## **Irrigation Pumping Energy Efficiency Assessment Tool**

**IPEEAT v2** ©

### **DISCOVER—YOUR SAVING**

**Case Study 1: Lateral Move** 

# **IPEEAT v2 CALCULATIONS**

### **ELECTRIC PUMPING**

IPEEAT @Rev 02

Input raw data into cells highlighted

Location: Turf Farm 1, Hawkesbury River, NSW

VARIABLES	Choice/Units	CP LM Boom	
Emitter type	CP/LM/Boom, Gun, Knocker/Rotor, Drip, Flood, Transfer, Marine		
Motor Type	Surface or Submersible	Surface ~	
If surface motor	Direct coupled or belt drive ##	Belt V	
If subby, configuration	Bore hole pump: Yes/No ###	no Y	
Filter	yes/no	no ~	
Layflat	yes/no	yes ~	
Residual Pressure*	kPa	150	
Static Head **	metres head	6	
Electricity tariff***	cents/kWh	24	
Water pumped****	ML/yr	140	
Actual Elect cost ****	\$\$/yr	12,800	
Actual Pumping cost	\$\$/ML	91.4	
Achievable Electric. cost	\$\$/yr	\$5,982	
Achievable Pumping cost	\$S/ML	42.7	
Potential Savings Elect	\$\$/yr	\$6,818	
Potential Savings Elect	%	53%	
NPV (whole years) #	10	\$70.226	



#### ACCURATELY MEASURED

Component.	Pump effy	Elevation (m)	Residual head (m)	Sum of head components	\$\$/ML annual pumping cost
Measured	65%	6m	15m	84m	\$91
Expected	75%	6m	15m	48m	\$45



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