# EXHIBIT "A"

# SOUTHERN CALIFORNIA An EDISON INTERNATIONALS Company

#### Confidential/Proprietary Information

March 23, 2012 -

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant: CORNER WELL Well #1

Location: 9955 E AVE F-8

HP:50

Cust # 0-000-4753

Serv. Acct. #:

001-9609-71

3412M-7004 Meter:

Pump Ref.#: 25946

In accordance with your request, an energy efficiency test was performed on your turbine well pump on March 22, 2012. If you have any questions regarding the results which follow, please

contact RICK KOCH at (805)654-7312.

. Equipment Pump: GOULD No: FR363743 Motor: No: 076248419 US

Results	Test 1	Test 2
Discharge Pressure, PSI	7.7	21,4
Standing Water Level, Feet	181,7	181.7
Drawdown, Feet	32,9	30.3
Discharge Head, Feet	17.8	49.4
Pumping Water Level, Feet	214.6	212.0
Total Head, Feet	232,4	261,4
Capacity, GPM	249 .	219
GPM per Foot Drawdown	7.6	7.2
Acre Feet Pumped in 24 Hours	1.101	.968
kW Input to Motor	19.5	18.5
HP Input to Motor	26.1	24.8
Motor Load (%)	47.7	45.3
Measured Speed of Pump, RPM	1,791	1 - <b>2 · · ·</b>
kWh per Acre Foot	425	459
Overall Plant Efficiency (%)	<b>55,9</b> .	58.3

Test 1 is the normal operation of this pump at the time of the above test(s). The other results were obtained by throttling the discharge.

# SOUTHERN CALIFORNIA AR EDISON INTERNATIONAL Company

#### Confidential/Proprietary Information

March 23, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant: CORNER WELL Well 41

Location: 9955 E AVE F-8

HP:50

Cust#: 0-000-4753

Serv. Acct. #:

001-9609-71

3412M-7004 Meter.

Pump Ref.#: 25946 .

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on March 22, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B.

Assuming that water requirements will be the same as for the past year, and all operating conditions (annual hours of operation, head above, and water pumping level) will remain the same as they were at the time of the pump test, it is estimated that:

Overall plant efficiency can be improved from 55.9% to 65.0%,

This can save you up to 8,349 kWh and \$821.76 annually.

These kWh savings translate to a 3.6-ton decrease in CO2 emissions.

	Existing	Plant Efficiency Improved	<u>Savings</u>
Total kWh kW Input kWh per Acre Foot Acre Feet per Year Average Cost per kWh Average Cost per Acre Foot Overall Plant Efficiency (%)	59,520 19.5 425 139.9 \$0.10 \$41.86 55.9	51,171 16.8 366 \$35.99 65.0	8,349 2.7 60 \$5.87
Total Annual Cost	\$5,858.55	\$5,036.79	\$821.76

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



Save Energy,
Save Money...
Your test results show that you can!

March 23, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535 PUMPING COST ANALYSIS, Plant: CORNER WELL Well ギ/

Location: 9955 E AVE F-8

. HP: 50

Cust #: 0-000-4753

Serv. Acct. #:

001-9609-71

Meter: 3412M-7004

Pump Ref.#:

25946

#### Dear SCE Customer:

Helping California businesses save energy and money is a major goal at SCE. As you know, our Technical Specialist performed a free energy efficiency test on one or more pumps at your facility on March 22, 2012. We thank you for the opportunity to provide this service, and appreciate your interest in the performance of your pumps.

The results of the testing, shown in the table below, indicate that the pump listed above has the potential for improved Overall Plant Efficiency (OPE), lower energy costs, and a cash incentive.

	Projected Incentive, Energy, and Cost Savings			
	Existing	<u>Improved</u>	Savings	Cash Incentive
Totał kWh	59,520	51,171	8,349	\$751.38
kW Input	19.5	16.8	2.7	• • • • • • •
kW on-peak activity factor *			1.8	\$177,79
Acre Feet per Year	139.9			
kWh per Acre Foot	425	366	60	
Average Cost per Acre Foot	\$41.86	\$35.99	\$5.87	
Overall Plant Efficiency (%)	55.9	65.0		
Annual Total	\$5,858.55	\$5,036.79	<b>\$821.76</b>	\$929.17

("The kW on-peak activity factor represents how the kW impacts the SCE system during on-peak periods as determined by SCE's agricultural and water pumping customers' average load profiles. By improving efficiency, your expected kW savings is 2.7 kW, and the savings used for incentive calculations is 65% of 2.7, or 1.8 kW.)

Case studies have shown that repairing, retrofitting, or replacing inefficient pumps can save energy and money, and may even help you avoid serious operational problems. For your business, this could mean the following:

- e Improved Plant Efficiency: Your OPE can be improved from 55.9% to 65.0%.
- Lower Energy Costs: Based on the test data, your past energy usage, and your current rate of TOU-PA-B, we estimate
  that you may save up to 8,349 kWh annually (which translates to a 3.6-ton decrease in CO<sub>2</sub> emissions). This may result in
  energy cost savings of \$821.76.
- Cash Incentive: Through the retrofit and installation of more energy-efficient equipment, you have the potential to receive
  an incentive of \$0.09 per kWh and \$100 per on-peak activity factored kW reduced, courtesy of SCE's Customized Efficiency
  Program. Based on your estimated kWh and kW, you would be eligible for a <u>Potential Cash Incentive of \$929.17</u>, capped
  at 50% of your project cost. (See contract for details.)

Eyoucare interested in an Incentive for this pump, please contact Caroline Lee at to complete a project application. All applicants must receive a written approval authorization <u>before</u> implementing any project; failure to comply will result in forfeiture of incentive funding.

We encourage you to review your results and take advantage of SCE's energy efficiency expertise and incentives. Visit www.sce.com/rebatesandsavings, or give us a call and let us know how we can be of further service to you.

Sincerely,

Southern California Edison

Program funded by California utility ratepayers, and administered by Southern California Edison under the duspices of the California Public Utilities Commission.

10180 Telegraph Road Ventura, CA 93004

HDD000136



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9763 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant: MIDDLE WELL

Location: 47359 100TH ST EAST

HP:200

Cust#: 0-000-4753

Serv. Acct, #:

024-7632-19

Meter: V349N-648

Pump Ref.#;

25940

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 27, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

Total kWh	<u>Existing</u> 689,460
kW Input	905,400 160.1
kWh per Acre Foot	659
Acre Feet per Year . Average Cost per kWh	1,046.7
Average Cost per Acre Foot	\$0.07 \$47.81
Overall Plant Efficiency (%)	69.6
Total Annual Cost	\$50,041.01

The hydraulic test results indicate that this pump is operating in an efficient manner.

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant MIDDLE WELL

Location: 47359 100TH STEAST

. HP:200

Cust#: 0-000-4753

Serv. Acct. #: 024-7632-19

V349N-648 Meter:

Pump Ref.#:

25940

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 27, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Equipment

Pump:

Not 671L0266

Motor:

B/J US

No: G07-BF80A-MC1

#### Results

Discharge Pressure, PSI	82.3
Standing Water Level, Feet	235.6
Drawdown, Feet	22.7
Discharge Head, Feet	190.1
Pumping Water Level, Feet	258,3
Total Head, Feet	448.4
Capacity, GPM	1,320
GPM per Foot Drawdown	58.1
Acre Feet Pumped in 24 Hours	5.834
kW Input to Motor	160.1
HP Input to Motor	214,7
Motor Load (%)	103.3
Measured Speed of Pump, RPM	1,785
kWh per Acre Foot	659
Overall Plant Efficiency (%)	69. <b>6</b>

The standing level was measured down through the pump column. At the time of the test, 69' of oil was found on top of the water in the casing. 7 lines were open for this test.

# SOUTHERN CALIFORNIA EDISON INTERNATIONAL® Company

#### Confidential/Proprietary Information

March 23, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant END WELL Wall #3

Location: 9745 E AVE F-8

HP: 300

Cust#: 0-000-4753

Serv. Acct. #: 013-7894-12

Meter: V349M-18967

Pump Ref.非: 25939

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on March 22, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

Total kWh	<u>Existing</u> 1,017,072
kW Input	188.7
kWh.perAcre Foot	626
Acre Feet per Year	1,623.7
Average Cost per kWh	\$0.07
Average Cost per Acre Foot	\$43,89
Overall Plant Efficiency (%)	73.1
Total Annual Cost	\$71,266.24

The hydraulic test results indicate that this pump is operating in an efficient manner.

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.

# SOUTHERN CALIFORNIA EDISON INTERNATIONAL® Company

#### Confidential/Proprietary Information

March 23, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant: END WELL Well #3

Location: 9745 E AVE F-8

HP: 300

Cust#: 0-000-4753

Serv. Acct. #: 013-

013-7894-12

Meter: V349M-18967

49M-18967 Pump Ref.#:

25939

In accordance with your request, an energy efficiency test was performed on your turbine well pump on March 22, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Equipment

 Pump:
 N/A ·
 No:
 NO PLATE

 Motor:
 US
 No:
 A05A098R027M3

#### Results

Discharge Pressure, PSI	63.4
Standing Water Level, Feet	280.0
Drawdown, Feet	21,3
Discharge Head, Feet	146.5
Pumping Water Level, Feet	301.3
Total Head, Feet	447.8
Capacity, GPM	1,636
GPM per Foot Drawdown	76.8
Acre Feet Pumped in 24 Hours	7.231
kW Input to Motor	188.7
HP Input to Motor	253.0
Motor Load (%)	80.1
Measured Speed of Pump, RPM	1,791
kWin per Acre Foot	626
Overall Plant Efficiency (%)	73.1



December 7, 2012

Mr. Nick Van Dam High Desert Dairy 9753 East Avenue F-8 Lancaster, CA 93535

Re: Summary of 2012 Pump Tests

Dear Mr. Van Dam,

Thank you for your participation in SCE's Hydraulic Pump Testing Program this year. Our goal is to exceed your expectations by providing excellent customer service. Hopefully the test results and resulting energy efficiency information that was provided during the course of 2012 will aid High Desert Dairy in its evaluation of pumping operations.

In addition to our standard reports, we now have the capability of providing enhanced reports that can be sent electronically or via hardcopy that may also be useful in evaluation of High Desert Dairy's water pumping operations. The following sample reports are attached:

- 2012 Pump Test Summary: Contains data from all tests completed during 2012. Historical data is included.
- 2012 Cost Analysis Summary: Contains cost data showing potential savings from the data collected; 2012 pump testing identified a total of \$32,932 in potential improved annual efficiency savings from selected pumps.
   \$43,574 in potential incentive rebates is also available for those selected pumps.

Please let us know if you would like to have the following reports sent electronically. We value your feedback and can customize reports to fit your needs. We would be willing to meet and discuss any questions regarding our service and other Energy Efficiency Programs that may benefit High Desert Dairy.

Best Regards

Rick/Koch

Hydraulic/Industrial Services E-Mail: rick.koch@sce.com Cell Phone: 805-338-1398 Office Phone: 805-654-7312



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant: MARZULO NORTH

Location: 7307 E AVENUE F-4

HP: 350

Cust# 0-000-4753

Serv. Acct. #:

030-1435-96

Meter: V349N-1668

Pump Ref.#:

25302

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 27, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

	<u>Existing</u>
Total kWh	835,284
kW Input	230,6
kWh per Acre Foot	737
Acre Feet per Year	1,133.2
Average Cost per kWh	\$0.08
Average Cost per Acre Foot	\$58.00
Overall Plant Efficiency (%)	74.3
Total Annual Cost	\$65,728.50

The hydraulic test results indicate that this pump is operating in an efficient manner.

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCAȘTER, CA 93535

HYDRAULIC TEST RESULTS, Plant: MARZULO NORTH

Location: 7307 E AVENUE F-4

HP:350

Cust#: 0-000-4753

Serv. Acct. #:

030-1435-96

Pump Ref.#: V349N-1668 Meter:

25302

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 27, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Equipment

Pump:	JLINE		NO PLATE		
Motor.	US	No:	82001499009R01		
•			•		
Resu	lts				
Discharge F	ressure, PSI		75,9		
Standing W	ater Level, Feet		225.7		
Drawdown,	Feet		134.8		
Discharge I	lead, Feet		175.3		
Pumping W	ater Level, Feet		360.5		
Total Head,			535.8		
Capacity, G	PM		1,699		
GPM per F	oot Drawdown		12.6		
Acre Feet F	umped in 24 Ho	ours	7.510		
kW Input to			230.6		
HP Input to			309,2		
Motor Load			83.6		
Measured !	Speed of Pump,	RPM	1,789		
Customer l	Meter, GPM	•	1,540		
kWh per A		•	737		
	int Efficiency (	%)	74.3		

8 lines were open for this test.

# SOUTHERN CALIFORNIA EDISON INTERNATIONAL COMPANY

### Confidential/Proprietary Information

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant NICK'S WELL

Location: 7259 E AVE F-8

HP:40

Cust #: 0-000-4753

Serv. Acct. #: 00

000-0392-11

Meter: 3416M-6339

Pump Ref.#:

17856

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 27, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Equipment

Pump: Motor:	L&B US	,,	14767 07BF48AMD17006	
Results		Test	<u>1</u> <u>Test 2</u>	
schame Pressure.	PSI	65	.5 74.3	

<del></del> .	
65.5	74.3
153.7	153.7
34,9	32.7
151.3	171,6
188.6	186.4
339.9	358.0
362	327
10.4	10.0
1.600	1.445
40.7	39.9
54.6	53.5
122.1	119.7
1,776	
611	663
56.9	55.3
	153.7 34.9 151.3 188.6 339.9 362 10.4 1.600 40.7 54.6 122.1 1,776 611

Test 1 is the normal operation of this pump at the time of the above test(s). The other results were obtained by throttling the discharge, 2 lines were open for this test.



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS,

Plant: NICK'S WELL

Location: 7259 E AVE F-8

. HP:40

Cust#: 0-000-4753

Serv. Acct. #: 000-0392-11

Meter: 3416M-6339

Pump Ref.#: 1

17856

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 27, 2012, billing history for the past 12 months, and your current rate of TOU-PA-A.

Assuming that water requirements will be the same as for the past year, and all operating conditions (annual hours of operation, head above, and water pumping level) will remain the same as they were at the time of the pump test, it is estimated that:

- 1. Overall plant efficiency can be improved from 56.9% to 64.0%.
- 2. This can save you up to 12,380 kWh and \$1,286.40 annually.
- 3. These kWh savings translate to a 5.4-ton decrease in CO2 emissions.

Total Annual Cost	\$11,644.99	\$10,358.68	\$1,286.40
Overall Plant Efficiency (%)	56,9	64.0	
Average Cost per Acre Foot	\$63.45	\$56.44	\$7.01
Average Cost per kWh	<b>\$0.10</b>	•	
Acre Feet per Year	183.5		
kWh per Acre Foot	611	543	67
kW Input	40.7	36.2	4.5
Total kWh	112,068	99,688	12,380
	Existing	<u>Improved</u>	· <u>Savings</u>
		Plant Efficiency	

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



An EDISON INTERNATIONAL Company

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

## Save Energy, Save Money... Your test results show that you can!

PUMPING COST ANALYSIS, Plant: NICK'S WELL

Location: 7259 EAVE F-8

17856

Cust #: 0-000-4753

Serv. Acct. #:

000-0392-11

3416M-6339 Pump Ref.苯

#### Dear SCE Customer:

Helping California businesses save energy and money is a major goal at SCE. As you know, our Technical Specialist performed a free energy efficiency test on one or more pumps at your facility on November 27, 2012. We thank you for the opportunity to provide this service, and appreciate your interest in the performance of your pumps.

The results of the testing, shown in the table below, indicate that the pump listed above has the potential for improved Overall Plant Efficiency (OPE), lower energy costs, and a cash incentive.

	Proj <u>Existina</u>	ected Incentive, Energ	gy, and Cost Savings <u>Savings</u>	s <u>Cash Incentive</u>
Total kWh kW Input	112,068 40.7	99,688 36,2	12,380 4.5	\$1,114.20
kW on-peak activity factor * Acre Feet per Year	183.5	•	2.9	\$292.24
kWh per Acre Foot Average Cost per Acre Foot	611 \$63.45	543 \$56.44	· 67 \$7.01	
Overall Plant Efficiency (%)	56.9	64.0		
Annual Total	\$11,644.99	\$10,358.58	\$1,286.40	\$1,406.44

(\*The kW on-peak activity factor represents how the kW impacts the SCE system during on-peak periods as determined by SCE's agricultural and water pumping customers' average load profiles. By improving efficiency, your expected kW savings is 4.5 kW, and the savings used for incentive calculations is 65% of 4.5, or 2.9 kW.)

Case studies have shown that repairing, retrofitting, or replacing inefficient pumps can save energy and money, and may even help you avoid serious operational problems. For your business, this could mean the following:

- Improved Plant Efficiency: Your OPE can be improved from 56.9% to 64.0%.
- Lower Energy Costs: Based on the test data, your past energy usage, and your current rate of TOU-PA-A, we estimate that you may save up to 12,380 kWh annually (which translates to a 5.4-ton decrease in CO2 emissions). This may result in energy cost savings of \$1,286,40.
- Cash Incentive: Through the retrofit and installation of more energy-efficient equipment, you have the potential to receive an incentive of \$0.09 per kWh and \$100 per on-peak activity factored kW reduced, courtesy of SCE's Customized Efficiency Program. Based on your estimated kWh and kW, you would be eligible for a <u>Potential Cash Incentive</u> of \$1,405.44. capped at 50% of your project cost. (See contract for details.)

If you are interested in an incentive for this pump, please contact Caroline Lee at (760)951-3210 to complete a project application. All applicants must receive a written approval authorization before implementing any project; failure to comply will result in forfeiture of incentive funding.

We encourage you to review your results and take advantage of SCE's energy efficiency expertise and incentives. www.sce.com/rebatesandsavings, or give us a call and let us know how we can be of further service to you.

Sincerely,

Southern California Edison

# SOUTHERN CALIFORNIA EDISON

An EDISON INTERNATIONAL®

#### Confidential/Proprietary Information

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant: MARZULO SOUTH

Location: 7566 E AVENUE F-12

HP:200

Cust#: 0-000-4753

Serv. Acct. #:

026-3166-81

Meter: V349N-18219

Pump Ref.#:

25941

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 27, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

Assuming that water requirements will be the same as for the past year, and all operating conditions (annual hours of operation, head above, and water pumping level) will remain the same as they were at the time of the pump test, it is estimated that:

- 1. Overall plant efficiency can be improved from 67.3% to 72.0%.
- 2. This can save you up to 55,786 kWh and \$3,849.81 annually.
- 3. These kWh savings translate to a 24-ton decrease in CO2 emissions.

. •	Existing	Plant Efficiency Improved	Savings
Total kWh	863,628	807,842	55,786
kW Input kWh per Acre Foot	196.7 625	184.0 584	12.7 40
Acre Feet per Year Average Cost per kWh	1,382.5 \$0.07		
Average Cost per Acre Foot	\$43.11	\$40.33	\$2.78
Overall Plant Efficiency (%)	67.3	72.0	
Total Annual Cost	\$59,598.97	\$55,749.16	\$3,849.81

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9763 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant MARZULO SOUTH

Location: 7566 E AVENUE F-12

HP:200

Cust #: 0-000-4753

Serv. Acct. #:.

026-3166-81

V349N-18219 Meter:

Pump Ref.#: 25941

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 27, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Pump:         L&B Motor:         No:         28249 Motor:           Results         Test 1         Test 2           Discharge Pressure, PSI Standing Water Level, Feet         60.7         78.5 Motor Motor Motor Level, Feet           Drawdown, Feet         40.6         39.1 Motor Motor Motor Motor Motor Motor Motor Motor Motor Load (%)         140.2 Motor Moto			Equip	ment		
Results         Test 1         Test 2           Discharge Pressure, PSI         60.7         78.5           Standing Water Level, Feet         230.6         230.6           Drawdown, Feet         40.6         39.1           Discharge Head, Feet         140.2         181.3           Pumping Water Level, Feet         271.2         269.7           Total Head, Feet         411.4         451.0           Capacity, GPM         1,710         1,614           GPM per Foot Drawdown         42.1         41.3           Acre Feet Pumped in 24 Hours         7.553         7.134           kW Input to Motor         196.7         201.1           HP Input to Motor         263.8         269.7           Motor Load (%)         123.3         126.1           Measured Speed of Pump, RPM         1,774           kWh per Acre Foot         625         677		Pump;	L&B	No:	28249	
Discharge Pressure, PSI 60.7 78.5 Standing Water Level, Feet 230.6 230.6 Drawdown, Feet 40.6 39.1 Discharge Head, Feet 140.2 181.3 Pumping Water Level, Feet 271.2 269.7 Total Head, Feet 411.4 451.0 Capacity, GPM 1,710 1,614 GPM per Foot Drawdown 42.1 41.3 Acre Feet Pumped in 24 Hours 7.558 7.134 kW Input to Motor 196.7 201.1 HP Input to Motor 263.8 269.7 Motor Load (%) 123.3 126.1 Measured Speed of Pump, RPM 1,774 kWh per Acre Foot 625 677		Motor:	US	No:	3182	
Standing Water Level, Feet       230.6       230.6         Drawdown, Feet       40.6       39.1         Discharge Head, Feet       140.2       181.3         Pumping Water Level, Feet       271.2       269.7         Total Head, Feet       411.4       451.0         Capacity, GPM       1,710       1,614         GPM per Foot Drawdown       42.1       41.3         Acre Feet Pumped in 24 Hours       7.558       7.134         kW Input to Motor       196.7       201.1         HP Input to Motor       263.8       269.7         Motor Load (%)       123.3       126.1         Measured Speed of Pump, RPM       1,774         kWh per Acre Foot       625       677		Results		Tes	<u>t 1</u>	Test 2
Standing Water Level, Feet       230.6       230.6         Drawdown, Feet       40.6       39.1         Discharge Head, Feet       140.2       181.3         Pumping Water Level, Feet       271.2       269.7         Total Head, Feet       411.4       451.0         Capacity, GPM       1,710       1,614         GPM per Foot Drawdown       42.1       41.3         Acre Feet Pumped in 24 Hours       7.558       7.134         kW Input to Motor       196.7       201.1         HP Input to Motor       263.8       269.7         Motor Load (%)       123.3       126.1         Measured Speed of Pump, RPM       1,774         kWh per Acre Foot       625       677	D	ischargė Pressure, P	SI	60	).7	78.5
Drawdown, Feet       40.6       39.1         Discharge Head, Feet       140.2       181.3         Pumping Water Level, Feet       271.2       269.7         Total Head, Feet       411.4       451.0         Capacity, GPM       1,710       1,614         GPM per Foot Drawdown       42.1       41.3         Acre Feet Pumped in 24 Hours       7.558       7.134         kW Input to Motor       196.7       201.1         HP Input to Motor       263.8       269.7         Motor Load (%)       123.3       126.1         Measured Speed of Pump, RPM       1,774         kWh per Acre Foot       625       677	Si	landing Water Lével,	Feet	230	1.6	
Pumping Water Level, Feet 271.2 269.7 Total Head, Feet 411.4 451.0 Capacity, GPM 1,710 1,614 GPM per Foot Drawdown 42.1 41.3 Acre Feet Pumped in 24 Hours 7.558 7.134 kW Input to Motor 196.7 201.1 HP Input to Motor 263.8 269.7 Motor Load (%) 123.3 126.1 Measured Speed of Pump, RPM 1,774 kWh per Acre Foot 625 677				40	).6	
Total Head, Feet 411.4 451.0 Capacity, GPM 1,710 1,614 GPM per Foot Drawdown 42.1 41.3 Acre Feet Pumped in 24 Hours 7.558 7.134 kW Input to Motor 196.7 201.1 HP Input to Motor 263.8 269.7 Motor Load (%) 123.3 126.1 Measured Speed of Pump, RPM 1,774 kWh per Acre Foot 625 677		_	·	140	),2	181.3
Capacity, GPM       1,710       1,614         GPM per Foot Drawdown       42.1       41.3         Acre Feet Pumped in 24 Hours       7.558       7.134         kW Input to Motor       196.7       201.1         HP Input to Motor       263.8       269.7         Motor Load (%)       123.3       126.1         Measured Speed of Pump, RPM       1,774         kWh per Acre Foot       625       677		· · ·	Feet	271	1.2	269.7
GPM per Foot Drawdown       42.1       41.3         Acre Feet Pumped in 24 Hours       7.558       7.134         kW Input to Motor       196.7       201.1         HP Input to Motor       263.8       269.7         Motor Load (%)       123.3       126.1         Measured Speed of Pump, RPM       1,774         kWh per Acre Foot       625       677				411	.4	451.0
Acre Feet Pumped in 24 Hours 7.558 7.134 kW Input to Motor 196.7 201.1 HP Input to Motor 263.8 269.7 Motor Load (%) 123.3 126.1 Measured Speed of Pump, RPM 1,774 kWh per Acre Foot 625 677			•	1,7	10	1,614
kW Input to Motor       196.7       201.1         HP Input to Motor       263.8       269.7         Motor Load (%)       123.3       126.1         Measured Speed of Pump, RPM       1,774         kWh per Acre Foot       625       677				. 42	2.1	41.3
HP Input to Motor       263.8       269.7         Motor Load (%)       123.3       126.1         Measured Speed of Pump, RPM       1,774         kWh per Acre Foot       625       677			24 Hours	7.5	58	7.134
Motor Load (%)         123.3         126.1           Measured Speed of Pump, RPM         1,774           kWh per Acre Foot         625         677		. •		196	.7	201.1
Measured Speed of Pump, RPM 1,774 kWh per Acre Foot 625 677				263	8,8	269.7
kWh per Acre Foot 625 677				123	1.3	126.1
The state of the s			ımp, RPM	· 1,7	74	
Overall Plant Efficiency (%) 67.3 68.2			•	6:	25	67.7
	0	verall Plant Efficien	cy ( <u>%)</u>	67	<b>3</b> . :=	68.2

The standing level was measured down through the pump column. Test 1 is the normal operation of this pump at the time of the above test(s). The other results were obtained by throttling the discharge. At the time of the test, there was 113' of oil on top of the water in the well casing. 9 lines were open for this test.



### Save Energy, Save Money. . . Your test results show that you can!

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY. 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant: MARZULO SOUTH

Location: 7566 E AVENUE F-12

HP:200

Cust#: 0-000-4753

026-3166-81 Serv. Acct #:

Meter:

V349N-18219 Pump Ref.#:

25941

#### Dear SCE Customer:

Helping California businesses save energy and money is a major goal at SCE. As you know, our Technical Specialist performed a free energy efficiency test on one or more pumps at your facility on November 27, 2012. We thank you for the opportunity to provide this service, and appreciate your interest in the performance of your pumps.

The results of the testing, shown in the table below, indicate that the pump listed above has the potential for improved Overall Plant Efficiency (OPE), lower energy costs, and a cash incentive.

Projected Incentive, Energy, and Cost Savings Improved <u>Savings</u> Cash Incentive Existing 863,628 807,842 55.786 \$5,020.76 Total kWh 196.7 184.0 12.7 kW Input 8,3 \$825.88 kW on-peak activity factor\* 1.382.5Acre Feet per Year 584 40 625 kWh per Acre Foot \$43.11 \$40.33 \$2.78 Average Cost per Acre Foot 72.0 Overall Plant Efficiency (%) 67,3 \$55,749.16 \$3,849.81 \$5,846,65 \$59,598.97 Annual Total

(\*The kW on-peak activity factor represents how the kW impacts the SCE system during on-peak periods as determined by SCE's agricultural and water pumping customers' average load profiles. By improving efficiency, your expected kW savings is 12.7 kW, and the savings used for incentive calculations is 65% of 12.7, or 8.3 kW.)

Case studies have shown that repairing, retrofitting, or replacing inefficient pumps can save energy and money, and may even help you avoid serious operational problems. For your business, this could mean the following:

- Improved Plant Efficiency: Your OPE can be improved from 67.3% to 72.0%.
- Lower Energy Costs: Based on the test data, your past energy usage, and your current rate of TOU-PA-B-I, we estimate that you may save up to 55,786 kWh annually (which translates to a 24-ton decrease in CO2 emissions). This may result in energy cost savings of \$3,849,81.
- Cash Incentive: Through the retrolit and installation of more energy-efficient equipment, you have the potential to receive an incentive of \$0.09 per kWh and \$100 per on-peak activity factored kW reduced, courtesy of SCE's Customized Efficiency Program. Based on your estimated kWh and kW, you would be eligible for a Potential Cash Incentive of \$5,846.65, capped at 50% of your project cost. (See contract for details.)

If you are interested in an incentive for this pump, please contact Caroline Lee at (760)951-3210 to complete a project application. All applicants must receive a written approval authorization before implementing any project; failure to comply will result in forfeiture of incentive funding.

We encourage you to review your results and take advantage of SCE's energy efficiency expertise and incentives. Visit www.sce.com/rebatesandsavings, or give us a call and let us know how we can be of further service to you.

Sincerely,

Southern California Edison



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS,

Location: 75TH ST EAST

HP:75

Cust#: 0-000-4753

Serv, Acct. #:

026-9261-82

256000-182132 Meter:

Pump Ref.#: 10539

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 28, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

*	Existing
Total kWh	168,012
kW Input	68.3
kWh per Acre Foot	730
Acre Feet per Year	230.1
Average Cost per kVVh	\$0.09
Average Cost per Acre Foot	\$67.19
may are a second and a second a	
Total Annual Cost	\$15,460,46

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.

# SOUTHERN CALIFORNIA EDISON

An EDISON INTERNATIONAL® Company

#### Confidential/Proprietary Information

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant: LAKES N WELL 在分

Location: 75TH ST EAST

HP:75

Cust #: 0-000-4753

Serv. Acct. #:

026-9261-82

Meter: 256000-182132 Pump Ref.#: 10539

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 28, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Equipment

 Pump:
 PEERL
 No:
 86079

 Motor:
 GE
 No:
 DRJ425341

#### Results

Discharge Pressure, PSI	57.5
Standing Water Level, Feet	208.6
Drawdown, Feet	
Discharge Head, Feet	132,8
Pumping Water Level, Feet	
Total Head, Feet	
Capacity, GPM	508
GPM per Foot Drawdown	
Acre Feet Pumped in 24 Hours	2,245
kW Input to Motor	68.3
HP Input to Motor	91.6
Motor Load (%)	112.1
Measured Speed of Pump, RPM	1,778
kWh per Acre Foot	730
Overall Plant Efficiency (%)	

We were unable to measure the water levels with our sounder line and the air line is inoperative or missing. Therefore, we are unable to determine the total pumping head and overall plant efficiency. The standing level was measured down through the pump column. This pump is operating inefficiently. The inefficiency is most likely caused by pump wear, the failure of the pump design to meet existing conditions, or a combination of both. 3 lines were open for this test.

# SOUTHERN CALIFORNIA An EDISON INTERNATIONAL® Company

#### Confidential/Proprietary Information

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant: LAKE BIG WELL

Location: 7361 E. AVENUE H

HP: 350

Cust#: 0-000-4753

Serv. Acct. #:

029-8297-95

V349N-18354 Meter:

Pump Ref.#: 25303

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 28, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Pump: Motor:	Equipment PEERL US	No: No:	
Result	ts ·		•
Drawdown, I Discharge H Pumping We Total Head, Capacity, GI GPM per Fo Acre Feet Pi kW Input to HP Input to Motor Load Measured S Customer M	ater Level, Feet Feet ead, Feet ead, Feet ater Level, Feet Feet PM ot Drawdown umped in 24 Hours Motor (%) peed of Pump, RPM leter, GPM		72.2 269.9 27.1 166.8 287.0 453.8 2,092 77.2 9.247 271.2 363.7 98.2 1,786 1,956 704 65.9

13 lines were open for this test.



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant LAKE BIG WELLT

Location: 7361 E. AVENUE H

HP: 350

Cust #: 0-000-4753 Meter: V349N-1839 Serv. Acct. #: 029-8297-95

V349N-18354 Pump Ref.#: 25303

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 28, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

Assuming that water requirements will be the same as for the past year, and all operating conditions (annual hours of operation, head above, and water pumping level) will remain the same as they were at the time of the pump test, it is estimated that:

Overall plant efficiency can be improved from 65.9% to 72.0%;

2. This can save you up to 83,258 kWh and \$6,541.59 annually.

3. These kWh savings translate to a 36-ton decrease in CO2 emissions.

		Plant Efficiency	•
	<u>Existing</u>	<u>Improved</u>	Savings
Total kWh	985,836	902,578	83,258
kW Input	271.2	248.3	22.9
kWh per Acre Foot	704	645	59
Acre Feet per Year	1,400.3		•
Average Cost per kWh	\$0.08	•	
Average Cost per Acre Foot	\$55.32	\$50.64	\$4.67
Overall Plant Efficiency (%)	65.9	72.0	
Total Annual Cost	\$77,457.13	\$70,915.55	\$6,541.59

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



Save Energy, Save Money... Your test results show that you can!

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant LAKE BIG WELL

Location: 7361 E. AVENUE H

HP:350

Cust #: 0-000-4753 Serv. Acct.#: 029-8297-95

Meter:

V349N-18354

Pump Ref.#:

25303

Dear SCE Customer:

Helping Californiá businesses save energy and money is a major goal at SCE. As you know, our Technical Specialist performed a free energy efficiency test on one or more pumps at your facility on November 28, 2012. We thank you for the opportunity to provide this service, and appreciate your interest in the performance of your pumps.

The results of the testing, shown in the table below, indicate that the pump listed above has the potential for improved Overall Plant Efficiency (OPE), lower energy costs, and a cash incentive.

	Projected Incentive, Energy, and Cost Savings			
,	<u>Existing</u>	<u>Improved</u>	Savings	Cash Incentive
Total kWh	985,836	902,578	83,258	\$7,493,23
kVV Input	271.2	248:3	22,9	
kW on-peak activity factor *	•		14.9	<b>\$1,488.76</b>
Acre Feet per Year	1,400.3			
kWh per Acre Foot	704	645	59	
Average Cost per Acre Foot	\$55.32	\$50.64	\$4.67	
Overall Plant Efficiency (%)	65.9	72.0		
Annual Total	\$77,457.13	\$70,915,55	\$6,541.59	\$8,981.99

("The kW on-peak activity factor represents how the kW impacts the SCE system during on-peak periods as determined by SCE's agricultural and water pumping customers' average load profiles. By improving efficiency, your expected kW savings is 22.9 kW, and the savings used for incentive calculations is 65% of 22.9, or 14.9 kW.)

Case studies have shown that repairing, retrofitting, or replacing inefficient pumps can save energy and money, and may even help you avoid serious operational problems. For your business, this could mean the following:

- Improved Plant Efficiency: Your OPE can be improved from 65.9% to 72.0%.
- Lower Energy Costs: Based on the test data, your past energy usage, and your current rate of TOU-PA-B-I, we estimate that you may save up to 83,258 kWh annually (which translates to a 36-ton decrease in CO2 emissions). This may result in energy cost savings of \$6.541.59.
- Cash Incentive: Through the retrofit and installation of more energy-efficient equipment, you have the potential to receive an incentive of \$0.09 per kWh and \$100 per on-peak activity factored kW reduced, courtesy of SCE's Customized Efficiency Program. Based on your estimated kWh and kW, you would be eligible for a Potential Cash Incentive of \$8,981,99. capped at 50% of your project cost. (See contract for details.)

If you are interested in an incentive for this pump, please contact Carolline Lee at (760)951-3210 to complete a project application. All applicants must receive a written approval authorization before implementing any project; failure to comply will result in forfeiture of incentive funding.

We encourage you to review your results and take advantage of SCE's energy efficiency expertise and incentives. Visit www.sce.com/rebatesandsavings, or give us a call and let us know how we can be of further service to you.

Sincerely,

Southern California Edison

# SOUTHERN CALIFORNIA EDISON AN EDISON INTERNATIONAL® COMPANY

#### Confidential/Proprietary Information

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

. HYDRAULIC TEST RESULTS, Plant: LAKE MIDDLE WL 🕸 🕖

Location: 7505 E AVENUE I

HP: 125

Cust#: 0-000-4753

Serv. Acct. #: 022-8729-98

Meter: 3

3412M-7385

Pump Ref.#: 25943

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 28, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

#### Equipment

Pump:	N/A	No:	NO PLATE
Motor:	GE	No:	97311

#### Results

Discharge Pressure, PSI	5 <b>5.7</b>
Standing Water Level, Feet	249.2
Drawdown, Feet	98.2
Discharge Head, Feet	128.7
Pumping Water Level, Feet	347.4
Total Head, Feet	476.1
Capacity, GPM	776
GPM per Foot Drawdown	7.9
Acre Feet Pumped in 24 Hours	3,430
kW Input to Motor	115.5
HP Input to Motor	154,9
Motor Load (%)	114.4
Measured Speed of Pump, RPM	1,780
Customer Meter, GPM	799
kWh per Acre Foot	808
Overall Plant Efficiency (%)	60.2



An EDISON INTERNATIONAL Company

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

# Save Energy. Save Money... Your test results show that you can!

PUMPING COST ANALYSIS, Plant: LAKE MIDDLE WI

Location: 7505 E AVENUE 1

HP: 125

Cust #: 0-000-4753 · Serv. Acct. #:

022-8729-98

3412M-7385

Pump Ref.#: .25943

#### Dear SCE Customer:

Helping California businesses save energy and money is a major goal at SCE. As you know, our Technical Specialist performed a free energy efficiency test on one or more pumps at your facility on November 28, 2012. We thank you for the opportunity to provide this service, and appreciate your interest in the performance of your pumps.

The results of the testing, shown in the table below, indicate that the pump listed above has the potential for improved Overall Plant Efficiency (OPE), lower energy costs, and a cash incentive.

Annual Total	\$25,958.92	\$22,661.64	\$3,297.27	\$4.507.41
kWh per Acre Foot Average Cost per Acre Foot Overall Plant Efficiency (%)	808 \$67,50 60,2	706 \$58. <del>93</del> 69.0	103 \$8.57	
kW Input kW on-peak activity factor* Acre Feet per Year	115.5 384.6	271,364 100.8	39,484 14.7 9.5	\$3,553.52 \$953.59
Total kWh	Pro <u>Existing</u> <b>310,848</b>	<u>Improved</u>	rgy, and Cost Savings <u>Savings</u>	Cash Incentive

(\*The kW on-peak activity factor represents how the kW impacts the SCE system during on-peak periods as determined by SCE's agricultural and water pumping customers' average load profiles. By improving efficiency, your expected kW savings is 14.7 kW, and the savings used for incentive calculations is 65% of 14.7, or 9.5 kW.)

Case studies have shown that repairing, retrofitting, or replacing inefficient pumps can save energy and money, and may even help you avoid serious operational problems. For your business, this could mean the following:

- improved Plant Efficiency: Your OPE can be improved from 60.2% to 69.0%.
- Lower Energy Costs: Based on the test data, your past energy usage, and your current rate of TOU-PA-B-I, we estimate that you may save up to 39,484 kWh annually (which translates to a 17-ton decrease in CO2 emissions). This may result in energy cost savings of \$3,297.27.
- Cash Incentive: Through the retrofit and installation of more energy-efficient equipment, you have the potential to receive an incentive of \$0.09 per kWh and \$100 per on-peak activity factored kW reduced, courtesy of SCE's Customized Efficiency Program. Based on your estimated kWh and kW, you would be eligible for a Potential Cash Incentive of \$4,507.11, capped at 50% of your project cost. (See contract for details.)

If you are interested in an incentive for this pump, please contact Caroline Lee at (760)951-3210 to complete a project application. All applicants must receive a written approval authorization before implementing any project; failure to comply will result in forfeiture of incentive funding.

We encourage you to review your results and take advantage of SCE's energy efficiency expertise and incentives. www.sce.com/rebatesandsavings, or give us a call and let us know how we can be of further service to you.

Sincerely,

Southern California Edison



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant: LAKE MIDDLE WL

Location: 7505 E AVENUE I

HP: 125

Cust# 0-000-4753

Serv. Acct. #: 022-8729-98

Meter: 3412M-7385

Pump Ref.#: 25943

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 28, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

Assuming that water requirements will be the same as for the past year, and all operating conditions (annual hours of operation, head above, and water pumping level) will remain the same as they were at the time of the pump test, it is estimated that:

1. Overall plant efficiency can be improved from 60.2% to 69.0%.

2. This can save you up to 39,484 kWh and \$3,297.27 annually.

These kWh savings translate to a 17-ton decrease in CO₂ emissions.

Total Annual Cost	\$25,958.92	\$22,661.64	\$3,297,27
Average Cost per kWh Average Cost per Acre Foot Overall Plant Efficiency (%)	\$0.08 \$67.50 60.2	\$58.93 69.0	\$8.57
Total kWh kW Input kWh per Acre Foot Acre Feet per Year	310,848 115.5 808 384.6	271,364 100.8 706	Savings 39,484 14,7 103
	<u>Existing</u>	Plant Efficiency Improved	Charles A

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant LAKES E WELL

Location: 7435 E AVENUE I

HP: 125

Cust #: 0-000-4753 · Meter; 345M-6166

Serv. Acct. #: 022-9335-87

Pump Ref.#: 10537

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on November 28, 2012, billing history for the past 12 months, and your current rate of TOU-PA-B-I.

Assuming that water requirements will be the same as for the past year, and all operating conditions (annual hours of operation, head above, and water pumping level) will remain the same as they were at the time of the pump test, it is estimated that:

1. Overall plant efficiency can be improved from 44,7% to 69.0%.

2. This can save you up to 102,373 kWh and \$9,269.90 annually.

These kWh savings translate to a 45-ton decrease in CO₂ emissions.

	Existing	Plant Efficiency Improved	<u>Savings</u>
Total kWh kW Input kWh per Acre Foot Acre Feet per Year Average Cost per kWh	290,976 90.5 960 303.1 \$0.09	188,603 58.7 622	102,373 31.8 338
Average Cost per Acre Foot Overall Plant Efficiency (%)	\$86.92 44.7	\$56.34 69.0	\$30.58
Total Annual Cost	\$26,347.88	\$17,077.98	\$9.269.90

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



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Save Energy, Save Money... Your test results show that you can!

November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

PUMPING COST ANALYSIS, Plant: LAKES E WELL

Location: 7435 E AVENUE |

HP: 125

Cust#: 0-000-4753

Serv. Acct. 供

022-9335-87

Meter:

345M-6166

Pump Ref.#: 10537

#### Dear SCE Customer:

Helping California businesses save energy and money is a major goal at SCE. As you know, our Technical Specialist performed a free energy efficiency test on one or more pumps at your facility on November 28, 2012. We thank you for the opportunity to provide this service, and appreciate your interest in the performance of your pumps.

The results of the testing, shown in the table below, indicate that the pump listed above has the potential for improved Overall Plant Efficiency (OPE), lower energy costs, and a cash incentive.

Projected Incentive, Energy, and Cost Savings Existing **Improved** Savings Cash Incentive Total kWh 290,976 188,603 102,373 \$9,213,60 kW Input 90.5 58.7 31.8 kW on-peak activity factor \* 20.7 \$2,069.62 Acre Feet per Year 303.1 kWh per Acre Foot 960 622 Average Cost per Acre Foot \$86.92 \$56.34 \$30.58 Overall Plant Efficiency (%) 44.7 69,0 Annual Total \$26,347,88 \$17,077.98 \$9,269,90 \$11,283.22

(\*The kW on-peak activity factor represents how the kW impacts the SCE system during on-peak periods as determined by SCE's agricultural and water pumping customers' average load profiles. By improving efficiency, your expected kW savings is 31.8 kW, and the savings used for incentive calculations is 65% of 31.8, or 20.7 kW.)

Case studies have shown that repairing, retrofitting, or replacing inefficient pumps can save energy and money, and may even help you avoid serious operational problems. For your business, this could mean the following:

- Improved Plant Efficiency: Your OPE can be improved from 44.7% to 69.0%.
- Lower Energy Costs: Based on the test data, your past energy usage, and your current rate of TOU-PA-B-I, we estimate that you may save up to 102,373 kWh annually (which translates to a 45-ton decrease in CO<sub>2</sub> emissions). This may result in energy cost savings of \$9,269,90.
- Cash Incentive: Through the retrofit and installation of more energy-efficient equipment, you have the potential to receive an incentive of \$0.09 per kWh and \$100 per on-peak activity factored kW reduced, courtesy of SCE's Customized Efficiency Program. Based on your estimated kWh and kW, you would be eligible for a Potential Cash Incentive of \$11,283.22, capped at 50% of your project cost, (See contract for details.)

If you are interested in an incentive for this pump, please contact Caroline Lee at (760)951-3210 to complete a project application. All applicants must receive a written approval authorization before implementing any project; failure to comply will

We encourage you to review your results and take advantage of SCE's energy efficiency expertise and incentives. Visit www.sce.com/rebatesandsavings, or give us a call and let us know how we can be of further service to you.

Sincerely.

Southern California Edison



November 30, 2012

NICK VAN DAM HIGH DESERT DAIRY 9753 EAST AVENUE F-8 LANCASTER, CA 93535

HYDRAULIC TEST RESULTS, Plant: LAKES E WELL

Location: 7435 E AVENUE I

HP: 125

Cust#: 0-000-4753

Serv. Acct. #:

022-9335-87

Meter:

345M-6166

Pump Ref.#:

10537

In accordance with your request, an energy efficiency test was performed on your turbine well pump on November 28, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

Equipment

Pump; Motor: N/A. GE No: NO PLATE No: JDJ918141

#### Results

Discharge Pressure, PSI Standing Water Level, Feet Drawdown, Feet Discharge Head, Feet Pumping Water Level, Feet Total Head, Feet Capacity, GPM GPM per Foot Drawdown Acre Feet Pumped in 24 Hours kW Input to Motor HP Input to Motor Motor Load (%) Measured Speed of Pump, RPM Customer Meter, GPM kWh per Acre Foot	62.5 249.1 26.3 144.4 275.4 419.8 512 19.5 2.263 90.5 121.4 89.6 1,783 592 960
	960
Overall Plant Efficiency (%)	44:7

This pump is operating inefficiently. The inefficiency is most likely caused by pump wear, the failure of the pump design to meet existing conditions, or a combination of both. Please see the attached pumping cost analysis for possible savings from pump replacement. 3 lines were open for this test.



Save Energy,
Save Money...
Your test results show that you can!

December 7, 2012

NICK VAN DAM 9753 EAST AVENUE F-8 LANCASTER, CA 93535 PUMPING COST ANALYSIS, Plant: GROVEN WELET 12

Location: 44770 95TH ST EAST

HP: 125

Cust#: 0-000-4753

Serv. Acct. #:

037-0456-09

Meter: 3412M-1260 Pump Ref.#: 18545

#### Dear SCE Customer:

Helping California businesses save energy and money is a major goal at SCE. As you know, our Technical Specialist performed a free energy efficiency test on one or more pumps at your facility on December 5, 2012. We thank you for the opportunity to provide this service, and appreciate your interest in the performance of your pumps.

The results of the testing, shown in the table below, indicate that the pump listed above has the potential for improved Overall Plant Efficiency (OPE), lower energy costs, and a cash incentive.

Projected Incentive, Energy, and Cost Savings Existing Improved Savings Cash Incentive Total kWh 358,104 282,159 75,945 \$6,835.08 kW Input 101.0 79.6 21.4 kW on-peak activity factor\* 13,9 \$1,392.28 Acre Feet per Year 450.5 kWh per Acre Foot 795 626 169 Average Cost per Acre Foot \$65.00 \$13.79 \$51.22 Overall Plant Efficiency (%) 54.4 69.0 Annual Total \$29,282,16 \$23,072,11 \$6,210.05 \$8,227.36

(\*The kW on-peak activity factor represents how the kW impacts the SCE system during on-peak periods as determined by SCE's agricultural and water pumping customers' average load profiles. By improving efficiency, your expected kW savings is 21.4 kW, and the savings used for incentive calculations is 65% of 21.4, or 13.9 kW.)

Case studies have shown that repairing, retrofitting, or replacing inefficient pumps can save energy and money, and may even help you avoid serious operational problems. For your business, this could mean the following:

- Improved Plant Efficiency: Your OPE can be improved from 54.4% to 69.0%.
- Lower Energy Costs: Based on the test data, your past energy usage, and your current rate of TOU-P-B-I, we estimate that you may save up to 75,945 kWh annually (which translates to a 33-ton decrease in CO<sub>2</sub> emissions). This may result in energy cost savings of \$6.210.05.
- Cash Incentive: Through the retrofit and installation of more energy-efficient equipment, you have the potential to receive
  an incentive of \$0.09 per kWh and \$100 per on-peak activity factored kW reduced, courtesy of SCE's Customized Efficiency
  Program. Based on your estimated kWh and kW, you would be eligible for a <u>Potential Cash Incentive of \$8.227.36</u>,
  capped at 50% of your project cost. (See contract for details.)

If you are interested in an incentive for this pump, please contact Caroline Lee at (760)951-3210 to complete a project application. All applicants must receive a written approval authorization before implementing any project; failure to comply will result in forfeiture of incentive funding.

We encourage you to review your results and take advantage of SCE's energy efficiency expertise and incentives. Visit www.sca.com/rebatesandsavings, or give us a call and let us know how we can be of further service to you.

Sincerely,

Southern California Edison



December 7, 2012

NICK VAN DAM 9753 EAST AVENUE F-8 LANCASTER, CA 93535

> PUMPING COST ANALYSIS, Plant: GROVEN WELL Location: 44770 95TH ST EAST

Cust#: 0-000-4753

HP:125

Meter: 3412M-1260 Serv. Acct. #: 037-0456-09

Pump Ref.#:

18545

The following energy efficiency analysis is presented as an aid to your cost accounting. This is an estimate based on the conditions present during the Edison pump test performed on December 5, 2012, billing history for the past 12 months, and your current rate of TOU-P-B-I.

Assuming that water requirements will be the same as for the past year, and all operating conditions (annual hours of operation, head above, and water pumping level) will remain the same as they were at the time of the pump test, it is estimated that:

Overall plant efficiency can be improved from 54.4% to 69.0%.

This can save you up to 75,945 kWh and \$6,210.05 annually.

These kWh savings translate to a 33-ton decrease in CO₂ emissions.

	Existing	Plant Efficiency Improved	<u>Savings</u>
Total kWh kW Input kWh per Acre Foot Acre Feet per Year	358,104 101.0 795 450.6	282,159 79.6 626	75,945 21,4 169
Average Cost per kWh Average Cost per Acre Foot Overall Plant Efficiency (%)	\$0.08 \$65.00 54.4	\$51,22 69.0	\$13.79
Total Annual Cost	\$29,282.16	\$23,072.11	\$6.210.05

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining-optimum pumping efficiency will be continued. If you have any questions regarding this report, please contact RICK KOCH at (805)654-7312.



December 7, 2012

NICK VAN DAM 9753 EAST AVENUE F-8 LANCASTER, CA 93535

Well

HYDRAULIC TEST RESULTS, Plant GROVEN WELL

Location: 44770 95TH ST EAST

HP: 125

Cust #: 0-000-4753

Serv. Acct. #:

037-0456-09

Meter: 3412M-1260

Pump Ref.#:

18545

In accordance with your request, an energy efficiency test was performed on your turbine well pump on December 5, 2012. If you have any questions regarding the results which follow, please contact RICK KOCH at (805)654-7312.

	Equipment		•
Pump:	PEERL	No:	NO PLATE
Motor:	N/A	No:	NO PLATE

#### Results

Discharge Pressure, PSI	49.2
Standing Water Level, Feet	271.5
Drawdown, Feet	
Discharge Head, Feet	37.4
Pumping Water Level, Feet	113.7
Fatal land F.	308.9
Total Head, Feet	422.6
Capacity, GPM	690
GPM per Foot Drawdown	18.4
Acre Feet Pumped in 24 Hours	3.050
kW Input to Motor	101.0
HP Input to Motor	
Motor Load (%)	135.4
	100.0
Measured Speed of Pump, RPM	1,785
kWh per Acre Foot	795
Overall Plant Efficiency (%)	54.4
the state of the s	- ,

Test #1 was performed with 5 lines open.