



New Belgium Brewing Company 2008 Backgrounder

HISTORY

Fort Collins, Colorado-based New Belgium Brewing Company, makers of Fat Tire Amber Ale and a host of Belgian-inspired beers, is the third largest craft brewer in the country. Founders, Kim Jordan, a former social worker and now CEO of New Belgium, and Jeff Lebesch, a former electrical engineer, are classic American doers and dreamers. Inspired by a bike trip through Belgium, Lebesch and Jordan started a brewery in their basement in 1991, with the vision of making world-class beers while minimizing their environmental footprint.

Today, New Belgium is a craft beer leader and strives to be a business role model with progressive programs such as employee ownership, open book management and a commitment to environmental stewardship. In 2007, New Belgium sold more than 483,000 barrels of beer across 18 states – from the west coast to as far east as Iowa.

BEERS

New Belgium produces seven year-round beers; Fat Tire Amber Ale, Sunshine Wheat, Blue Paddle Pilsener, 1554 Black Ale, Abbey Belgian Style Ale (a dubbel), Trippel and the organically produced Mothership Wit. A seasonal release program allows for a creative and dynamic portfolio with beers like Skinny Dip (full-bodied and figure-friendly), 2° Below (a winter warmer) and Springboard Ale (spiced with schisandra, wormwood and gogi berries). New Belgium brewers also explore esoteric styles resulting in beers like La Folie, a sour brown ale aged up to three years in French Oak.

SUSTAINABILITY

From its inception, New Belgium Brewing has sought to minimize resource consumption, maximize energy efficiency and recycle at every opportunity. In 1999, New Belgium became the country's first brewery to subscribe to wind energy after a vote by employee owners to dip into their bonus pool to facilitate converting from conventional energy. Efficiencies throughout production have allowed New Belgium to achieve a better than four-to-one water to beer ratio, significantly lower than the industry average. By treating process waters through an onsite process water treatment plant, New Belgium is able to produce 15 % of its total energy needs via a methane-fired cogenerator. This process effectively turns a waste stream into a commodity.

New Belgium has also adopted green building practices throughout the brewing facility and has incorporated innovative engineering and design throughout their operations – allowing brewers, for example, to capture heat created by the brewing process and reuse it to heat water for the next batch of beer.

FOLLY

New Belgium has followed a whimsical path to business success. A company founded during a bicycle trip – with core values composed on a mountaintop – New Belgium believes in business excellence but not at the expense of having fun. This philosophy has helped build a cohesive company culture that celebrates individual creativity and rewards initiative in all its forms.

Tour de Fat, the company's philanthropic festival of beer and bicycles, has raised more than \$500,000 for bike and environmental advocacy groups since its inception in 2000. New Belgium also donates one dollar for every barrel brewed to philanthropic causes across the western U.S.

In an effort to encourage alternative transportation and reward one year's employment, New Belgium gives a custom cruiser bicycle to each employee at the end of their first year when they become eligible for ownership. Co-workers who reach five years of employment travel with Jeff and Kim to Belgium to experience Belgian beer and culture.

New Belgium's commitment to producing world class beers, environmental stewardship and social responsibility are all laid out in its core values and beliefs:

- * Producing world-class beers
- * Promoting beer culture and the responsible enjoyment of beer
- * Continuous, innovative quality and efficiency improvements
- * Transcending customer's expectations
- * Environmental stewardship: minimizing resource consumption, maximizing energy efficiency and recycling
- * Kindling social, environmental and cultural change as business role model
- * Cultivating potential: through learning, participative management and the pursuit of opportunities
- * Balancing the myriad needs of the company, staff, and their families
- * Committing ourselves to authentic relationships, communications, and promises
- * Having fun

NEW BELGIUM'S SNAPSHOT OF SUSTAINABILITY – March 2008

An evolving document of environmental efforts at New Belgium...

At New Belgium Brewing Company, Inc. we believe, to be environmental stewards, we need to:

1. Lovingly care for the planet that sustains us
2. Honor natural resources by closing the loops between waste and input
3. Minimize the environmental impact of shipping our beer
4. Reduce our dependence on coal-fired electricity
5. Protect our precious Rocky Mountain water resources
6. Focus our efforts on conservation and efficiency
7. Support innovative technology
8. Model joyful environmentalism through our commitment to relationships, continuous improvement, and the camaraderie and cheer of beer

100% renewable electricity

- *Wind power.* November 1999 New Belgium (NBB) became the first brewery in the nation to purchase 100% of its electricity from wind power.
- *Electrical Cogeneration.* Methane generated from the anaerobic digestion of our process-water (see below) is piped back to the brewery and burned in a Combined Heat and Power (CHP) engine. Since late 2003, the CHP engine has provided electricity to the brewery allowing us to offset peak electricity loads and to create some of own energy onsite.

On-Site Process Water Treatment

In May of 2002 we finished construction on a "bio-digester" wastewater facility to treat all of our process wastewater. This process not only cleans our wastewater but also generates methane and nutrient rich sludge. The methane is used to fuel our Combined Heat and Power engine, which creates electricity for our brewery, and the sludge is sold for composting.

Water Conservation

Water is an essential ingredient for our beer, as well as for the function of our brewery. Before this facility was built, NBB already consumed less than the industry standard; between 5 & 6 bbls of water used for every 1 bbl of beer brewed (5:1). Today we consume about 3.9:1. We are exploring further efficiencies that will reduce it to 3.5:1.

Renewable Heating and Cooling Systems

- *Vapor Condenser.* On the top of our brew kettle in both brewhouses we have a vapor condenser heat exchanger. As the brew kettle brings the wort to a boil, the steam is released and passed through a steel pipe. Inside this pipe is a coil filled with cool city water. As the steam passes over the coil, the water inside is heated to about 70°C and is then stored in a hot liquor tank. The heat energy in this water is used to heat process water in other stages of brewing.

- *Wort chiller.* When we are finished brewing the wort, we pass it to the fermentation cellar.

Before we can ferment this hot tea into beer, we have to chill it down to a cooler temperature as to not kill the yeast. To do this, we pass the wort through a plate and frame heat exchanger, which cools the wort and in return heats cool city water that is later used to heat water in other brewing processes.

Alternative Light Sources

- *Sun tube lights.* Sun tubes are great at bringing natural lighting into areas of the brewery with limited windows. We have sun tubes spread all over the brewery.

- *Motion & Light sensor lights.* When there is enough natural light in a room and/or no motion the lights will automatically go off.

- *Skylights and day-lighting.* The sun is our primary source for day-lighting. There are many large windows around the brewery, specially coated with a glaze that allows lots of sunlight into the room but minimizes the amount of glare and heat. We have also installed light shelves on some of the windows in our office areas. These shelves act as a reflector, bouncing the direct light of the sun onto the ceiling, thereby creating indirect sunlight, which is the most useful and pleasing type of natural light.

Reduce, Reuse, Recycle

- *Brewing by-products.* All of the spent grain from the brewing process is sold to a local cattle farmer that has committed to raising his meat without using growth hormones.

- *Brewery-wide waste.* Our recycling/reusing program includes corrugated cardboard, cardboard tubes, co-mingled (aluminum, glass, tin and plastic bottles), Styrofoam, amber glass, plastic, paperboard, chipboard, stretch wrap, wood, wire, magazines, office paper and paper supplies, ink cartridges, computers, plastic bags, newspaper, malt bags, oil, steel, spent solvents, mercury and other similar recyclable hazardous materials. This list is always being expanded. All employees are encouraged to bring in their own recycling which cannot be picked up curbside. Our Landfill Diversion Rate in 2007 was 73%. Unlike many breweries, we do not include our Spent Grain in that figure. We consider Spent Grain to be a by-product since we receive payment for it. With Spent Grain, our Diversion Rate would be 99%.

- *Cleaning products.* Many of the cleaners we use in the packaging area are citrus based. We also used water-based solvents. Many of our spent chemicals go through a neutralization process that breaks them down into salt and water.

Recycled, reused and responsible which include:

- *Office furniture.* We have supplied our offices with furniture from Studio Eg, consisting of compressed newspaper and woodchips, recycled tires and cardboard. Our carpet comes from Interface and is cradle-to-cradle meaning; the contents are perpetually cycled in a closed loop so there is minimized landfill waste.

- *Office supplies.* Many of the paper products we use are made from recycled material. This includes everything from office paper to toilet paper.

- *Packaging materials.* Our bottles, mother cartons, chipboard dividers and 6 pack carriers all contain recycled material and are recyclable.

- *Groovy goods.* Most of the shirts we sell are Patagonia Beneficial T's, which are made from organic cotton and use non-toxic dyes. In fact, New Belgium is the largest corporate consumer of organic cotton shirts from Patagonia.

- *Biodiesel*. In June of 2004 we started filling our Brewery Direct Service (distribution from the brewery to accounts in Fort Collins) trucks with B20. This mix of 20% biodiesel and 80% diesel reduces hydrocarbons by 20%, and carbon monoxide and particulate matter by 12% each. We also use biodiesel in our festival trucks whenever possible.

Made in the USA and locally which include:

- *Brewery wide*. We depend on over 300 local, and many more regional, companies to supply us with the tools we need to run our day-to-day business operations in every department.
- *Groovy goods*. We have a commitment to doing our best at purchasing through local providers and from companies that manufacture their goods in the USA such as GoWest for T-shirt and banner printing and Sweet Earth Organics for the hand-made New Belgium Chocolates.
- *Artwork*. All of our label artwork comes from a local watercolor artist named Anne Fitch. Anne was originally Kim and Jeff's neighbor in old town Fort Collins. Our in-house graphic design artist creates all of our other artwork. We use local printing companies and use recycled materials whenever possible.

Philanthropy

- *\$1 per Barrel*. Since its inception, New Belgium Brewing has donated more than \$2.5 million through our Philanthropy program. In 2008, New Belgium will donate \$475,000 to organizations in the communities where we do business.
- *1% For The Planet*. 1% for the Planet is a global network of environmentally philanthropic members with more than 800 companies and 1,500 non-profit organizations. 1% members have donated more than \$30 million dollars since its inception in 2001.

Memberships

- *Chicago Climate Exchange (CCX)*. CCX is the world's first & North America's only voluntary, legally binding integrated trading system to reduce emissions of all 6 major greenhouse gases with offset projects worldwide.
- *EPA Green Power Partner*. The U.S. EPA Green Power Partnership works with organizations to buy green power as a way to reduce the environmental impacts associated with purchased electricity use.
- *City of Fort Collins Climate Wise*. A voluntary, city-run program that is dedicated to helping local business and the environment. Through environmental assessments and creative solutions, the Climate Wise team helps businesses tackle modern-day challenges that impact the bottom lines and the quality of life in Fort Collins.

Alternative Transportation

- *Team Wonderbike*. Our bike commuter advocacy program has more than 10,000 members who have pledged to offset more than 7 million car miles by riding their bikes over the next 12 months.
- *1-Year Anniversary Bike*. To encourage having fun & sustainability through alternative transportation, every employee gets a custom cruiser bike after one year of employment.
- *Hybrid-Electric Vehicles (HEVs)*. For our Sales Fleet, New Belgium leases 23 HEVs. We are also researching the possibility of Plug-In Hybrids (PHEVs). PHEVs nearly double the miles per gallon of HEVs.

Partnering to support innovative technology:

- *Solix*. Solix is a company developing the capability to make bio-diesel from algae, which has much higher yields per acre, and lower water and fuel inputs, than traditional bio-diesel crops. In support of their efforts, New Belgium will provide Solix with several acres on our property, CO₂ from fermentation, and warm water from our process water treatment plant.
- *Oberon*. Oberon has installed a small treatment plant next to our own that will use our process wastewater to harvest sludge to create a high protein fish food for aqua-farms.
- *Colorado State University Organic Hop Project*. We are providing significant funding to support the hops variety trials necessary to promote an organic hop growing industry in Colorado.

Please contact Katie Wallace with questions at kwallace@newbelgium.com