

**Key Points :**

**Reducing Gas Flaring and Fugitive Emissions and  
Potential for Bringing Wasted Gas to Market**

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# GHG Emission Source Pertamina, 2010

Source :  
154 flare stacks from EP Field, Pertagas,  
Refinery activities (41,856 MMSCFD)

No.	Emission Sources	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	VOC	TOC	Total GHG emission (ton/yr)	%
1	Suar Bakar (Flaring)	4,294,222.59	217,798.44	755.80	4,020.28	-	9,113,099.42	36.58%
2	Pembakaran dalam dan luar	6,965,980.32	4,384.46	620.07	338,014.00	-	8,155,309.60	32.73%
3	Fugitive Emission	1,554.69	183,272.57	-	-	7.18	4,160,290.15	16.70%
4	Tangki Timbun	-	25,272.26	-	95,346.88	-	830,194.57	3.33%
5	Fluidized Catalytic Cracking	810,414.81	0.23	-	-	-	810,419.64	3.25%
6	CO <sub>2</sub> Removal	706,654.36	-	-	-	-	706,654.36	2.84%
7	Residual Catalytic Cracking	503,757.65	-	-	-	-	503,757.65	2.02%
8	Loading Truck/Rail/Marine	-	938.31	-	106,779.93	3,117.44	365,631.53	1.47%
9	Glycol Dehydrator	628.76	7,496.88	-	-	-	158,063.17	0.63%
10	Waste Water Treatment	0.00	535.63	4.64	33,121.60	-	112,386.77	0.45%
11	Unit Penangkap Sulfur	142.85	-	0.00	-	-	142.98	0.00%
12	Insinerator Gas Kecut	-	0.00221	-	-	-	0.06	0.00%
	<b>TOTAL</b>	<b>13,283,356.04</b>	<b>439,698.78</b>	<b>1,380.51</b>	<b>577,282.69</b>	<b>3,124.61</b>	<b>24,915,967.01</b>	<b>100%</b>

# Pertamina has implemented several ways to avoid flaring by using wasted gas

Flare gas utilizations :

1. To substitute diesel fuel consumptions for power generation :

- o Field Prabumulih (13.42 MMSFD).
- o Field Tambun (9 MMSCFD)
- o Field Subang (3 MMSCFD)
- o Field Jambi (0.4 MSCFD),
- o Field Tanjung (0.4 MMSFD)

It is economically justified as well as environmentally sound.

2. To be used as LPG Plant feed stock :

1. RU IV Cilacap (100 ton/hr), RU II Dumai (110 ton/hr), Field Tambun (14 MMSCFD)
2. Field Mudi PPEJ (6 MMSCFD) is planned to start up in 2012

In additions to the above, currently flare gas is being studied for CCS (collaboration with Lemigas)

## Barriers to flare gas utilization

1. Most of the fields are situated far away from the market, in remote areas, mainly onshore.
2. Most of the recovery of associated gas projects requires investment (gas gathering system, compressor, piping)
3. The price of fuel oil is subsidized, giving it a low price and making it difficult for gas to compete with it.
4. There is still no incentive for zero flaring implementation in Indonesia

## Recommendations :

1. The government must show support by confirming regulations and the rules to :
  - Encourages companies to limit unnecessary waste from flaring and to encourage associated gas utilization, as well as to provide incentives for decreasing flare gas.
  - Attract new private direct investment and better energy mix combination.
2. The government should also consider to reduce fuel gasoline subsidize so the flare gas in remote area will become competitive.
3. The Industry may get the Carbon Credit through CDM by engaging international bodies to enhance access to external financing.
4. Provide incentive to install low pressure compression systems to enable flare gas to deliver to local community (ex. Field Prabumulih flare gas)

Thank You