2024 Invest in Energy-Saving or Environmentally Sustainable Machinery and Equipment

Measures	Amount of Investment	Amount of Saved Electricity (kWh)	Amount of Saved Energy (GJ)	Carbon Reduction Volume (tCO_2e/year)
Reuse of steam condensate waste heat water from T814	95,450	3,564	13	1.69
Reduction of sulfuric acid and filtered water consumption through scrubber tower optimization	0	642	2	0.30
Installation of overflow piping for the 4th-floor cooling tower	6,500	4,537	16	2.15
Enhancing TEA (Triethanolamine) recovery efficiency to reduce energy loss	47,000	27,098	98	12.84
Automatic start-stop control of the BR refrigerant pump based on temperature settings	54,300	12,640	46	5.99
Temperature-based automatic start-stop control of the refrigerant oil circulation pump	34,600	4,191	15	1.99
Replace the cooling tower fan blades	520,000	83,192	300	39.43
Replacement of the cooling tower variable frequency drive (VFD) control system	35,000	1,529	6	0.72
Replacement of energy-saving lamps	11,610	4,316	16	2.05
Brine circulation (15HP)	0	2,014	7	0.95
Installation of a 150HP variable frequency drive (VFD) air compressor to reduce the startup frequency of the 250HP air compressor	5,300,000	24,423	88	11.58
Recycling and utilization of B2 groundwater	30,000	9,072	33	4.30
Replacement of the aeration blower for the wastewater treatment tank	550,000	20,741	75	9.83
Replacement of the air compressor with a high-efficiency model	1,580,000	140,483	506	66.59
Reduction of low-pressure air supply for the blow molding machine	10,588	61,833	223	29.31
Optimization of crusher operating time	100,000	52,800	190	25.03
Replacement of the extrusion machine drive motor with a magnetic AC motor	183,750	54,675	197	25.92
Total	8,558,798	507,750	1,831	240.67