Milestone 3.3 Attachment F

Provide evidence of energy efficiency (relationship between monitored irrigation/crop data and energy consumption)

This analysis considers direct cost and savings related to efficiency gains from the pumping drive unit and the input value of solar generation.

	Farm avaerage Growth cm	Estimated tc/ha/100cm	Estimated tc/ha	Area irrigated ha	Estimated tc/farm	Season crop water demand (mm)	Applied Irrigation (mm)	Irrigation as % of crop water demand
New pumping system	190	45	86	38.5	3311	938	90	9.6
Old pumping system	190	45	86	38.5	3311	938	90	9.6

	Total irrigation Hours	Total Motor kWh	Mains kWh	Average Mains kWh/hr	Solar kWh saving	Average Solar kWh/hr	VSD eff kWh saving	Average VSD kWh/hr	Ergon Tariff 20 $/kWh	Total cost Mains supply	Cost per tonne cane (tc)
New pumping system mains input	398	10003.0	4614	11.6					0.27718	$1,278.91	$0.39
New pumping system solar input					5398	13.6					$0.00
New pumping system VSD input							5519	13.8			$0.00
Old pumping system	398	15522.0	15522.0	39.0					0.27718	$4,302.39	$1.30