

FARM ELECTRIC POWER SALES TAX EXEMPTION

Fuels, including electricity, used directly in processing and production on the farm are exempt from the state sales tax. Other uses, such as electricity used in the home, or for recreation, hobbies, lighting or in a farm shop, are taxable.

In order to receive this exemption, a farmer must provide adequate documentation of the electric energy used for production. Using a separate meter for production uses and another meter for all non-production uses isn't practical for most farmers. Therefore, a listing of the equipment used for production purposes on the farm is necessary. The accompanying form can be used to assemble this list.

You need to determine the percent of your total electrical energy consumed that is used for farm production and eligible for exemption. Your previous year's monthly statements can provide a guide for your total annual use. If for some reason last year was not a typical year for your electric usage, select any previous 12 month period that is more representative. Using the accompanying guide sheets, calculate the electricity used for all production uses. This sum of electricity used for production divided by the total use, multiplied by 100, would be your percent to report for production purposes.

In most cases it will be easier to calculate the electricity used for production purposes. You need to calculate either production or non-production energy in order to calculate the percent used for production.

Example: Suppose your total use for last year was 25,000 kWh. Using the information in this publication, you calculate your use for production is 14,500 kWh per year. The percentage used for farm production is $14,500/25,000 \times 100 = 58\%$. Unless you expect to make major changes in your electricity use, that value can be used in your application for exemption.

Another example: You are billed for the entire farmstead on one meter but you pay to have a separate meter installed on your house for your use in calculating non-exempt electricity. The energy use for a year in the house adds up to 9,844 kWh. Based on the equipment and the hours it was used, you calculate another 1100 kWh was used in your farm shop (farm shop use is not exempt). You calculate another 600 kWh is used for non-home lighting. So your non-productive use was $9,844 \div 1,100 + 600 = 11,544$ kWh. Your total farm usage for the year was

24,050 kWh. Your production use for the year is $24,050 - 11,544 = 12,506$ kWh. Your percentage used for production in this case was $12,506/24,050 \times 100 = 52\%$.

As a check on electricity used in the home, you can calculate energy used by adding up the items used. Major appliances provide the greatest use of electricity and tend to vary more between families. Table 1 can be used as a guide.

Table 1. Typical electricity used by major home appliances for a family of four.

Use	kWh
Electric heat	12 per sq. ft./year
Electric range with oven	100/month
Electric water heater	400/month
Air conditioner	1,500-2,000/ cooling season
Dehumidifier	250/year
Attic fan	20/month
Electric clothes dryer	80/month
Freezer, 15 cu. ft.	100/month
Freezer (frostless, 15 cu. ft.)	150/month
Refrigerator, 12 cu. ft.	60/month
Refrigerator (frostless), 12 cu. ft.	100/month
Refrigerator/freezer, 14 cu. ft.	95/month
Refrigerator/freezer (frostless), 14 cu. ft.	150/month
Lighting plus other uses	150-250/month

Calculating lighting loads

Lighting loads in livestock buildings, in cattle yards, security lights, etc., are subject to tax. Incandescent lamp usage can be calculated by using rated wattage and multiplying by the hours used. In other lights such as fluorescent, mercury, or sodium, multiply the wattage by 1.2 to determine actual use. For example, a mercury security light rated at 175 watts, used an average of 13 hours a night would use 2.73 kWh a night. $175 \text{ watts} \times 1.2 \times 13 \text{ hours} = 2,730$ watt hours a night. 1000 watt hours is equal to 1 kWh. So $2,730 \text{ watt hours} = 2,730/1,000 = 2.73$ kWh a night. 2.73 kWh a night times 365 nights a year equals $365 \times 2.73 = 996$ kWh a year.

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IOWA STATE UNIVERSITY
University Extension

Questions and Answers about tax exemption certificate

Q. How do I apply for an exemption?

A. Start with a visit to your electric power supplier, who can help determine what information you need. You can also pick up an additional copy of the required sales tax exemption form. (One copy is provided at the back of this booklet.)

Q. What is involved in preparing the sales tax exemption form?

A. You will need your total energy use for a previous 12-month period. In most cases this will be for the calendar year but it can be for any continuous 12-month period. Your electric power supplier may be able to help you with this if you don't have your bills.

Q. I have two meters, one on a farmstead up the road. Do I need to fill out a separate sales tax certificate for each?

A. Yes. Use a separate sales tax exemption form for each meter that has electricity used for production purposes. A separately read electric power supplier meter that registers the electricity for a residence only would be non-exempt. You need to fill out a certificate only for meters that register electricity used for production.

Q. If I have three meters, each of which has exempt use, do I need to calculate the exempt percentage for each?

A. Yes. Calculate each meter's exempt and non-exempt use to determine a percentage exempt use. Your electric power supplier can keep track of this in the billing procedure.

Q. Do I need to file a certificate each year?

A. No. A properly filled out certificate should be suitable for five years. However, if a change in your system alters your exempt usage by 10 percent or more, you will need to

refile a new certificate to reflect the change. If you decide to slow down and sell all your livestock, you would need to recalculate your exempt and non-exempt uses and file for a new certificate.

Q. Does the sales tax exemption apply to other fuels as well?

A. It applies to fuels used for processing in agricultural production, so it may apply to LP gas and natural gas as well. Check with your fuel supplier for information and forms to use to apply for this exemption.

Table 2. KWH/hours of use for typical and high efficiency motors.

Motor size in hp	kWh Per Hour of Use			
	Typical Motor		High Efficiency Motor	
	Single Phase	3 Phase	Single Phase	3 Phase
1/20	.11		—	
1/12	.15		—	
1/8	.23		—	
1/6	.27		—	
1/4	.38		—	
1/3	.50		—	
1/2	.60		—	
3/4	.80		.68	
1	1.0	1.0	.85	.85
1.5	1.5	1.5	1.27	1.2
2	2.0	1.9	1.70	1.7
3	3.0	2.8	2.55	2.4
5	5.0	4.6	4.25	4.2
7.5	7.5	6.7	6.37	6.3
10.0	10.0	8.8	8.50	8.4
15.0	15.0	13.0	12.75	12.4
20.0	20.0	17.0	17.00	16.5
25.0	25.0	21.2	21.25	20.4

File: Engineering 3

... and justice for all

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Table 4. Farmstead equipment use.

Motor -by function- (list all farmstead motors)	Motor HP	kWh use per hour	Hours used per month	kWh per month	kWh per year
Example: Mix-mill	5	5	120	600	7200

Table 5. Farmstead heating loads.

Equipment	Volts	Rating Amp	Watts	kWh use per hour of use	Hours used per month	kWh per month	kWh per yaer
Example: 10 heat lamps			250	.25 x 10 = 2.5	170	425	6 months x 425 = 2550

STATE OF IOWA
DEPARTMENT OF REVENUE AND FINANCE
SALES TAX EXEMPTION CERTIFICATE
Energy Used in Processing/Agriculture

This document is to be completed by a purchaser to claim exemption from sales/use tax.

Purchaser		
Address		
City	State	Zip Code
SS #/Fed ID #		Phone #
General Nature of Business		

Seller Name		
Address		
City	State	Zip Code

FUEL PURCHASED: Electricity Gas Other, specify _____

PERCENTAGE EXEMPTION CLAIMED FOR PERIOD BEGINNING: _____

Meter No. _____

100% Used in Purchasing/Agriculture

Utility Account No. _____

Used in Processing/Agriculture and Other Purposes

_____ % Exempt

_____ % Taxable

If fuel is not metered, explain method of purchase and storage.

Documentation supporting the exemption must be attached to or part of this certificate in order for a seller to accept the exemption certificate. The acceptance of a properly completed certificate relieves the seller of liability. The documentation must be specific when listing processing/agricultural activities. All taxable activities must also be listed except that they may be lumped into more general categories such as lighting, office, heating, air conditioning, etc. A purchaser may petition the Iowa Department of Revenue and Finance for a review of his or her fuel exemption certificate. If the Department does not review the certificate within twelve months from the date the application for review is made, the fuel exemption certificate is deemed to be correct. "Fuel" includes gas, electricity, water, heat, steam, and any other tangible personal property consumed in creating heat, power, or steam.

Under penalties of perjury, I swear or affirm that the information on and attached to this form is true and correct as to every material matter.

Authorized Signature (Owner, Partner, or Corporate Officer)	Title	Date
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EXEMPTION PERCENTAGE CALCULATION

Complete the calculation below for each meter that metered energy for both exempt and non exempt purposes. If documentation cannot be completed on this form, attach additional.

Period used for basis of computation. Consider seasonal operations when selecting period.

_____ through _____

Exempt Activity	(A) Energy Use (watts/ccf)/hour	(B) Hours of Use	Total (A x B)	Non-exempt Activity	(A) Energy Use (watts/ccf)/hour	(B) Hours of Use	Total (A x B)
_____	_____	_____	_____	Lighting	_____	_____	_____
_____	_____	_____	_____	Heating/ Air Cond.	_____	_____	_____
_____	_____	_____	_____	Office Equipment	_____	_____	_____
_____	_____	_____	_____	Refrigeration	_____	_____	_____
_____	_____	_____	_____	Maintenance Other, Specify	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

Total Exempt Use _____

Total Nonexempt Use _____

Total Use _____ Exempt % _____

Nonexempt % _____