

An aerial photograph of a dirt road winding through a dense forest. The road is light-colored and curves through the trees. The forest is composed of various types of trees, including tall evergreens and shorter deciduous trees. The lighting is bright, suggesting a sunny day.

HONDA
The Power of Dreams

GREEN DEALER PROGRAM GUIDE

Honda/Acura Environmental
Leadership Program for
Dealerships and Distributors

Version 3.1 | May 2, 2022

American Honda Motor Co., Inc.

Table of Contents

Measures

Energy

Track Energy Consumption	4
Use 7-day Programmable Thermostats to Automatically Control Temperature Set Points	5
Implement Preventative Maintenance Plans for HVAC, Lighting Systems, and Air Compressors	6
Install LED Lighting and Automatic Lighting Controls for all Interior Spaces	7
Install LED Lighting and Automatic Lighting Controls for all Exterior Spaces	8
Install HVAC Units with Efficiency Features.....	9
Construct Building with High-Performance Envelope Criteria	10
Generate Renewable Energy System	11

Water

Track Water Consumption.....	12
Use Low-Flow or Low-Flush Interior Water Fixtures	12
Use Smart Irrigation Technologies (or No Irrigation).....	13
Use Alternative Water Sources such as Reclaimed Water or Rainwater	14
Recycle Vehicle or Equipment Wash Water	14

TABLE OF CONTENTS

Site

Recycle All Waste Streams 15

Provide Recycling Bins in All Spaces..... 15

Institute a Source Waste Reduction Program 16

Track Waste in the ENERGY STAR® Portfolio Manager® 16

Landscape with Native or Adaptive Vegetation17

Use a Light-Colored Hardscape17

Apply Cool (White) or Vegetated Roofing 18

Apply Methods to Reduce Storm Water Runoff 18

Install Alternative Fueling Stations 19

Complete Other Noteworthy Measures to Further Reduce Environmental Impact 20

Appendix A

Glossary 22

Appendix B

ASHRAE Climate Zone Map 24

Appendix C

Lighting Specifications..... 25

Track Energy Consumption

Tracking monthly energy consumption is necessary to determine Existing Facilities' award eligibility and discover opportunities for improvement.

By tracking energy consumption, dealers/distributors can validate project cost savings, verify whether building systems are working efficiently, and determine if equipment repair or replacement is necessary.

Recommendations

Track Energy Consumption

Track energy use and cost in ENERGY STAR® Portfolio Manager®

To satisfy this prerequisite, you must track energy data on an ongoing basis, either by enrolling in Honda's automated utility tracking program or uploading energy data directly to the ENERGY STAR Portfolio Manager. You must submit all energy utility bills for the applicable program year, including usage and cost data. If available, demand and demand cost data should also be uploaded. The following information must be tracked to satisfy the prerequisite:

- » Utility cost information, including fees and taxes.
- » Monthly kWh of electricity consumed
- » Therms of natural gas consumed
- » Meter readings for other fuel types

Although dealership/distributor financial statements may include some utility cost data, such information is not sufficient for tracking energy consumption, as the financial statements do not contain monthly utility usage and cost breakdowns.

Throughout the Energy section, the word "energy" is defined in this document as total consumption of electricity, natural gas, and other fuels used to provide power to the dealership/distributor. In the lighting sections, the term "electricity" is used since lighting only consumes electricity.

Use 7-day Programmable Thermostats to Automatically Control Efficient Temperature Set Points and Setbacks

Automatic temperature controls are a **low- or no-cost** measure that can significantly reduce energy consumption. Heating and cooling can represent 40-60% of total dealership/distributor energy use. This is a substantial impact, and programmable thermostats or centralized controls can reduce energy and save money by adjusting space temperatures according to the time of day and the day of the week.

Temperature set points establish a specific temperature level for a space; if the space gets hot or cold due to changing outside temperatures, the heating and cooling system will automatically turn on or off to bring the space temperature back to a comfortable level. Setting lower heating set points and higher cooling set points is a **low- or no-cost** measure to reduce energy consumption.

Recommendations

Set Efficient Thermostat Set Points and Setbacks

Daytime set points: 70°F or lower for heating

Daytime set points: 73°F or higher for cooling

Nighttime and unoccupied setbacks: 60° F for heating or turned off

Nighttime and unoccupied setbacks: 83°F for cooling or turned off

To satisfy this prerequisite, your facility must have seven-day, programmable thermostats or a central building automation system to control temperature set points for all conditioned spaces, including the service area.* “Smart” or “networked” thermostats can further reduce energy by adjusting to real-time occupancy sensors and/or making occupancy schedules accessible through the Internet (allowing for connection to an energy management system).

Automatic temperature controls at your facility must be set to 70°F or lower for heating, 73°F or higher for cooling, 60°F or lower for heating when unoccupied, and 83°F or higher for cooling when unoccupied. Instead of unoccupied setbacks, space heating and cooling may be turned off during unoccupied times. This reduces costs incurred by running heating and air conditioning units when the building is unoccupied. Set daytime temperatures to resume 1-2 hours before opening to ensure the space reaches a comfortable temperature during occupied hours.

Your HVAC or electrical contractor can assist in configuring temperature controls. Since occupant comfort can be a subjective measurement, thermostat set points may require regular communication with your dealership/distributor staff and refinement over time. Additionally, using networked or otherwise locking thermostat controls helps to maintain optimum setpoints and save energy.

*Honda will evaluate exceptions on a case-by-case basis.

Implement Preventative Maintenance Plans for HVAC, Lighting Systems, and Air Compressors

Routine maintenance checks of HVAC systems, thermostats, lighting controls, air compressors and other energy-consuming equipment can help lower energy usage. This **low- to no-cost** measure helps identify potential equipment issues that can cause excess energy consumption or equipment failure. Thermostats and sensors that are out of calibration cause equipment to run longer than necessary and during unoccupied hours. Compressed air leakage causes compressors to run significantly more than required. HVAC fluid leakage causes the release of harmful refrigerants and degrades equipment efficiency. Preventative maintenance plans for HVAC units, thermostats, lighting controls, and air compressors help maximize system efficiency and reliability.

Implement preventative maintenance plans for HVAC units, thermostats, lighting controls, and air compressors help maximize system efficiency and reliability.

» **HVAC unit checks:**

- » Ensure all fluids/refrigerants are fully charged per specifications.
- » Ensure compressor and condenser functionality.
- » Check unit condition (belts, fans, filters, etc.) and replace parts as needed.

» **Thermostat maintenance:**

- » Test all thermostats for accuracy at least once a year, calibrate if needed.
- » Verify that thermostats are set to 70°F or lower for heating, 73°F or higher for cooling, 60°F or lower for heating when unoccupied, and 83°F or higher for cooling when unoccupied.

» **Air compressors:**

- » Inspect air compressor pipes, hoses, valves, and fittings for leakage at least once a year to minimize wasted energy.

» **Lighting controls:**

- » Check all interior and exterior lighting controls, including photocells, timers, and occupancy sensors at least once per year to verify lighting shutoff controls and optimal time schedules.

Recommendations

Implement Preventative Maintenance Plans for HVAC, Lighting Systems, and Air Compressors

HVAC unit inspection at least twice per year

Thermostat calibration and setpoint verification at least annually

Lighting controls - interior and exterior - inspected at least annually

Air compressors, piping, valves and fittings inspected for leakage at least annually

Install LED Lighting and Automatic Lighting Controls for all Interior Spaces

Lighting accounts for a significant portion of a dealership/distributor's total electricity usage. Choosing high-performance LED lighting technology reduces electricity and maintenance costs over time. The Green Dealer Program recommends using high-efficiency LED lighting and lighting controls throughout interior spaces.

Start by Replacing Metal Halide Lamps with LEDs

For typical dealerships/distributors, the highest electricity-consuming lights are often 250W-1000W metal halides installed in the showroom and service department. Therefore, replacements or retrofits of these lights with LED lighting greatly reduces energy consumption.

Where available, leverage rebates offered by local utility companies to offset the initial capital cost of installing energy-efficient LED lighting systems. Visit your local utility website and search for efficiency rebates for businesses to find more information about available incentive programs.

Benefits of High-Performance LEDs

High-performance LED lights deliver consistent, high-quality lighting for 10+ years and can result in 60-80% electricity savings compared to standard metal halide technologies. LED lamps maintain light output and color temperature throughout their lifetime and produce less heat, which can reduce costs from air conditioning. Recent developments in LED technology have improved performance and lowered cost; new LED product options are continuously available on the commercial market.

Automatic lighting controls adjust lighting levels or turn lights off based on the time of day, outside daylight levels, or occupant activity. Automatic lighting controls are a **low- or no-cost** way to conserve energy and reduce costs.

Types of Interior Lighting Controls

- » **Time Clocks:** Time clocks turn lighting on or off based on building occupancy schedules and time of day. A basic mechanical time clock allows programming of daily or weekly lighting schedules; more advanced digital or networked controls are capable of automatically adjusting the operating schedule based on the time of year, considering time changes, and seasonal variances. Set time clocks to turn lights off within 2 hours of the dealership/ distributor's closing time.
- » **Occupancy Sensors:** Occupancy sensors control lighting systems based on occupant activity in the space, as detected by passive infrared or ultrasonic motion sensors. For example, if a room is unoccupied for 20 minutes or more, occupancy sensors will power-off the light fixtures in that space to eliminate wasted electricity.
- » **Photocells:** Photocells are sensors used to automatically control interior lighting levels based on the level of natural daylight in the space; lights dim when natural daylight is high and increase when natural daylight levels are low.

Recommendations

Install LED Lighting and Automatic Lighting Controls for all Interior Spaces

Install LED lighting and automatic controls, such as occupancy sensors, time clocks, or photocells, for all lighting fixtures in offices, showroom, service area, and parts/storage.

Install LED Lighting and Automatic Lighting Controls for all Exterior Spaces

Lighting accounts for a significant portion of a dealership/distributor's total electricity usage. Choosing high-performance LED lighting technology reduces electricity and maintenance costs over time. The Green Dealer Program recommends using high-efficiency LED lighting and lighting controls throughout exterior spaces.

Where available, leverage rebates offered by local utility companies to offset the initial capital cost of installing energy-efficient LED lighting systems. Visit your local utility website and search for energy efficiency rebates for businesses to find more information about available incentive programs.

Benefits of High-Performance LEDs

High-performance LED lights deliver consistent, high-quality lighting for 10+ years and can result in 60-80% electricity savings compared to standard metal halide technologies. LED lamps maintain light output and color temperature throughout their lifetime and produce less heat, which can reduce costs from air conditioning. Recent developments in LED technology have improved performance and lowered cost; new LED product options are continuously available on the commercial market.

Parking lot lighting makes up 20-40% of a typical dealership/distributor's total annual electricity use. Pairing the right automatic lighting controls with energy-efficient LED fixtures reduces energy use and can result in significant energy and maintenance cost savings. Exterior lighting controls are a **low- or no-cost** way to reduce energy use, and utility rebates are often available. To reduce after-hours lighting and unnecessary energy usage, work with the lighting designer or engineer to incorporate separate lighting circuits for distinct exterior areas. For example, use one circuit for the building façade lighting, a second circuit for the back parking lot, and a third circuit for the front parking lot.

Types of Exterior Lighting Controls

- » **Time Clocks:** Exterior time clocks power lighting on or off based on time of day. A basic time clock allows programming of daily or weekly lighting schedules; more advanced controls automatically adjust the operating schedule based on the time of year, accounting for time changes and seasonal variances (e.g., sunset to sunrise).
- » **Photocells:** Exterior photocells automatically control outdoor lighting circuits by turning lights on at dusk and off at dawn in response to available daylight.
- » **Automatic Power Reduction Controls:**
 - » **Bi-Level Lighting Controls:** Bi-level lighting controls can save energy by reducing light levels in parking lots when not needed. Program controls to dim or turn off a portion of the lights during later night hours, which allows for both acceptable security lighting levels and reduction in power consumption.
 - » **Motion Detecting:** Motion detectors may be installed on the building façade and pole lights to allow security lights to remain off or at lower levels until motion is detected in the area. This active control mechanism can significantly deter theft and vandalism, especially when coupled with cameras or other security measures.

Recommendations

Install LED Lighting and Automatic Lighting Controls for all Exterior Fixtures

Install LED lighting and controls that enable automatic power reduction, such as time clocks, photocells, and motion detectors, for all parking lots and façade lighting fixtures.

Install HVAC Units with Efficiency Features

The Green Dealer Program uses the U.S. Environmental Protection Agency (EPA) ENERGY STAR® program as a guideline for energy-efficient HVAC equipment. The ENERGY STAR program establishes high performance standards for HVAC equipment including boilers, heat pumps, and air conditioning units.

Energy-efficient HVAC systems improve building energy performance by lowering energy demand, which reduces monthly utility bills. Newer, more efficient HVAC systems use less energy to produce the same amount of cooling or heating when compared with older, less efficient systems.

Additionally, air-side economizers use low-temperature outside air rather than cooling the warmer return air from the building interior. This method is more effective in drier climates and regions with large temperature variance during a typical day.

Note: Use of Waste Oil Burners/Heaters are not included in the program

Although the use of used oil (waste oil) burners/heaters at your facility may reduce heating fuel costs, studies have shown that the resulting pollutant emissions may have negative impacts on local air quality.

For example, higher zinc, lead, hydrochloric acid, and total particulate emissions can occur with waste oil combustion than with virgin fuel oil. (U.S. Department of Energy, Office of Fossil Energy. (2006). Used Oil Re-refining Study to Address Energy Policy Act of 2005, Section 1838.)

The goal of the Green Dealer Program is to reduce energy usage and CO₂e emissions. Burning used oil does not reduce total energy consumption or emissions and therefore is not included in the energy-reduction calculations for the program.

Recommendations

Install HVAC Units with Efficiency Features

Install high-performance HVAC units for the majority of each type of heating and cooling equipment

Equipment Type	Minimum Efficiency Rating or Other Notes
Domestic hot water heater	ENERGY STAR certified or equivalent
Boiler	ENERGY STAR certified or equivalent
Heat pump or A/C unit	EER ≥ 12* SEER ≥ 15* *Weighted average of all units
Air-side economizers	For cooling units over 5 tons

Provide documentation that HVAC equipment is either ENERGY STAR certified or meets the minimum efficiency standards shown in the above table. To determine if specific HVAC equipment is ENERGY STAR certified, visit the “Heating and Cooling” section of the ENERGY STAR products website. The weighted average of HVAC unit efficiencies must meet the minimum efficiency standards noted in the table above.

Construct Building with High-Performance Envelope Criteria

High-performing building envelopes can improve building insulation and help minimize heat gain or loss, which help lower a building’s heating and cooling costs.

Window tinting and dual-pane windows minimize undesired thermal heat gain or loss in a facility, which improves indoor comfort and reduces HVAC cooling and heating loads. Revolving doors, vestibules, and high-speed garage doors minimize loss of conditioned air from interior spaces and/or service bays. Skylights add natural light to a space, reducing the need for electrical lighting, which can also lead to reduced HVAC cooling loads.

Strengthen building insulation by providing the minimum recommended insulation values for roofing, exterior walls, and windows for your U.S. climate zone, as defined by ASHRAE 90.1-2019 (Table 5.5).

ASHRAE 2019 – Building Envelope Requirements by Climate Zone

Climate Zone	Window		Roof	Walls
	Assembly Max. U-Factor	Assembly Max. SHGC	Insulation Min. R-Value	Assembly Insulation Min. R-Value
0	0.50	0.22	R-25	R-13
1	0.50	0.23	R-20	R-13
2	0.45	0.25	R-25	R-13
3	0.42	0.25	R-25	R-13
4	0.36	0.36	R-30	R-15.6
5	0.36	0.38	R-30	R-18.2
6	0.34	0.38	R-30	R-20.4
7	0.29	0.40	R-35	R-20.4
8	0.26	0.40	R-35	R-27

The above table summarizes ASHRAE 90.1-2019 Tables 5.5-0 through 5.5-8, which define the thermal performance characteristics for each building envelope component in each climate zone (Refer to Appendix B).

- » The insulation levels of roofs and exterior walls are measured in R-value; a higher R-value corresponds to higher levels of thermal insulation.
- » U-factor and Solar Heat Gain Coefficient (SHGC) are two characteristics that define the thermal performance of window units. The U-factor is the thermal conductivity of a window assembly (including glass and framing) and the SHGC is a measure of the amount of solar radiation absorbed by the building through a window.
- » The lower the U-factor and SHGC, the higher the performance is of a window. Windows must meet both U-factor and SHGC criteria to earn points.

Recommendations

Construct Building with High-Performance Envelope Criteria

Ensure windows, walls, and roofing meet to ASHRAE 90.1-2019 standards based on the dealership’s or distributor’s climate zone.

To satisfy this measure, ensure windows, walls, and roof meet the ASHRAE 90.1-2019 standards based on your ASHRAE climate zone. To minimize loss of conditioned air, consider using vestibules with interior and exterior doors for the showroom and high-speed garage doors in the service areas.

Generate Renewable Energy System

Few things have more impact and visibly demonstrate a commitment to the environment than the presence of renewable energy sources, such as solar panels or wind turbines. On-site renewable generation hedges against utility rate increases that can significantly impact future operating costs. By offsetting energy use with renewable energy, dealerships/distributors may be eligible for a lower rate tier and avoid peak demand charges, depending on local utility policies.

Recommendations

Generate Renewable Energy System

Install onsite renewable energy system or procure off-site renewable energy

Dealerships/distributors may satisfy this measure by installing an onsite renewable energy system, purchasing Renewable Energy Certificates (RECs) or green tariffs, or entering into a Virtual Power Purchase Agreement (VPPA).

Honda recommends designing roof areas to be “solar ready”, even if you are not integrating a solar PV system into your facility’s design. To design a “solar-ready roof”, locate HVAC equipment or skylights on the north side of building, design parapet height at 3 feet, provide electrical conduit run to roof, and design flat roofing. Consult a structural engineer for additional structural requirements needed for larger PV systems or for dealerships/distributors located in geographic regions with snowfall.



Did you know?

“In August of this year (2019) we entered a voluntarily agreement to purchase more than 1.012 megawatt hours of electricity annually from new solar and wind farms in the U.S., which will offset more than 60 percent of the grid-supplied electricity we utilize in our factories in North America.”

Source: Honda 2019 North American Environmental Report

“Now we’re taking steps to create our own clean energy to further reduce our electricity use. Two onsite wind turbines at our Ohio transmission plant are generating 10,000 megawatt hours of electricity per year – or the equivalent of the average yearly energy use of 1,000 homes.”

Source: www.honda.com/environment/honda-green-path

Track Water Consumption

Regularly tracking monthly water consumption is necessary to benchmark a dealership/distributor’s water use, establish opportunities for improvement, identify leaks, and quantify water use reductions resulting from retrofits or operational improvements.

Recommendations

Track Water Consumption

Track water use and cost in ENERGY STAR® Portfolio Manager®

To satisfy this prerequisite, you must track the water usage at your facility on an ongoing basis, either by enrolling in Honda’s automated utility tracking program or uploading water data directly to the ENERGY STAR Portfolio Manager. Dealerships/distributors must submit all water utility bills for the program year, including usage and cost data.

Although dealership/distributor financial statements may include some utility cost data, such information is not sufficient for tracking energy consumption, as the financial statements do not contain monthly utility usage and cost breakdowns.

Use Low-Flow or Low-Flush Interior Water Fixtures

The Green Dealer Program’s interior water fixtures guidelines meet or exceed the maximum flush and flow rates found in the EPA WaterSense® program. The EPA WaterSense Product Guide recommends fixtures based on different performance criteria, including water conservation.

High-efficiency interior water fixtures typically use 30-50% less water than their conventional counterparts and can reduce operating costs. New technology has enabled lower flow alternative fixtures to achieve the same or better performance than their conventional counterparts at no additional cost.

In the U.S., fixture flow rates are typically measured in gallons per minute (GPM) for flow-based fixtures such as lavatory faucets and showerheads. For flush fixtures like urinals or toilets, water consumption is measured in gallons per flush (GPF).

Recommendations

Use Low-Flow or Low-Flush Interior Water Fixtures

Urinals: ≤ 0.5 GPF or less

Toilets: ≤ 1.28 GPF or less

Lavatory faucets: ≤ 0.5 GPM or ≤ 0.25 gallons per cycle (GPC) metered/sensored

Showerheads: ≤ 1.6 GPM

While replacing toilets and urinals with more efficient options may only be cost effective when remodeling bathrooms, there are other less expensive ways to save water such as replacing faucets or adding low-flow aerators to existing faucets. Consult with a professional plumber to carefully evaluate the feasibility of fixture replacements.

Use Smart Irrigation Technologies (or No Irrigation)

Landscape irrigation efficiency measures how effectively water is delivered to the roots of a plant without excess loss due to evaporation, dissipation, or other factors that waste water.

Efficient irrigation systems distribute water exactly when and where needed with minimal loss. Weather-based controls can increase water efficiency by turning the system on and off based on weather conditions or the moisture content of the soil. Water needs differ depending on climate zone, precipitation patterns, periodic droughts, extreme weather conditions, and other factors. For more information about water-efficient irrigation equipment, visit EPA's WaterSense® water-saving technologies website.

Recommendations

Use Smart Irrigation Technologies (or No Irrigation)

No irrigation (Native or adaptive plantings)

Bubblers, drip lines, or microirrigation systems

Weather-based controls

WaterSense certified spray heads

Landscaping with native or adaptive plants can help reduce or eliminate irrigation, and weather-based controls can reduce unnecessary watering. Honda recommends bubblers, drip lines, or microirrigation systems to minimize evaporation.



Did you know?

At Honda Smart Home, we created a river rock swale that looks like natural creek bed. Water that falls on the roof flows through the gutters into the swale and makes its way into a rain garden that doubles as a perfect habitat for butterflies and birds. As the storm water sinks into the soil, any pollution will filter-out naturally rather than ending up in the Sacramento river.



Use Alternative Water Sources such as Reclaimed Water or Rainwater

Alternative water systems use water that is not drinking quality for toilet flushing, landscape irrigation, and washing vehicles. Examples of alternative water sources include municipally supplied reclaimed water, gray water, captured rainwater, and recovered HVAC condensate water.

Definitions

Gray Water: Wastewater generated from wash hand basins, showers, and baths, which dealerships/distributors can recycle on-site for uses such as toilet flushing and landscape irrigation.

Recovered HVAC Condensate Water: Recycled water from an inexpensive, low-tech method that can be especially effective in hot climates. This method conserves water and reduces energy used by water treatment facilities.

Recommendations

Use Alternative Water Sources such as Reclaimed Water or Rainwater

Use alternative (recycled) water for toilet flushing

Use alternative (recycled) water for landscape irrigation

Check with your local water district to determine if incentives are available for retrofitting existing water systems to use reclaimed water. Local codes may restrict or prohibit use of gray water; consult the local building codes for details.

Recycle Vehicle or Equipment Wash Water

Water-efficient vehicle/equipment wash systems use less potable water compared to their conventional counterparts. For example, a 100% closed loop, recycled water vehicle wash system, also called a non-discharge vehicle wash system, recycles both wash and rinse water with no wastewater discharge.

Recommendations

Recycle Vehicle or Equipment Wash Water

100% Closed-loop water recycling system

Partial closed-loop (at least 50%) water recycling system

Vehicle or equipment wash system that uses alternative water source for 75% or more of water use

Replacing existing vehicle wash systems may be cost prohibitive, so consider partially recycling vehicle wash water or use reclaimed water from your municipal water provider.



Did you know?

The average Honda dealership can reduce water use by up to 45% by implementing water efficient technologies, such as a closed loop recycled water car wash.

Recycle All Waste Streams

Proper recycling practices are integral to improving the environmental impact of a dealership/distributor.

Recommendations

Recycle All Waste Streams

Recycle all waste streams, including paper, cardboard, plastic bottles, aluminum cans, glass bottles, and light bulbs

To satisfy this measure, you must recycle paper, cardboard, plastic bottles, metal halide and fluorescent light bulbs (if used), aluminum cans, and glass bottles at a minimum.

Dealerships/distributors must comply with federal and local regulations for disposing hazardous waste, which may include motor oil, refrigerant, paint, and other waste types.

Provide Recycling Bins in All Spaces

Dealerships/distributors should encourage recycling practices for customers and staff by providing recycling bins placed in highly visible locations throughout the building. Easily accessible recycling bins encourage customers and employees to recycle and demonstrates a commitment to recycling.

Recommendations

Provide Recycling Bins in All Spaces

Provide clearly labeled recycling bins in the showroom, customer service lounge, offices & break rooms, and service area



Did you know?

“We see waste generation as an inefficient use of raw materials. Better use of raw materials eliminates waste at the source. Honda strives to implement reuse, recycling and energy recovery to avoid sending waste to landfill”

Source: Honda 2019 North American Environmental Report

Institute a Source Waste Reduction Program

Source waste reduction refers to minimizing waste generated from activities at the dealership/distributor. Preventing materials from entering the waste stream decreases strain on natural resources caused by manufacturing, disposal, recycling, or other processing methods.

Waste audits provide valuable information about the composition of a dealership/distributor's waste and recycling streams and can identify opportunities for further waste reduction and diversion.

Recommendations

Institute a Source Waste Reduction Program

Implement a source waste reduction measure to reduce the amount of waste generated at the dealership/distributor

Examples of source reduction measures

Your dealership can reduce source waste by:

- » Programming printers to print on both sides of the paper.
 - » Providing reusable water bottles or cups and a water filtration system instead of disposable water bottles and cups for employees and customers.
 - » Designating an office product reuse shelf where employees can leave unused office products for other employees to use instead of purchasing new items.
 - » Diverting construction waste from the landfill.
-

Track Waste in the ENERGY STAR® Portfolio Manager®

You can track waste and recycling data by uploading monthly and/or quarterly data to ENERGY STAR Portfolio Manager throughout the year. Tracking waste generation helps uncover opportunities for improvement and cost savings. You can start tracking waste data by enrolling in the automated utility data collection service through Honda's third-party partner, which aggregates all utility consumption and costs and stores it in ENERGY STAR Portfolio Manager, or potentially by engaging their waste hauler directly.

Recommendations

Track Waste in the ENERGY STAR Portfolio Manager

Provide at least twelve (12) months of waste and recycling data to ENERGY STAR Portfolio Manager

Landscape with Native or Adaptive Vegetation

Native and adaptive landscaping uses plants that occur naturally or easily adapt to the local environment. Once native and adaptive plants are established, they require significantly less or no watering, fertilizers, herbicides, and pesticides when compared to non-native species. This can save money by reducing water and landscaping maintenance costs.

Consult with your landscape maintenance contractors to determine if your site's plants are native or adaptive and to develop a list of environmentally suitable plants. If plants are non-native or non-adaptive, integrate native and adaptive species of plantings in the landscaped area over time.

Recommendations

Landscape with Native or Adaptive Vegetation

Plant native or adaptive vegetation for at least at least 75% of all landscaped area

Use a Light-Colored Hardscape

Highly reflective light-colored pavement surfaces reflect solar energy, which help reduce ground-level temperatures. For example, gray concrete is considered highly reflective in this context, whereas dark-colored pavement and asphalt do not qualify.

A highly reflective hardscape is particularly important in a densely populated area because predominantly dark pavements increase ground-level temperatures, which increases the amount of energy required to cool the building.

In the case of any landscape or hardscape renovation, explore the opportunity of integrating highly reflective surfaces into the design plans.

Recommendations

Use a Light-Colored Hardscape

Use a reflective, light-colored material for at least 75% of the site hardscape

Apply Cool (White) or Vegetated Roofing

Efficient roofs minimize heat absorption into the interior of the building, which can reduce cooling loads during warmer months. Roofing systems that reflect solar energy and green roofs with planted vegetation qualify as efficient roofing types.

- » **Cool roofs:** White roofs reflect sunlight, which reduces the temperature of the building and helps minimize energy used for cooling.
- » **Vegetated roofs:** Vegetated roofs help insulate the building, control storm water, and provide natural habitat for birds and insects.

For existing cool or vegetated roofs, it is important to maintain roofing systems according to the manufacturer's specifications.

Recommendations

Apply Cool (White) or Vegetated Roofing

Use vegetative roofing or reflective roofing with a solar reflective index (SRI) > 64 for more than 75% of the roof area

Apply Methods to Reduce Storm Water Runoff

Storm water management reduces flooding, associated land erosion, and water pollution. It can involve temporarily redirecting water away from sewer systems and possibly storing it for later use. Storm water reduction measures may include landscaping water management strategies.

Bioswales (drainage ditches that are often vegetated), rain gardens, and water detaining ponds are different types of landscaping options that either hold or slow storm water and clean it, often by allowing natural filtration through soil before storm water enters a sewer system or underground water tables/aquifers.

Recommendations

Apply Methods to Reduce Storm Water Runoff

Reduce stormwater runoff through the use of bioswales, rain gardens, water detaining ponds, or other methods

Install Alternative Fueling Stations

The success of alternative fuel vehicles depends on a solid fueling infrastructure. A sufficient distribution of fueling stations is necessary for customers to view alternative fuel vehicles as viable options.

By providing alternative fueling stations on-site, a dealership/distributor can:

- » Include a full tank charge at vehicle delivery
- » Provide post-service refueling
- » Create a bridge in public infrastructure
- » Build customer engagement and offer convenience

Fueling stations should be available to customers. Public access is up to the dealer's discretion.

Electric Vehicle (EV) charging stations:

Honda recognizes the greenhouse gas reduction benefit created by EVs by deducting the annual kWh charging usage from the dealership/distributor's annual kWh consumption. Therefore, the energy used for EV charging will not affect the dealership/distributor's energy-use intensity when determining their award status. To accurately measure electricity used by electric vehicle (EV) charging stations, stations must have a dedicated submeter or belong to an EV charging network.

Greenhouse Gas Reduction Benefit

Electric vehicles (EVs) generate a greenhouse gas reduction benefit – compared to gasoline-powered vehicles, electric vehicles (EVs) reduce greenhouse gas emissions by producing zero tailpipe emissions and using energy more efficiently.

Recommendations

Install Alternative Fueling Stations

- Install a Level 2 electric vehicle charging station
 - Install a DC Fast Charge electric vehicle charging station
 - Install a fuel cell electric vehicle (FCEV) fueling station
-



Did you know?

“American Honda has “a plan to make battery-electric and fuel cell electric vehicles to represent 100% of its vehicle sales by 2040, progressing from sales of 40% by 2030 and 80% by 2035.”

Source: hondanews.com/en-US/honda-corporate/releases/release-32797eaea7316f1bed4bfcd27919f703-honda-targets-100-ev-sales-in-north-america-by-2040-makes-new-commitments-to-advances-in-environmental-and-safety-technology

Complete Other Noteworthy Measures to Further Reduce Environmental Impact

The Green Dealer Program encourages dealerships/distributors to contribute to the future development of the program. If you engage in educational or employee engagement measures, or other extraordinary or impactful sustainability practices not currently specified in this guide, inform your assigned Green Dealer Program representative. Green Dealer Program award banners, plaques, and other award recognition materials placed at the dealership/ distributor do not qualify.

Recommendations

Complete Other Noteworthy Measures to Further Reduce Environmental Impact

Complete other impactful sustainability practices, such as educational signage for customers, employee engagement practices, or other noteworthy measures to further reduce environmental impact



Did you know?

“We’re constantly challenging ourselves to find new opportunities to reduce our environmental impact throughout our vehicles lifestyle. Ultimately it’s a win for Honda, a win for our customers and a win for the environment.”

Source: www.honda.com/environment/honda-green-path



Appendices

Glossary

(AFUE) Annual Fuel Utilization Efficiency: Measures the efficiency at which equipment converts fuel energy into usable energy.

CO₂e (Carbon Dioxide Equivalent): A metric used to quantify greenhouse gas emissions by converting all greenhouse gases to carbon dioxide using their global warming potential.

(AFV) Alternative Fuel Vehicles: Includes Battery Electric Vehicles (BEV), Plug-In Hybrid Electric Vehicles (PHEV), Compressed Natural Gas Vehicles (CNG), Fuel Cell Electric Vehicles (FCEV), and Hydrogen Vehicles (H₂).

ASHRAE: Formerly known as American Society of Heating and Refrigerating and Air Conditioning Engineers. The organization publishes industry standards and codes relating to HVAC systems.

Energy: In this document, energy is defined as the total consumption of electricity, natural gas, and other fuels used to provide power to the dealership and distributor.

(EER) Energy Efficiency Ratio: Ratio of output cooling (in BTU/h) to input electrical power (watts) at a given operating point.

(EMS) Energy Management System: Network of sensors and controls that allows building managers to monitor and control the energy consuming devices (HVAC equipment, pumps, fans, lighting, and electric vehicle (EV) chargers within a facility using a mobile or web-based control platform.

(GPF) Gallons Per Flush: For flush fixtures like urinal or toilets, water consumption is measured in gallons per flush (GPF).

(GPM) Gallons Per Minute: In the U.S., fixture flow rates are typically measured in gallons per minute for flow-based fixtures such as lavatory faucets and showerheads.

Gray Water: Wastewater generated from wash hand basins, showers, and baths, which can be recycled on-site for uses such as toilet flushing and landscape irrigation.

(HSPF) Heating Seasonal Performance Factor: Ratio of heat output over the heating season to watt-hours of electricity used.

HVAC: Heating, ventilation, and air conditioning equipment, such as boilers, furnaces, heat pumps, and air conditioning units.

(LPD) Lighting Power Density: The number of watts per square foot in a particular area.

Lumen Output: A quantitative measure of the total amount of visible light emitted by a source.

(ODP) Ozone Depletion Potential: The ozone depletion potential of a chemical compound is the relative amount of degradation to the ozone layer it can cause.

R-Value: A measure of insulation's ability to resist heat conduction. Higher R-values correspond to higher efficiency.

(SEER) Seasonal Energy Efficiency Ratio: Ratio of total cooling capacity (BTU/h) during typical cooling season (not over 12 months), divided by total electric energy input for the same time period.

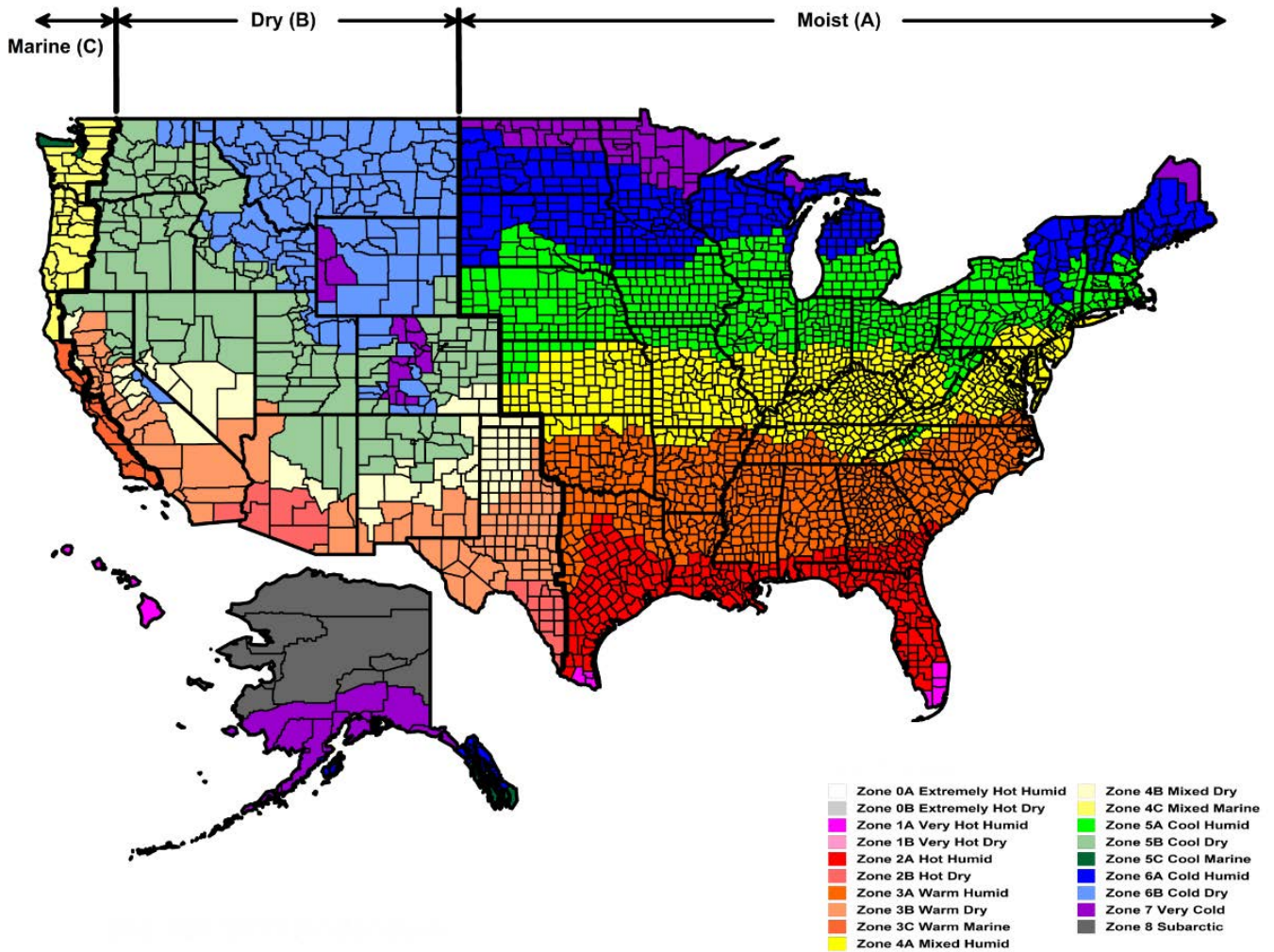
(SHGC) Solar Heat Gain Coefficient: Window performance is measured by SHGC, which is the fraction of solar radiation admitted through a window. A high SHGC indicates high heat gain, while a low coefficient means low heat gain.

Source Energy: The total amount of raw fuel required by the utility to operate the facility, including all transmission, delivery, and production losses. The EPA recommends representing total energy usage as source energy, instead of site energy, as the unit of evaluation.

U-Factor: The rate of heat loss or gain through a window. A lower U-factor indicates better insulation due to a lower rate of heat loss or gain.

Weather Normalization: The process of adjusting actual metered energy consumption to what would have occurred under conditions representing a typical meteorological year (based on 30-year averaged weather conditions). This process is commonly used in building energy analysis as any given year may be significantly hotter or colder than the climate's average condition, which can skew energy use.

ASHRAE Climate Zone Map



Lighting Specifications

Examples of Recommended Exterior Pole LED Lighting Replacements

Products are subject to change as LED technologies develop and mature.

Recommended Specifications								Comparison	
Lamp	Watt	Lumen	Lumen / Watt	Lifetime (Hrs.)	CRI	CCT (K)	Warranty	Lamp	Watt
Lamp	Watt	Lumen	Lumen / Watt	Lifetime (Hrs.)	CRI	CCT (K)	Warranty	Lamp	Watt
LED	275	24,500	90	100,000	70	4000	5 years	Metal halide	1,000
LED	130	13,800	105	100,000	70	4000	5 years	Metal halide	400
LED	70	6,800	97	100,000	76	4000	5 years	Wall packs	150-250

Sourced from product specification sheets from prevailing LED lighting manufacturers.

Definitions:

- » **Lamp:** Commonly referred to as the “bulb.” It is the light source such as incandescent, LED, metal halide, fluorescent.
- » **Watt:** The SI (international system) unit of power, equivalent to one joule per second.
- » **Lumen:** A measure of the total “amount” of visible light emitted by a source.
- » **Lumen/Watt:** Metric used to evaluate the efficiency of a lamp in terms of amount of visible light per unit of power.
- » **Lifetime (hrs.):** The lifetime of a lamp expressed in hours.
- » **(CRI) Color Rendering Index:** A quantitative measure of a lamp’s ability to reproduce the colors of natural light. The scale ranges from 1 to 100 where a value of 100 is equivalent to sunlight.
- » **[CCT (K)] Correlated Color Temperature:** A common unit of measurement in the color or hue of light produced by a lamp.
- » **Warranty:** Period starting from the product purchase date where product is guaranteed or covered by the manufacturer.