Funding provided by USDA, George Fox University and Spark Northwest have partnered together to provide you with free technical assistance for your renewable energy project. We also connect you to grants, tax subsidies, utility incentives, and financing to help you complete it.

Why? Go green and save money on energy bills.

How? Receive grant(s) and incentives from the USDA, Oregon Department of Energy, Energy Trust of Oregon, and Federal Tax Credit.

What? Receive free energy assistance from George Fox University and Spark Northwest in determining eligibility and the appropriate technology for your business.

Get Started:
Complete this short intake form online: sparknorthwest.org/ruralenergyintake

Once we receive your completed online form, we can help you with your next steps. Please let us know what questions you have as far as the technology, incentives, or process. We are also happy to chat over the phone as well. Our contact information can be found below.

Want to learn more?
Complete a short intake form online: sparknorthwest.org/ruralenergyintake
Email: cstillingar@georgefox.edu
Email: mia@sparknorthwest.org
Broad Leaf Farm is a long-established family farm located in Everson, Washington, that sells certified organic vegetables and berries. The owner, Dusty Williams, had been interested in solar energy since the 1970s, when he lived in an off-grid, solar-powered trailer. However, when he was able to purchase his own farm property and house in 1988 the cost of solar was still too expensive to do on a large scale. Instead, Dusty turned his attention to other sustainable farming practices and put his solar dreams on hold.

Since 2008, the price of solar panels has dropped by more than 50 percent nationwide. In addition, many states, utilities, and government agencies offer grants or other financial incentives to bring down the up-front cost. Low-interest loans for solar are also becoming more common, making solar more affordable now than ever before.

Dusty was so busy farming that he wasn’t paying attention to the solar market and price trends, until he listened to a presentation by Spark Northwest on the current state of the technology and economics. Once Dusty learned of recent declines in solar panel prices and the availability of state and federal incentives, he acted quickly. A 8.6 kW solar electric system was installed in July 2014 and supplies about 25 percent of the farm’s electricity needs, reducing utility bills as well as reducing this organic farm’s environmental footprint.

$\text{Broad Leaf Farm:}$

$\text{A Solar Dream Come True}$

$\text{Dusty of Broad Leaf Farm was able to turn a long-time interest in solar energy into reality.}$

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In 2009, Dan and Kim Hulse purchased a parcel at Orting Valley Farms, a 100-acre former dairy preserved by the PCC Farmland Trust. The Trust secured a conservation easement on the land, ensuring that it is saved for organic production forever and making it affordable to a new generation of farmers. Dan and Kim chose “Tahoma Farms” as the name for their 40-acre parcel in homage to the Native American name for Mount Rainier, which rises majestically 30 miles to the southeast.

Dan was initially interested in solar to power an irrigation pump that was too far from the existing electrical grid. He contacted Spark Northwest to inquire about different options for his situation. That’s when Dan learned that it would be a better economic investment to install a much larger grid-connected solar electric system. In addition to a 30 percent federal tax credit and business depreciation benefits, Dan received a 25 percent grant from the USDA’s Rural Energy for America Program (REAP) and receives about $5,000 a year in Washington State production incentive payments. The farm also gets to use the solar-generated electricity, reducing annual operating expenses.

Although Tahoma Farm’s 9.7 kW solar electric system cost over $50,000 up front, Dan was able to secure a zero-money-down, low-interest loan from his bank, Puget Sound Cooperative Credit Union. With the grant, tax benefits and state incentive, Dan will be able to pay off his loan within five years and enjoy the benefits of solar equipment that comes with a 25-year warranty. Not all farm investments make such good economic sense.

Tahoma Farms is committed to organic production practices, including long-term crop rotations, planting green manures, and utilizing compost to build the soil. In the same way that they are growing a sustainable farm, Dan and Kim are growing a business that will strengthen the local food economy and nourish their community for years to come. They are proud that solar energy is now a part of both their environmental and business sustainability efforts.

Want to learn more?
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A Wind Powered Home and Business
In Seattle, Gwen Bassetti is known as the “godmother of good bread.” Her title stems originated in 1972 when she founded one of the Northwest’s best-known bakeries, Grand Central Baking Company. However, back at her ranch home in Goldendale, Washington, Gwen is also known for her wind turbine, which is a local landmark for community-inspired energy solutions. The 10 kW wind turbine generates about 12,000 kWh annually with average wind speeds around 10 miles per hour. A portion of that energy is used to irrigate over 100 Spokane apple trees on the property, offspring of a tree from a childhood home. In a good season, Gwen may take up to two tons of these apples to inspire her Grand Central Bakery kitchens.

Neighborly Inspiration
In 2003, Gwen was inspired to pursue wind energy options when she witnessed her neighbor, Ed Kennell, raise a 10 kW wind turbine next door. Kennell, an engineer who had been involved with the small wind industry since the 1970s, had moved to Goldendale to build his ideal retirement home integrated with renewable energy technology. Gwen decided that she too wanted to offset her electricity costs using the strong, steady winds of Klickitat County. Gwen stopped by the Spark Northwest (formerly Northwest SEED) office near her bakery in Seattle’s Pioneer Square, and discovered that they had just formed Our Wind Cooperative, a unique business model that allowed landowners to pool their resources to secure funding and discounts. Gwen quickly joined.

A Home-Grown Renewable Energy Business
Jonathan Lewis was also a neighbor of Ed and Gwen who had recently moved with his family to Goldendale and started a small electrical contractor business. Entirely by chance, Lewis heard about Kennell’s wind turbine project and was inspired to lend a hand as a licensed electrician. Kennell’s wind turbine was Lewis’ first renewable energy project, Gwen’s would soon become his second project, and Jonathan’s company would go on to install over 60 solar and wind systems before becoming a part of Hire Electric Inc in 2009. Since then, Hire Electric’s renewable energy division has installed over 1.4 MW of renewable energy and now employs five full-time staff and four part-time staff who are trained in solar electric and small wind systems.

“This whole experience was invaluable in launching my business and career in renewable energy.”
- Jonathan Lewis
Hire Electric, Renewable Energy Division

Want to learn more?
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Email: cstillinger@georgefox.edu
Email: mia@sparknorthwest.org
A New Tower in Klickitat County

The Bassetti wind turbine was installed in September 2004. However, before their wind turbine could become a reality, the Bassettis had to navigate a permitting process that took almost eight months. Challenges included recording the official wind speed on the property, receiving both aviary and archaeological surveys, and going through the county’s conditional use permitting process that included public hearings.

Klickitat County has now implemented an Energy Overlay Zone to simplify the permitting process. Within the zone, small wind systems under 100 kW are permitted outright if they satisfy certain height and setback criteria; only an electrical permit is required.

Gwen’s son and several local Goldendale contractors helped erect the tower by completing the necessary concrete, trenching, fencing, wiring and crane work. These cost savings measures resulted in a total installed cost of about $40,000. The turbine was funded through multiple sources, including program support from Spark Northwest, a grant from the US Department of Agriculture, pre-purchased green tags from the Bonneville Environmental Foundation, and the Bassetti family themselves.

In addition to reduced utility bills, the Bassettis benefit from Washington state’s renewable energy production incentive program, which reimburses the Bassetti’s 12-cents-per-kWh generated, or about $1,500 per year, until the program ends in 2020.

Recommitting to Wind Power

After nearly a decade of continuous performance, the wind turbine was showing signs of wear and was in need of repair. Hire Electric’s diagnosis included a failed inverter, damaged furling cable, and minor blade wear that would cost about $10,000 to repair, including the cost of a crane to lower the turbine to the ground. After receiving the first irrigation electric bills of the season, Gwen was motivated to move forward with the repair and get the turbine spinning again. She estimated that with the utility bill savings and state production incentive, the wind turbine would earn back this new investment plus $5,000 over the next six years. The wind turbine landmark is now back on the horizon, quietly and reliably harnessing the local clean energy resource.
Rural Energy for America Program

Purpose
REAP grants provide financial assistance in the form of grants and guaranteed loans to agricultural producers and rural small businesses for purchasing and installing renewable energy systems and making energy efficiency improvements.

Eligible Applicants
There are two categories of eligible applicants for REAP funding:
- **Agricultural Producer** – Those who are directly engaged in agricultural production whereby 50 percent or greater of gross income is derived from that agricultural production.
- **Rural Small Business** – An entity or utility that meets the Small Business Administration’s (SBA) Small Business Size Standards by the North American Industry Classification System (NAICS). A private entity may consist of a sole proprietorship, partnership, corporation, cooperative or electric utility (including governmental utility).

REAP Grants
Get up to 25 percent off renewable energy or conservation projects.

Want to learn more?
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Email: cstiltinger@georgefox.edu
Email: mia@sparknorthwest.org
Help is Available!
Contact George Fox University or Spark Northwest to get started on a REAP application. Deadlines are twice annually in March and October.

Fast Facts
REAP will cover 25 percent of project costs.
In 2016, REAP funded 41 projects, for a total of $1,301,734.
In addition to REAP grants, other incentives are available in Oregon and Washington State.
Most projects can obtain 60-70 percent off the total cost of their renewable energy project.

Eligible Project Costs
• Post-application purchase and installation of new or refurbished renewable energy system
• Energy efficiency improvements identified in an Energy Audit
• Post-application construction, retrofitting, replacement and improvements
• Professional service fees for qualified consultants, contractors, installers, and/or third-party services related to the project
• Replacement of an existing facility if an energy audit shows it would be more energy efficient than improving the existing facility

Amount of Assistance
Applicants qualify for a grant of up to 25 percent of eligible project costs, a guaranteed loan up to 75 percent of eligible project costs, or a combination of grant and guaranteed loan up to 75 percent of eligible project costs.
The grant portion of a combined application cannot exceed 25 percent of the eligible project costs, limited to the grant maximums.

• Renewable Energy Systems:
  → Maximum grant $500,000
  → Minimum grant $2,500
  → Maximum guaranteed loan $25 million
  → Minimum guaranteed loan $5,000
• Energy Efficiency Improvements:
  → Maximum grant $250,000
  → Minimum grant $1,500

Guaranteed Loan Terms
• Interest rate and terms negotiated between lender and borrower (must be within USDA maximum allowed terms):
  → Real estate – 30 years
  → Equipment – 15 years or useful life, whichever is less
  → Combined real estate and equipment – 30 years
  → Working capital – seven years
• Maximum percentage of guarantee on loans:
  → $600,000 or less – 85 percent
  → Greater than $600,000 but equal to or less than $5 million – 80 percent
  → Greater than $5 million but equal to or less than $10 million – 70 percent
  → Greater than $10 million – 60 percent

Reporting Requirements
• Renewable Energy Systems – three years after completion of construction and installation
• Energy Efficiency Improvements – two years after completion of construction and installation

For More Information
Technical assistance for project development and grant writing is available through 2019. Through the funding provided by USDA, Spark Northwest and George Fox University have teamed up to offer these services free of charge to any business in Oregon and Washington state with an interest in renewable energy.
To get started today, you can do any of the following:
Fill out the form at: sparknorthwest.org/ruralenergyintake about your company, energy needs, and contact info, and we will follow up with you.
Email Chad Stillinger at cstillinger@georgefox.edu
Email Mia Devine at mia@sparknorthwest.org

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