





Increase in gross energy export	MWh/Season								9,169.7
Energy sale prices	US\$/MW	80.00							
Gross revenue increase for higher energy export	US\$/season								733,577.1

SAVINGS IN MAINTENANCE COSTS									
				Qty	Cost/u	Cost	Qty	Cost/u	Cost
Average annual maintenance cost for each mill				6	120,000.00	720,000.00	2	120,000.00	240,000.00
Average annual maintenance cost for each mill transmission				6	25,000.00	150,000.00	2	25,000.00	50,000.00
Average annual maintenance cost for each mill drive				6	10,000.00	60,000.00	2	10,000.00	20,000.00
Average annual maintenance cost for each intermediate conveyer				5	15,000.00	75,000.00	2	15,000.00	30,000.00
Average annual maintenance cost for diffuser (Structure, coating, etc)				-	-	-	1	50,000.00	50,000.00
Average annual maintenance cost for diffuser chains				-	-	-	1	40,000.00	40,000.00
Average annual maintenance cost for conveyers				-	-	-	1	15,000.00	15,000.00
Average annual maintenance cost for lifting screws				-	-	-	6	1,500.00	9,000.00
Average annual maintenance cost for perforated plates				-	-	-	1	3,500.00	3,500.00
Average annual maintenance cost for dewatering roll				-	-	-	-	18,000.00	-
Average annual maintenance cost for pumps				5	1,000.00	5,000.00	15	1,000.00	15,000.00
Total						1,010,000.00			472,500.00
Reduction in annual maintenance costs									537,500.0

SAVINGS IN MANPOWER AND CONSUMABLES									
	# of shifts	Cost/hr, US\$		Qty	Day/year	Cost/year	Qty	Day/year	Cost/year
Maintenance personnel	1	12.00		15.00	90.00	129,600.00	6.00	90.00	51,840.00
Operating personnel per shift	3	12.00		6.00		345,600.00	3.00		172,800.00
Welder per shift	3	8.00		6.00		230,400.00	2.00		76,800.00
Lube oil						92,325.17			15,387.53
Electrode for mills						39,927.70			6,654.62
Electrode for knives and shredder						33,167.50			33,167.50
Total						871,020.36			356,649.64
Reduction in annual operation costs (labor and consumables)									514,370.7

<b>ANNUAL INCREASE IN GROSS REVENUES WITH DIFFUSER</b>									<b>4,067,308.81</b>
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**ECONOMY IN CAPITAL COST WHEN USING DIFFUSER IN A NEW INSTALLATION**

ECONOMY IN CAPITAL COSTS	MILL TANDEM 6 X MILLS 42" x 78"			DIFFUSER 10 M WIDE DIFFUSER			DIFFUSER VS. MILL TANDEM 3,238,000.00
	Qty	Cust/u	Cost	Qty	Cust/u	Cost	
Mill	6	850,000.00	5,100,000.00	2	950,000.00	1,900,000.00	
Mill transmission and couplings	6	400,000.00	2,400,000.00	2	400,000.00	800,000.00	
Sling type flexible coupling	6	60,000.00	360,000.00	2	60,000.00	120,000.00	
Electric motor	6	120,000.00	720,000.00	2	120,000.00	240,000.00	
Drive	6	300,000.00	1,800,000.00	2	300,000.00	600,000.00	
Isolating transformer	6	120,000.00	720,000.00	2	120,000.00	240,000.00	
Intermediate conveyer	5	160,000.00	800,000.00	2	160,000.00	320,000.00	
Juice tray	6	15,000.00	90,000.00	2	15,000.00	30,000.00	
Imbibition pump	15	15,000.00	225,000.00	11	15,000.00	165,000.00	
Mill oil lube systems	6	13,000.00	78,000.00	2	13,000.00	26,000.00	
Centralized hydraulic system	1	60,000.00	60,000.00	1	25,000.00	25,000.00	
Centralized mill grease lube system	1	40,000.00	40,000.00	1	20,000.00	20,000.00	
Diffuser (including drive, pumps and conveyers)				1	8,900,000.00	8,900,000.00	
Press water tank				1	15,000.00	15,000.00	
Press water pump				2	11,000.00	22,000.00	
Juice clarification system	1	2,800,000.00	2,800,000.00	1	1,876,000.00	1,876,000.00	
Mill tandem building	1	1,440,000.00	1,440,000.00				
Overhead crane	1	160,000.00					
Sub total		US\$				16,633,000.00	15,299,000.00
Weight for transportation		ton				2,300.00	1,600.00
Civil works	1.6	m3/t @ US\$/t	450.00			1,656,000.00	1,152,000.00
Installation works	2.0	US\$/kg				4,600,000.00	3,200,000.00
Total		US\$				22,889,000.00	19,651,000.00

(1) Common elements to both scenarios, with identical cost and/or power consumption are not taken into account (ex.: feed table, cane conveyers, magnet etc.)