using both normalized and non-normalized data. If normalized data

was the only data used this dealer may not apply resources to improve. The dealer may conclude that a top 5 ranking was good enough. When the picture is completed with non-normalized data this dealer may conclude that resources should be dedicated to energy improvement efforts.

Energy Metric Sorted By Sales Region

When the overall energy metric is analyzed by region Figure 5 and Figure 6 it yields varying results. The metric is able to detect both good and poor performing dealerships within regions. Larger samples sizes will be needed to do more statistical analysis to determine if one region performs better than the others. This comparison is a useful tool between and within regions to identify best practices in building design, building performance and operations.

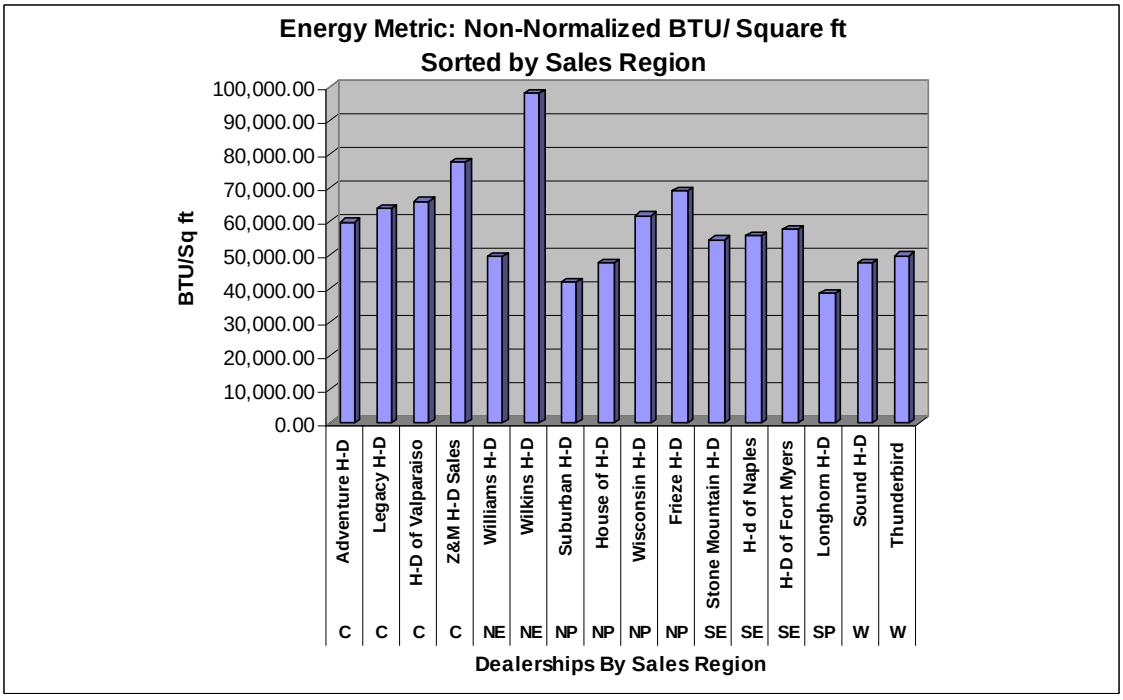

Figure 5: Non-Normalized Energy Metric by Region. This chart sorts the overall metric result by Harley sales regions. Sales region identified by (C- Central, NE- Northeast, NP-Northern plains, SE-Southeast, W-West).

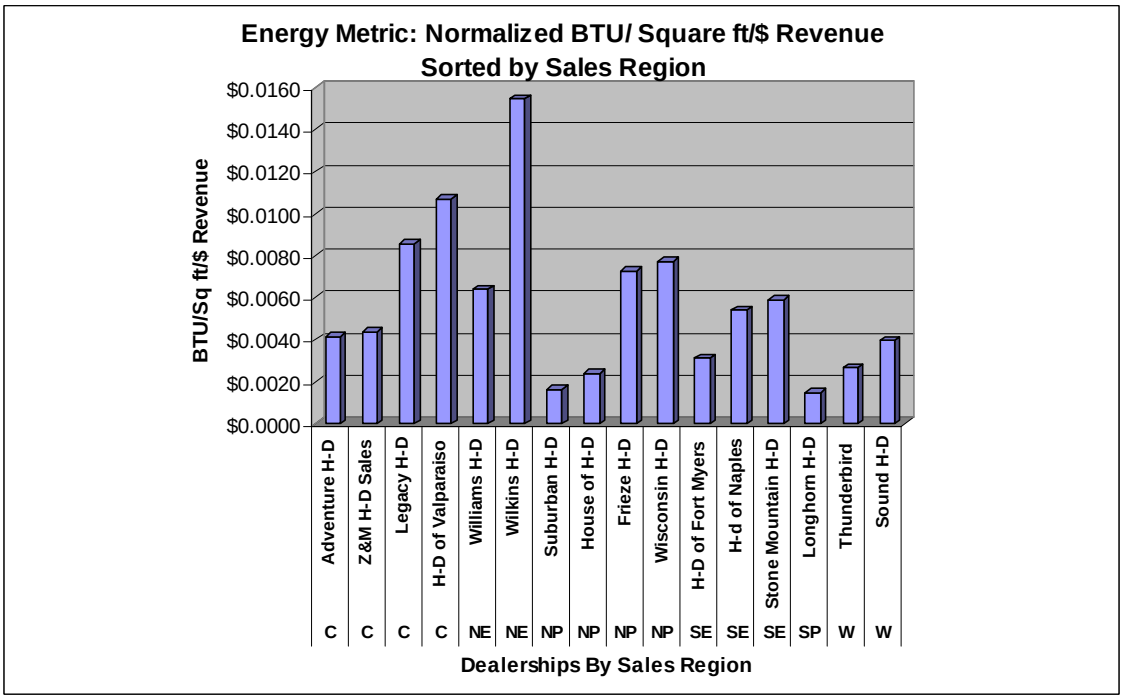

Figure 6: Normalized Energy Metric by sales region. Sales region identified by (C- Central, NE-Northeast, NP-Northern plains, SE-Southeast, W-West).

Energy Metric Sorted by Building Age

When the energy metric scores for the dealers are sorted by building age the results are very interesting. Intuitively one might conclude that a new building would perform better than an older building. In this survey in Figure 7 the metric reveals that there is more to building performance than the age of the building. The best performers in the survey included some of the oldest and newest buildings. More in depth research should be done with a larger group of dealers to see if there is a statistically significant trend. Interestingly, Frieze H-D, a newer LEED certified building, is not one of the best performing sites in the survey.

A possible contributor to the results seen above could be a lack of building commissioning. Commissioning is a way to detect underperforming building systems and identify corrections (Mills et al., 2004). Examples of commissioning defects are plugged filters or underutilized dampers within HVAC systems, poor seals around windows, and setback thermostats not setup properly.

When you compare the non-normalized Figure 7 to normalized Figure 8 energy data by building age you see some variance in dealer performance. In particular you see that the metric is able to show a difference between non-normalized and normalized results for H-D of Valparaiso. H-D of Valparaiso performs poorly on the non-normalized chart Figure 7 but is not the worst. The same dealership is second worst performer when the data is normalized in Figure 8. This indicates that this dealer should consider changes to its building but more focus should be applied to operations to reduce energy intensity.

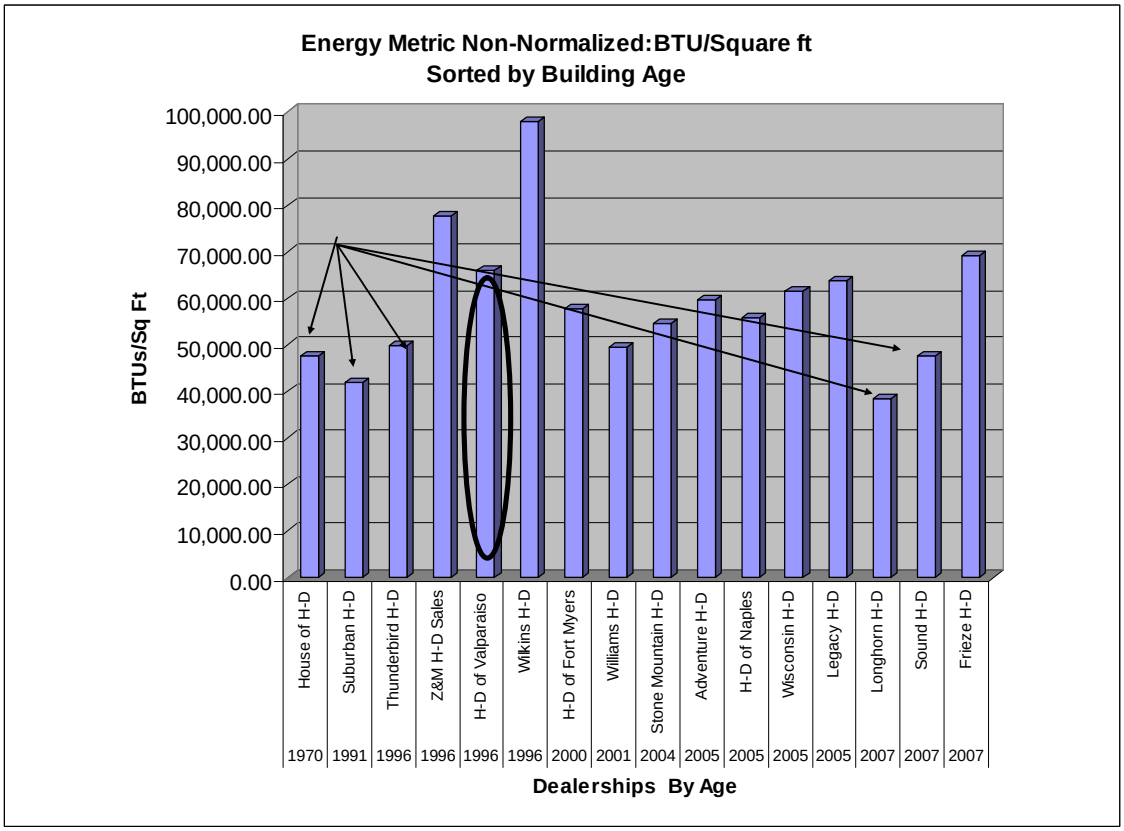

Figure 7: Non-Normalized Energy Metric by Building Age. This chart shows overall energy performance sorted against the age of the dealership buildings. The best performing dealers indicated by arrows are both the oldest and newest buildings in the survey. H-D of Valparaiso is circled.

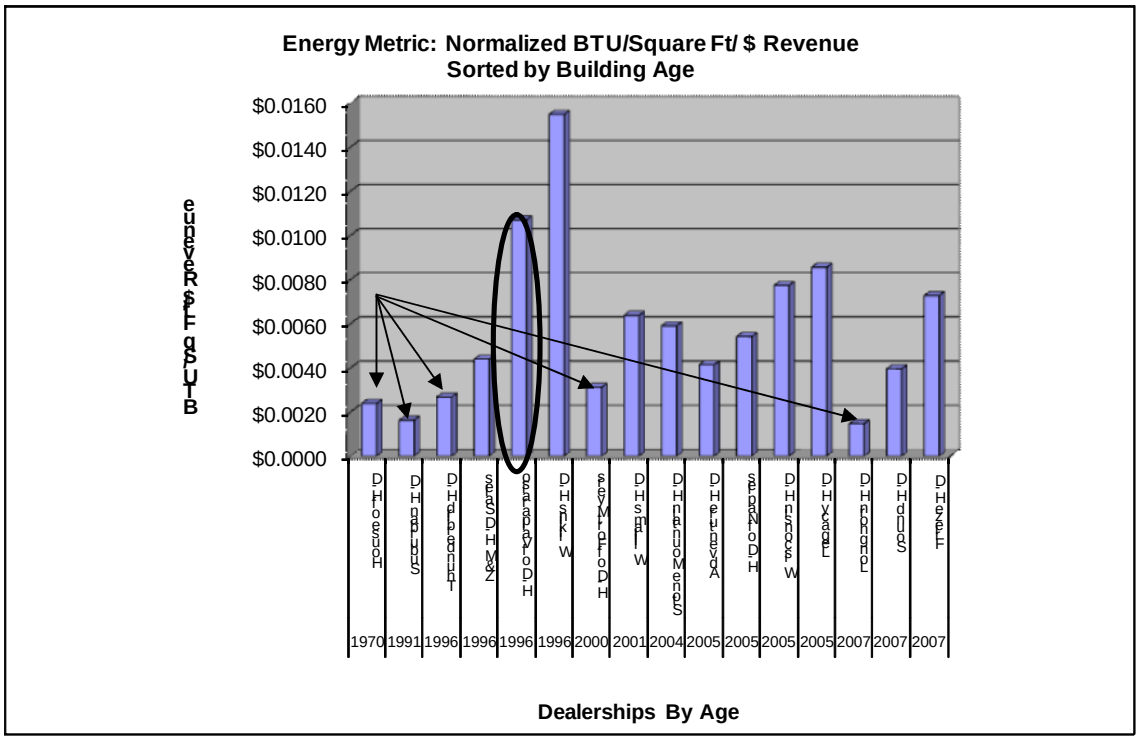

Figure 8: Normalized Energy Metric by Building Age. The best performing dealers indicated by arrows are both the oldest and newest buildings in the survey. H-D of Valparaiso is circled.

Sub-Metric Analysis:

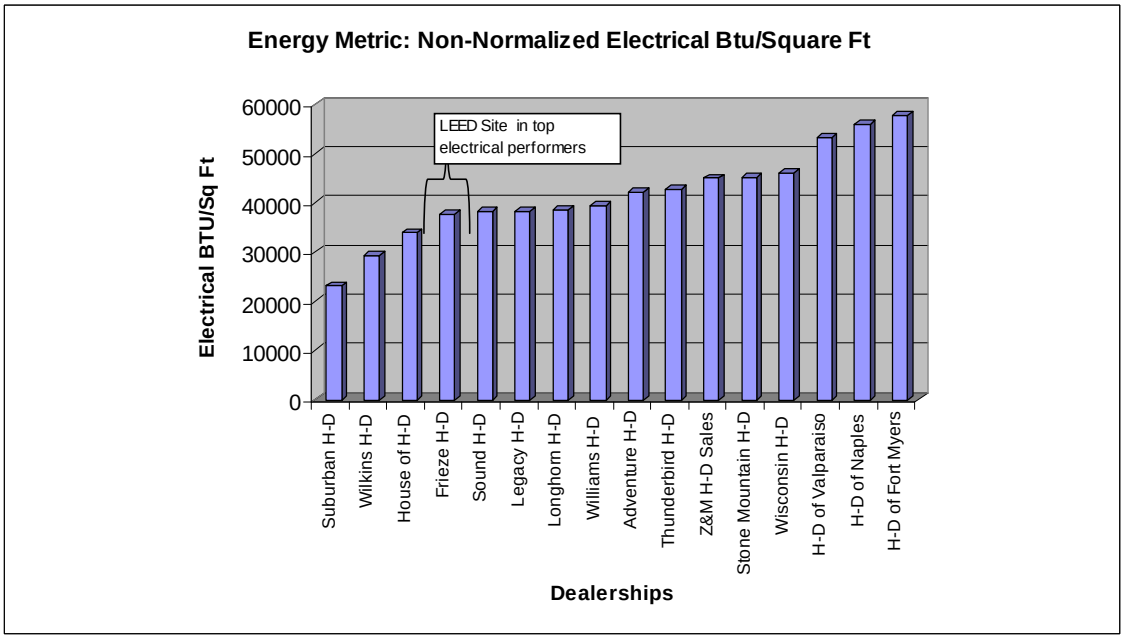

Figure 9: Sub-Metric Analysis Electrical Non-Normalized. This chart illustrates the non-normalized results for electrical use. The LEED certified dealership is among the top performers.

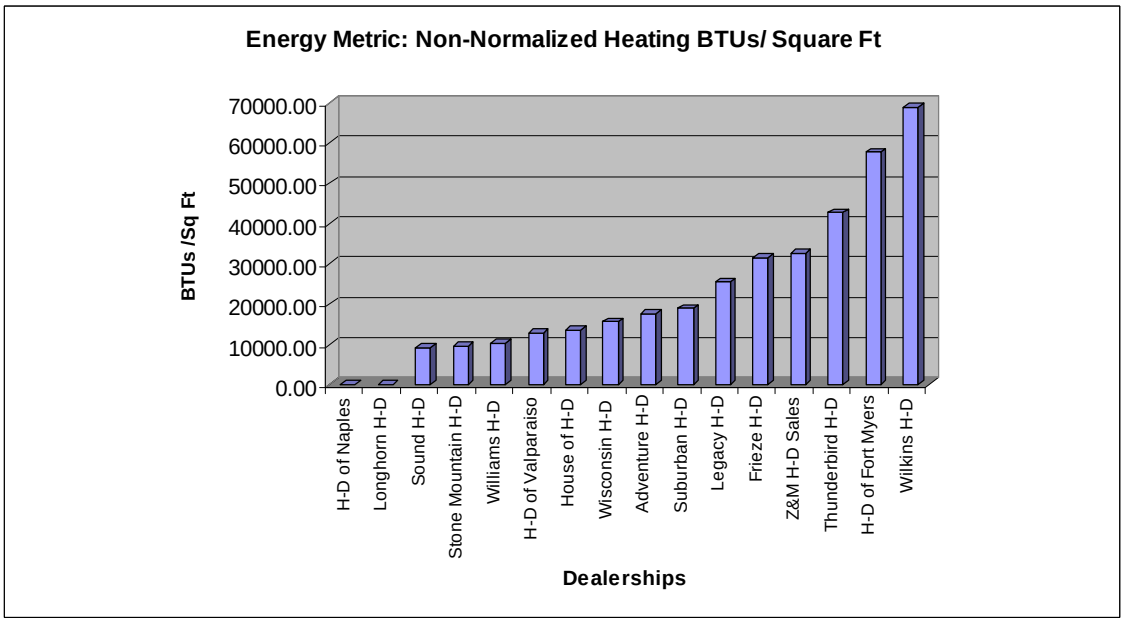

Figure 10: Heating Sub-Metric Non-Normalized. This chart sorts the dealership survey results against the use of heating energy per square foot. The LEED certified dealership scores poorly here.

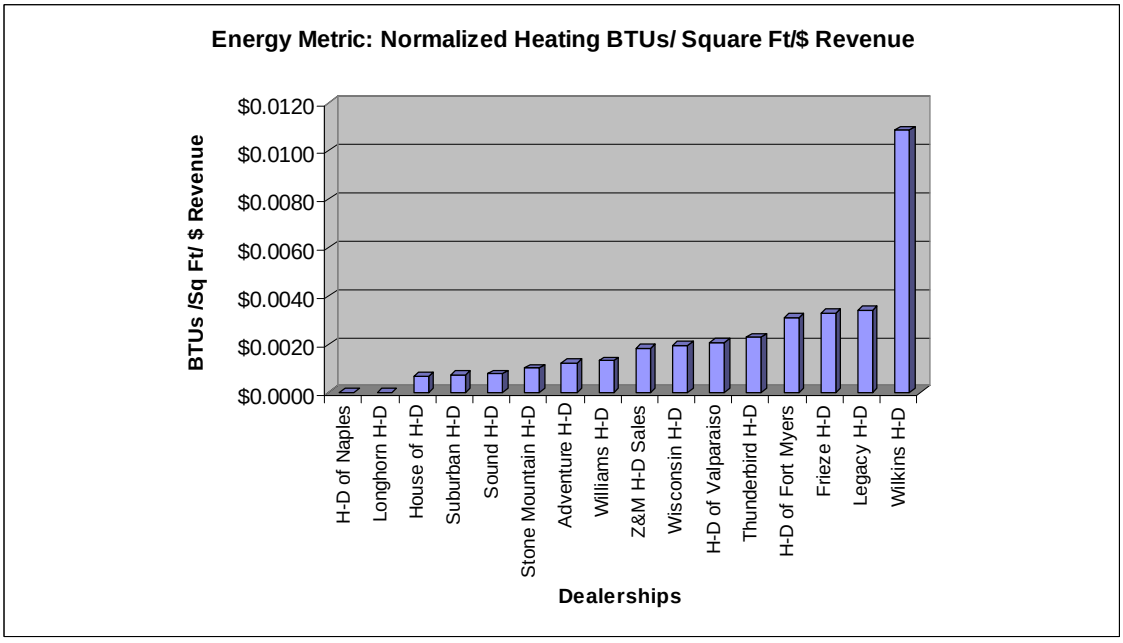

Figure 11: Heating Sub-Metric Normalized. This chart compares heating BTUs / Square foot/$ Revenue for dealers in the survey.

The data for the non-normalized electrical metric Figure 9 reveals that Wilkins H-D is among the best performers for electricity in the survey. This is an interesting result as Wilkins H-D was the worst performer for the non-normalized Figure 10 and normalized Figure 11 heating energy metric. This would indicate that Wilkins H-D would not need to focus additional resources on electrical energy reduction, but instead should focus on changes to heating both on the building and operations to reduce energy intensity.

Frieze H-D, a LEED certified dealership, was ranked fourteenth out of sixteen in the overall non-normalized energy metric in Figure 3. Frieze H-D is fifth best in non-normalized electrical energy intensity in Figure 9 so the investment in LEED

seems to be helping to reduce electrical consumption. This information provides valuable insight to the dealership. Frieze H-D should focus resources on ways to reduce heating energy use to reduce energy intensity. More information would need to be gathered to see if there are LEED specific best practices that could help the entire dealer network reduce electrical consumption.

Analyzing sub-metrics can provide valuable information to the dealer to make decisions. This analysis shows that separating the energy metric by energy type (electricity, heating) may guide future planning and improvement. Overall this sub-part analysis provides comparisons between good performing dealers across the country. A logical next step in the future use of this metric set would be to visit the dealers that scored well to find best practices.

Conclusion

When evaluating business practices the right metrics have the influence to change behaviors and improve environmental performance. The survey verified that the metric can detect both good performance and poor performance. The format of the energy metric developed can provide the foundation of a broader metric that includes water and waste. The metric design allows for dynamic feedback to enable a dealer to judge where to focus improvement efforts. The data gathered from the dealerships is both relevant and readily available. The exceptions in the data set for water and waste can be overcome. In the future common waste and water measurements can be devised to complete the overall environmental metric.

If the metric is incorporated into business measurements, improving these measures will become “the” work of the dealer and not “new” work. The environmental sustainability metric can be folded directly into business planning, capital investments, operational changes and education of dealer staff. This metric has the potential to help dealers unite environmental sustainability solution that make economic sense.

Next Steps

The next step in this process is to review the results with the Harley-Davidson Retail Environment Group (REG) and the dealers surveyed for feedback. The metric methodology could be expanded and used throughout the dealership network to baseline environmental sustainability performance. In addition, the REG has expressed interest in constructing an environmental sustainability guide similar to the one written by NADA and putting a list of environmental best management practices together. The guide should include information on how to measure energy, waste and water and how to use electronic tools like the energy star portfolio manager. Within this guide references can be made on where dealers can find rebates to help offset the cost of making improvements

The REG is considering how to incorporate an environmental sustainability assessment part of the dealer incentive program known as the Bar and Shield. This will incorporate the use of the metric into the business. This integration of sustainable measures will drive behavior changes, allow people to practice these behaviors and then extend these behaviors to new areas. Eventually this process could lead to a communication program that links dealer environmental sustainability to customer relevant messages.

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