

**Cost of Ownership = Time Costs + Fuel Cost + Maintenance Cost + Capital Equipment**  
 Designed and copyright by Rod Ennor - Irrigation Warehouse Group Pty Ltd Phone 02 6732 6333  
 Based on a pump duty of 83.33 L/Min @ 28m of head OR daily duty of 50,000L @ 28m head

Petrol price per litre	<b>\$1.40</b>
Electricity per kW hour	<b>\$0.20</b>
Diesel price per litre	<b>\$1.40</b>
Time / labour cost per hour	<b>\$25.00</b>
Charge to run power to site and install transformer	<b>\$70,000.00</b>

	<b>Deep Well Injector 2.2 kW Mains power</b>	<b>Submersible 240v 0.75 kW Mains power</b>	<b>Grundfos Solar 16 x GF70 Tracking</b>	<b>Diesel Generator &amp; submersible pump 0.75 kW Pump</b>
<b>Fuel / Energy Costs</b>				
Operating hours per Day	<b>18</b>	<b>10</b>	<b>10</b>	<b>10</b>
Litres of fuel per hour				<b>1.85</b>
Motor kW per hour	<b>2.2</b>	<b>0.75</b>	0	
Fuel / Energy cost \$ per hour	\$0.44	\$0.15	0	\$2.59
Fuel / Energy cost:Day	\$7.92	\$1.50	\$0.00	\$25.90
Fuel / Energy cost:Year	\$2,890.80	\$547.50	\$0.00	\$9,453.50
<b>25-year fuel / energy cost</b>	<b>\$72,270.00</b>	<b>\$13,687.50</b>	<b>\$0.00</b>	<b>\$236,337.50</b>
<b>Operating Time start//fuel the unit/check</b>				
Hours per month	<b>2</b>	<b>1</b>	<b>1.5</b>	<b>15</b>
Hours per year	24	12	18	180
25-year operating hours	600	300	450	4500
<b>\$ Value of required time over 25 years</b>	<b>\$15,000.00</b>	<b>\$7,500.00</b>	<b>\$11,250.00</b>	<b>\$112,500.00</b>
<b>Maintenance Costs</b>				
Litres of oil per year	0	0	0	<b>52</b>
Oil filters per year	0	0	0	<b>6</b>
Value of oil and filters pa	0	\$0.00	\$0.00	\$370.00
25-year maintenance cost	\$0.00	\$0.00	\$0.00	\$9,250.00
<b>Total cost of energy &amp; operation over 25-years</b>	<b>\$87,270.00</b>	<b>\$21,187.50</b>	<b>\$11,250.00</b>	<b>\$358,087.50</b>
Meg pumped in 25-years	456.25	456.25	456.25	456.25
Cost per Megalitre	\$191.28	\$46.44	\$24.66	\$784.85
<b>Capital Equipment Costs</b>				
Initial capital equipment excludes installation	<b>\$2,500.00</b>	<b>\$3,500.00</b>	<b>\$36,000.00</b>	<b>\$10,500.00</b>
Replacement cap equipment over 25-years	<b>\$1,000.00</b>	<b>\$4,000.00</b>	<b>\$4,000.00</b>	<b>\$12,000.00</b>
Mains power transformer	\$70,000.00	\$70,000.00		
Solar Pumping Rebate			<b>\$9,100.00</b>	
<b>Total capital equipment costs</b>	<b>\$73,500.00</b>	<b>\$77,500.00</b>	<b>\$30,900.00</b>	<b>\$22,500.00</b>
Energy / Fuel	\$72,270.00	\$13,687.50	\$0.00	\$236,337.50
Time	\$15,000.00	\$7,500.00	\$11,250.00	\$112,500.00
Maintenance	\$0.00	\$0.00	\$0.00	\$9,250.00
Capital Equipment	\$73,500.00	\$77,500.00	\$30,900.00	\$22,500.00
<b>Total Costs 25-years</b>	<b>\$160,770.00</b>	<b>\$98,687.50</b>	<b>\$42,150.00</b>	<b>\$380,587.50</b>
<b>Cost per Meg all up</b>	<b>\$352.37</b>	<b>\$216.30</b>	<b>\$92.38</b>	<b>\$834.16</b>

The figures shown in this table are actuals worked out on a real project - "Branga Plains"

Electricity, petrol and diesel prices are calculated on the price today and not what they will be in 10-years

**The monthly lease payment for this solar system would have been approximately \$700-00 per month over 5 years**