

MODULE		ENERGY						
SUBMODULE		SO ₂ From Fuel Combustion By Source Categories(Tier 1)						
WORKSHEET		1_4						
SHEET		1 of 1 Sector						
Manufacturing industries and construction		A Fuel Consumption (Tj)	B Sulphur Content of Fuel (%)	C Sulphur retention in ash (%)	D Abatement Efficiency (%)	E Net Calorific Value (Tj/kt)	F SO2 Emission factor (Kg/Tj)	G Emissions (t)
Fuel Type							$F=2*(B/100)^{(1/E)*}$ (10)	$G=(A*F)/1000$
Coal	low							
	medium	5040	1.5	5	1	28	1007.67857	5078.7
	high							
Heavy Fuel Oil	low							
	medium	11532.279	2	1	1	40.19	975.466534	11249.3522
	high							
Light Fuel	low							
	diesel	18433.6219	1	1	1	43.33	452.388645	8339.16124
	Diesel(road)		0.3	1	1	43.33	135.716594	
	Gasoline(road)		0.1	1	1	44.8	43.7544643	
	Jet Kerosene		0.05	1	1	44.59	21.9802646	
	Oil Shale							
	Other Oil							
	Natural Gas							
	Municipal Waste	64.995	0.003	1	1	43.33	1.35716594	0.088209
	Industrial Waste							
	Black Liquor							
	Fuelwood		0.2	1	1	15	261.36	
	Other Biomass		1.5	1	1	30	980.1	
	Total	35070.8959						24667.3017
	Memo: Fuels for International Marine Bunkers							
	Memo: Fuels for International Aviation Bunkers		0.05	1	1			