JUNIOR INDUSTRY DEFINED PROBLEM

A problem that most Refineries are facing currently are related to estimating and reducing its Carbon Foot Print, due to the impact of Global Warming.

The table given below contains data of the Crude processed, Fuel burnt, and Electricity from GRID:

Description	**MT**				
Crude processed	**1057547**	**697792**	**858834**	**1428430**	**1176617**
	Fuel Burnt (in MT)				
	Apr-19	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**
LGO/LDO	939	266	3687	367	935
Fuel Gas	28376	10233	15778	40568	27766
Liquified Petroleum Gas (LPG)	2692	1625	2941	1589	3290
Coke	3950	0	1494	11985	8281
Naphtha	2968	0	2139	2623	0
LSFO	47116	33513	44599	54332	51133
LCO	1594	0	0	4576	4510
Purge Gas (From HGUs)	17564	9271	15669	24518	17348
VGO	72	0	142	390	264
Off gas	994	623	779	1361	1122
Electricity from GRID (in MWh)	913	2570	1267	2607	1907

1. Calculate the Carbon Foot Print of the Refinery (MT of CO_2 released for MT of Crude processed).
2. Understand SCOPE-1 & SCOPE-2 emissions and give the split of the emissions.
3. In lieu of global warming, propose alternatives to decrease carbon foot print or any technology for the refinery.