



In the Name of God

Iranian Fuel Conservation Company

Energy Saving Potential in Oil & Gas process Plants
(Oil Refineries, Gas Processing Plants, Petrochemical Complexes)



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Oil Refineries

No.	Refineries Name	Location	Design Capacity* (bbl/day)	Production Capacity* (bbl/day)	Fuel Consumption (MBOE)	Fuel Saving Potential (MBOE)	Fuel Saving (MNm3/year)
1	Abadan	South of Iran	350000	402000		2.6	390.3
2	Esfahan	Centre of Iran	200000	378000		2.07	339.5
3	Shazand	Centre of Iran	150000	243000		1.76	310.8
4	Kermanshah	West of Iran	25000	21000		0.18	26.9
5	Tabriz	West North of Iran	110000	115000		0.65	106.3
6	Tehran	Centre of Iran	220000	249000		1.7	278.9
7	Shiraz	Centre of Iran	40000	59000		0.5	86.9
8	Lavan	South of Iran	20000	61000		0.18	29.3
9	BandarAbbas	South of Iran	232000	331000		1.2	204
Total			1347000	1859000	19.35	10.84	1772.9

* Capacities are for year 2013





Oil Refineries key energy saving projects

1. Energy Management
2. Improve Metering
3. Reduce O₂ Levels
4. APH (Air Pre Heater)
5. WHB (Waste Heat Boiler)
6. Heat Integration
7. Steam Trap Maintenance
8. Utility System Optimization
9. Turbine
10. New Cogeneration
11. CHP



Gas Processing Plants

No.	Gas Refineries name	Location	Design Capacity in 2013 (MMSCM/D)	Fuel Consumption (MMSCM/Y)	Fuel Saving (MMSCM/Y)
1	Fajr-e-Jam	South of Iran	85.43	58.13	37
2	Hasheminejad	East North of Iran	37.17	470.9	22
3	Bidboland(1)	West South of Iran	10.31*	88.03	
4	Masjed Soleiman	West South of Iran	0.29		
5	Sarkhoon& Gheshm	South of Iran	10.96	36.2	
6	Southern Pars	South of Iran	182.69	2615.16	296**
7	Parsian(1,2)	Centre of Iran	64.98	114.06	
8	Eilam	West of Iran	3.73	93.29	

*10.31 MMSCM/D production just for phase 6&7&8 south Pars+ 11.27MMSCM/D Lean Gas production from NGL1600

** just for phases: 2&3 and 4&5



Gas Processing Plants key energy saving projects

1. Heat Recovery (CHP) – Power Generation
2. Heat Recovery (CHP) – Export Gas Compression
3. Energy/Operation Management System
4. Heat Recovery (Economizer)





Petrochemical Complexes

► **Total number: 51**

Location

Region	No.	Capacity (million/tons per year)
Mahshahr	21	25.6
Assaluyeh	13	24.9
Other regions	17	9.1

- Total output capacity 59.7 million/tons per year
- Including Bandar Imam 3rd NF 62.4 million/tons per year
- Total NO. of Mahshahr & Assaluyeh Complexes include Fajr & Mobin Petrochemical Companies.

Feed and fuel consumption in Petrochemical plants in Iran (Mboe), 2011-2013

	2011	2012	2013
Fuel	51.29	51.44	52.49
Feed	150.1	156.86	154.64
Total	201.39	208.3	207.13





Expected Energy Saving Potential in Some Plants

Expected Percentage Reduction in Energy Consumption

