



United States Department of Agriculture
Natural Resources Conservation Service

P122

Agricultural Energy Management Plan

On-Farm Energy Audit

March 8, 2013



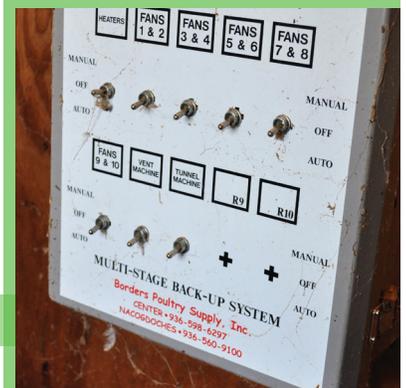
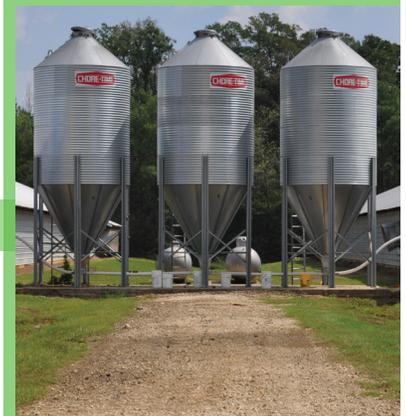
**P122
Agricultural Energy Management Plan**

Producer collaborates with a certified Technical Service Provider (TSP) to develop an Agricultural Energy Management 122 Conservation Activity Plan (AgEMP 122 CAP).

An Agricultural Energy Management Plan (AgEMP), commonly called an “on-farm energy audit,” is a grouping of conservation measures and management activities which, when implemented as part of a conservation system, will help to ensure that both production and natural resource protection goals are achieved. An AgEMP will contain recommended measures to maximize energy conservation and efficiency. An AgEMP may also assist an owner/operator in meeting all applicable local, tribal, state, and federal water quality goals or regulations.

After Environmental Quality Incentives Program (EQIP) contract approval, a participant obtains services from a certified TSP for development of the “Agricultural Energy Management - Headquarters” Conservation Activity Plan (CAP). CAP criteria require the plan to meet quality criteria for energy conservation and efficiency. The CAP may include recommendations for associated conservation practices which address energy conservation. Producers are eligible to apply for EQIP financial assistance to implement conservation practices identified by the TSP in the CAP.

	Scenario	EQIP Initiative Rate	HU EQIP Initiative Rate	Broiler House Equivalent
1	Livestock - Small < 70 AU	\$1,153.00	\$1,386.60	0
2	Livestock - Medium 70-300 AU	\$1,510.41	\$1,812.49	1-2
3	Livestock - Large 301-2500 AU	\$1,859.81	\$2,231.77	3-16
4	Livestock - XLarge >2500 AU	\$2,409.82	\$2,891.78	17>



On-Farm Energy Audit

Core Practices Eligible for This Initiative (if identified in the CAP) Farmstead Energy Improvement (P374)

Attic Insulation - A typical scenario is the installation of a minimum 4-inch depth of cellulose insulation in attic or ceiling to address energy loss. The increased insulation reduces seasonal heat loss and heat gain which reduces the respective need for heating and cooling equipment to operate. EQIP initiative rate = \$.41 per square foot.

Heating - Radiant Tube - Replace "pancake" brood heaters in a poultry house with radiant tube heaters. Replacement will require the materials and labor to remove existing heating system, re-plumb gas lines, cables and wench system to retrofit new radiant tube heaters, and miscellaneous items to complete the installation. Alternate acceptable radiant heating systems can include radiant brooders and quad radiant systems as evidenced by the energy audit. The typical scenario consists of the replacement of 28 brood heaters with 6 radiant tube heaters. EQIP initiative rate = \$7.73 per 1000 BTU/Hour.

Lighting - CFL - To install dimmable CFLs to replace incandescent lamps on a one-for-one basis. Light fixtures do not have to be replaced. A typical poultry house has 48 fixtures. CFL requirements: minimum 8 Watt, 4100 Kelvin, dimmable, grow-out bulb; industrial grade; suitably protected from dirt accumulation. In high humidity environments or areas subject to wash down, gasketed or weatherproof housings are required to prevent corrosion and premature failure. EQIP initiative rate = \$13.81 per each bulb replaced.

Lighting - LED - To install dimmable LEDs to replace incandescent lamps on a one-for-one basis. Light fixtures do not have to be replaced. A typical poultry house has 48 fixtures. LED requirements: minimum 6 Watt, 3700 Kelvin, dimmable, grow-out bulb; industrial grade; suitably protected from dirt accumulation. In

high humidity environments or areas subject to wash down, gasketed or weatherproof housings are required to prevent corrosion and premature failure. EQIP initiative rate = \$26.31 per each bulb replaced.

Lighting - Linear Fluorescent - The lighting system consists of a four-foot, three-lamp fixture with a single electronic ballast. The high-efficiency lighting system uses high-efficiency T8 fluorescent lamps. Associated materials for installation of replacement fixtures are included. Appropriate disposal of existing lamps, ballasts and other materials is required. EQIP initiative rate = \$318.69 per each fixture replaced.

Sealant - A typical scenario is sealing the gaps between walls, gables, ceiling, etc., in a poultry house or greenhouse. Sealing is performed by a professional contractor, not merely use of spray foam from a can. The unit basis of payment in this scenario is each house based on 2400 linear feet of gap. EQIP initiative rate = \$3.42 per foot.

Wall Insulation - Enclose both side walls and end walls from ceiling to floor in one of two manners: 1) metal exterior, 3.5-inch fiberglass batts (R-11), vapor barrier, and interior plywood or OSB sheathing, or 2) closed-cell polyurethane foam application (minimum 1 inch thickness (R-7) of 2.5 pounds/cubic foot or higher density, (3.0 or higher density preferred) with a form of physical protective barrier on lower 2 feet (may be 6 pounds/cubic foot or higher density 1/8 inch thick foam, or treated lumber). Based on a 40 foot x 400 foot poultry house. EQIP initiative rate = \$.62 per square foot of wall insulated.

Motor Upgrade > 1 and < 10 HP - These scenarios provide for replacement of an existing standard efficiency motor with a new high efficiency motor. The existing

motor must drive existing agricultural machinery-such as an irrigation pump, vacuum pump, ventilation fan, etc. These scenarios can be used to convert an internal combustion (IC) power unit to an electric motor system, but note that the old IC unit must be disabled. When recommended by the energy audit, a variable speed drive can be contracted alongside the electric motor to maintain the variable-speed flexibility normally associated with an IC power unit. EQIP initiative rate = \$132.68 per horsepower.

Ventilation - Exhaust - Replacement of a conventional exhaust fan with high volume, low speed, efficient exhaust fan. Fans being installed should be models previously tested by BESS Lab or the Air Movement and Control Association and be in top 20 percentile of fans tested. Practice certification will be through receipts and pictures from the applicant. Typical scenario is replacement of old fan with 54-inch fan. EQIP initiative rate = \$962.16 each.

Automatic controller System - The typical scenario consists of an automatic control system installed on an existing manually controlled agricultural system. Typical components may include any of the following: wiring, sensors, data logger, logic controller, communication link, software, switches, and relay. EQIP initiative rate = \$1,385.48 each.

Variable Speed Drive > 5 HP - The typical scenario consists of a variable speed drive (VSD) and appurtenances, such as hook-ups, control panels, wiring, control blocks, filters, switches, pads, etc., attached to an electric motor used to drive a ventilation fan, irrigation pumps, vacuum pump, or similar equipment involved with agricultural production. The motor size, on which the VSD is added, is larger than 5 horsepower. EQIP initiative rate = \$101.57 per horsepower.

For more information on Technical Service Providers, visit:
<http://techreg.usda.gov/CustLocateTSP.aspx>

Contact Our Offices

Parish	Field Office	Soil and Water Conservation District	Address	Telephone
Acadia	Crowley	Acadia SWCD	157 Cherokee Drive, Suite C, Crowley, LA 70526	(337) 783-5823, ext. 3
Allen	Oberlin	Allen SWCD	309 North 1st Street, Suite 1, Oberlin, LA 70655	(337) 639-4850, ext. 3
Ascension	Donaldsonville	Lower Delta SWCD and New River SWCD	2274 Highway 70, Suite C, Donaldsonville, LA 70346	(225) 473-7638, ext. 3
Assumption	Donaldsonville	Lower Delta SWCD	2274 Highway 70, Suite C, Donaldsonville, LA 70346	(225) 473-7638, ext. 3
Avoyelles	Marksville	Avoyelles SWCD	629 Tunica Drive West, Marksville, LA 71351	(318) 253-9445, ext. 3
Beauregard	DeRidder	Calcasieu SWCD	597 Mahlon Street, Suite B, DeRidder, LA 70634	(337) 463-8555, ext. 3
Bienville	Minden	Saline SWCD	216B Broadway, Minden, LA 71055	(318) 377-3950, ext. 3
Bossier	Benton	Bodcau SWCD	200 Burt Boulevard, Suite 101, Benton, LA 71006-4901	(318) 965-2185, ext. 3
Caddo	Shreveport	Caddo SWCD	1402 Hawn Avenue, Shreveport, LA 71107	(318) 676-3461, ext. 3
Calcasieu	Lake Charles	Gulf Coast SWCD	1400 Highway 14, Suite B, Lake Charles, LA 70601	(337) 436-5020, ext. 3
Caldwell	Columbia	Boeuf and Dugdeмона SWCD	7128 Highway 165 South, Suite 2, Columbia, LA 71418	(318) 649-2651, ext. 3
Cameron	Lake Charles	Gulf Coast SWCD	1400 Highway 14, Suite B, Lake Charles, LA 70601	(337) 436-5020, ext. 3
Catahoula	Jonesville	Catahoula SWCD	3545 4th Street, Jonesville, LA 71343	(318) 339-4239, ext. 3
Claiborne	Minden	D'Arbonne SWCD	216B Broadway, Minden, LA 71055	(318) 377-3950, ext. 3
Concordia	Ferriday	Tensas-Concordia SWCD	8331 Highway 84, Ferriday, LA 71334	(318) 757-2455, ext. 3
DeSoto	Mansfield	DeSoto SWCD	211 Washington Avenue, Mansfield, LA 71052	(318) 872-4949, ext. 3
East Baton Rouge	Denham Springs	Capital SWCD	2191 Tower Drive, Denham Springs, LA 70726	(225) 664-1430, ext. 3
East Carroll	Lake Providence	East Carroll SWCD	406 Lake Street, Suite C, Lake Providence, LA 71254	(318) 559-2604, ext. 3
East Feliciana	Clinton	Feliciana SWCD	9752 Plank Road South, Clinton, LA 70722	(225) 683-5496, ext. 3
Evangeline	Ville Platte	Evangeline SWCD	205 Court Street, Ville Platte, LA 70586	(337) 363-6602, ext. 3
Franklin	Winnsboro	Northeast SWCD	616 Riser Road, Winnsboro, LA 71295	(318) 435-6743, ext. 3
Grant	Colfax	Grant SWCD	510 Main Street, Colfax, LA 71417	(318) 627-9903, ext. 3
Iberia	New Iberia	Iberia SWCD	2617 Northside Road, Suite 600, New Iberia, LA 70563	(337) 369-6623, ext. 3
Iberville	Addis	Lower Delta SWCD	7747 Highway 1 South, Addis, LA 70710	(225) 687-2184, ext. 3
Jackson	Ruston	Dugdeмона SWCD	1412 Celebrity Drive, Ruston, LA 71270	(318) 255-3136, ext. 3
Jefferson	Boutte	Crescent SWCD	14246 US Highway 90, Boutte, LA 70039	(985) 758-2162, ext. 3
Jefferson Davis	Jennings	Jefferson Davis SWCD	2003 Port Drive, Jennings, LA 70546	(337) 824-0975, ext. 3
Lafayette	Lafayette	Lafayette SWCD	905 Jefferson Street, Suite 310, Lafayette, LA 70501-7913	(337) 262-6601, ext. 3
Lafourche	Thibodaux	Lafourche-Terrebonne SWCD	143 Laura Drive, Thibodaux, LA 70301	(985) 447-3871, ext. 3
LaSalle	Jonesville	LaSalle SWCD	3545 4th Street, Jonesville, LA 71343	(318) 339-4239, ext. 3
Lincoln	Ruston	D'Arbonne SWCD	1412 Celebrity Drive, Ruston, LA 71270	(318) 255-3136, ext. 3
Livingston	Denham Springs	Capital SWCD	2191 Tower Drive, Denham Springs, LA 70726	(225) 664-1430, ext. 3
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Morehouse	Bastrop	Morehouse SWCD	9604 Marlatt Street, Bastrop, LA 71220	(318) 283-7626, ext. 3
Natchitoches	Natchitoches	Natchitoches SWCD	6949 Louisiana Highway 1 Bypass, Natchitoches, LA 71457	(318) 357-8366, ext. 3
Orleans	Boutte	Crescent SWCD	14246 US Highway 90, Boutte, LA 70039	(985) 758-2162, ext. 3
Ouachita	Monroe	D'Arbonne/Boeuf River SWCD	2410 Old Sterlington Road, Suite B, Monroe, LA 71203-2668	(318) 343-4467, ext. 3
Plaquemines	Boutte	Plaquemines SWCD	14246 US Highway 90, Boutte, LA 70039	(985) 758-2162, ext. 3
Pointe Coupee	New Roads	Upper Delta SWCD	180 East Main Street, New Roads, LA 70760	(225) 638-7746, ext. 3
Rapides	Alexandria	Rapides SWCD	3734 Government Street, Building C, Alexandria, LA 71303	(318) 473-7856, ext. 3
Red River	Coushatta	Red River SWCD	1311 Ringgold Avenue, Coushatta, LA 71019	(318) 932-4352, ext. 3
Richland	Rayville	Boeuf River SWCD	141 Industrial Loop, Rayville, LA 71269	(318) 728-4451, ext. 3
Sabine	Many	Sabine SWCD	570 Highway 171 By Pass, Many, LA 71449	(318) 256-3491
St. Bernard	Boutte	Crescent SWCD	14246 US Highway 90, Boutte, LA 70039	(985) 758-2162, ext. 3
St. Charles	Boutte	Crescent SWCD	14246 US Highway 90, Boutte, LA 70039	(985) 758-2162, ext. 3
St. Helena	Amite	Tangipahoa-St. Helena SWCD	805 West Oak Street, Suite 1, Amite, LA 70422-2820	(985) 748-8751, ext. 3
St. James	Donaldsonville	Lower Delta SWCD and New River SWCD	2274 Highway 70, Suite C, Donaldsonville, LA 70346	(225) 473-7638, ext. 3
St. John	Boutte	Crescent SWCD	14246 US Highway 90, Boutte, LA 70039	(985) 758-2162, ext. 3
St. Landry	Opelousas	St. Landry SWCD	5832 I-49 North Service Road, Opelousas, LA 70570	(337) 942-2530, ext. 3
St. Martin	Lafayette	St. Martin SWCD	905 Jefferson Street, Suite 310, Lafayette, LA 70501-7913	(337) 262-6601, ext. 3
St. Mary	Franklin	St. Mary SWCD	500 Main Street, Franklin, LA 70538	(337) 828-1461, ext. 3
St. Tammany	Franklinton	Bogue Chitto-Pearl River SWCD	1111 Washington Street, Franklinton, LA 70438	(985) 839-5688, ext. 3
Tangipahoa	Amite	Tangipahoa-St. Helena SWCD	805 West Oak Street, Suite 1, Amite, LA 70422-2820	(985) 748-8751, ext. 3
Tensas	St. Joseph	Tensas-Concordia SWCD	1223 Plank Road, St. Joseph, LA 71366	(318) 766-3502, ext. 3
Terrebonne	Thibodaux	Lafourche-Terrebonne SWCD	143 Laura Drive, Thibodaux, LA 70301	(985) 447-3871, ext. 3
Union	Farmerville	D'Arbonne SWCD	501 Glory Road, Farmerville, LA 71241	(318) 368-8021
Vermilion	Abbeville	Vermilion SWCD	3221 Veterans Memorial Drive, Suite H, Abbeville, LA 70510	(337) 893-5664, ext. 3
Vernon	Leesville	Calcasieu SWCD	205 North 5th Street, Leesville, LA 71446	(337) 239-2193
Washington	Franklinton	Bogue Chitto-Pearl River SWCD	1111 Washington Street, Franklinton, LA 70438	(985) 839-5688, ext. 3
Webster	Minden	Dorcheat SWCD	216B Broadway, Minden, LA 71055	(318) 377-3950, ext. 3
West Baton Rouge	Addis	Upper Delta SWCD	7747 Highway 1, South, Addis, LA 70710	(225) 687-2184, ext. 3
West Carroll	Oak Grove	West Carroll SWCD	208 South Constitution Street, Oak Grove, LA 71263	(318) 428-9303, ext. 3
West Feliciana	Clinton	Feliciana SWCD	9752 Plank Road South, Clinton, LA 70722	(225) 683-5496, ext. 3
Winn	Natchitoches	Dugdeмона SWCD	6949 Louisiana Highway 1 Bypass, Natchitoches, LA 71457	(318) 357-8366, ext. 3



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