Through the end of 2009, you and other Smart Energy participants stepped up to fight climate change by offsetting your carbon emissions and investing in biogas development in our region. Your Smart Energy contributions will offset more than 44,000 tons of greenhouse gases.

That equals:
• Using 4.5 million fewer gallons of gasoline – like cutting out 36,300 driving trips to New York City, or
• Offsetting the total energy use of 3,600 homes over the course of a year, or
• Absorbing as much carbon dioxide as 1 million tree seedlings over 10 years.

Thank you for joining other dedicated NW Natural customers in the Smart Energy program. We are all better for your commitment to reducing greenhouse gases.

In a year in which we heard a lot of talk about reducing greenhouse gases, 8,290 Smart Energy customers took action.
Biodigesters

How do they work?

In concept, a biodigester is a simple thing. You put manure into an airtight container, and in a little while you get useful products: biogas and fertilizer.

In practice, the equipment is actually quite complicated, requiring the right mix of raw materials, a good medium for growing bacteria and other elements. It takes a lot of planning, savvy and skill to design an effective biodigester.

But NW Natural and its Smart Energy partner, The Climate Trust, think they’re well worth it. We’re investing in biodigesters on Northwest dairy farms for several important reasons:

- **Methane reduction.** Released into the atmosphere as manure decomposes, methane is a strong greenhouse gas – about 21 times as potent as carbon dioxide. Biodigesters capture methane before it reaches the atmosphere.

- **Biogas.** One product of the anaerobic digestion process – biogas – can be a practical renewable resource. Biogas has all the benefits of natural gas while being completely renewable. By replacing coal, oil or natural gas, it reduces greenhouse gas emissions. In compressed form, it can even be used instead of gasoline – a major source of carbon dioxide emissions.

- **Support for local farms.** Farmers can use or sell the biodigester byproducts – biogas or fertilizer. Saving money or bringing in new revenues can help support healthy farms.
Smart Energy Investments

Take the state’s largest organic farm and add a business determined to set new standards for sustainable agriculture. The result is Threemile Canyon Farms in Boardman, Ore., home of the first Smart Energy biodigester.
In 2008, NW Natural, Bonneville Environmental Foundation and Threemile Canyon Farms agreed to build a biodigester as a pilot project. The participants chose an innovative design they hope will become a model for other regional farms.

The engineers recommended ways to reduce building and material costs. By lowering the up-front investment, they hope that more farmers can afford to install biodigesters.

Another innovation is the use of old auto tires to speed decomposition. A rubber tire’s shape encourages bacterial growth, reducing the amount of time it takes to convert manure into biogas. That will allow farmers to process more waste during the year.

The biodigester has begun receiving waste from 1,200 cows – about 144,000 pounds every day. As the process unfolds, NW Natural and the other partners are analyzing the outcome. They will calculate how effective the unit is in keeping greenhouse gases out of the atmosphere and producing biogas for practical uses.

NW Natural will contribute Smart Energy funds only after a third party auditor independently verifies how many greenhouse gases the project will keep out of the atmosphere. With good results using this relatively low-cost structure, more Northwest farmers may decide to invest in biodigesters.

Kevin and Daryl Maas are two Washington state brothers who started a small company, Farm Power, to offer sustainable waste management solutions to farmers in their area. Farm Power invited Harmony Dairy, LLC, and Beaver Marsh Farms, two Washington dairy farms, to participate in a biodigester project. The Climate Trust is purchasing Farm Power’s carbon offsets on behalf of Smart Energy customers.

A tank captures the biogas from this project, holding it to produce electricity in an on-site generator. Puget Sound Energy buys the power for distribution to its customers.

The Climate Trust estimates the project will capture more than 2,800 metric tons of methane over 10 years. That’s the equivalent of eliminating nearly 60,000 metric tons of carbon dioxide.
Carbon Offsets: What, Why and How?

Nature is all about balance. In the perfect world, we would only produce as much waste as the earth could reuse. There would be no extra to build-up in soil, water or air.

That’s the principal behind carbon offsets. We want to balance greenhouse gas emissions from our own energy use by reducing the same amount of emissions from other sources. There would be a balance – and no net emissions gain.

For example, if our home heating system releases five pounds of carbon dioxide, and we buy offsets for keeping five pounds of carbon dioxide from reaching the atmosphere, we’ve achieved a balance.

If we purchase a pound’s worth of offsets for every pound of carbon dioxide we create through our own energy use, we would reach carbon neutrality. In effect, we would not be contributing to the increase in greenhouse gas emissions.

A The typical cow produces 120 pounds of waste each day. Methane emitted from cow waste into the atmosphere is 21 times more potent than CO₂.

B The first step to turning cow manure into biogas is to trap it, halting the release of greenhouse gas emissions and improving water quality.

C The manure can then be put into a “biodigester” – the technology used to turn it into clean, renewable biogas.

D Biogas can be used to generate electricity or it is treated and eventually added to a pipeline system and used in homes and businesses.

E Smart Energy funds will go through NW Natural to The Climate Trust, which will purchase the carbon offsets from the biogas projects.

F Customers participating in Smart Energy will have offsets retired for the emissions resulting from their natural gas use.
Use Less, Offset the Rest

The best way to protect the environment from greenhouse gases and other pollutants is to use less energy.

Most of us can make choices that will cut back our energy use without interfering with our daily lives. For example, can we walk, bike or ride the bus a little more and drive a little less? Do we turn down our thermostats at night? Do we turn off lights when we don’t need them?

Some energy-saving techniques require a little investment. But usually, you’ll regain the money you spend quickly through lower utility bills. And now, a combination of state and federal tax credits and cash incentives from Energy Trust of Oregon can shorten that payback time even more.

If you’ve been thinking about buying high-efficiency gas equipment, investing in weatherization or just learning more about simple ways to save energy, now’s the time to do it.

Contact Energy Trust of Oregon (energytrust.org) and find out about free home energy evaluations that can help you identify ways to reduce your home’s energy consumption.

Most of us can’t totally avoid using energy in our lives, but we can reduce our consumption. That’s why we say, “Use less, offset the rest.”

When buying offsets, two criteria are important. The first is called **additionality**: Does offset funding help the project go forward and operate successfully?

Smart Energy biodigesters are a good example. The biodigesters discussed in this report – and the resulting carbon reductions – would not have been financially feasible without the sale of carbon offsets that are only possible with support from customers like you.

The second criteria is **verification**. Smart Energy, through its partner The Climate Trust, only invests in projects with third-party verification. An independent source must verify the amount of greenhouse gas reduction.
“Sustainable development: Holding our world in trust for our children” - Michael Meacher
The Trail Blazers organization has taken a holistic look at arena operations and made changes throughout – from energy use to food service management. For example, they compost 150 tons a year, and 95 percent of the disposable products they use in restaurants and concession stands meets biodegradable composting standards. They eliminated half a ton of waste a year by switching from disposable cleaning cloths to washable ones.

A “no-idling” policy requires vendors to turn off cars and trucks during loading and unloading to reduce harmful pollutants from vehicle engines. And the facilities recycle more than 800 tons of material each year.

Justin Zeulner, Director of Property Management, said the organization has set aggressive goals for environmental stewardship, as demonstrated by its diverse set of green actions. “Buying Smart Energy furthers our commitment to the community,” Zeulner said, “and it takes us a step closer towards our long-term sustainability goals.”
Grand Central Bakery

A local focus; a friendly workplace; a commitment to sustainability – and great food. These are the ingredients in Grand Central Bakery’s business recipe.

Grand Central Bakery is more than a popular place for lunch and pastries. It’s a model for value-based small businesses steeped in Northwest traditions.

As a Smart Energy participant, Grand Central offsets 100 percent of its gas-related carbon emissions for its six retail locations and its 13,000 square-foot bakery and headquarters. Gas ovens and water heating are the big energy users in a food-service business like Grand Central.

Buying wind power, recycling and composting aren’t extras at Grand Central: They are simply standard operating practices. Now, the owners are focusing on the source of their food supplies. In the words of co-owner Ben Davis, “Where is it grown? How is it grown? How far does it travel to get to us?”

Grand Central now purchases all its flour – more than 80,000 pounds a week – from Shepherd’s Grain, a group of Eastern Washington wheat farmers who use “no-till” agriculture. The farmers’ sustainable practices cut soil erosion, eliminate carbon dioxide releases from tilling, save fuel and reduce insect and weed growth.

Ben says, “We believe in supporting local farmers who are the stewards of the land.”
“Good bread with fresh butter, the greatest of feasts.” - James Beard
“Heroes are not giant statues framed against a red sky. They are people who say: This is my community, and it is my responsibility to make it better.” - Studs Terkel
Lincoln City

Lincoln City is the Little Community that Could.

Spurred by commitment, skilled leadership, and a big dose of “I think I can,” Lincoln City is steadily climbing the path toward its goal: becoming a carbon-neutral community.

In 2009, Lincoln City became the first Smart Energy City when 5 percent of the community’s gas customers signed up for NW Natural’s offset program. Carbon reduction from these Smart Energy participants equals eliminating 330 cars for a year. That’s an impressive reduction for a town of just over 8,000 people.

Last year, Lincoln City’s municipal government challenged residents and businesses to support Smart Energy. And the city government itself is a Smart Energy customer.

Smart Energy is neither the first nor the last notable sustainability action of Lincoln City. For example, in 2007, the federal Environmental Protection Agency named Lincoln City a “Green Power Community.” That honor recognizes that 5 percent of homes and businesses in the community had agreed to participate in Pacific Power’s Blue Sky program, which supports renewable electric power.

Lincoln City also recently opened four of six planned electric car charging stations – the first such stations on the Oregon coast. This strategic investment will help ensure Lincoln City is a destination for electric car drivers venturing to the beach.

Oregon Coast Community College built its North County Campus to the stringent LEED standards set by the Green Building Council. And still, city leaders like Mayor Lori Hollingsworth continue to pursue new carbon-reduction strategies. Next up: solar panels on the community center and an incentive program for a greener tourism industry.

This little coastal city is demonstrating what it means to think globally and act locally. Mayor Hollingsworth said, “Cities should take care of their communities, but we also have to do what we can to live sustainably on the planet.”
Chinook Winds Casino Resort

**Historical importance with an eye on the environment.**

For the tribes who operate Chinook Winds Casino Resort, Smart Energy isn’t about “going green.” It’s not even about making choices to operate more sustainably. It’s just business as usual for those raised in Native American culture.

In the words of the resort’s general manager, Sar Richards, “We do whatever it takes to remain in harmony with the environment.”

Members of the Confederated Tribes of Siletz recycled before recycling was popular. Sustainability is inherent in their business model as well as their lives. “It’s about keeping everything in balance,” Sar said.

The tribes opened their elegant resort overlooking the Pacific Ocean in 1996. Design details highlight tribal history, inseparably bound with the Pacific Northwest’s natural environment.

For example, a stream and waterfall replicating Euchre Creek – a site of historical importance to the Siletz people – collects visitors’ coins for the Confederated Tribes’ education fund. Images throughout the facility honor salmon, so important to tribal spirituality and sustenance.

The casino resort, with 157,000 square feet and many uses for natural gas, is the third largest Smart Energy customer in the amount of offsets purchased annually. Its operations support essential services for the 4,000 members of the Confederated Tribes. These include medical programs, education and government operations.

NW Natural is proud that the Confederated Tribes of Siletz see Smart Energy as a valued partner in their commitment to environmental stewardship.
“Tradition never changes, it is the ways of the people.” - Craig Whitehead
Smart Energy Residential Enrollment Form

Protect the earth. Pass it on.

Send this form to friends or family to help us add more Smart Energy members.

☐ **Average Option** - For $6 a month I want to offset all the carbon emissions of the average natural gas home (4 tons annually)

☐ **Climate Neutral Option** - For $0.1049 per therm I want to offset all the carbon emissions of my home’s natural gas use. (Total monthly charge will vary depending on actual gas usage.)

Visit: nwnatural.com/smart to sign up online and for answers to Smart Energy questions

Mail to: NW Natural Attn: Smart Energy
        220 NW 2nd Avenue, Portland, OR 97209

Call: 800.422.4012 to sign up by phone

**NOTE:** If offset costs rise over time above the price built into the Smart Energy program, we will not adjust the participation fee, but the amount of offsets purchased could decrease.

Name (as it appears on your NW Natural bill)

NW Natural Account Number

Address

Apt. No.

City

State

Zip

Phone Number

E-mail

Signature

Date
15% off beachfront accommodations when booked in advance

Receive double points on casino play when you join Winners Circle.
It’s quick, easy and free!
For reservations, call 1-877-423-2241 and use offer code “NWNatural” in advance to receive discount.

Free pastry with beverage purchase

Visit your favorite Grand Central Bakery for a free pastry of your choice with any beverage purchase.

Valid through June 30, 2010
Offer valid through June 30, 2010

In addition to being a Smart Energy partner, Grand Central also purchases wind power for all its Portland area bakeries. We give preference to local producers and distributors. Everything possible is composted and recycled in our cafés and production areas, and we are constantly striving to reduce our fossil fuel footprint.
Save up to 20% on select tickets to Smucker’s Stars on Ice

Fresh off the ice in Vancouver, the stars will bring the excitement of their Olympic performances directly to you for one night only in Smucker’s Stars on Ice.

$10 off your next purchase of $50 or more

Bring this coupon in to any of our company-owned stores today to receive $10 off your next purchase of paint and/or painting supplies totaling $50 or more! For a location near you, go to www.millerpaint.com.
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Offer available at the Rose Garden Box Office, Charge-By-Phone at 1-877-789-7673 or www.rosequarter.com/promo – when using password SPIRAL. Offer ends May 30, 2010. Discount applies to tickets $80 and under, not for “on ice” or previously purchased tickets. Tickets subject to availability. Cannot be combined with any other offer. No refunds or exchanges. Date, time and cast subject to change.
Buy one happy hour food item, get one free!

Stir it up!

Make a fresh start to the end of your day at Oregon Convention Center’s new cocktail lounge!

Happy Hour, 4-7 PM every Wednesday through Friday

10% off any retail purchase, up to a $100 discount
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Applies to retail purchases only and not valid in conjunction with any other offer or promotion. Coupon has no cash value.
Look for our GET REAL label in all Parr Lumber locations. If an item has the GET REAL label you know it’s sustainable, recycled or contributes toward clean air or energy efficiency. Visit getreal.parr.com for details.
Please join us in thanking our commercial partners for their commitment to fighting climate change by offsetting 100% of the emissions from their natural gas use.

Greater Than 25,000 Therms
- Chinook Winds Casino Resort
- Grand Central Bakery
- Miller Paint Co.
- Oregon Convention Center
- PARR Lumber
- Rose Garden Arena
- US Fish & Wildlife Service

1,001-25,000 Therms
- ADI
- Advanced Machining, Inc.
- Arnerich Massena & Associates, Inc.
- Black Sheep Bakery, Inc.
- Block 15 Brewing Company
- Brinckman Laundries
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- Chef du Jour Catering
- City of Portland - City Hall
- ConocoPhillips
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- Footwise, Inc.
- Galluccis Pizzeria
- Growing Seeds North
- Hawthorne Auto Clinic
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- Industrial Machine Services
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- Washington Federal Savings
- Whistling Winds Motel
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1,000 Therms or Less
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- Alberta Cooperative Grocery
- Alpine Catering
- Apple Inn Bed & Breakfast
- Beaumont Healthcare Clinic
- Broadway Floral & Greenhouse
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- Carole Meyer Photo, Inc.
- Carol’s Massage
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- Paws On The Sand
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- Ridgeway Woodworks
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- The Third Eye, Inc.
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- Tilly’s Gelato
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- U Pull it U Save
- Urban Wellness Group
- Winston Family Dental