RCM INTERNATIONAL, LLC

EQUAL ACCESS FOR AMERICAN FARM DIGESTER ELECTRICITY

February 12, 2002

Manure management is normally an all-cost activity that is shortchanged at the first sign of economic stress. Digesting manure to produce energy reduces pollution risk and gives a farmer a continuing income and a reason to manage his waste in an environmentally sound manner.

PROPOSAL – ADOPT THE FOLLOWING IN THE FARM AND ENERGY BILL

The elements of the following paragraph will even the playing field for American Farm Methane Digesters. The intent is to allow a farm to realize the retail value of the electricity they produce by expanding the net metering provisions already existing in most states to include farm size installations. Net metering means offsetting electricity produced and consumed by a farm monthly and then buying any shortfall or selling any excess electricity.

"To promote the generation of electricity in America using American farm renewable resources and due to the demonstrated reliability, generation diversity, environmental protection, distribution system support and economic development benefits, electricity produced from farm digester biogas shall be net metered up to 800 kW capacity and exempt from other charges except the normal meter charge."

TECHNOLOGY – FARM METHANE DIGESTER

Farm methane digesters produce methane (natural gas) from manures. Called biogas, it is used as fuel to make electricity and heat while reducing farm pollution. Methane digesters are emerging technology in the US, though widely deployed in Europe. The technology and its benefits are promoted in US Agriculture, Energy and Environmental policy. US law should include farm methane digesters in utility practices to facilitate deployment of this energy investment that controls pollution. Utilities are adopting rules and practices that unintentionally limit on-farm energy generation from methane digesters. For example: many utilities will charge a farm a very large demand or standby fee if a farm methane digester cannot generate electricity 99.97% of the time. However, no power plant operates 99.97% of the time over the intermediate or long term, as demonstrated in the California Energy Crisis of 2001.

FARM METHANE DIGESTERS ARE GOOD FOR FARMS AND THE USA

Anaerobic digestion of manures and agricultural wastes in methane digesters captures methane, kills pathogens, reduces odor, reduces fly production, kills weed seeds and improves manure manageability. Farm methane digester electricity production is reliable. ALL of the benefits of the technology are US Agriculture Policy. Producing domestic renewable energy is a goal of US energy policy. Reduction of odors, flies, pathogens and water pollution are US environmental policy. Capturing and combusting methane reduces the impact of a key greenhouse gas is a national and international goal.

P.O. Box 4716, Berkeley, CA 94704 ● Phone (510) 834-4568 ● Fax (510) 834-4529 ● contact@rcmdigesters.com
www.rcminternationalllc.com

RCM INTERNATIONAL, LLC

ISSUE – UTILITY RULES THREATEN FARM METHANE DIGESTER USE

New rules promoted by many large, trend-setting utilities through state utility commissions remove the potential for profitability of farm methane digesters. Examples are listed below and documentation can be electronically forwarded. The utility rules and attitudes seem to undermine the will of Congress in PURPA and the current Farm Bill and Energy Bill. Utilities have full time ratepayer subsidized staff and lobbyists to develop new policies that limit farm digesters by making them economically infeasible through special fees and charges and very low payments for electricity produced for sale.

UTILITY ARGUMENT FOR PROTECTIONIST RULES AND TARIFFS

Utilities argue that farm methane digesters are a burden on their grid due to unreliability and the utility must make extra investment to be sure to support the farm if the farm generator is off.

FARM ARGUMENT AGAINST PROTECTIONIST RULES

A farm methane digester generator is as reliable or more reliable than the average of all power plants. As reliable capacity, the farm methane digester generator is part of the grid and should be recognized and rewarded for reliable operation and not penalized with charges based on its existence or if not operating 99.97% of the time.

WHY FARM METHANE DIGESTERS SHOULD BE SUPPORTED

1. FARM BIOGAS FUELED GENERATORS ARE SAFE

Farm biogas fueled generators are installed in accordance with utility approved and inspected protective relays meeting IEEE standards.

2. FARM METHANE DIGESTER GENERATION IS RELIABLE.

Some farm methane digesters have greater than 90% on-line time over 20 year periods. During the California Energy Shortage of 2001, while 33% of the generation capacity of the state was down for repair, the Langerwerf Dairy digester produced electricity continuously while others such as Duke Energy, Williams Energy, Bonneville Power were partly inoperable.

3. FARM METHANE IS A CONTINUOUS SOURCE

Animals make manure while the sun doesn't shine, the wind doesn't blow and when there is not enough rain.

P.O. Box 4716, Berkeley, CA 94704 ● Phone (510) 834-4568 ● Fax (510) 834-4529 ● contact@rcmdigesters.com
www.rcminternationalllc.com

RCM INTERNATIONAL, LLC

4. **FARM BIOGAS FUELED GENERATORS ARE NOT AN ECONOMIC THREAT TO UTILITIES, INVESTORS AND SHAREHOLDERS**

If all US farm manure was made into electricity, the farms could not supply more than 0.1% of the US electricity requirements.

5. **FARM DIGESTER RELIABILITY USED TO BE REWARDED**

In California before deregulation, any farm methane digester that was producing and on-line more than 80% of the time received bonus capacity payments for reliability.

6. **THE ELECTRICITY GRID IS A LARGE GROUP OF GENERATORS AND A FARM GENERATOR IS JUST PART OF THE CROWD**

Utility power production and grid stability are achieved by a large **number of generation** stations operating together to supply the demand. This grouping of varied sources provides backup and allows for failure or maintenance of any single source, so that the failure of one source does not cripple the grid. A farm generator being down for repair for 16 minutes a year should not trigger 12 months of punitive charges.

EXAMPLES OF HOW FARM BIOGAS-FUELED GENERATORS ARE STYMIED BY UTILITY-DRIVEN POLICIES AND TARIFFS

The following are examples of rules and tariffs adopted by state utility commissions at the bidding of the utilities. Though a public process is claimed, only utility companies with publicly funded staff and lobbyists can sustain these efforts. No farm or farm organization has enough money to negotiate with each and every utility in the US. Every small advancement by individual effort can be later reversed or bypassed by a sustained utility effort.

1. Many utilities charge a farm biogas-fueled generator a very large demand or standby charge if it cannot generate at its capacity 99.97% of the time, whereas no power plant operates 99.97% of the time over the intermediate or long term. (as demonstrated in the California energy crisis)

2. Carolina Power and Light imposed a standby charge on the Barham Hog Farm biogas-fueled generator in Zebulon, NC that results in the farm paying CP&L more money to produce its own electricity than it would pay if it purchased all its electricity from CP&L. The report is available from the NC Utilities commission in a CP&L submittal. *The rate forced the closure of a 15-year-old successful farm digester and Barham is struggling*. There has not been another farm digester installed in North Carolina in the 4 years since the imposition of the charge.

3. Niagara Mohawk in NY has proposed the same type of excessive standby charges as CP&L due to the CP&L success at preventing on-farm generation. A farm will pay extra and special charges to produce electricity for its own use. If Niagara Mohawk is allowed to adopt the punitive rates, 5 farm biogas-fueled generators will close

RCM
INTERNATIONAL, LLC

4. California utilities suggested new rules that were written into deregulation where a farm biogas-fueled generator greater than 100kW could not be connected by any public utility. PG&E, SCE and SDGE will not interconnect a 101 kW or larger Qualified Facility (QF), in spite of PURPA, even though they had been doing so for the last 20 years. *This action prevented half of the dairy farms from entering the grid at their full capacity and making electricity*.

5. A Vermont utility increased the charges to remain interconnected and decreased the payment for electricity from $0.09 to $0.0075 at the only farm biogas-fueled generator in Vermont, forcing the farm off of the electric grid.

6. Xcel Energy in Minnesota in offering a partial capital cost grant from a penalty fund, asked a proposed farm biogas-fueled generator to sign all its green power rights away in order to receive a 20% of capital costs grant. Xcel is offering to buy electricity from a farm methane digester QF for $0.02/kWh on peak and $0.005 off peak. The concept is to profit from penalty dollars.

7. Idaho Power will only sign 5 year agreements with Qualified Facilities such as farm methane digesters, while 20 year agreements are the norm for all other power plant contracts.

P.O. Box 4716, Berkeley, CA 94704 ● Phone (510) 834-4568 ● Fax (510) 834-4529 ● contact@rcmdigesters.com
www.rcminternationalllc.com