**Conservation Practice Effects**

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| **Farmstead Energy Improvement (No) 374****Definition: Development and implementation of improvements to reduce, or improve the energy efficiency of on-farm energy use** **Major Resource Concerns Addressed: Energy use.****Benchmark Condition: Dairy milking parlor with inefficient energy use.****Date: October, 2016 Developer/Location: Hal Gordon, OR** |
| **Positive Effects** | **Negative Effects** |
| **Soil*** **No change.**

**Water*** **Reduced high water temperature if water-source heat pump is installed.**

**Air*** **Improved equipment efficiency can reduce particulate matter emissions from combustion.**
* **Reduced emissions of oxides of nitrogen associated with combustion.**
* **Reduced energy use will typically reduce greenhouse gas.**

**Plants*** **No change.**

**Animals*** **No change.**

**Energy*** **Reduced on-farm energy use.**
* **Opportunity to utilize conserved energy in other agricultural operations.**

**Human*** **Increase the property value (real estate) of your property.**
* **Prevent off-site negative impacts.**
* **Comply with environmental regulations.**
* **Save time, money and labor.**
* **Promote family health and safety.**
* **Make land more attractive and promote good stewardship.**
* **May be eligible for cost share.**
* **Increased profitability in the long run.**
 | **Land*** **No change.**

**Capital*** **Installation, operation and maintenance equipment.**

**Labor*** **No change.**

**Management*** **Increased management of equipment and record keeping.**

**Risk*** **None.**
 |
| **Net Effect: Energy use and cost savings over time.** |

**Commonly Associated Practices:** Pumping Plant

**Note:** This worksheet contains general talking points for the conservation planner to discuss with the land user. It is the first step towards an economic or financial analysis. The second step would include identifying a specific site for analysis at the farm or field level, editing the template for local conditions, adding units and quantities of farm inputs and outputs. The third step in the economic analysis is to place a dollar value on as many variables as possible, put all units in the same time frame, using amortization ($/Acres/Year) or net present value ($/Acre), so benefits and costs can be compared. The fourth and final step would be to combine several conservation practices into a conservation system, which is how most conservation practices are applied at the field level. Data for the worksheet comes from the land user, conservation planner, technical specialist and local agricultural supply vendors and contractors. See Economics Technical Note: TN 200-ECN-1, Basic Economic Analysis Using T-Charts (August 2013) for more information.