NHL Partners Celebrate Green Week

Constellation, Bloom Energy Team Up to Power NHL Arenas with advanced Fuel Cell Technology

Constellation, the League's energy partner, has teamed up with Bloom Energy to provide customers cleaner, more reliable and more affordable energy through new fuel cell technology. Fuel cells convert fuel into electricity through a highly efficient electro-chemical process reducing environmental impact and providing backup generation in the event of a power outage. Through power purchase agreements offered by Constellation, customers are able to install the innovative technology with no upfront capital investment and lock in competitive fixed rates for natural gas and electricity supply, enabling them to better manage energy costs and implement further energy conservation measures and other distributed energy options such as solar.

A handful of NHL arenas, including the SAP Center, The Honda Center and the Staples Center have already taken advantage of Fuel Cell technology. Here are their details:
In 2012, SAP Center at San Jose became the first multi-purpose sports and entertainment facility to utilize fuel cell technology as a supplemental electricity source. The Bloom boxes replace approximately 90% of the electrical utility power at SAP Center used during non-event hours and approximately 25% of the power used on a Sharks game days.

In 2013, Bloom Energy teamed up with the Honda Center to provide more than half of the power required by the sports and entertainment venue each year. On average, the new installation projected to offset 2 million pounds of CO2 from the venue annually. Honda Center was the second pro-sports and entertainment arena in the country to install the Bloom Energy system.

In 2015, the Staples Center was joined the Bloom Energy movement. Bloom will prove approximately 25% of the power required by the venue each year. The Bloom Energy servers will also reduce Staples Center's carbon emissions by 2.2 million pounds of carbon annually, a 39 percent reduction compared to electricity purchased from the local utility.

Bridgestone establishes long-term environmental vision for 2050

As the Official Tire of the NHL, Bridgestone is proud to partner with a sports league whose concern for the environment mirrors its own.

Since 2005, company CO_2 emissions have been reduced by 31.8% (based on emissions per sales across the lifecycle) through switching fuels and recovering heat energy at plants. In the same timeframe, water consumption has been lowered by 28.3% per unit.

Incredible progress has been made; but there is still significant opportunity for improving environmental performance to propel organic growth. Looking forward, a long-term environmental vision has been established for the year 2050, focusing on ecological conservation, resource conservation and GHG emissions reduction.

The company is pursuing a multitude of challenging sustainability goals: improving tire rolling efficiency by 25%, resulting in less fuel use and CO_2 emissions from driving, while also extending the life of its tires; reducing average water intake rate 35% compared to 2005 levels by 2020; and lowering CO_2 emissions per unit of sales from the Company's total operations (procurement, production, distribution, and sales) and also from its products after use by 35% compared to 2005 levels by 2020.

Bridgestone's long-term 2050 commitments support these mid-term efforts. A goal has been set to use 100% sustainable materials through the reduction of raw materials, the recycling of resources and the expansion and diversification of renewable resources. One hockey-related example involves the upcycling of rubber tires into floor matting, which was part of street hockey rink refurbishments in Washington DC for the 2015 Bridgestone NHL Winter Classic and in Boston for the 2016 Bridgestone NHL Winter Classic.

Reaching these 2050 commitments will not be easy and there is plenty of work to do. But previous experience shows that this long-term vision will improve the company's ecological footprint, thereby making operations more resilient. Bridgestone is pleased to discuss these environmental strategies during NHL Green Week; and lauds the League for its efforts to educate fans and raise awareness of critical sustainability issues.

Hockey Arena Scores Major Energy-Efficiency Upgrades

For one night during the 2015-2016 National Hockey League (NHL®) season, Johnstown, Pa., became known as "Kraft Hockeyville™ USA." As the home of the Johnstown Tomahawks of the North American Hockey League, Cambria County War Memorial Arena had never been used for an NHL game, although it had earned recognition in the hockey world as the setting for the original motion picture "Slap Shot."

Originally open to only Canadian rinks, the Kraft Hockeyville™ competition solicits bids from communities demonstrating their commitment to the sport of ice hockey. Featured as the location for a preseason NHL game, winners receive $150,000 in arena upgrades and refurbishments with support from Kraft, the NHL and the National Hockey League Players' Association (NHLPA.)

Here's the story of how Constellation enabled this arena to reduce its carbon dioxide emissions by 336,838 pounds and saved an estimated $30,000 in energy costs each year through energy-efficiency upgrades.

<u>The Challenge</u>
The Cambria County War Memorial Arena was selected in May 2015 to be featured in a September 2015 nationally broadcast pre-season NHL game. It required major upgrades in lighting to be able to telecast the game. Under significant time and financial constraints due to the scope of upgrades and the limited capital dollars allocated as part of the Kraft Hockeyville™ program, the arena needed an energy services provider to manage the lighting design and project implementation required to host NHL clubs and fans alike.

The Solution

As the NHL's preferred energy provider, Constellation's efficiency experts were given the opportunity to perform an energy-efficiency analysis on the arena. They identified opportunities to implement upgrades to both the sports and general lighting within the facility. Following the comprehensive energy analysis, Constellation's team worked with the NHL and other partners, including local channel partner SYLVANIA Lighting Solutions, to update the arena's lighting fixtures.

Cambria County also agreed to a new, cost-effective, five-year power contract with Constellation that provided the necessary capital to complete a switch to energy-efficient game and facility lighting with no upfront capital dollars. This was made possible through Constellation's Efficiency Made Easy® (EME) program, which funded the cost of the lighting upgrades and allowed capital dollars to be preserved for other improvements at the facility.

With less than four months to make the necessary improvements to meet rigorous NHL facility and television broadcast standards and energy consumption principles, Constellation worked swiftly with Cambria County War Memorial Arena's local operations and engineering teams to implement the upgrades in compliance with existing policies and procedures.

The Results

The improvements were completed on time and in accordance with NHL sustainability objectives. On Sept. 29, lit by 48 new LED fixtures providing 110-foot candles of light, the War Memorial Arena made its NHL debut, where the Pittsburgh Penguins® faced off against the Tampa Bay Lightning®.

The new energy-efficient LED game lights reduce glare, improve game presentation and visibility for players and eliminate the warm-up time required with the old metal halide system.

While not required to televise the game, Constellation also converted approximately 700 other fixtures throughout the facility to LED lighting, further improving the efficiency of the War Memorial Arena.

Highlights of the project included:

- Replacing interior 1,000-watt metal halide fixtures with 48 600-watt LED Sportslighter fixtures that provide up to 110-foot candles for more consistent lighting on the rink.
- Upgrading nearly all the more than 700 interior lighting fixtures to long-life LED fixture and conversion retrofits.
- A new wiring grid providing light level specification and the ability to control the entire system.
- Improved switching options for functions, including emergency lighting, setup and cleaning, amateur and high school leagues and collegiate and televised events.
- Monthly EME payments that will be offset by significant energy and maintenance savings and reduced kilowatt-hours rate from a new commodity contract.

The project resulted in:

- An estimated annual energy savings of $30,000.
- Energy savings expected to eliminate 336,838 pounds of carbon dioxide annually, equivalent to taking 32 cars off the road, according the U.S. EPA's Greenhouse Gas Equivalencies calculator.
- Energy usage reduction of up to 25 percent expected due to reduced cooling demand in the rink arena, thanks to reduced wattage of new fixtures.
- Five-year electricity price certainty lower than previous three-year rates, providing budget predictability and savings based on total facility usage at new lower fixed rates.

These upgrades and efficiency improvements will serve Johnstown and Cambria County communities for many years to come, providing the potential for hosting additional televised and collegiate games as the arena's lighting now meets NCAA standards. Constellation's partnership in support of the War Memorial

Arena will stand as a leading example of energy efficiency in the sports industry as well as showcasing the NHL and Constellation's joint commitment to improve environmental and financial sustainability within hockey.

Molson Coors' 2020 Sustainability Strategy Outlines Ambitious Goals

As a proud partner of the NHL, Molson Coors salutes the League's effort to raise awareness of environmental issues during NHL Green Week. Like the NHL, Molson Coors understands that the sustainable use of natural resources is critical to maintaining success.

The company's approach to sustainability is based on four main priorities. First, stakeholders are asked which resource management issues are most important and efforts are focused accordingly. Second, aggressive targets on the most material issues are established. Third, rigorous internal governance propels efforts to hit targets. And fourth, suppliers are engaged to manage risk and improve resource productivity.

These priorities serve as the foundation of the 2020 sustainability strategy, which outlines ambitious objectives to enhance the management of energy use, carbon emissions, water, waste water and solid waste. Specifically, the following organization-wide 2020 targets have been set from the baseline year 2011:

- 25% reduction in energy use per unit of production
- 15% reduction in greenhouse gas intensity per unit of production;
- 15% reduction in water use per unit of production;
- Zero waste to landfill.

The commitment to limiting environmental impacts extends beyond the border of company breweries. In engaging directly with suppliers, Molson Coors integrates a number of sustainability criteria into the supplier score card process. Along with other key indicators, the footprints of suppliers in energy, carbon and water savings are tracked. Efforts like these have produced excellent results that have been widely recognized, most notably by being named Global Sector Leaders in the Dow Jones Sustainability Index (DJSI) for 3 years running.

Molson Coors is excited by its sustainability progress and is pleased that customers and partners like the NHL will play a pivotal role in its ongoing environmental strategy. Indeed, Molson Coors has been brewing beer since 1786 – to continue this history of success, the efficient use of resources to decrease the company's ecological impact will be essential.

Renewable Energy Certificates vs. Carbon Credits: What You Need to Know

Individual performances, like hat tricks and saves, don't go unnoticed in a hockey game. Constellation, the League's energy partner, is here to explain how individual performances can play a role in preserving the environment as well.

It's a rare week when global warming and environmental concerns don't top news feeds at least once. The polar ice caps are melting; the ocean life population is declining more rapidly due to warmer water. It can seem so overwhelming that it's hard to feel that there's any way you, as a consumer, can really make a difference. The good news, though, is that helping to shrink your carbon footprint — which means helping to impede global warming and additional use of fossil fuels — is easier than you think. One thing to consider is renewable energy certificates (RECs) and carbon offsets, or credits. Here's a primer to get you started.

What are Greenhouse Gases?

Before understanding the potential benefits of carbon offsets, it's critical to understand what the problem is: too much pollution in the atmosphere. Greenhouse gases, which are primarily comprised of carbon dioxide, methane, nitrous oxide and fluorinated gases, are a primary polluter of the environment. And humans, according to the U.S. Environmental Protection Agency, are the main culprits behind increased greenhouse gas levels. Here's information from the EPA on greenhouse gas emissions in the United States:

- Electricity Production: About 67% of electricity comes from burning fossil fuels, mostly coal and natural gas.
- Transportation: Burning fossil fuels for cars, trucks, ships, trains and planes is the main culprit here, the EPA says. The agency notes that more than 90% of gas emissions from transportation is petroleum-based.
- Industry: These emissions mostly come from burning fossil fuels for energy and emissions from chemical reactions required to make certain products, according to the EPA.
- Commercial and Residential: The main source of greenhouse gases from businesses and homes comes from fossil fuels burned for heat, as well as from products and waste that contain these gases.
- Agriculture: Agriculture mostly emits methane gas from cows, dirt and rice production.
- Land Use and Forestry: According to the EPA, land in the U.S. has absorbed more carbon dioxide than it has emitted, thanks to managed forests.

Reducing greenhouse gases, then, is critical to improving the environment. Here's where the potential benefits of carbon offsets and renewable energy certificates (RECS) come in.

What are carbon credits, exactly?

Carbon credits are a way to reduce your carbon footprint further when you can't control your energy supply options. By purchasing carbon credits, you're essentially investing in other projects that are reducing greenhouse gas emissions. In other words, you're offsetting your greenhouse gas emissions. Examples of projects supported by carbon credits include wind farms and solar energy plants. To purchase carbon credits, a good first step is to determine the size of your carbon footprint using calculators available online, like this one by the EPA. Once you determine the amount you would like to offset, reach out to a reputable seller. A good place to start is with your energy supplier.

What are renewable energy certificates?

Another way to help reduce a carbon footprint is to purchase renewable energy certificates, or RECs, which help support the development of renewable generation. The main difference between renewable energy certificates vs. carbon credits is what they offset. Where carbon credits help reduce greenhouse gas emissions, renewable energy certificates offset electricity use from non-renewable sources. Instead of offsetting carbon, RECs offset kilowatt hours. RECs work essentially the same way as carbon offsets. A wind farm, for instance, could be credited with one green energy credit for every 1,000 kWh of electricity produced. That electricity is then routed to a commercial grid, at which point the REC is sold by the wind farm. As with carbon offsets, the first step is to determine how much electricity you use in kWh and then find a reliable REC source. Energy suppliers are one option. Constellation offers its customers RECs as part of its energy solutions and programs.

Another great way to shrink your carbon footprint is to choose a renewable energy source. However, if renewable energy isn't available where you live or work, it's good to know other options, like carbon offsets and renewable energy certificates, exist — and that they are already making an environmental difference.

Honda's Guiding Principles Support Environmental Initiatives

Honda, the official vehicle of the NHL, joins the League in celebrating the first-ever NHL Green Week. As a longtime supportive sponsor of the NHL, Honda is delighted to partner in raising awareness of critical sustainability challenges.

Honda's environmental policy is based on a set of principles that help direct operational strategies. Among others, Honda encourages all associates to focus on the importance of preserving human health and the environment; prioritizes environmental protection; endeavors to conserve energy and reduce waste; and strives for continual improvements in environmental performance.

These guiding principles have helped make Honda a leader in the development of cutting-edge technologies to improve fuel efficiency and reduce CO_2 emissions. In 2006, Honda became the first automaker to announce voluntary CO_2 emission-reduction targets for its global fleet and network of manufacturing plants. The company currently targets a 30% reduction in CO_2 emissions from its products by 2020 compared to 2000 levels.

Honda has also undertaken numerous activities to limit waste generation. Since 2007, Honda Canada's automobile manufacturing facility in Allison, Ontario has maintained its goal of zero waste to landfill. In 2015, less than 5% of waste was sent to landfill from Honda's corporate offices in 2015. Additionally, Honda Canada received LEED® Canada-Gold certification from the Canada Green Building Council (CaGBC) for its headquarters office in Markham, Ontario in July 2011.

The *One Honda, One Tree* campaign is emblematic of the company's environmental efforts. For every Honda lawn and garden or ATV product purchased in Canada between April 1 and July 31 annually,

Honda Canada will plant one tree across the country. Thanks to the program, more than 120,000 trees have been planted in the past 10 years.