Essar Oil Limited

18th Annual Report 2007 - 2008

BOARD OF DIRECTORS (As on 31st July, 2008)

Shashi Ruia	*Chairman*
Ravi Ruia	*Vice Chairman*
Prashant Ruia	
Anshuman Ruia	
Naresh K. Nayyar	*Managing Director*
Suresh Mathur	*Wholetime Director*
Dilip J. Thakkar	
K. N. Venkatasubramanian	
Dr. G. Goswami	*Nominee of IDBI Ltd.*
N.S. Kannan	*Nominee of ICICI Bank Ltd.*
Sanjeev Ghai	*Nominee of IFCI Ltd.*
V K Sinha	*Nominee of LIC of India*

COMPANY SECRETARY

Sheikh S Shaffi

BANKERS

ICICI Bank Ltd.
State Bank of India
IDBI Bank Ltd.
Punjab National Bank
Axis Bank
Indian Bank
Allahabad Bank
State Bank of Saurashtra
Indian Overseas Bank
HDFC Bank Ltd.
Oriental Bank of Commerce
State Bank of Patiala
Bank of Baroda
Central Bank of India
Syndicate Bank

AUDITORS

M/s. Deloitte Haskins & Sells, Mumbai

REGISTERED OFFICE

Khambhalia Post, Post Box No. 24
Dist. Jamnagar - 361 305, Gujarat
Tel.: 91-2833 - 241444
Fax: 91-2833-241616 / 241414
Email: eolinvestors@essar.com

CORPORATE OFFICE

Essar House
Post Box No. 7945
11, Keshavrao Khadye Marg,
Mahalaxmi, Mumbai - 400 034
Tel. : 91-22-66601100
Fax : 91-22-23544281 / 23540450
Website : http://www.essar.com

TRANSFER AGENTS

M/s. Sharepro Services (India) Pvt. Ltd.
Unit: Essar Oil Limited
Satam Estate, 3rd Floor
Above Bank of Baroda
Cardinal Gracious Road
Chakala, Andheri (East)
Mumbai - 400 099
Tel.: 91-22-67720300 / 67720355 / 28215168
Fax: 91-22-28375646
Email: sharepro@shareproservices.com
Website:http://www.shareproservices.com

SHARES LISTED AT

Bombay Stock Exchange Ltd.	1st Floor, Rotunda Bldg., P.J. Towers, Dalal Street, Mumbai - 400 023
National Stock Exchange of India Ltd.	Exchange Plaza, 5th Floor, Plot No. C/1, G Block, Bandra-Kurla Complex, Bandra (E), Mumbai - 400 051

NOTICE

NOTICE is hereby given that the **Eighteenth Annual General Meeting** of the members of **ESSAR OIL LIMITED** will be held at the Registered Office of the Company at Khambhalia Post, (40th Km. stone on Jamnagar-Okha Highway) Dist. Jamnagar - 361305, Gujarat on Saturday, the **27th September, 2008** at **2:30 p.m.** to transact, with or without modifications, as may be permissible, the following business:

ORDINARY BUSINESS:

1. To receive, consider, approve and adopt the Balance Sheet as at 31st March, 2008, the Statement of Profit & Loss for the financial year ended on that date and the reports of the Board of Directors and Auditors thereon.

2. To appoint a Director in place of Shri Prashant S Ruia who retires from office by rotation and being eligible, offers himself for reappointment.

3. To appoint a Director in place of Shri Anshuman S Ruia who retires from office by rotation and being eligible offers himself for reappointment.

4. To appoint a Director in place of Shri K N Venkatasubramanian who retires from office by rotation and being eligible offers himself for reappointment.

5. To appoint M/s. Deloitte Haskins & Sells, Chartered Accountants, Mumbai, as Auditors to hold office from the conclusion of this Annual General Meeting until the conclusion of the next Annual General Meeting and to authorise the Board of Directors to fix their remuneration.

SPECIAL BUSINESS:

6. To consider and if thought fit to pass the following resolution as an Ordinary Resolution:

   "RESOLVED THAT pursuant to the provisions of section 293(1)(a) and all other applicable provisions, if any, of the Companies Act, 1956 and in partial modification of the earlier resolutions passed on 4th October, 1994, 2nd July, 1998, 17th September, 2003, 29th September, 2007 and 28th February, 2008 consent of the Company be and is hereby accorded to the Board of Directors of the Company (hereinafter referred to as "the Board", which term shall include any committee constituted / to be constituted by the Board or any person(s) authorised by the Board to exercise the powers conferred on the Board by this Resolution) for creating mortgages and/ or charges, hypothecation, pledge and/or any other encumbrances on such terms and conditions and at such time(s) and in such form and manner as the Board may determine on all or any of the movable and/or immovable properties of the Company, wheresoever situated, both present and future or the whole or substantially the whole of any one or more of the Company's undertaking(s) in favour of all or any of the financial institutions, banks, lenders, financiers, trustees, investing agencies, bodies corporate, corporations, foreign institutional investors, any other person(s)/entities, or any combination of the above to secure rupee loans, foreign currency loans, debentures, bonds, securities, convertible loans, fully / partly paid convertible / non-convertible bonds, financial assistances / any borrowings or any other Securities / instruments (by private placement basis or otherwise) of an equivalent aggregate amount not exceeding Rs.20,000 Crore (Rupees Twenty Thousand crore only) in Indian Rupees and/or in equivalent Foreign Currency together with interest thereon at the respective agreed rates, compound interest, additional interest, liquidated damages, commitment charges, premia on pre-payment or on redemption, Debentures / Security Trustee remuneration, costs, charges, expenses and all other monies payable by subsidiaries of the Company, both present and future, to the aforesaid parties or any of them under the agreements entered into / to be entered into by the subsidiaries in respect of the said loans, debentures, bonds, financial assistances, borrowings and/or other instruments."

   "RESOLVED FURTHER THAT the mortgages and/ or charges, hypothecation, pledge and/or any other encumbrances to be created by the Company as aforesaid may rank pari passu with the mortgages and/or charges, hypothecation, pledge and/or any other encumbrances already created and/or to be created in future by the Company or in such other manner and ranking as may be thought expedient by the Board of Directors and as may be agreed to between the concerned parties."

   "RESOLVED FURTHER THAT the Board be and is hereby authorised to finalise with any or all of the aforesaid parties, the documents, agreements, undertakings, bonds and writings for creating the mortgages / charges / hypothecation / pledge and/or any other encumbrances and accepting or making any alterations, changes, variations to or in the terms and conditions, and to do all such acts, deeds, matters and things and to execute all such documents, agreements, undertakings, bonds and writings as it may consider necessary, proper, desirable, appropriate or expedient for the purpose of giving effect to this resolution and to resolve any question, query, doubt or difficulty relating thereto or otherwise considered by the Board to be in the best interest of the Company."

By Order of the Board of Directors

Mumbai
31st July, 2008

SHEIKH S. SHAFFI
Company Secretary

Registered Office:
Khambhalia Post, P. O. Box 24,
Dist. Jamnagar-361 305, Gujarat

NOTES:

1. **A member entitled to attend and vote at the meeting is entitled to appoint a proxy to attend and vote instead of himself and the proxy need not be a member of the Company. The proxy, in order to be effective, must be deposited at the Registered Office of the Company not less than 48 hours before the commencement of the meeting, i.e. before 2:30 p.m. of 25th September, 2008.**

2. The Register of Members and Share Transfer Books of the Company will remain closed from Thursday, the 25th day of September, 2008 to Saturday, the 27th day of September, 2008 (both days inclusive).

3. All documents referred to in the accompanying Notice are open for inspection at the Registered Office of the Company on all working days, except Saturdays, Sundays and Bank holidays, between 11:00 a.m. and 1:00 p.m. upto the date of the Annual General Meeting.

4. Members / proxies should bring the attendance slip duly filled in for attending the meeting.

5. Members desiring any information with regard to Accounts/ Reports are requested to write to the Company at least ten days before the date of the meeting, so as to enable the management to keep the information ready.

6. Directors retiring by rotation:

   Shri Prashant Ruia, is a young and dynamic industrialist who is Director on Board of the major companies in the Essar Group. He is responsible for overall management and operations of group companies especially the flagship businesses of steel and oil & gas.

   Shri Prashant Ruia was responsible for integrating the operations of steel business and making it internationally competitive. He was instrumental in setting-up Essar's first steel manufacturing facility outside India. Building the 10.5 MMTPA refinery at District Jamnagar, Gujarat and associated port, power and related infrastructure have been his other major achievements.

   He is a Director on the Board of International Iron and Steel Institute, member on the Board of Trade of the Ministry of Commerce & Industry, Government of India, member on the Board of Steel Committee of CII and an active member of Young Presidents' Organisation, Mumbai Chapter.

   The other companies in which Shri Prashant Ruia is a Director are: Essar Bulk Terminal Ltd., Essar Power Ltd., Essar Steel Ltd., Essar Steel Orissa Ltd., Hazira Pipe Mill Ltd., Hazira Plate Ltd., Kama Jewellery (India) Ltd., Vadinar Oil Terminal Ltd., Vadinar Properties Ltd, Essar Capital Ltd. and Vodafone Essar Ltd. He is a member of the Audit & Governance Committee, Investors' Relations Committee, Banking & Finance Committee and Monitoring Committee of the Board.

   He does not hold any shares in the Company. Shri Prashant Ruia retires by rotation at the Annual General Meeting and offers himself for reappointment.

   Shri Anshuman Ruia is a Director on the Board of the major companies of the Essar Group. Shri Anshuman Ruia has over a decade's experience covering the Group's major businesses. He currently looks after Essar's Shipping & Logistics, Telecommunication and Power businesses. He is responsible for the expansion and diversification of the Power business into new renewable energy resources and its entry into transmission and distribution segment. He is also involved in new business ventures of the Group in India and overseas.

   Shri Anshuman Ruia is a member of Young Presidents' Organisation, a connoisseur of music and a keen Table Tennis player.

   The other companies in which Shri Anshuman Ruia is a Director are: Aegis BPO Services Ltd., Essar Bulk Terminal Ltd., Essar Power Ltd., Essar Shipping Ports & Logistics Ltd., India Securities Ltd., Vadinar Oil Terminal Ltd., Vadinar Power Company Ltd, Essar Capital Ltd., Essar Capital Finance Pvt. Ltd. and Vodafone Essar Ltd.

   He does not hold any shares in the Company. Shri Anshuman Ruia retires by rotation at the Annual General Meeting and offers himself for reappointment.

   Shri K N Venkatasubramanian is a Chemical Engineer and an M.Tech from IIT, Kharagpur. Having gained rich experience in the petroleum sector with major International Oil Companies, he has served as Director - Marketing and Director - Operations of IPCL, Chairman and Managing Director of Engineers India Ltd., Chairman & Managing Director of Indian Oil Corporation and as Chairman of Gulf Oil Ltd. The other companies in which Shri K N Venkatasubramanian is a Director are: E-Cube India Solutions Ltd., Gulf Carrosserie India Ltd., Imperial Corporate Finance & Services Pvt. Ltd., Mundra Port & SEZ Ltd., Meghmani Organics Ltd., Time Technoplast Ltd., Rajula Ltd., Royal Chemie Corporation Ltd. and Savi Investments Ltd. He is a member of the Audit & Governance Committee, Committee of Directors (Capital Issues) and Monitoring Committee of the Board.

   He holds 8000 shares in the Company. Shri K N Venkatasubramanian retires by rotation at the Annual General Meeting and offers himself for reappointment.

7. The Explanatory Statement pursuant to section 173(2) of the Companies Act, 1956 relating to the Special Business to be transacted at the meeting is annexed.

ANNEXURE TO NOTICE

Explanatory Statement pursuant to section 173(2) of the Companies Act, 1956 setting out all material facts relating to special business mentioned in accompanying Notice dated 31st July, 2008.

Item No. 6

Presently, the Board of Directors can create security in the form of mortgages and/or charges, hypothecation, pledge or any other encumbrances on the assets of the Company upto Rs.30,000 crore to secure financial assistances availed/to be availed by the Company.

The Company is in the process of expanding the refining capacity at Jamnagar from 10.5 MMTPA to 34 MMTPA by enhancing the capacity of the existing refinery to 16 MMTPA and setting-up a refinery of 18 MMTPA through its wholly owned subsidiary, Essar Oil Vadinar Limited (EOVL). The EOVL project is being implemented at a cost of US $4180 million. The Company and EOVL are raising funds for implementation of the Projects. In addition, the Company has decided to consolidate the upstream Exploration & Production activities under a subsidiary. The lenders to the subsidiaries under which the Company will be implementing various projects may require security over assets of the holding company.

In terms of section 293(1)(a) of the Companies Act, 1956, the members' approval is required to create mortgages and/or charges, hypothecation, pledge or any other encumbrances on the assets of the Company. Accordingly, it is proposed to obtain enabling approval of the shareholders to create security over assets of the Company in favour of lenders to subsidiary companies. This resolution will enable the Company to create security in respect of borrowings of the subsidiaries for an amount not exceeding Rs.20,000 Crore.

The Directors accordingly recommend resolutions at item No.6 to the accompanying Notice for your approval.

Shri Naresh Nayyar is on the Board of EOVL. Except for what is stated above, none of the Directors of the Company, is in any way, concerned or interested in the resolution.

By Order of the Board of Directors

Mumbai
31st July, 2008

SHEIKH S. SHAFFI
Company Secretary

Registered Office:
Khambhalia Post, P. O. Box 24
Dist. Jamnagar-361 305, Gujarat

DIRECTORS' REPORT

To the Members of Essar Oil Limited

Your Directors have pleasure in presenting the Eighteenth Annual Report together with the audited accounts of the Company for the financial year ended March 31, 2008.

FINANCIAL RESULTS

Rs. in Crore

	2007-2008	2006-2007
Total Income	576.78	484.37
Profit / (Loss) before Depreciation and Tax	(41.54)	(50.04)
Less: Depreciation/ Amortisation	2.53	4.51
Profit / (Loss) before Taxes	(44.07)	(54.55)
Less: Provision for Income Tax / Foreign Tax/ Deferred Tax Liability / Fringe Benefit Tax	(2.89)	12.94
Net Profit / (Loss) after tax	(41.18)	(67.49)
Add: Balance brought forward from previous year	(20.27)	7.71
Add: Transfer from Foreign Project Reserve	10.00	39.51
Total amount available for appropriations	(51.45)	(20.27)
Less: Appropriations		
(a) Foreign Projects Reserve	--	--
(b) Debenture Redemption Reserve	--	--
(c) Transfer to General Reserve	--	--
(d) Proposed Dividend	--	--
Balance to be carried to Balance Sheet	(51.45)	(20.27)

REFINERY COMMERCIAL PRODUCTION

It is indeed a pleasure to inform you that your Company's Refinery at Jamnagar has commenced commercial production effective 1st May, 2008. Information on operational and financial performance, etc. of the Company for the financial year is given in the Management Discussion and Analysis which is setout as Annexure B to the Directors' Report and has been prepared in compliance with the terms of clause 49 of the listing agreement with Stock Exchanges.

SHARE CAPITAL

During the year, the Company allotted 34,227,018 equity shares of Rs.10/- each to the overseas depository for Global Depository Shares (GDSs) on allotment of GDSs aggregating to US$170.787 million to Promoters on preferential issue basis.

Post Balance Sheet date, the Company further allotted 27,771,948 equity shares of Rs.10/- each on allotment of second tranche of GDSs aggregating to US$129.418 million to Promoters on preferential issue basis.

The funds have been raised pursuant to approval granted by the shareholders at the Extraordinary General Meeting held on 18th December, 2007 for expansion of oil refining capacity at Vadinar, District Jamnagar.

DIRECTORS

Shri Naresh K Nayyar was appointed as Managing Director effective 15th October, 2007. Shri Prashant S Ruia, Shri Anshuman S Ruia and Shri K N Venkatasubramanian retire by rotation at the ensuing Annual General Meeting and offer themselves for re-appointment. Brief resume of the directors seeking reappointment, together with the nature of their expertise in specific functional areas and the names of the companies in which they hold directorships and membership of committees of the Board, as stipulated under clause 49 of the listing agreement with the Stock Exchanges are given in Notice convening the ensuing 18th Annual General Meeting, forming part of the Annual Report.

Shri Awadesh N Sinha, resigned from the Board on 31st July, 2008. The Board wishes to place on record its appreciation for the guidance and valuable services rendered by Shri Awadesh N Sinha during his tenure as member of the Board.

DIRECTORS' RESPONSIBILITY STATEMENT

Pursuant to the provisions of section 217(2AA) of the Companies Act, 1956, it is hereby confirmed:

(i) that in the preparation of the accounts for the financial year ended 31st March, 2008, the applicable accounting standards have been followed along with proper explanation relating to material departures;

(ii) that the Directors have selected such accounting policies and applied them consistently and made judgements and estimates that were reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profit of the Company for that period;

(iii) that the Directors have taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities; and

(iv) that the Directors have prepared the accounts for the financial year ended 31st March, 2008 on a 'going concern' basis.

CORPORATE GOVERNANCE

In terms of clause 49 of Listing Agreement with the Stock Exchanges, a certificate from Auditors of the Company on compliance of conditions of Corporate Governance is annexed to the Directors' Report as Annexure C. A report on Corporate Governance as provided in clause 49 of the Listing Agreement is included in the Annual Report.

PARTICULARS OF EMPLOYEES

Information as per section 217(2A) of the Companies Act, 1956 read with the Companies (Particulars of Employees) Rules, 1975, as amended, is given in the Annexure forming part of this Report. However, as per the provisions of section 219(1)(b)(iv) of the said Act, the Report and Accounts are being sent to all shareholders of the Company excluding the statement of particulars of employees u/s 217(2A) of the said Act. Any shareholder interested in obtaining a copy of this statement may write to the Company Secretary, for the same, at the Registered Office of the Company.

ENERGY, TECHNOLOGY ABSORPTION AND FOREIGN EXCHANGE

The particulars as prescribed under section 217(1)(e) of the Act read with the Companies (Disclosures of Particulars in the Report of Board of Directors) Rules, 1988 are setout in Annexure A to this Report.

FIXED DEPOSITS AND DEBENTURES

Your Company has not accepted any deposits from public under section 58A of the Companies Act, 1956 during the financial year under report.

During the financial year the Company repaid Rs.63.06 crore to the debenture holders as per the terms of repayment under schemes of arrangement / compromise with the debenture holders.

SUBSIDIARY COMPANIES

During the financial year, Essar Oil Vadinar Limited and Essar Energy Overseas Limited have become subsidiaries of the Company apart from the existing subsidiary, Vadinar Power Company Limited.

The Central Government has granted exemption from attaching the Balance Sheet, etc. of the subsidiaries to the Annual Report of the Company pursuant to section 212, of the Companies Act, 1956. Accordingly, the said documents of the subsidiary companies are not being attached to the Annual Report. Financial information of the subsidiary companies, as required by the order, is disclosed in the Annual Report. The Annual Accounts of the subsidiary companies will be made available upon request by any of the investors. These documents will also be available for inspection during business hours at the Registered Office of the Company and that of the subsidiary companies.

CONSOLIDATED FINANCIAL STATEMENTS

The Consolidated Financial Statements of the Company and its subsidiaries, prepared in accordance with Accounting Standard AS-21 on Consolidated Financial Statements form part of the Annual Report.

AUDITORS AND AUDITORS' REPORT

M/s. Deloitte Haskins & Sells, Chartered Accountants, Mumbai, Auditors of the Company hold office until the conclusion of the ensuing Annual General Meeting.

M/s. Deloitte Haskins & Sells, Chartered Accountants, Mumbai, have informed the Company that, if appointed, their appointment will be within the limits prescribed under section 224(1B) of the Companies Act, 1956. Accordingly, the members' approval is being sought to their appointment as the Auditors of the Company at the ensuing Annual General Meeting.

The observations of the Auditors in the Audit Report are explained wherever necessary in the appropriate notes to accounts and are self explanatory.

ACKNOWLEDGEMENT

The Board wishes to express appreciation and place on record its gratitude for the faith reposed in and co-operation extended to the Company by the Government of India, State Governments, various Government Agencies / Departments, Financial Institutions, Banks, Customers, Suppliers and Investors of the Company. Your Directors place on record their appreciation of the dedicated and sincere services rendered by the employees of the Company.

For and on behalf of the Board of Directors

Mumbai
31st July, 2008

S N RUIA
Chairman

Annexure A to the Directors' Report

STATEMENT OF PARTICULARS UNDER THE COMPANIES (DISCLOSURE OF PARTICULARS IN THE REPORT OF BOARD OF DIRECTORS) RULES, 1988

A. CONSERVATION OF ENERGY

a) Energy Conservation measures taken: -

The energy conservation measures taken by the Company during the year include –

i. Fuel conservation measures at the Refinery were taken in the initial stage itself which included use of Vacuum Hydro-circulating system in the Dryer of DHDS which was started up during the year. Fuel & loss during the year 2007-2008 was 7.02%. A team closely monitors and works towards improvement of energy performance across the Refinery. The Refinery has received 2nd prize under Furnace / Boiler Insulation Effectiveness category of Oil & Gas Conservation Fortnight (OGCF) Awards-2008 of Ministry of Petroleum & Natural Gas.

ii. In the Development block at Mehsana initiatives were taken to reuse produced gas for heating crude oil to aid water separation. A small flare is also maintained for safety reasons.

b) Additional Investments and Proposals, if any, being implemented for energy conservation:

i. In the Refinery, in 2008-2009, post commencement of commercial production and operations of all units at full capacity, a study will be initiated through an external expert agency for steam trap survey and condensate recovery system review. This will help in improving energy conservation further by reducing steam/condensate loss.

ii. In the development field at Mehsana studies are being planned based on further field development.

c) Impact of the measures at (a) and (b) above for reduction of energy consumption and consequent Impact on the cost of production of goods:

i. These measures are likely to reduce the losses resulting in marginal reduction in cost of production.

ii. In the development field at Mehsana the above measure has resulted in lowering green house gases by way of flare reduction and ease in oil - water separation.

d) Total energy consumption and energy consumption per unit of production as per Form 'A' is attached hereto:

FORM A

		2007-2008 *	2006-2007 *
A)	**Power and Fuel Consumption:**		
1	**Electricity**		
	(a) Purchased		
	Unit ('000 KWH)	15,427.00	27,122.00
	Rate /Unit (including minimum demand charge)	9.83	6.99
	Total Amount (Rs in Lakh)	1,516.00	1,896.00
	(b) Own Generation		
	(i) Through Diesel Generator	N.A.	N.A.
	Unit ('000 KWH)		
	KWH per litre of diesel oil		
	Cost / Unit (Rs./KWH)		
	(ii) Through Steam Turbine/Generator		
	Unit ('000 KWH)	278,359.00	72,326.00
	KWH per litre of Fuel Oil/Gas	3.68	1.24
	Cost / Unit (Rs./KWH)	7.96	4.86
	(c) Electricity Consumed		
	(a+b) ('000 KWH)	293,786.00	99,448.00
2	**Coal (specify quality and where used)**	N.A.	N.A.
3	**Furnace Oil / other Liquid fuels-Purchased**		
	Quantity (MT)	0.00	16,665.00
	Total amount (Rs. In Lakhs)		2,947.23
	Average Rate (Rs./MT)		17,685.15
4	**Others/From Internal Generation Fuel**		
	(i) Fuel Gas		
	Unit (MTs)	83,436.00	7,782.16
	Total amount (Rs. In Lakhs)	17,838.90	1,285.85
	Average Rate (Rs./MT)	21,380.34	16,523.00
	(ii) Liquid Fuel-FO		
	Unit (MTs)	274,336.00	64,066.00
	Total amount (Rs. In Lakhs)	51,234.11	8,789.81
	Average Rate (Rs./MT)	18,675.68	13,720.00
	(iii) Solid Fuel - FCC Coke		
	Unit (MTs)	28,849.00	0.00
	Total amount (Rs. In Lakhs)	4,634.62	
	Average Rate (Rs./MT)	16,065.10	
5	**Total Liquid Fuel – Purchased + Own Generation (MT)**	274,336.00	80,731.00
	Total Fuel Gas, Liquid, Solid – Purchased + Own Generation	386621	

B	Consumption Per Unit of Production:	Unit	2007-2008*	2006-2007*
	(i) Actual Production (MTs)-		6066511.6	1,662,500.00
	(ii) Consumption per MT of Production			
	- Electricity (Purchased+Generated)	KWH/MT	48.43	59.82
	- Liquid Fuel (FO/LSHS/NAPHTHA) (Purchased + Internal Generation)	MT/MT	0.045	0.05
	- Fuel Gas	MT/MT	0.014	0.00
	- FCCU coke	MT/MT	0.005	

*Note: The CDU/VDU was started up in November, 2006 followed by sequential start up of various other units. In the last quarter of financial year 2007 – 2008, the balance units were completed and the integrated Refinery started operating under trial runs.

B. TECHNOLOGY ABSORPTION

e) **Efforts made in technology absorption are setout in Form 'B' hereto:**

Form B

Research & Development (R&D)

1. Specific areas in which R&D carried out by the Company

   In the Refinery, R&D were carried out by doing VBU conversion vis-a-vis fuel oil stability as higher conversion was causing fuel oil stability problem; Maximization of hydrogen yield in Continuous Catalytic Cracking Unit (CCR); Optimization of Vacuum column operation for realizing better VGO yield; Regeneration of spent caustic for reduction of sulphides loads in effluent treatment plant apart from saving caustic; Optimization of crude blending. Reduction in specific hydrogen consumption in DHDS and Modification of Sour Water Stripper for enhancing H2S and NH3 loading.

2. Benefits derived as a result of the R&D

   At the Refinery, VBU conversion was optimized keeping fuel oil stability within limit; New product carbon black feed stock developed from FCCU slurry oil; Vacuum Gas Oil cut point could be raised to 570+ ^{0} C. DHDS operating pressure was lowered resulting hydrogen saving without sacrificing sulphur removal capacity.

3. Future plans of action

   In the Refinery, the Company is making investment in Research and Development and planning to carryout the following activities in coming year:

   - To establish new laboratory facilities/equipment and TBP testing apparatus
   - Work is on for development of products like bitumen feed stock, rubber Processing Oils, etc. Work on fuel blends and fuel options from methanol sources and bio fuels.
   - Technology options for combined power and distilled water production and also efficient technologies on desalination.
   - Optimization of refinery processes to maximize distillate yields and reduction in heavy ends.
   - Implementation of Advanced Process Control
   - Design change in vacuum column for enhancing VGO yield
   - Lean oil draw off from FCCU.
   - Development of process models for all units for efficient monitoring and control.
   - FCCU catalyst and additives
   - Desalter interphase level control
   - High TAN crude processing
   - Use of anti fouling agent for enhancing VBU run length and energy efficiency
   - Refractory coating in Furnaces for enhancing efficiency

   In the Mehsana field studies are in progress and future plans will be based on results of these studies.

4. Expenditure on R&D during the year

   a. Capital : Rs 217.7 lakh

   b. Recurring (part of EDC) : Rs 67.7 lakh

   c. Total : Rs 285.4 lakh

   d. Total R&D expenditure as a percentage of trial production revenue : 0.02%

Technology absorption, adaptation and innovation

1. Efforts, in brief made towards technology absorption, adaptation and innovation

   With a view to produce green fuels, appropriate technologies have been selected from the reputed process vendors. Adequate care has been taken for production of Euro III / Euro IV standard products while minimizing operating cost. The Company has adapted the latest technologies available and many of the features are new to the industry. Operating personnel are trained by the Licensors. In the Mehsana Block, annulus heater treater technology has been adopted.

2. Benefits derived as a result of the above efforts e.g. product improvement, cost reduction, product development, import substitution, etc.

   In the Refinery, performance of the process units have achieved design objectives and in many cases surpassed them. Reliability of the plants is very high. Integration between the units could be made and considerable savings have been achieved. In the Mehsana Block, viscous crude could be brought to surface.

3. In case of imported technology (imported during the last 5 years reckoned from the beginning of the financial year) :

   a. Technology imported

   The Refinery has adapted the following technologies for deriving the latest technological advances:

Crude/Vacuum Distillation Unit	:	ABB Lummus Crest, Netherlands
Visbreaker Unit	:	Axens, France
Catalytic Reforming Unit	:	Axens, France
Diesel Hydro-desulphurization Unit	:	Axens, France
Fluidized Catalytic Cracking Unit	:	Stone & Webster, USA

   b. Year of import

   The above technologies were selected during the different phases of the project and the units were started up during 2006-07 and 2007-08.

   c. Has technology been fully absorbed

   Yes. All the technologies have been fully absorbed. Process plants are operating successfully meeting all the expectations.

   d. If not fully absorbed, areas where this has not taken place, reasons therefore and future plans of action.

   Not Applicable.

C. FOREIGN EXCHANGE EARNINGS AND OUTGO

f) **Activities relating to exports; initiatives taken to increase exports; development of new export markets for products and services and export plans:**

   With the growth of Indian economy, the consumption of petroleum products has grown significantly. India continues to be heavily dependent on imports for meeting its crude oil requirements. The Company's efforts have been to supply maximum quantity of its products to PSU oil companies. However, with the country having enough Refining capacity, surplus products produced from the Company's refinery over and above the domestic requirement are exported.

g) **Total foreign exchange used and earned:**

   Particulars relating to Foreign Exchange outgo and earnings appear in Note No. B (10) of Schedule XVII to the Annual Accounts.

Annexure B to the Directors' Report

MANAGEMENT DISCUSSION AND ANALYSIS

Industry Outlook

The year 2007-2008 saw unprecedented rise in oil prices across the globe contrary to earlier years. West Texas Intermediate (WTI) crude rose from US $65.94 per barrel in the beginning of the year (April 2007) to US $101.58 per barrel by the end of March 2008 which is a rise of almost 54% during the 12 month period.

Experts believe that the single most important factor for the rise in prices of oil has been the ever rising demand for transportation fuels primarily on account of high GDP growth in developing countries such as India and China. In addition, a significant factor has been constant devaluation of the US dollar, the international currency used for trade of petroleum products. In 2007, the estimated aggregate demand for transportation fuel grew at an average of 1.2%. At the same time the demand for residual fuel has been constantly falling. The effect of this can been seen in the increase in diesel crack (differences between Dubai crude oil and Arab Gulf diesel) which rose from US $12.74 per barrel on 2nd April, 2007 to US $30.14 by the end of March 2008. Consequently, the negative contribution of fuel oil to profitability increased from US $14.64 per barrel to US $20.56 per barrel during the same period signalling a widening differential between light and heavy crudes.

During recent times, the economy of the United States has seen a slowing down and it is possible that some of the recessionary pressure will also affect the developing countries. But no downward trend as yet has been seen in the robust demand figures and prospects for the sector remains positive. This is more so due to the fact that many of the new refineries are facing continuing delays due to rising cost of construction. The shortage in refining capacity to cater to the rising demand for higher quality products have allowed robust margins to continue for complex refineries.

The key challenge facing the petroleum industry continues to be replacing reserves and growing production due to the combination of maturing basins and reduced accessibility to new acreage. With this backdrop the energy companies increased upstream investment significantly. While new opportunities continue to be scarce, acquisition costs of reserves have increased remarkably. On a per unit basis, implied costs for the acquisition of proved reserves soared more than twice as much as the increase in oil prices.

Notwithstanding the significant increase in investment, the reserve volumes inched up only marginally. In fact, reserves would have fallen had it not been for a substantial increase in reserve bookings in the Canadian Oil Sands and in the US and Asia Pacific natural gas. However, upstream profits continued to surge due to higher oil & gas prices.

Indian Scenario

As our economy has grown at a robust pace, the consumption of petroleum products has grown significantly. The consumption of petroleum products during 2007-2008 was 127.518 Million Metric Tonnes (MMT), an increase of 7.6 % as compared to the previous year.

Consumption of High Speed Diesel (HSD) and Motor Spirit (MS) has also shown a growth with a rise of 11.1% & 11.2% respectively over the previous year. At the same time the heavy ends, in keeping with the global trend, have shown declines in consumption.

Although international prices have been rising, domestic prices of transportation fuels such as MS and HSD have not been increased in alignment with this rise. This has had a significant impact on the margins of the oil companies and the same is reflected in lower levels of profitability of the oil marketing companies during 2007-2008. In the absence of any compensatory support from the Government for under-recoveries in the retail sector, the private sector has been impacted even further and they have had to curtail their expansion plans in the retail sector.

India continues to be heavily dependent on imports for meeting its crude oil requirements. The marginal decline in domestic crude oil production coupled with spur in domestic demand, has increased the crude oil imports to around 70% of total requirement. The domestic production of crude oil during the year 2007-2008 stood at around 31.5 MMT while imports were almost of the order of 121.67 MMT.

The Government of India continues to encourage exploration activity in this region to increase the production of oil & gas. With the success of New Exploration Licensing Policy (NELP) & Coal Bed Methane (CBM) rounds, with award of 55 blocks under NELP VI and 10 CBM blocks under CBM III, the Government has announced NELP VII offering 57 oil & gas blocks this year which was closed on 30th June, 2008. The bidding process as always was reasonably competitive. To invite small players, the Government is offering 9 small blocks in the already proven basins without requiring much technical capability of the bidders. Several new public and private sector companies and international companies are actively pursuing opportunities in oil and gas, as the Government continues to encourage investment in exploration activity. As a result, in the recent past, some large discoveries of hydrocarbon in Rajasthan and KG basin have taken place.

With a refining capacity of close to 149 MMTPA and consumption of around 129.235 MMT in 2007-2008, the country continues to have enough refining capacity. With several refineries in the process of expanding their capacities, this surplus refining capacity is expected to continue in the foreseeable future. The export of petroleum products continues to grow and has reached a level of 39.327 MMT in 2007-2008. At the same time, import of petroleum products has reached a level of 22.72 MMT as compared to 16.97 MMT in 2006-2007. However, it does seem that India will emerge as a refining hub in this part of the world.

The Refinery

The Directors are proud to report that major secondary units like Fluidized Catalytic Cracker (FCC) and Diesel Hydro Desulphurization Unit (DHDS) have been commissioned during December 2007/January 2008. Operations of these units are now stabilized and the refinery has successfully integrated the operation of all units with associated utility facilities for trial production. This has enhanced the flexibility of the refinery to process heavier crudes with value addition in the secondary units by product up-gradation.

In response to changes in current and forecasted product demand patterns, the refinery's processing capability has been adjusted to maximize production of diesel. The Refinery could produce excellent quality diesel from DHDS utilizing hydrogen in offgas of Continuous Catalytic Cracking Unit (CCR). Efficient use of the offgas resulted in considerable savings. Visbreaker with soaker and vacuum flasher could be operated at high conversion level.

The creation of additional storage facility is being expedited and construction is well underway. Construction of the Gas Authority of India Ltd. (GAIL) pipeline for LPG from our Refinery to their existing Jamnagar-Loni pipeline is also well underway providing us this most cost effective transportation mode to the high growth demand centres in North India.

During the trial run till 31st March, 2008, the Refinery produced 6.07 MMT of finished petroleum products. The expenses relating to trial runs are being capitalized pending completion of the project. Effective 1st May, 2008, the Refinery has commenced commercial production.

Quality Assurance

Your Refinery has a state-of-the-art laboratory which is well-equipped to monitor the quality of intermediate streams and certify the quality of final products before dispatch. It tests all samples from the consumer end to provide quality assurance. The Laboratory has received the prestigious ISO-9001 accreditation in October 2007.

The laboratory is staffed by a highly skilled and experienced team that provides round the clock support to operations. It has been inspected and certified by DGCA (Director General of Civil Aviation). The lab has fulfilled all the requirements for Centre for Military Airworthiness and Certification (CEMILAC) approvals which has now been received.

International Supply and Trading

During the financial year, your Company has been able to develop a trading desk, capable of optimising prices and therefore, profits for the Company. During the year, the Company procured around 73 million barrels of crude oil. The multitude of crudes tried out during the trial period has given the Company confidence of planning the processing of a wide range of crudes. The crudes were mostly long haul crudes from Western Africa due to the needs of a refinery at that point of time. With the commencing of FCCU and DHDS in December 2007 & January 2008 respectively, your Company has been able to optimize the overall crude basket, the term and spot crude purchases and also source majority of the crude requirement from Middle East as a result of which the cost of crude and transportation have been considerably reduced.

Marketing

The growth in demand in the domestic sector has provided the necessary impetus to your Refinery to fill the gap for products in the domestic market. Our efforts have been to supply maximum quantity with Public Sector oil companies as a natural outlet for our domestic sales while continuing efforts to seek direct industrial customers. The product slate, which consists of liquefied petroleum gas, motor spirit, high speed diesel, kerosene and fuel oil is being expanded to include Aviation Turbine Fuel (ATF), Naphtha and Bitumen in the near future.

Your Company is faced with an extremely challenging situation in relation to expansion of its retail outlets. However, as a long-term strategy and in the hope that this anomaly in pricing has to find a correction in the near future, your Company has continued to strengthen its retail network. The emphasis during the year was on selective network expansion and standardization of the existing network. Your Company appreciates the hardship faced by the franchisees that have had to contend with lower supplies and has structured a suitable compensation package for them. Your Company is seeking further liberalization and deregulation of the industry and restoration of a market determined pricing mechanism.

Refinery Expansion Project

To take advantage of the market condition, namely building a refinery capable of producing the stringent quality products that are required in the international market and thereby maximise revenues for the Company, your Company has already embarked on up-gradation of and expanding the refining capacity at Vadinar from the present 10.5 MMTPA to 34 MMTPA.

The expanded refinery will have Nelson Complexity Index of 12.8 which will provide robust Refining margins by processing tougher crudes and producing petroleum products of very high quality meeting the most stringent environmental norms i.e. Euro IV and Euro V internationally.

The project cost for the expansion is about US $6 billion. Out of this debt portion approximately US $4.88 billion is being tied-up from Indian and foreign banks. Promoters have contributed US $300 million towards equity. The remaining funds will come through internal accruals / equity. Financial closure for the project is expected to be completed shortly.

Necessary land for the expansion is already under possession. Important mile stones like technology sourcing for all the process and auxiliary units have been tied-up, entire basic engineering has been completed, and detailed engineering progress is about 35% in line with the targeted project schedule of December 2010.