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### Private & Confidential

## **DAIRY FARM EFFLUENT TREATMENT EQUIPMENT – MONETARY BENEFITS (approx. 400 cows)**

### **1. Electricity Usage**

According to our findings, an average dairy farmer with 300 – 400 cows spends \$20,000 on electricity per annum

### **2. Water Use**

With the current drought in NZ, lack of water can have adverse effect on the milk production with restrictions during the summer season.

Water use (as indicated by Dairynz Farmfact) on dairy farms are:

Dairy Shed: 70 Litres

Troughs: 70 litres/cow per day, available in five-hour period = 14 litres/cow/hour

Various analysts have indicated any future water tax can range from \$10 – 15K per year.

Auckland University's Public Policy Institute determined the cost to an average irrigated dairy farm would be \$13,800.

### **3. Biogas**

The following applies to biogas electricity generated from **400 herds** (effluent) from the cow shed:

- Total electricity generated is estimated to be 500 units per day by running a 62KVA DG set, generating 50 units per hour of electricity.
- After running our equipment for **20 hours, which uses 20 units** of electricity a day, we are left with **400 units** a day.
- **400 units x 30 days = 12,000 units per month**  
**12 months = 144,000-unit production**  
**In terms of dollars, if a dairy farmer is paying 20 cents per unit, they will have saved \$28,800 worth of electricity.**

### **4. Fertilizer**

Cost of fertiliser usage on dairy farms are very much dependant on soil type.

NPK (nitrogen/ phosphorus/potassium) available from the cow manure is quite rich which after treatment with our system will have most nutrient values. This will vary with each farm. A lab test report will indicate the level of NPK from the cow manure. Average cost savings for a 400-herd dairy farm could be up to \$70K.

### **Directors**

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Our effluent system can generate two tons of manure with an acceptable level of nutrient value which can lead to huge savings on fertiliser costs for a dairy farmer.

## 5. Leasing Equipment

Most leasing companies offer lease arrangements of the equipment for five years. Cost of finance is expected to be between 6 -7 % per year offered by CREDIT ONE which is a highly reputable company in NZ. There are also tax benefits in leasing of the equipment.

### Cost Savings

- Electricity = **\$20,000** per annum
- Water cost
- Cow manure (instead of total purchase of fertiliser) = average cost of **NZ\$70,000** per annum
- Biogas produced from your own dairy farm (depending on number of herds)  
Farmers can check on credits available on excess electricity produced.
- Benefit to the environment by reducing gas emissions and soil contamination
- Prevention and better care of farm effluent leaching into the waterways (rivers/lakes)
- Prepare for any future water tax
- **Tax benefits on leasing the equipment**

### COST OF OUR EQUIPMENT:

The biogas plant is about the size of a 40-ft container and has the capability to produce clear water (pH level less than 7 - 8 or below) for \$385 plus GST. The cost of civil works and compliance/legal costs will be separate.

**NOTE: We can quote on the pricing of the equipment based on the number of herds and if over 400 herds with or without biogas plant.**

### Directors

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