



Utility Issues

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Sections

- The Utility and the Project
 - Utility Benefits from digesters
 - Utility Policies
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Electricity Production Potentials

	kWh/head /day	Electricity in excess	Population for 40 kW generator
Cow	2.5-3.7	Usually	400
Sow	0.2 - .03	Seldom	3,200
Nursery	0.06 - .09	Seldom	11,000
Finisher	0.15 – 0.22	Usually	4,400

1. The Utility and the Project

- The Utility is the key to any electricity project because it owns the electric distribution system
 - Regardless of any law, tariff, requirement or goal – the utility attitude controls your project implementation and investment
 - Today: Deregulation means Re-regulation
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The Utility and the Project

- Utility generally has 2 areas of interface
 - Contract to intertie - > 20 years of history
 - Equipment Requirements – known
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The Utility and the Project

- Utility attitudes and actions determine project costs
 - Manpower input
 - Equipment costs
 - Project completion time
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The Utility and the Project

The Utility can either

enable

or

prevent

Green Energy Projects

Section 2. Utility Benefits

- ❑ Digesters are WIN – WIN
 - ❑ Customer attraction and retention
 - ❑ Distributed generation
 - ❑ New products and services
 - ❑ Farms will not put utilities out of business.
 - ❑ On balance, all farms together can only meet their on site needs.
 - ❑ Not all farms can or will install digester
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Revenue Loss or Customer Retention?

- Think Differently – Keep a Farm - Attract a new farm by encouraging Digester
 - A farm employs approx 1 family per 100 cows
 - people buy electricity
 - A farm buys from the local economy
 - stores, restaurants, feed mills buy electricity
 - Farms sell product to processors
 - processors buy electricity
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Digester Distributed Generation 1

- Reliable
 - > 80% operations
 - Safe
 - IEEE Intertie standards
 - Short lead time
 - 8 – 12 months
 - No fuel source competition
 - Raw material is on site and constantly available
 - Add capacity with limited Utility investment
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Digester Distributed Generation 2

- Reduce infrastructure investment
 - Increase distribution asset use
 - Grid support
 - Reduced line losses
 - Voltage support
 - Improve power quality and reliability
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New Products to Sell

- Generation support services
 - Not all farms want to own and operate
 - Green Power
 - Yes, there is a market
 - Greenhouse Gas Credits
 - Saleable today, contract issue
 - Acid Rain Program
 - Possible but small
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Section 3. Utility Policies

The Utility can either

enable

or

prevent

Alternative Energy Projects

Utility Policies that *Encourage* Distributed Generation

- Paying a reasonable price for electricity
 - Developing a fixed set of intertie standards
 - Intertie standards - on real world operations
 - Processing applications in a timely manner
 - Standard contract with standard terms
 - Using Tariffs to reward producers
 - Reasonable charges on monthly use of service
 - Allowing > 15 minutes downtime a year
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Utility Policies that Discourage Distributed Generation

- No structure to deal with generators
 - No information on procedures
 - No procedures
 - No standards of approval
 - No contracts
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Utility Actions that Discourage Distributed Generation

- Long delays with processing applications
 - Preventing contact with utility protection engineers
 - Using Tariffs to punish producers
 - Purchase prices based on fuel cost only
 - Punitive charges – standby, exit fees, unavoidable normally kWh based
 - Punitive application of charges – annual v monthly
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Time to Complete Intertie Process

Farm	Utility	Time
Matlink	Niagara Mohawk	14 months
DDI	Niagara Mohawk	12 months*
Stencil	Wisconsin Public Service	4 months
New Horizons	Cilco	10 months*
N. Plains	Benco REC,GRE	6 months *
Koetsier	SCE	6 months *



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