GUARDING PUBLIC INTEREST

Annual Report
2002-2003

Oil & Gas Regulatory Authority

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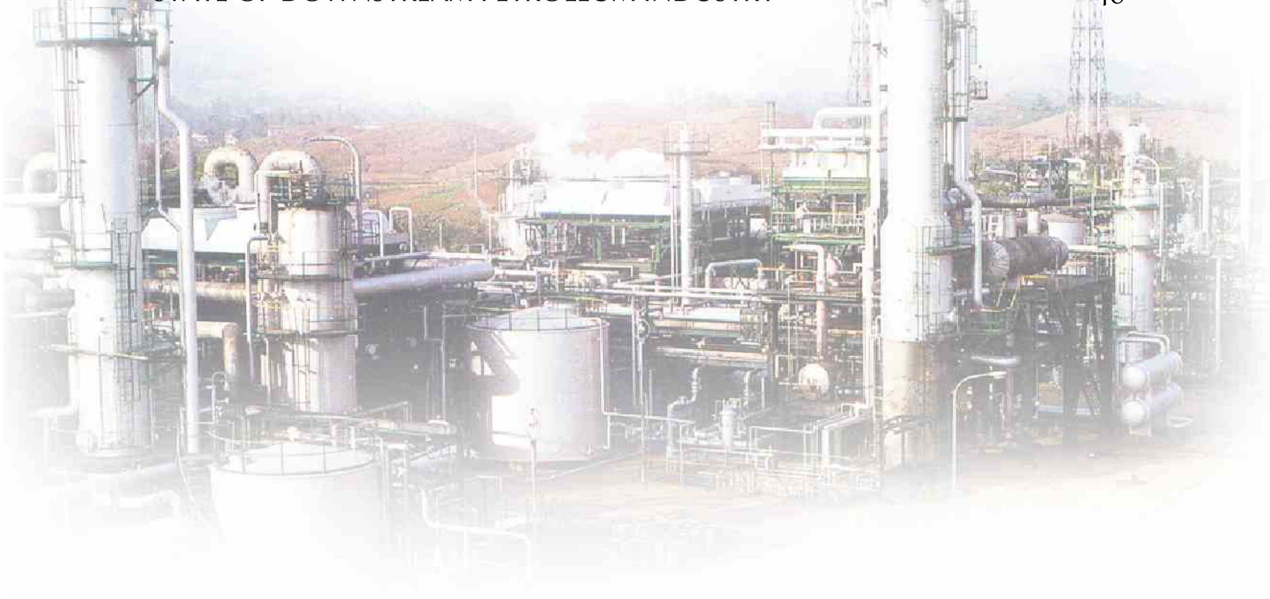
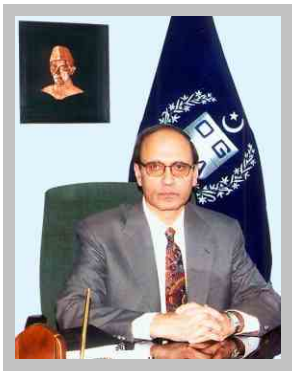


Chairman's Review



The year 2002-03 was a good, successful and eventful period for the Oil & Gas Regulatory Authority (OGRA) as the Authority remained fully engaged in the processing and finalization of applications pertaining to grant of licences for transmission, distribution & sale of natural gas, Compressed Natural Gas (CNG) and Liquefied Petroleum Gas (LPG), determination of revenue requirements of gas utilities, formulation & notification of complaint resolution procedure and other activities like drafting of new rules, regulations, etc.

One of the major achievements in the year was the grant of non-exclusive licences for transmission, distribution and sale of natural gas to two gas companies i.e. Sui Northern Gas Pipelines Limited (SNGPL) and Sui Southern Gas Company Limited (SSGCL). They had applied for integrated and exclusive licences for transmission, distribution and sale of natural gas on the plea of their huge investment in the gas transmission & distribution systems in the country over the past 40 years and their programme for further investment in expanding these systems. Prior to grant of licences, the Authority held extensive consultation with all stakeholders including petitioners, Consumer Rights Commission of Pakistan (CRCP), industrial consumers and Privatization Commission. The Authority also conducted public hearings at the provincial headquarters to elicit public opinion. The non-exclusivity of the licences, on one hand has created a competitive environment and paved the way for new entrants to invest in the natural gas transmission and distribution sector and on the other hand, protected the petitioners' investment through grant of exclusive rights up to June, 2010 to serve all such consumers, which will be connected to their system by June 2005. Another important feature of the licences is the introduction of uniform system of accounts of the two gas utilities and segregation of accounts in respect of transmission and distribution / sales activities from July 2005. This will facilitate the privatization process of the Federal Government in the gas sector.

The grant of non-exclusive licences brought the two gas utilities under the ambit of the new regulatory regime to comply with the requirement of the OGRA Ordinance. The licences comprehensively protect the consumers' rights through various terms and conditions of service standards and efficiency benchmarks. The Authority is in the process of setting efficiency benchmarks for the operating costs of the gas utilities and has already taken an important step by setting target for un-accounted for gas (UFG) / line losses at 6.5% for the year 2003-04 with the stipulation that on better performance the gas utilities shall be entitled to retain the gains but on poor performance against the set-out target they will have to meet the revenue shortfall from their own profits and consumers will not suffer. UFG is the major element of operational efficiency which is evident from the fact that 1% of UFG in monetary terms is equal to about Rs. 1 billion. The two companies ended up with an UFG of 7.6% (SSGCL) and 8.16% (SNGPL) during 2002-03. The action taken by the Authority is in the compliance with the directions of the National Security Council that the regulatory authorities should look into the losses and inefficiencies of the public utilities before allowing any tariff increase. This vital step bears the testimony to the fact that the Authority is committed to bring the operational efficiency of the two gas companies to international standards. The mechanism introduced by OGRA will go a long way in achieving this objective.

A regulatory framework is essential to balance the interest of all stakeholders and safeguard public interest to achieve policy goals and objectives. The Authority issued regulations for better performance and service standards of the gas companies inter-alia setting out targets in terms of service to the consumers. The Authority's forward-looking approach in establishing these standards and creating a monitoring system has made the appraisal of the companies' performance fairly easy. Technical standards for transmission and distribution of natural gas were also formulated in consultation with gas utilities, which will be notified shortly.

During the year under review, the Authority completed eight determinations of provisional and final revenue requirements of the two gas companies pertaining to financial years 2001-02 to 2003-04. Each determination of the gas utilities was made after having in-depth scrutiny of the operating and capital cost based on the prudence of investment and optimization of such costs. With the assistance of World Bank under the proceeds of IDF grant, the Authority, formulated a uniform system of accounts for the two gas utilities, which will ensure a uniform procedure of reporting the costs of services and assets-base for its evaluation. The Authority has also initiated a study on development of efficiency-based incentive oriented new tariff regime for the downstream natural gas sector in Pakistan and for this purpose appointed M/s Economic Consulting Associates, UK under multi-donor Public Private Infrastructure Advisory Facility (PPIAF) grant.

The functions related to regulation of LPG and CNG sectors were transferred to the Authority in March 2003 and the Authority started exercising its powers under the existing CNG and LPG Rules. The procedures for grant of CNG and LPG licences were reviewed and simplified to accelerate the pace of investment in these sectors. Drafting of new CNG and LPG Rules has been completed and after consultation with the stakeholders, the same will be notified shortly. Similarly, formulation of draft rules for the downstream oil sector is under way. In order to streamline the licencing process for CNG and LPG activities, the Authority, in accordance with the provisions of the OGRA Ordinance, delegated to the Member (Oil), the powers to grant licences and regulate the activities in respect of CNG and LPG sectors.

To protect consumers' rights and ensure quick redressal of their grievances, the Authority formulated and notified Complaint Resolution Procedure for natural gas, LPG and CNG. Special arrangements are being made through media & website to educate the general public regarding their privilege to redress their grievances against any utility on issues related to regulated activities. Transparency, professional approach, justice and fair play being the hallmarks of this effort have already started showing positive results and quick disposal of the cases has provided relief to many. It has also induced confidence among the stakeholders regarding its viability.

While the year under review has ended with remarkable achievements, it is pertinent to note that during this period an exceptional spirit of cooperation and professionalism prevailed in OGRA. Everyone played his / her role as member of a cohesive and dedicated team. They boldly faced the challenges posed by the process of initially making rules / regulations and subsequently implementing the same. Today the results speak by themselves about the impartiality and effectiveness of OGRA as an independent regulator. I earnestly hope that OGRA, while keeping the spirit of its Ordinance alive, will continue to strive for financial and operational efficiencies in the downstream petroleum sector through the mechanism of effective and meaningful regulations.

We are conscious of the fact that we have only made a beginning, whereas, new challenges and opportunities await us. Notwithstanding the fact that in many other countries, regulatory regimes have taken decades to stabilize, we have a firm resolve to boldly face these challenges and achieve a qualitative edge in regulatory output necessary to protect the rights of our stakeholders, particularly the consumers.

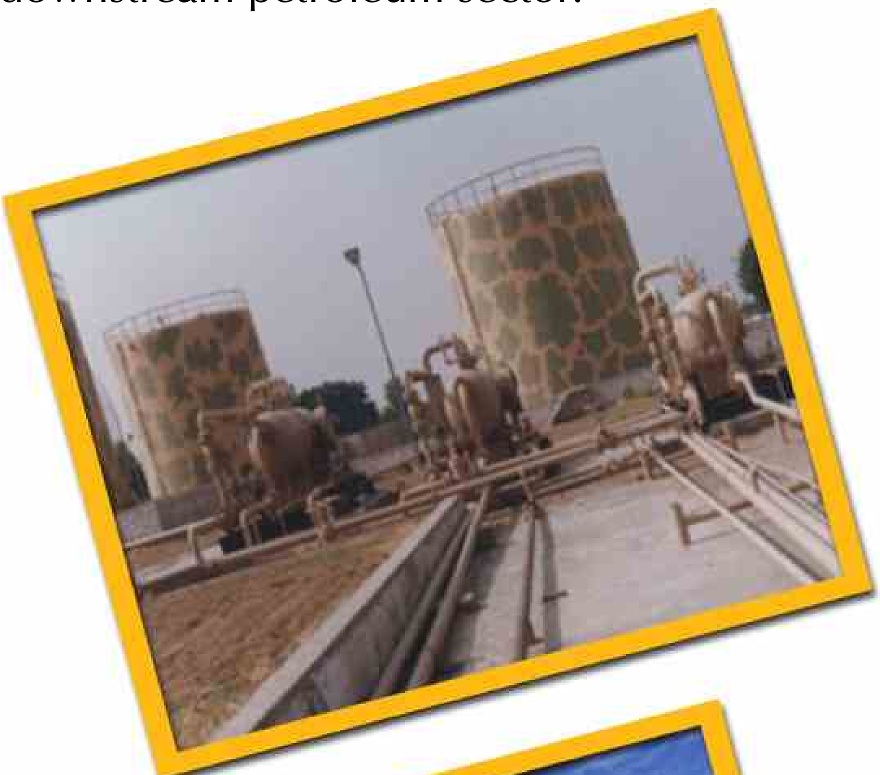
(Munir Ahmad)

Chairman

December 31, 2003

Mission Statement

"Safeguard public interest through efficient and effective regulation in the midstream and downstream petroleum sector."



OGRA'S PROFILE

Profile
Powers and Functions
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Organizational Structure

Profile

To meet the challenges of the new global economic environment, the Government of Pakistan took a fundamental decision to separate the roles of policy making, ownership and regulation. The Government decided to retain the role of policy making, transfer the ownership to the private sector through the privatization process and establish an independent regulator to balance the interests of all stakeholders in accordance with the provisions of the law.

It is evident that laying of more than one pipeline owned by different companies in a street, would neither be economical nor practical, therefore, public utilities like electricity, water and natural gas have assumed the posture of “natural monopolies”. The consumers of these utilities do not enjoy the freedom to choose a supplier, hence come under the captivity of these utilities. In these circumstances it becomes inevitable to establish independent regulatory agencies, to protect the consumers from being totally at the mercy of the utility, facilitate quality service at a reasonable price and to ensure that the investors of the utility receive a fair and equitable return on their investment. In the downstream petroleum sector the Natural Gas Regulatory Authority (NGRA) was therefore, set up in January 2000 to regulate gas utilities.

As part of its economic reform agenda, the Government of Pakistan has started phased de-regulation of the midstream and downstream oil sector to attract investment and generate healthy market competition. However, even in a competitive environment, a level playing field has to be ensured for the investors to safeguard public interest through an appropriate regulatory mechanism. It becomes more essential in Pakistan's perspective, when a number of special conditions exist in the market such as guaranteed rate of return (RoR) for the mid-country refinery, tariff protection import parity formula for other refineries, minimum throughput guarantee to white oil and black oil pipelines and freight pool mechanism for petrol, kerosene, HSD and LDO to ensure uniform prices all over the country. The Government, therefore, felt the need for regulation of the midstream and downstream oil sector to provide a level playing field to the investors for competition and to maintain quality, reliability and cost effective supply of petroleum products to consumers.

As a consequence, the Oil and Gas Regulatory Authority (OGRA) was established by the Federal Government on March 28, 2002 in pursuance of the Oil and Gas Regulatory Authority Ordinance 2002 and all the functions of NGRA were subsumed in OGRA. The objective of OGRA is to "foster competition, increase private investment and ownership in the midstream and downstream petroleum industry, protect the public interest while respecting individual rights and provide effective and efficient regulations".

In order to achieve the above-mentioned objectives, the Regulatory Authority requires financial as well as administrative independence to address often-divergent interests of all the stakeholders viz. the consumers, the investors and the Government. It requires a core of highly competent team of engineers, chartered accountants, economists and lawyers with relevant experience of the industry to be regulated. The Regulatory Authority also requires the services of consultants and experts from the market to resolve complicated issues in an expeditious manner. The acquiring of expertise, availability of adequate finances outside the national budget and the ability to take timely and independent decisions certainly reinforce the concept of having an independent and autonomous regulatory agency.

OGRA's exclusive responsibilities under the OGRA Ordinance, 2002 cover a wide range of activities, most of which constitute significant challenges. Despite a host of teething problems, OGRA, as an independent regulator, has qualified the litmus test and is now acting as a catalyst to promote a competitive market. It has indeed set the stage, where the benefits of the financially viable and commercially efficient systems would be passed on to the consumers. As the process of privatization of public utilities progresses, the role of OGRA will become more and more critical, correspondingly demanding a more dynamic approach to regulation.

Powers and Functions

The Powers and Functions of the Authority as embodied in the Ordinance are summarized below:

- Exclusive power to grant, amend or revoke licences for regulated activities.
- Promote effective competition and efficiency in the activities within OGRA's Jurisdiction.
- Develop and enforce performance and service standards.
- Determine in consultation with the Federal Government and the licensees, a reasonable RoR for natural gas licensees.
- Prescribe procedures and standards for investment programmes of the gas utilities and oversee their capital expenditure to ensure prudence.
- Determine annually the revenue requirements of gas utilities to enable these companies to meet the cost of gas, transmission and distribution cost, depreciation and prescribed RoR on net operating fixed assets.
- Determine and notify wellhead gas prices in accordance with the producers' agreements with the Government.
- Enforce compliance of licence conditions and ensure efficient practices in the regulated oil and gas sectors.
- Resolution of complaints and disputes between a person and a licensee or between licensees relating to regulated activities.
- Enforce standards and specifications for refined oil products as notified by the Federal Government.
- Implement the policy guidelines of the Federal Government, not inconsistent with the provisions of the Ordinance.
- Exclusive power to employ officers, members of its staff, experts, consultants, advisors and other employees on such terms and conditions as it may deem fit.

- Implement the policy guidelines of the Federal Government, not inconsistent with the provisions of Ordinance.

- Exclusive powers to decide upon the matters, which fall within its jurisdiction.

Regulated Activities

Under the Ordinance a licence is required for undertaking any of the regulated activities, namely:

- Construction and / or operation of natural gas pipelines, storage facilities and other installations;

- Transmission, distribution and sale of natural gas;

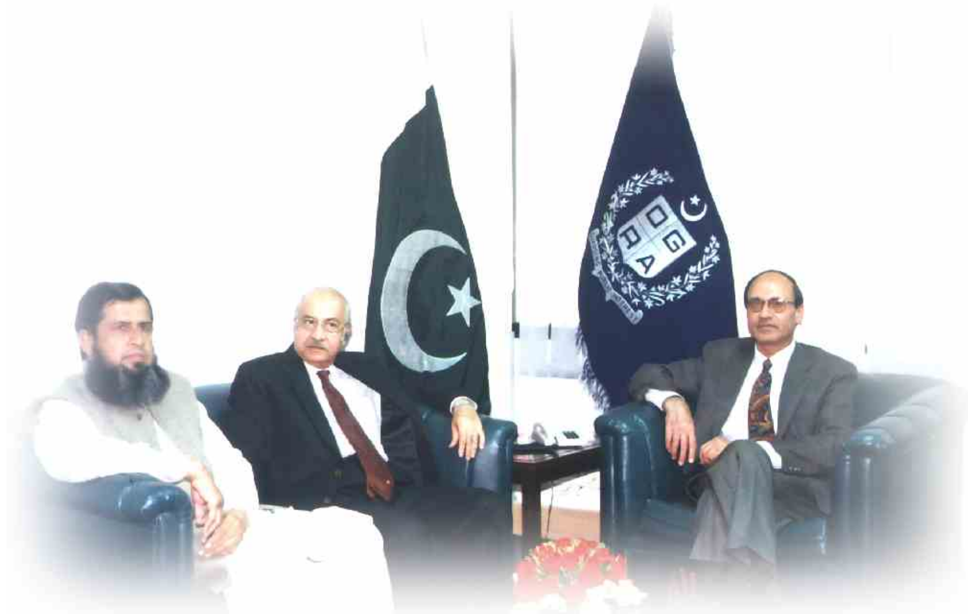
- Construction or operation of oil refinery, oil pipelines, storage facilities, blending facilities and oil related installations;

- Marketing and storage of refined oil products;

- Construction or operation of pipelines, processing facilities, storage facilities and installations relating to LPG; and

- Production, filling, marketing and distribution of LPG and CNG.

The Authority



In accordance with the provisions of the OGRA Ordinance, 2002, the Chairman and the Members are eminent professionals of known integrity and competence with a minimum 20 years of related experience. They have been appointed by the Federal Government through a competitive process on tenure basis and are eligible for reappointment for one additional term of 4 years each.

Chairman

Mr. Munir Ahmad holds a Master's Degree in Petroleum Geology from the University of the Punjab. He has attended a number of professional courses on gas tariffs, gas regulation and privatization both in the USA and the UK. He has vast experience of over 33 years in dealing with economic and regulatory affairs of the petroleum industry in the Ministry of Petroleum and Natural Resources (MP&NR) at senior positions. Before his selection as Chairman, OGRA he held the key position of Director General (Gas) for nearly 18 years. He also held the positions of Managing Director, Sui Southern Gas Company Limited (SSGCL) in 1989 and that of Sui Northern Gas Pipelines Limited (SNGPL) in 1999. He remained as a Director on the Board of Directors of SNGPL, SSGCL, Pakistan Petroleum Limited (PPL), Pakistan Oilfields Limited (POL) and Mari Gas Company Limited (MGCL) for over 20 years. He made tremendous contributions in the formulation of petroleum policies leading to the accelerated development of petroleum resources and downstream natural gas infrastructure in the country.

He is the first Chairman of OGRA and through his visionary approach, dedication and professional acumen has steered its establishment from scratch to a reality. He has earned for OGRA the status of an independent and effective regulator capable of safeguarding the interests of all the stakeholders, particularly the consumers.

Member Gas

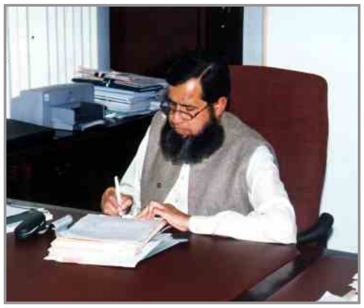
Mr. Jawaid Inam holds a Bachelor's Degree in Fuel Science and Technology from the University of Leeds, the UK. He started his professional career as a Research Engineer at British Gas, the UK. He joined SNGPL in 1966. During his long service with SNGPL he held important engineering and management positions including that of Managing Director. He has a rich experience of 35 years in the gas industry.

He has attended several training programes in the engineering discipline as well in management, including that on Public Utility Regulation at the University of Oxford, the UK, University of Florida, University of Oklahoma, University of Texas and Institute of Gas Technology in the USA.

Mr. Inam was initially appointed in September 2000 as Member Technical in the Natural Gas Regulatory Authority (NGRA). Subsequently he was appointed as Member Gas in the Oil and Gas Regulatory Authority in March 2002. He has been designated, as Vice Chairman to perform the duties of the Chairman during the latter's absence. In view of his long experience in the natural gas industry he is making a valuable contribution in the affairs of the Authority.

He has been reappointed as Member Gas with effect from September 07, 2003 for a second tenure.

Member Oil



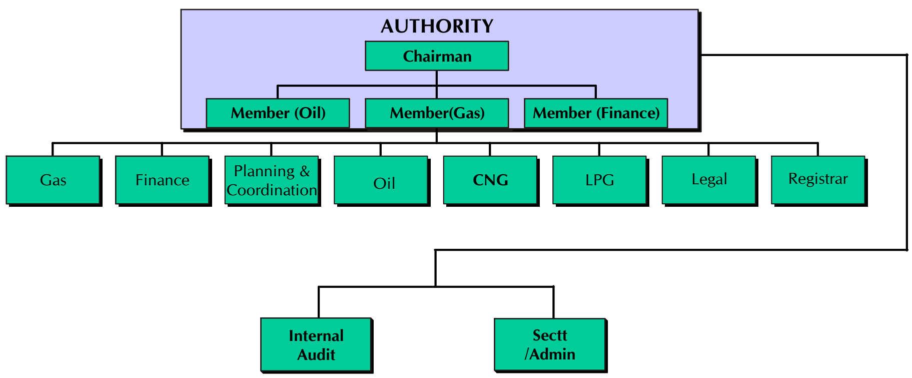
Mr. Rashid Farooq was appointed as Member (Oil) on October 09, 2002. He holds Bachelor's Degree in Chemical Engineering from University of the Punjab and Master's Degree in Energy Engineering from University of Surrey, the UK. He has 29 years of experience in regulatory and policy matters in the downstream and upstream petroleum sectors; Mr. Rashid Farooq worked in the Ministry of Petroleum for 28 years and remained on the Board of Directors of Attock Refinery, Pakistan Refinery, Pak Arab Refinery, Pak Arab Pipeline Company, National Tanker Company, Pirkoh Gas Company and National Petrocarbon. He attended various international seminars, conferences and training programmes in the downstream oil sector, Petroleum Management and Environment and obtained post graduate certificates in Petroleum Management from University of Pittsburgh, the USA, Canadian Petroleum Institute, Canada, Business Management from the University of Surrey, the UK and Environment Impact Assessment from Asian Institute of Technology, Bangkok. He represented MP&NR in various countries at meetings on bilateral economic cooperation in the petroleum sector. He was Director General (Oil) in the MP&NR before joining OGRA.

Member Finance

Mr. Mahboob Elahi was appointed Member Finance on September 23, 2002 and served the Authority for 10 months. He resigned at his own from the Authority effective July 07, 2003. He is a professional Cost and Management Accountant with vast experience related to financial management and accounting in the gas industry. Before joining OGRA he held the position of Chief Financial Officer of SNGPL. During his short stay in the Authority he made a valuable and effective contribution in financial matters particularly the determination of Revenue Requirement of gas utilities.

Organizational Structure

OGRA has been organized to discharge its functions in accordance with the provisions of the Ordinance including the natural gas related activities, which came into effect immediately on the promulgation of the OGRA Ordinance on March 28, 2002. Provisions relating to CNG and LPG activities came into force through a notification of the Federal Government on March 15, 2003 whereas provisions in respect of oil related activities shall come into force at a later date on the advice of the Authority. In line with the provision of the OGRA Ordinance, the Authority has delegated to Member Oil the powers to grant licences and regulate the activities of CNG and LPG sectors. Presently OGRA has ten departments namely Gas, Finance, Planning & Co-Ordination, Oil, CNG, LPG, Legal, Registrar Office, Secretariat / Administration and Internal Audit.



Recruitment of Executives and Support Staff

Under the Ordinance, the Authority is exclusively empowered to make appointments and settle the terms and conditions of service of its employees as deemed appropriate.

In order to establish the office of the Authority and to carry out the functions assigned to it, the Authority in exercising the powers conferred upon it, under the OGRA ordinance, initially acquired the services of key personnel on deputation / contract basis. In the mean time, the Authority devised a merit based recruitment policy, and adopted its own market based pay scales to attract quality professional staff including experienced engineers, chartered accountants, MBAs and law graduates. The Authority soon after the finalization of the policy started acquiring staff on a regular basis.

Since OGRA is a specialized and professional body, established for regulating the midstream and downstream activities of the oil and gas sector in Pakistan, therefore all appointments are made on open merit through a transparent and competitive process. The recruitment policy thus provides an equal opportunity to persons from all provinces to compete in the process of selection.

compete in the process of selection.

The Authority has recruited the basic staff in all departments to run the organization. Further hiring shall be made on as and when required basis. The present strength of the employees of Authority is as follows:

Sr #	Category	No. of Employees
1	Engineers	13
2	Accountants / Financial Analyst	8
3	MBAs / Masters / Others	3
4	Law Graduates	4
5	Administration	9
6	Executive Secretaries	9
7	Support Staff	49
	Total	**95**

In the subsequent paragraphs, an endeavor has been made to further deliberate on all the relevant issues and explain the way OGRA has made consistent efforts to achieve objectives of the ordinance.

Conduct Of Authority Functions

- The Authority's decision-making process
- Complaint Resolution Procedure Regulations
- Anticipated Developments for the year 2003-04

The Authority's decision-making process

The Authority's main functions include grant of licences for a regulated activity, determination of Revenue Requirement of natural gas licensee and resolution of complaints against the licensees and other disputes against or between the licensees. The Authority's functions are carried out strictly in accordance with the provisions of the Ordinance and the Rules / Regulations made thereunder. All applications and petitions are examined in the light of relevant Rules, which inter-alia involves interactive process of consultation with all stakeholders including consumers through public hearings. The Authority's decision-making process thus is transparent, consultative and provides opportunity to all stakeholders for their input.

Complaints Resolution Procedure Regulations

The Authority has notified the Regulations pertaining to complaints of aggrieved persons against the licensees of natural gas, CNG and LPG.The areas of complaints are as follows:

Areas of Complaint Resolution

- Any act or thing done or omitted to be done by a licensee in violation or alleged violation of the Ordinance, rules, regulations, order of the Authority or terms and condition of the licence.
- Non-compliance by the licensee with the service standards in the areas including but not limited to billing.
- Connection and disconnection of service.
- Metering / Measurement.
- Undue delay in providing service.
- Safety practices.
- Quantity and quality of natural gas, LPG or CNG being supplied.
- Discriminatory practices of the licensee.

The Authority, through the above Complaint Resolution Procedure, has laid the foundation to protect the interests of consumers and hopes that the public will take full benefit of this mechanism to get their grievances resolved in a timely and transparent manner.

Detailed information in this regard is available on OGRA's website www.ogra.org.pk and complaint form is also attached therewith as annexure 'A'.

Anticipated Developments for the year 2003-04

While the Authority has achieved a number of milestones in the year 2002-03, it is set to achieve the following targets during the year 2003-04:-

Licencing

Licences will be issued to the following entities:-

- PPL for sale of natural gas from its Kandhkot field to WAPDA.
- Mari Gas Company for sale of natural gas from Mari gas field to fertilizer and power plants.
- OGDCL for transmission and sale of natural gas to Uch Power Plant from Uch Gas Field.
- OGDCL for sale of natural gas from Nandpur / Panjpir gas fields to Fauji Kabirwala Power Plant.
- OGDCL for sale of natural gas from Bhal Syedan field to Altern Energy Power Plant.

Tariff

The Authority will be conducting exercise on revenue requirement determination for SSGCL & SNGPL as under:-

- Determination of the Final Revenue Requirement for F.Y. 2002-03 based on the audited accounts.
- Half yearly review of Estimated Revenuer Requirement for F.Y. 2003-04.
- Determination of Estimated Revenuer Requirement for F.Y. 2004-05.

Study on development of efficiency based incentive oriented new tariff regime for the downstream natural gas sector will be completed with recommendations to the Government on various options available for the new tariff regime.

Rules and Regulations

Following Rules and Regulations are expected to be drafted or finalized and notified:-

Rules

- Fee Rules
- Fines and Penalty Rules
- Review of Authority Decision Rules
- CNG Rules
- LPG Rules
- Revision of Licencing Rules
- Budget Committee Rules
- Oil Refining, Blending, Marketing and Transportation Rules

Regulations

- Service Regulations
- Regulatory Accounting Regulations
- Regulations on Technical Standards for Transmission and Distribution.
- Regulation for Enforcement of Specifications for Refined Oil Products.

Future Road Map

In addition, the Authority intends to formulate a comprehensive regulatory framework, for which a future road map is envisaged below:

- Develop and enforce efficiency based incentive oriented operational benchmarks.
- Develop effective monitoring system to ensure:
  - Quality of service
  - Reduction of line losses
  - Elimination of wasteful expenditure
  - Quality of petroleum products
  - Adherence to the prescribed technical standards

Highlights Of The Year

A. Grant of Licences
B. Determination of Revenue Requirements and Prescribed Prices
C. Strengthening of Regulatory Framework
D. Formulation of Rules and Regulations
E. Approval for Expansion in Transmission and Distribution Network

A - Grant Of Licence

- Need for Licencing
- Grant of Licences to SNGPL and SSGCL
- Application of Mari Gas Company Ltd.
- Application of Pakistan Petroleum Ltd.
- Application of OGDCL
- CNG and LPG Functions
- CNG Licencing
- LPG Licencing

Need for Licencing

Licence is the main legal instrument, which sets out the rights and obligations of the licensee so as to regulate the sector in accordance with the provisions of the law. It also provides a level playing field to all investors and also provides an opportunity for fair competition to ensure quality, reliability of product supply and improved customer services. OGRA Ordinance 2002 empowers the Authority to grant licences for the defined regulated activities on such terms and conditions as it deems appropriate.

Grant of Licences to SNGPL and SSGCL

- In pursuance of the Licensing Rules, SSGCL applied on March 20, 2002 for the grant of an integrated and exclusive licence for transmission, distribution and sale of natural gas, including construction activities attached thereto, in the provinces of Sindh and Balochistan. Upon submission of application the company assumed the status of

deemed licensee for carrying out the said activities till such time a formal licence was granted under the rules.

- SNGPL filed its petition on March 22, 2002 for the grant of an integrated and exclusive licence for transmission, distribution and sale of natural gas including construction activities attached thereto in the provinces of Punjab, NWFP, Parts of Sindh, Azad Jammu & Kashmir (AJK), the Federal Capital and Federal Administered Tribal Area (FATA). Upon submission of application the company assumed the status of deemed licensee for carrying out the said activities till such time a formal licence was granted under the rules.

- The petitions of SSGCL and SNGPL were processed in accordance with the Licencing Rules and the OGRA Ordinance, 2002. Substantial information and clarifications were obtained from the companies. The Authority also solicited comments from all the stakeholders, as well as interested / affected persons through public notices in the press.

- In the case of SSGCL intervention requests were received from the following persons / companies:
  a) Pakistan Petroleum Exploration and Production Companies Association (PPEPCA).
  b) Consumer Rights Commission of Pakistan.
  c) All Pakistan Textile Mills Association.
  d) All Pakistan CNG Association.

- Comments were also received from the MP&NR, Planning and Development Division and the Privatization Commission.

- In order to provide an opportunity to all the above persons and the general public, the Authority conducted public hearings on SSGCL's petition in Quetta on December 23, 2002 and in Karachi on January 06, 2003.

- In the case of SNGPL intervention requests were received from the following

persons / companies:

a) PPEPCA
b) Dawood Hercules Chemicals Limited.
c) SSGCL
d) Consumer Rights Commission of Pakistan.
e) Northern Power Generation Company Limited.

- Comments were also received from the Privatization Commission and Law, Parliamentary Affairs and Human Rights Department of the Government of the NWFP.

- In order to provide an opportunity to all the above persons and the general public, the Authority conducted public hearings on the SNGPL's petition in Lahore on March 03, 2003 and in Peshawar on March 18, 2003.

- The main issue raised by the interveners in both the cases was that the companies should not be granted exclusive licences leading to a monopolistic situation and against OGRA's objective to foster competition. The Privatization Commission, based on a study being carried out by their Financial Advisors, suggested that separate licences should be issued for different regulated activities, i.e. transmission, distribution and sale of natural gas. Some public representatives suggested imposing conditions on the companies so that they should not charge exorbitant prices from the consumers but at the same time should improve their service to the consumers.

- The petitioners defended their cases for grant of integrated and exclusive licences based on the investments which they have made in the gas transmission and distribution system over the past 40-50 years and their future programmes for further investment in the expansion of their respective systems.

The Licence:

The Authority, after taking into consideration all the circumstances including the view-points of interveners and the objectives of the OGRA Ordinance to foster competition and increase investment in the midstream and downstream oil and gas sector, finally granted licences to SSGCL and SNGPL on September 03, 2003 in a manner which balances the interests of all stakeholders. The licences are basically Non-Exclusive, but to protect their investments, exclusive rights to serve their existing as well as prospective consumers for a limited period have been granted to both the companies.

Both the companies have been granted licence to carry out the regulated activities in respect of *transmission of natural gas* as follows:

a) Construction and operation of pipelines for the purpose of transmission of natural gas; and

b) Transmission of natural gas through the transmission system of the Licensee.

In addition the companies have been granted licences to carry out the regulated activities in respect of *distribution and sale of natural gas* as follows:

SSGCL

For construction and operation of pipelines for the purpose of distribution and sale of natural gas throughout the territories of the provinces of Sindh and Balochistan.

SNGPL

For construction and operation of pipelines for the purpose of distribution and sale of natural gas throughout the territories of the provinces of Punjab, NWFP, AJK, the Federal Capital, FATA and those areas of the province of Sindh where the licensee operated natural gas distribution system prior to the date of issuance of the Licence.

However the two companies have been granted limited exclusive rights as follows:-

"Distribution and sale of natural gas through the distribution system of the Licensee within its authorized area, with an exclusive right till June 30, 2010 to distribute and sell natural gas to its existing consumers and such consumers as are connected to its distribution system on or before June 30, 2005".

The Licences granted to SNGPL and SSGCL are valid for a period of thirty (30) years subject to the terms and conditions as contained in the licence, the salient features of which are as follows: -

Obligations of the Licensees:

The Licence conditions set out the rights and obligations of the Licensees including the conditions to reduce line losses and improve efficiency. Some of the major obligations are:

- Rate of return with efficiency based benchmarks to control gas losses and protect consumers' interest against undue burden on gas prices.
- To adhere to technical, performance and service standards as approved by the Authority.
- To ensure compliance with safety regulations related to workshop, materials and equipment.
- Ensure continuity and reliability of supply.

- Prevention of undue discrimination.
- To enforce efficient procedures for consumer complaints and dispute resolution.
- To connect new towns and cities in accordance with the criteria laid down by the Federal Government.

Prudent investment.

- To dispatch bills to the consumers based on factual readings in time and allow sufficient time for payment.
- To supply gas at adequate pressures.

The grant of above licences does not prohibit any other person to apply for licence to OGRA for construction or operation of natural gas pipelines or transmission, distribution or sale of gas. Thus the Authority, while protecting the investments of the SNGPL and SSGCL has also opened avenues for others to make investments in the downstream natural gas sector in a competitive manner in compliance with the objectives of the Ordinance.

Application of Mari Gas Company Limited

Mari Gas Company Limited (MGCL), submitted an application for grant of licence for sale of natural gas from Mari gas field to major retail consumers like fertilizer plants and power plant. On submission of the application MGCL became a deemed licensee to carry out the sale activity till the grant of a formal licence under OGRA Ordinance / Rules. OGRA completed the evaluation and public hearing process in respect of MGCL's application and the licence is to be issued shortly.

Application of Pakistan Petroleum Limited

Pakistan Petroleum Ltd. (PPL), submitted an application for grant of Licence for sale of natural gas from Kandhkot field to Guddu Power Plant. On submission of the application Pakistan Petroleum Ltd. became a deemed licensee to carry out the sale activity till the grant of a formal licence under the OGRA Ordinance / Rules. On PPL's application, OGRA invited the comments of all persons and parties who are affected. The process of issuance of the licence is to be completed shortly.

Application of Oil and Gas Development Corporation

OGDCL submitted three applications for grant of Licences for:

- Transmission and Sale of natural gas to Uch power plant from Uch gas field;
- Sale of natural gas from Nandpur / Panjpir fields to Fauji Kabirwala Power Plant;
- Sale of gas from Bhal Syedan gas field to M/s Altern Energy Limited for power generation.

On submission of the applications the OGDCL became a deemed licensee to carry out regulated activities till the grant of a formal licence under the OGRA Ordinance / Rules. The applications are under process.

CNG & LPG activities

CNG and LPG activities

At the time of promulgation of the OGRA Ordinance on March 28, 2002 only the provisions related to natural gas regulated activities were enforced with immediate effect. The provisions related to regulated activities in respect of CNG, LPG and Oil were to be enforced by the Federal Government on the advice of OGRA. These were enforced by the Federal Government through a gazette notification on March 15, 2003 and the functions were consequently transferred to OGRA from MP&NR w.e.f. March 15, 2003. However OGRA initiated the operational work in the first week of April 2003, after the complete transfer of files / record. Initially OGRA adopted the existing CNG Rules 1992 and LPG Rules 2001, till the new Rules are notified.

CNG Licences

A total number of 93 licences for establishment of CNG stations were issued by OGRA as on June 30, 2003, the details of which are as below:

CNG Provisional Licences Issued From March 15 To June 30, 2003

	Province / Area	No. Of Provisional Licenses Issued
1.	Punjab	53
2.	Sindh	21
3.	N.W.F.P	13
4.	Islamabad	03
5.	AJK	03
	TOTAL	**93**

LPG Licences

A total number of eight licences for establishment of LPG storage and filling facilities were issued by OGRA as below:

List Of LPG Provisional Licenses Issued Upto June 30, 2003.

Sr #	Issued On	Province	Name Of The Company
1.	April 11, 2003	Balochistan	M/s National Gases Limited Karachi
2.	April 25, 2003	NWFP	M/s Sarhad Gas (Pvt.) Limited. Islamabad.
3.	May 27, 2003	Punjab	M/s Hassan Hussain Brothers (Pvt.) Limited. Rawalpindi
4.	May 27, 2003	Punjab	M/s Shani Gas Company (Pvt.) Ltd. Hassan Abdal, Distt. Attock.
5.	June 2, 2003	Punjab	M/s Synergy Resources (Pvt.) Ltd. Lahore.
6.	June 4, 2003	Punjab	M/s Zil Gas (Private) Limited. Lahore.
7.	June 13, 2003	NWFP	M/s Gateway Gas (Pvt.) Limited, Peshawar.
8.	June 30, 2003	Sindh	Pakistan Petroleum Resources (Pvt.) Ltd. Islamabad.

Determination of Revenue Requirements

B- Determination of Revenue Requirements

- Determination of Revenue Requirements of Gas Utilities
- Process for Determination of Revenue Requirement
- Determination of Final Revenue Requirement of SNGPL for Financial Year 2001-02
- Determination of Final Revenue Requirement of SSGCL for Financial Year 2001-02
- Determination of Estimated Revenue Requirement of SNGPL for Financial Year 2002-03
- Determination of Estimated Revenue Requirement of SSGCL for Financial Year 2002-03
- Determination of Final Revenue Requirement of SNGPL for Financial Year 2002-03
- Determination of Final Revenue Requirement of SSGCL for Financial Year 2002-03
- Determination of Estimated Revenue Requirement of SNGPL for Financial Year 2003-04
- Determination of Estimated Revenue Requirement of SSGCL for Financial Year 2003-04
- Notification of Prescribed Prices of natural gas for each category of retail consumers for natural gas
- Notification of Sale Prices of natural gas for each category of retail consumers for natural gas
- Directions issued to SNGPL and SSGCL

Determination of Revenue Requirements of Gas Utilities

Under Section 8(1) of the OGRA Ordinance, the Authority is required to determine the estimated revenue requirement of each licensee for natural gas and the prescribed price for each category of retail consumer for natural gas of that licensee.

The revenue requirement is the sum of money which would enable a licensee to safely and efficiently conduct its business and earn a reasonable return on its investment. The revenue requirements are required to be determined in case of those licensees who are carrying out the activities in respect of transmission, distribution or sale of natural gas. The revenue requirement in the case of natural gas companies comprises the following major components:

(i) Wellhead price of gas

(ii) Transmission and distribution cost including depreciation

(iii) Prescribed rate of return i.e. 17.5% in case of SNGPL and 17% in case of

SSGCL on the value of their net fixed assets in operation during each financial year.

The wellhead price of gas constitutes nearly 80% of the total revenue requirement of the gas utilities. Wellhead prices of gas producers are determined in accordance with the parameters set in the Gas Price Agreement of gas producers with the Federal Government, therefore, any change in cost of gas becomes a pass through item. The scrutiny by the Authority therefore remain focused on the examination of operating revenues including sale volumes, transmission and distribution cost and assets base for the purposes of allowing reasonable return on the assets.

The wellhead prices of gas are revised on half yearly basis w.e.f. 1st July and 1st January and their impact is duly reflected in the revenue requirements of the gas companies. Therefore, under Section 8(2) of the Ordinance it has been provided that each licensee shall submit for review by the Authority of its total revenue requirement after incorporating the actual changes in the wellhead prices of gas and other relevant factors. Such reviews are normally confined to the changes in the wellhead prices, changes in the sale volume and sales mix. Other elements like assets base, transmission and distribution costs etc. are critically analyzed and adjusted, based on the laid down criteria, at the close of the year.

Process for Determination of Revenue Requirement

- Under the Natural Gas Tariff Rules, 2002, the gas utility companies are required to submit their petitions for determination of estimated revenue requirement for each financial year by 1st December of the preceding year. The estimated revenue requirements are worked out by the gas utilities purely on the basis of projections. The utilities are also required to submit details relating to all the components of revenue requirement, as prescribed by the Authority, along with their petitions.

- All petitions submitted by the gas utilities are processed and decisions are taken in accordance with the procedure laid down in the Rules.

- However, in the case of review petitions filed by the gas utilities during the financial year under Section 8(2) of the Ordinance, the adjustments in revenue requirement are primarily restricted to changes in cost of gas, sales volume and sales mix. Since detailed scrutiny is not required except for the cost of gas and sale volumes / mix, public hearings are therefore generally not held in case of review petitions. The Authority however, invites persons who are likely to be adversely affected by any decision of the Authority in respect of these petitions.

- The Authority carried out the determination of the revenue requirements of SSGCL and SNGPL for the financial year 2001-02 and 2002-03 on a retroactive basis in accordance with the policy guidelines issued by the Federal Government. The details of estimated revenue requirement for the financial year 2001-02 have already been provided in Annual Report 2001-02. Details of the final revenue requirement for the financial year 2001-02, estimated revenue requirement for the financial year 2002-03, final revenue requirement for the financial year 2002-03 and estimated revenue requirement for the financial year 2003-04 are discussed in the succeeding sections.

Determination of Final Revenue Requirement of SNGPL for Financial Year 2001-02

- Under section 8(2) of the OGRA Ordinance 2002, SNGPL filed a petition before the Authority on October 03, 2002 supported by annual accounts initialed by the auditors for the financial year 2001-02, claiming the final revenue requirement at Rs 38,001 million including Rs. 28,550 million as cost of gas, against the estimated revenue requirement of Rs. 37,376 million, including Rs. 28,300 million as cost of gas, determined by the Authority on August 8, 2002.

- The Authority after scrutiny of the Petition and hearing of the case disallowed the following:
  - Rs. 15.799 million as provision for diminution in value of investment (being not part of its core activity) as part of operating expenditures;
  - Rs. 41.263 million as income on account of insurance claim as part of non-operating revenue; and
  - income on account of surcharge on gas sale arrears was increased by Rs. 38.745 million, which was understated by the petitioner.
- The Authority determined the final revenue requirement of SNGPL at Rs. 37,771 million including Rs. 28,550 million as cost of gas, for the financial year 2001-02. The excess requirement of Rs. 395 million was adjusted in the Gas Development Surcharge.

Determination of Final Revenue Requirement of SSGCL for Financial Year 2001-02

- SSGCL filed a petition before the Authority, under the relevant provision of the OGRA Ordinance on November 13, 2002 supported by auditors' initialed accounts for financial year 2001-02 and claimed the final revenue requirement at Rs 28,348 million including Rs. 22,217 million as cost of gas, against the estimated revenue requirement of Rs. 28,551 million, including Rs. 22,133 million as cost of gas, determined by the Authority on August 6, 2002.

- The Authority after scrutiny of the petition and hearing of the case accepted the final revenue requirement of SSGCL at Rs. 28,348 million including Rs. 22,217 million as cost of gas, for the financial year 2001-02. The saving of Rs. 203 million was adjusted in the Gas Development Surcharge.

Determination of Estimated Revenue Requirement of SNGPL for Financial Year 2002-03.

Under section 8(1) of the OGRA Ordinance, SNGPL filed a petition on December 30, 2002, for determination of its estimated revenue requirement at Rs. 42,987 million including Rs. 32,256 million as cost of gas, for the financial year 2002-03.

- The Authority after scrutiny of the petition and public hearing of the case disallowed the following:
  - Rs. 238.893 million being excessive purification charges included in cost of gas;
  - Rs. 8 million as provision for stores and spares written off as part of operating expenditures; and
  - Rs. 1,211 million on account of reduction in addition to fixed assets, based on the past trends of capitalization and a consequential reduction in depreciation charge by Rs. 42 million.

A contingency reserve was however provided in order to capture the unascertained expenditures, which would become firm at the close of the year.

- The Authority determined the estimated revenue requirement of SNGPL for the financial year 2002-03 at Rs. 42,569 million including Rs. 32,017 million as cost of gas.

Determination of Estimated Revenue Requirement of SSGCL for Financial Year 2002-03

- SSGCL filed a Petition for determination of estimated revenue requirement for the financial year 2002-03 on September 27, 2002. Subsequently petitioner filed a revised petition on October 30, 2002, based on 3 month actuals claiming the estimated revenue requirement at Rs. 35,872 million including Rs. 28,741 million as cost of gas.

- The Authority after scrutiny of the petition and public hearing of the case disallowed the following:

  - Rs. 5.399 million as provision for good attendance bonus;
  - Rs. 88.898 million as provision for agreement bonus;
  - Rs. 44 million as provision for doubtful debts in respect of active consumers out of the total demand of Rs. 212 million;
  - Rs. 129 million being excessive purification charges included in cost of gas;
  - Rs. 161.441 million on account of reduction in repair and maintenance, traveling, stores and spares, security, insurance and internal gas consumption expenses based on the past trends; and
  - Rs. 1,033 million on account of reduction in addition to fixed assets, based on the past trends of capitalization, with a consequential reduction in depreciation charge by Rs. 31 million.

  A contingency reserve was however provided in order to capture the unascertained expenditures.

- The Authority determined the estimated revenue requirement of SSGCL for the financial year 2002-03 at Rs. 35,478 million including Rs. 28,612 million as cost of gas.

Determination of Final Revenue Requirement of SNGPL for Financial Year 2002-03

- SNGPL filed a petition before the Authority on September 19, 2003 on the basis of annual accounts initialed by the auditors for the financial year 2002-03, claiming the

- final revenue requirement at Rs. 42,635 million including Rs. 31,349 million as cost of gas, against the estimated revenue requirement of Rs. 42,569 million including Rs. 32,017 million as cost of gas, determined by the Authority on March 12, 2003.
- The Authority after scrutiny of the petition and hearing of the case disallowed the following:
  - Rs. 23 million as provision for diminution in value of investment (not being part of its core activity) as part of operating expenditures; and
  - Rs. 35 million as provision for doubtful debts in respect of active consumers out of the total demand of Rs. 506 million.
- Scrutiny of the petition also revealed that the final revenue requirement incorporated the effect of reduction in sale revenues due to interruption in supplies because of ruptures in main transmission pipeline and increase in Unaccounted for Gas (UFG).
- The Authority determined the final revenue requirement of SNGPL for the financial year 2002-03 at Rs. 42,574 million including Rs. 31,349 million as cost of gas. The excess amount of Rs. 5 million was adjusted in the Gas Development Surcharge.

Determination of Final Revenue Requirement of SSGCL for Financial Year 2002-03

- SSGCL filed a petition before the Authority on September 7, 2003 on the basis of annual accounts initialed by the auditors for the financial year 2002-03 and worked out the final revenue requirement at Rs. 34,836 million including Rs. 28,061 million as cost of gas, against the estimated revenue requirement of Rs. 35,478 million including Rs. 28,612 million as cost of gas, determined by the Authority on February 28, 2003.
- The Authority after scrutiny of the petition and hearing of the case disallowed Rs. 127 million as provision for doubtful debts in respect of active consumers.
- The Authority determined the final revenue requirement of SSGCL for financial year 2002-03 at Rs. 34,709 million including Rs. 28,061 million as cost of gas. The excess requirement of Rs. 769 million was adjusted in the Gas Development Surcharge.

Determination of Estimated Revenue Requirement of SNGPL for Financial Year 2003-04

- In accordance with the Natural Gas Tariff Rules, 2002, the estimated revenue requirement / prescribed prices of SSGCL and SNGPL are to be determined on a prospective basis. The Authority, for the first time, determined the estimated revenue requirement of SSGCL and SNGPL for financial year 2003-04 on prospective basis.

- SNGPL filed a petition before the Authority on January 15, 2003 for determination of its estimated revenue requirement for the financial year 2003-04. Subsequently, based on an increase in the wellhead prices and determination of estimated revenue requirement for FY 2002-03, a revised petition was filed by the petitioner on March 31, 2003, for determination of its estimated revenue requirement at Rs. 61,584 million including Rs. 49,748 million as cost of gas, for the financial year 2003-04.

- The estimated revenue requirement of SSGCL and SNGPL for the financial year 2003-04 were determined in accordance with the policy guidelines issued by the Federal Government, which stipulated that the cost of gas of SSGCL and SNGPL should be worked out on an overall weighted average basis in such a manner that the input cost of gas, which constitutes about 80% of the revenue requirement of both the companies becomes uniform, since the Federal Government as a policy would like to keep the gas sale prices for various categories of consumers at a uniform level throughout the country. Consequently, the revenue requirement of SNGPL was increased by Rs. 6,124 million.

- The Authority after scrutiny of the petition and public hearing of the case disallowed the following:
  - Rs. 99.534 million on account of reduction in the projected expenditures on account of internal gas consumption, medical and welfare expenses and provision for stores and spares written off ;
  - Restricted the increase in other operating expenses up to 5% over and above the operating expenditure allowed by OGRA in the estimated revenue requirement determined for the financial year 2002-03.
  - Rs. 1,345 million on account of reduction in addition to fixed assets, based on the past trends of capitalization, with a consequential reduction in the depreciation charge by Rs. 47 million.

A contingency reserve was however provided in order to capture the unascertained expenditures.

- The Authority determined the estimated revenue requirement of SNGPL at Rs. 67,439 million including Rs. 55,955 million as cost of gas, for financial year 2003-04, which includes an efficiency based incentive oriented benchmark in the form of fixed UFG target at 6.5% with the stipulation that the company shall be entitled to retain the savings in case where it improves upon the UFG target of 6.5% in financial year 2003-04. Conversely, the company shall bear from its own profit the consequential impact of not achieving the aforesaid target of UFG.

Determination of Estimated Revenue Requirement of SSGCL for Financial Year 2003-04

- SSGCL filed a petition for determination of its estimated revenue requirement for the financial year 2003-04 on December 14, 2002. Subsequently, based on increase in wellhead prices and determination of estimated revenue requirement for FY 2002-03, a revised petition was filed by the petitioner on March 26, 2003 for determination of its estimated revenue requirement at Rs. 50,255 million including Rs. 43,009 million as cost of gas, for financial year 2003-04.

- As elaborated above, the estimated revenue requirement of SSGCL and SNGPL for financial year 2003-04 have been determined on the basis of overall average cost of gas of the companies in accordance with the policy guidelines issued by the Federal Government. As a consequence, the revenue requirement of SSGCL was decreased by Rs. 6,124 million.

- The Authority after scrutiny of the petition and public hearing of the case disallowed the following:

  a) Rs. 118.827 million on account of reduction in the projected expenditures on account of medical, provision for doubtful debts and expenses relating to Interstate Gas Systems (Pvt.) Limited.

  b) Restricted the increase in other operating expenditures up to 5% over and above the operating expenditures allowed by OGRA in the estimated revenue requirement determined for financial year 2002-03.

  c) Rs. 1,100 million on account of reduction in addition to fixed assets, based on the past trends of capitalization with a consequential reduction in depreciation charge by Rs. 33 million.

A contingency reserve was however provided in order to capture the unascertained expenditures.

- The Authority determined the estimated revenue requirement of SSGCL at Rs. 43,620 million, including Rs. 36,829 million as cost of gas, for the financial year 2003-04. As in the case of SNGPL, the estimated revenue requirement of SSGCL is also based on the UFG target of 6.5% with the same stipulation.

Notification of Prescribed Prices

- In accordance with the provisions of section 8(3) of the OGRA Ordinance, the Authority is required to notify the Prescribed Prices for each category of consumers for natural gas of both the gas companies in order to enable each licensee to achieve the revenue requirement as determined by the Authority.

- During the year under review, the Authority issued six notifications of Prescribed Prices for each category of consumer for natural gas in respect of FY 2001-02, FY 2002-03 and FY 2003-04.

Notification of Sale Prices

- Pursuant to section 8(3) of the OGRA Ordinance, the Federal Government advised the sale prices for various categories of consumers, after adjustment of Gas Development Surcharge in the Prescribed Prices as determined by the Authority. The Authority notified the sale prices for various categories of consumers for natural gas as advised by the Federal Government on October 25, 2002, and then on July 1, 2003.

Directions Issued to SNGPL and SSGCL

- In order to ensure cost effective supply of gas to consumers and reduce the gas losses, the Authority issued the following directions / guidelines from time to time to SNGPL and SSGCL:

    - Ensure prudence in its capital expenditure and starting from financial year 2002-03 provide detailed justification of various additions to the asset base;

- Lay transmission lines or distribution spurs to a new town / area prior to laying distribution network;
- Progressively reduce UFG to below 6%, within three years, starting financial year 2002-03.
- Conclude agreement with CBA on the basis of following principles:

  a. Increase in productivity;
  b. Prevailing domestic inflation rate;
  c. Control on overtime expenditure;
  d. Control on abuse of medical facility;
  e. Rightsizing of the manpower; and
  f. Maintenance of industrial peace for uninterrupted supply of gas.

- Make concerted efforts to build a more efficient recovery system and put in place an effective disconnection mechanism so as to ensure timely recovery of bills and to make concerted efforts to recover the outstanding arrears from defaulters;
- Create a separate fund to meet obligations under International Accounting Standard-19;
- Relate the productivity gains and prevailing market conditions while undertaking revision in the compensatory package for the executives;
- Make proper disclosure of interest income on gas sale arrears against WAPDA and KESC and other similar transactions, in accordance with the International Accounting Standards in the Annual Audited Accounts;
- Capitalize borrowing cost in accordance with the relevant International Accounting Standards. In future, deduct from the borrowing costs any interest income earned on such funds, which are not fully utilized for expenditure on capital assets and are temporarily invested, in determining the amount of borrowing costs eligible for capitalization as required by para 15 and 16 of International Accounting Standard 23. The expense incurred on floatation of the Term Finance Certificates and other loan raising expenses should also be capitalized in accordance with International Accounting Standards; and
- Ensure gas internally consumed is metered at all points by the end of the financial year 2003-04 and appropriate measurement devices be installed in this respect.

Strengthening of Regulatory Framework

C- Strengthening of Regulatory Framework

- Development of Regulations on Uniform System of Accounts
- Development of Tariff Regulatory Regime
- CIDA's Assisted Projects

Development of Regulations on Uniform System of Accounts

- Pursuant to section 6(2)(c) of the OGRA Ordinance, the Authority is obligated to prescribe a Uniform System of Accounts (USOA) and accounting practices to be complied with by the licensees for natural gas. Development of comprehensive USOA for utilities was considered essential in order to compare the cost structure of both the utilities among themselves and with utilities operating in different parts of the world. Implementation of USOA will constitute accounting ring fencing of the segregated transmission and distribution activities which is considered a vital step towards future privatization of these utilities in unbundled form. Moreover, effective benchmarking exercises based on international utilities data could only be undertaken once the USOA have been developed and implemented.

- M/S Sidat Hyder and Co., a reputed firm of chartered accountants, was selected in accordance with the World Bank selection guidelines for carrying out the above study through a competitive process. The details of the assignment have been discussed in OGRA's Annual report for the financial year 2001-02. During the financial year 2002-03, the consultants submitted the final templates and a detailed chart of accounts, which were formulated in consultation with the licensees.

- Based on the findings of the study, USOA Regulations were prepared and circulated to the gas companies and other stakeholders. The regulations have been finalized after incorporating the relevant comments of stakeholders and would be notified shortly. The regulations would be applicable w.e.f, July 01, 2005 to licensees engaged in the business of transmission, distribution and sale of natural gas and the licensees would be required to submit the regulatory accounts on periodic basis, prepared in accordance with the said regulations. The Authority shall continue its interaction with the gas companies to ensure its implementation within the stipulated time frame.

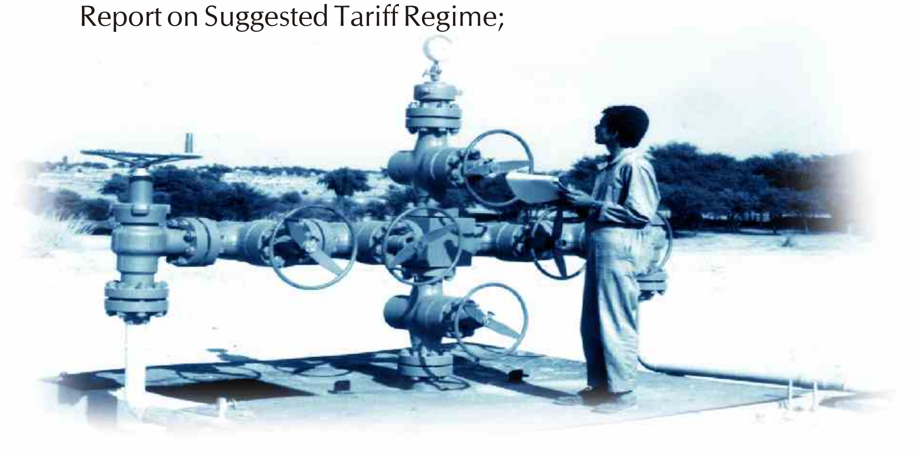
Development of Appropriate Tariff Regulatory Regime

- Under Section 6(2)(t) of the OGRA Ordinance, 2002, the Authority has been entrusted with the responsibility to determine for each licensee of natural gas a reasonable ROR, which may be earned by such licensees in undertaking its regulated activity pertaining to natural gas, in consultation with the Federal Government and the licensees. Under the existing ROR regime, SSGCL and SNGPL are entitled to a return of 17% and 17.5%, respectively on their average net operating fixed assets. However, the existing regime doesn't provide incentives to the utilities to economize capital expenditure and transmission and distribution costs. ROA encourages gold plating of assets owing to increased returns allowed, based on additions to asset base, unless appropriately checked by the regulator.

- Public Private Infrastructure Advisory Facility (PPIAF), a multi-donor international agency has provided a grant of US $ 293,000 for development of a tariff regulatory regime for the natural gas sector in Pakistan. After a competitive bidding process M/s Economic Consulting Associates (ECA) in collaboration with PDC and FRSH were appointed as the consultants for carrying out the above study.

- The study started in April 2003 and is expected to conclude by January 2004. The consultants have submitted the following deliverables to date:

    - Inception report;
    - Report on prevailing regime;
    - Report on Capital Expenditure;
    - Report on Operation and Maintenance (O & M) cost;
    - Report on Asset Valuation Techniques;
    - Report on Benchmarking; and
    - Report on Suggested Tariff Regime;



Consultation sessions were held in respect of each deliverable in order to get feedback from key stakeholders including the utilities, MP&NR and the Ministry of Finance. ECA will be submitting the final draft report, along with financial model, after incorporating views of all stakeholders. ECA has been asked by OGRA and other stakeholders to formulate the financial model that provides comparative analysis of tariffs applicable under different types of regimes in order to enable the stakeholders to select the most appropriate regime for a regulated natural gas sector. ECA is currently in the process of developing / finalizing the financial model and final draft report, which is the most critical milestone of the study.

Canadian International Development Agency (CIDA) Assisted Projects

- CIDA has provided to OGRA useful consulting services under the Oil and Gas Sector Programme for Pakistan. CIDA has also provided books for OGRA's library on subjects of finance, engineering and information technology.

  CIDA's consultants assisted in the following areas:
  - Review of technical standards for transmission and distribution of natural gas including construction, testing, operation and maintenance;
  - Review of Performance and Service Standards;
  - Development of a concept paper on licence format and licencing conditions for transmission, distribution and sale of natural gas;
  - Assisted in the development of new draft CNG rules for carrying out regulated CNG activities;
  - Discussed draft OGRA's LPG rules for carrying out regulated LPG activities including production, liquidization, separation, stripping, transportation, storage, filling and distribution of LPG; and
  - Review ECA's reports on Development of Tariff Regulatory Regime, including benchmarks, O&M, capital expenditure and asset valuation to provide suitable recommendations to OGRA in this regard. Moreover, they assisted OGRA in the evaluation of drawbacks of existing RoR based regime vis-à-vis various price cap / revenue cap options and their suitability to Pakistan's operating conditions.

D- Formulation of Rules and Regulations

- Notification of Tariff Rules
- Notification of Complaint Resolution Procedure Regulations
- Regulation in respect of Performance and Service Standards
- Regulations on Technical Standards for Transmission and Distribution
- New Rules for CNG and LPG
- New Rules for Downstream Oil Sector
- Service and Financial Regulations
- Budget Committee Rules

Sections 41 and 42 of the OGRA Ordinance require the Authority to formulate Rules and Regulations respectively to carry out the Authority's functions as provided in the Ordinance. The Rules are to be approved and notified by the Federal Government, whereas the regulations are to be approved and notified by the Authority itself. One of the fundamental instruments i.e. the Natural Gas Licencing Rules, were framed under the former NGRA Ordinance and notified in February 2002. These rules were protected under the OGRA Ordinance. The other rules and regulations proposed or which are under final stages of preparation are discussed below: -

Notification of Tariff Rules

Tariff Rules lay down the ground rules for the mode of financial regulation of the licensees. The Natural Gas Tariff Rules 2002 were developed in consultation with the Federal Government and the licensees. They were approved and notified by the Federal Government on November 24, 2002. The Tariff Rules provide in detail the:

- Procedures for filling of the tariff petitions, admission of applications, service of notices, filing of interventions / reply and rejoinder and hearings by the Authority;
- Procedure for decisions by the Authority and their review;
- Schedule of fees for filing of petition by:
  - Any consumer or person
  - A licensee for determination of total revenue requirement and review of total revenue requirement for a particular financial year;
- Evaluation criteria highlighting the basis for determining the tariff / revenue requirement; and
- Imposition of penalty for contravention of provisions of Ordinance, rules and decisions of the Authority.

Notification of Complaint Resolution Procedure Regulations

Complaints Resolution Procedure (for natural gas, LPG and CNG) regulations 2003 were issued on September 03, 2003. The Authority believes that it has laid the foundation to serve the cause of the public at large and hopes that the public will take full benefit of these regulations to get their grievances resolved in a timely and transparent manner.

Regulation in respect of Performance and Service Standards

Performance and Service Standards Regulations have been issued. The service standards are focused on inputs and processes i.e. they prescribe what the licensees have to do when providing services regarding maintaining quality of gas, reading meters, responding to consumer complaints, etc. while performance measures will focus on the result of the licensee's efforts e.g. consumer satisfaction, safety, billing, providing connections and other areas of consumer and public interest.

Some of the salient performance and service standards are as follows:

- Complaints on gas emergencies i.e. gas leakages, fires or other hazardous situations to be attended as quickly as possible, but within one hour for uncontrolled escapes, and two hours for controlled escapes;
- The companies shall promptly respond to all requests for service after the date of their receipt and issue the proposal letter within 90 days, or any other period approved by the Authority on the request of the company;
- Consumers to receive replies within 5 working days of receipt of correspondence (i.e. consumer to receive a response within 5 working days of receipt of an application / letter);
- The company shall submit gas bills based on actual meter readings on 30 days basis, or a longer period not exceeding 45 days. Adjustments for price and tariff should be made proportionate to the number of days;
- The due date of payment shall be 15 days from date of issuance of bill. However, the company shall make arrangements for delivery of bills such that each consumer gets a minimum period of 7 days to make payments;
- Reconnection after payment shall be carried out within one working day and access available;
- Refunds to consumers to be dispatched within 30 days; and
- The company shall maintain adequate pressure in the transmission pipelines and distribution networks and up grade the system where necessary to ensure supply of contractual volume and pressure to its consumers.

The licensee shall conform to the performance and service standards as may be specified by the Authority from time to time in respect of any aspect of the licensee's performance including service, efficiency and safe operation of its regulated activities. The Authority has developed an effective monitoring system for this purpose.

Regulations on Technical Standards for Transmission and Distribution

The provisions of the OGRA Ordinance, 2002 stipulate formulation of technical standards of materials, equipment and other resources as may be required for undertaking any of the regulated activities, in consultation with the licensees.

The existing gas transmission and distribution companies generally followed standards and practices in vogue with the natural gas industry of the United States of America. However, over a period of time the situation on ground made it difficult for the gas companies to continue following these practices, hence a case existed for review of the technical standards under practice. The Authority carried out detailed studies of the technical standards prevalent in the gas industry of other parts of the world specifically those of the U.S.A, the U.K, Canada and Australia. The Authority thereafter developed technical standards for Pakistani gas companies in consultation with the two gas companies and a consultant from CIDA. While formulating the technical standards special attention was paid to the ground realities prevailing in the country, particularly from the point of view of enforceability of the standards.

The primary objective of these standards is to ensure efficient design, construction, O&M of pipelines and associated accessories that are in use in the transmission and distribution of natural gas. These are to be notified shortly.

New draft rules for CNG and LPG

- The LPG and CNG regulatory functions were transferred to OGRA from Directorate General Gas, Ministry of Petroleum and Natural Resources vide Federal Government notification dated March 15, 2003.
- OGRA prepared new draft LPG and CNG Rules 2003 for carrying out the regulated activities of the LPG and CNG sectors. The draft Rules are currently under review and once these are finalized, they will be circulated to all the stakeholders, for their inputs. The final rules are to be approved and notified by the Federal Government.

New Rules for Downstream Oil Sector

Section 23(3) of the OGRA Ordinance provides exclusive powers to the Authority for grant of licence for construction or operation of oil pipeline, oil storage, oil terminal, oil blending facility, refinery or establishment of oil marketing company. In order to regulate the midstream and downstream oil sector in accordance with the provisions of the Ordinance, o the Federal Government and all other stakeholders for their views before formal notification by draft rules for these regulated activities are being prepared which would be circulated to the Federal Government and all other stakeholders for their views before formal notification by the Federal Government. The Authority has engaged a CIDA Consultant to develop terms and conditions for the licence to be granted for each of the above activities covering the following areas: -

- Introduction of efficiency and competition;
- Quality;
- Technical and service standards; and
- Commercial and financial operation.

Service and Financial Regulations

Service and Financial Regulations, which define terms and conditions of employment in the Authority and other financial matters, have been finalized and are expected to be notified shortly.

Budget Committee Rules

Section 41(n) requires OGRA to formulate Budget Committee Rules and procedures for the appointment of the Budget Committee Members. Final draft of Budget Committee Rules 2003, were submitted to the Federal Government in June 2003 for approval and notification.

E- Approval for Expansion In Transmission And Distribution Networks

Under the Natural Gas Licensing Rules a company has to take the approval of the Authority for any addition to the transmission pipelines, which would increase the capacity by 25 MMCFD or more. Pursuant to this obligation SNGPL submitted a number of such requests for approval by the Authority.

The evaluation of all these requests for expansion was carried out through detailed analysis including the basic justification for any such addition, technical and economic prudence, cost effectiveness and cost competitiveness. A summary of approvals granted by the Authority during the year is given below:

- Uplifting and revalidating of old 16″ diameter, 164 miles pipeline (Multan -Faisalabad segment) at an estimated cost of Rs. 89.250 million; this pipeline had become redundant due to its age and inefficiency;
- Laying of 36″ diameter, 20.5 miles pipeline from Sidhnai to Shorkot at a cost of Rs. 627.250 million. This would increase system capacity from Qadirpur Rawan to Faisalabad from 700 MMCFD to 840 MMCFD i.e. by 140 MMCFD, and enable the company (SNGPL) to inject additional gas from new discoveries and would also facilitate to accommodate increasing demand of gas by power plants on the Faisalabad - Lahore segment;
- Laying of 72 miles of 16″ diameter uplifted pipe and 17 miles of 16″ diameter new pipeline (Sahiwal - Lahore segment) at an estimated cost of Rs. 572.686 million. This would increase capacity on the segment by 120 MMCFD;
- Laying of 14.02 miles of 8″ diameter pipeline between Khurianwala and Jaranwala at an estimated cost of Rs. 98.912 million. This would increase capacity from 5 MMCFD to 24 MMCFD; and
- Laying of 16″ diameter, 38 miles uplifted pipeline between Bhai Pheru and Dawood Hercules off take point at an estimated cost of Rs. 275 million. This would provide additional capacity of 80 MMCFD besides providing flexibility of operation in the system and enable provision of gas to WAPDA Power House at Baloki to the extent of 60 MMCFD.

State Of Downstream Petroleum Industry

- Gas Industry in Pakistan
- Status of Regulated Activities in Natural Gas Sector
- Sui Northern Gas Pipeline Limited
- Sui Southern Gas Company Limited
- Mari Gas Company Limited
- Pakistan Petroleum Limited
- OGDCL
- State of CNG Industry
- State of LPG Industry

Gas Industry in Pakistan

Introduction

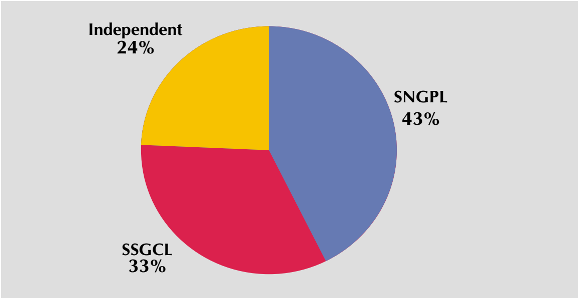
Natural gas plays an important role in Pakistan's economy, meeting about 44% of the country's supply mix for commercial energy. The consumption of gas has been growing at a rapid rate of nearly 7% over the past decade to reach 2,389.76 MMCFD in FY2002-03. As of June 2003, Pakistan's total recoverable gas reserves were estimated at 26.8 trillion cubic feet (Tcf).

Pakistan possesses a well-developed and extensive gas transmission and distribution network, most of which is operated by two utilities: the SNGPL and the SSGCL. The country has 8,916 km of transmission lines and about 60,400 km of distribution pipeline network serving more than 3.842 million consumers of various categories.

During the period the two companies added 416 km and 2,247 km to their transmission and distribution networks respectively, whereas the total consumer base was increased by a total of 162,050 consumers.

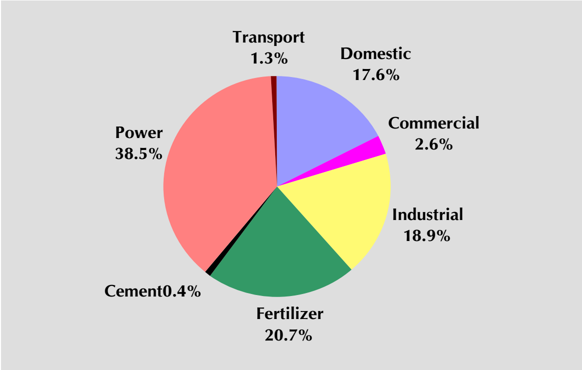
Total volume of gas managed by these utilities and some independent systems dedicated to fertilizer and power plants is 872,265 MMCF (7 54,264 BBTU) out of the total gas supplied during FY2002-03. SNGPL and SSGCL handled 341,643 MMCF (322,169 BBTU) and 254,349 MMCF (247,990 BBTU) respectively, while the independent systems handled volume of gas equivalent to 276,273 MMCF (184,105 BBTU). A breakdown of the market share held by the transmission and distribution companies is as below:

Market Share of Transmission and Distribution Companies
Total Volume Handled:- equivalent to 754,264 BBTU



The largest use of gas was in power generation (38.5%) followed by fertilizer (20.7%), industrial (18.9%), domestic (17.6%), commercial (2.6%), cement (0.4%) and transport sectors (1.3%), shown as below:

Natural Gas Consumption By Sector



F.Y. 2002-03

While the Government is according priority of diversion of natural gas to the power sector to replace fuel oil, the policy may need a review as natural gas used in the domestic and fertilizer sectors in the long run provides better utilization in terms of its opportunity cost and positive effect on the environment.

Demand - Supply Scenario:-

Several demand - supply scenarios have been estimated by different agencies, based on different assumptions. The important findings pertaining to natural gas supply and demand situation in the country are discussed below:

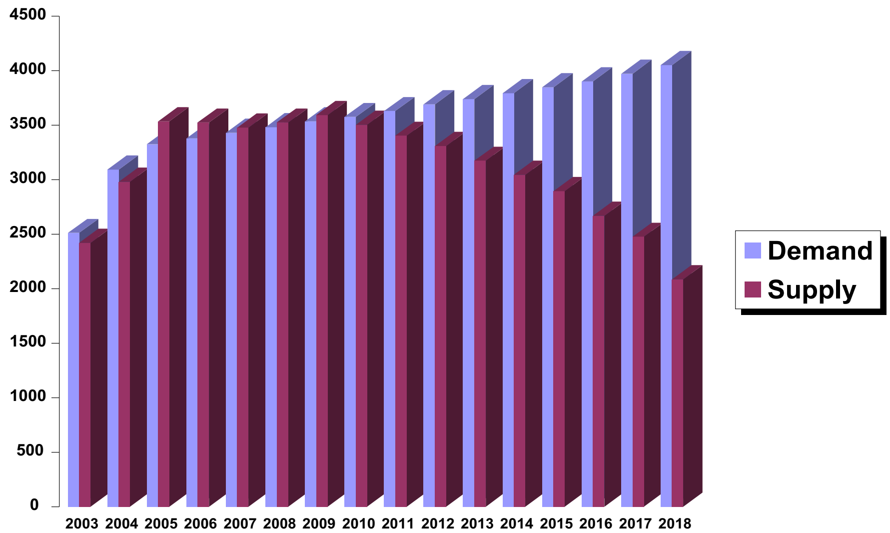
Forecast of Gas Utilities

Based on the demand / supply projections of the two major gas utility companies and independent gas supply systems to fertilizer and power plants, the following figures emerge.

(MMCFD)

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Demand	2413	3090	3469	3582	3701	3867	3986	4051	4132	4184	4267	4346	4447	4514	4657	4765
Total Supply	2375	2942	3309	4304	4448	4405	4246	4106	3867	3549	3287	3005	2796	2384	2172	1939
Excess/Shortfall	-38	-148	-160	722	747	538	260	55	-265	-635	-980	-1341	-1651	-2130	-2485	-2826

A graphical representation of the country wide projected excess / shortfall is as below:



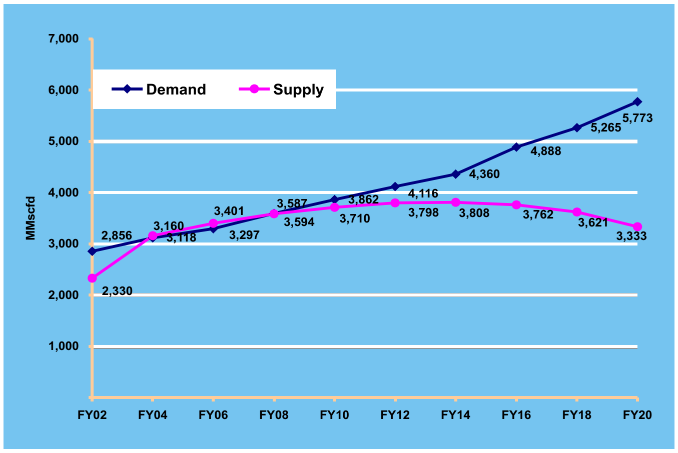
Hagler Bailly:

Hagler Bailly Pakistan, an international consulting firm, projected a forecast for gas demand (inclusive of transmission and distribution losses), supply, and surplus or deficit in the market under most likely demand and supply scenario, indicating an annual growth in demand of gas by 4.1% approximately, based on the GDP growth (4.5% annually). The figures are tabulated and shown graphically as under:

Natural Gas Supply and Demand Balance, MMscfd

	FY02	FY03	FY04	FY05	FY06	FY07	*FY08*	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Demand	2,856	2,949	3,118	3,159	3,297	3,437	3,594	3,722	3,862	4,009	4,116	4,242	4,360	4,628	4,888	5,096	5,265	5,485	5,773
Supply	2,330	2,757	3,160	3,356	3,401	3,438	3,587	3,662	3,710	3,732	3,798	3,826	3,808	3,791	3,762	3,698	3,621	3,493	3,333
Surplus/ (Deficit)	(526)	(193)	42	196	104	1	(7)	(60)	(152)	(277)	(318)	(416)	(552)	(837)	(1,126)	(1,398)	(1,644)	(1,992)	(2,440)

Natural Gas Supply and Demand Balance, MMscfd



Enerman Consultants:-

Another independent view has been taken from a similar study carried out by Enerman Group, the energy management consultants, in 2002. Based on the most likely scenario, the demand-supply figures are as below:

Natural Gas Supply and Demand Balance, MMscfd			
Years	FY05	FY10	FY15
Demand	3,307	4,440	5,615
Supply	3,313	3,241	3,281
Gap	(6)	(1,199)	(2,334)

The most likely gas demand scenario assumes medium growth in domestic consumers. For power, the most likely power demand growth and low hydel and coal development scenario has been taken. Fertilizer demand assumes no more capacity addition and cement plants assume about 55% of capacity converted to coal use. The growth in demand has been taken at an average of 5.5%.

Analysis: -

All these projections clearly delineate a deficit in gas supply emerging around the later half of the current decade, which may grow over to 2000 MMCFD by 2020. Although recently various new discoveries have been made across the country promising high supply potential, they are still in their early phase of evaluation and their reserve estimates and resulting production profiles are yet to be ascertained. It appears that in the long run, the country may have to depend on imported energy to meet the shortfalls in demand. Regular review on yearly basis is however required, for which OGRA is making independent arrangements.

State of the Regulated Gas Industry

A number of companies, falling within the ambit of regulated activities, are engaged in transmission, distribution and sale of natural gas namely:-

- Sui Northern Gas Pipelines Limited (SNGPL) - Carrying out transmission, distribution and sales in the provinces of Punjab, NWFP, AJK, Federal Capital Territory, and a small part of Sindh.
- Sui Southern Gas Company Limited (SSGCL) - Carrying out transmission, distribution and sale in Sindh and Balochistan.
- Mari Gas Company Limited (MGCL) - Supplying gas to M/s Fauji Fertilizer Co. Ltd. at Mirpur Mathelo, Sindh and Goth Machi, Punjab, M/s Engro Chemicals Ltd. at Dharki, Sindh, and WAPDA Thermal Power Station, at Guddu, Sindh.
- Pakistan Petroleum Limited (PPL) - Supplying gas to M/s WAPDA Thermal Power Station, Guddu, Sindh.
- Oil and Gas Development Company Limited (OGDCL) - Supplying gas to M/s Altern Energy Power Plant, Punjab, M/s Fauji Kabirwala Power Plant, Punjab, and M/s Uch Power Plant, Balochistan.

The activities of these companies, their ownership, etc. are elaborated in the succeeding paragraphs:

Sui Northern Gas Pipeline Limited

SNGPL's authorized capital is Rs. 15,000 million and the paid-up capital is Rs. 4,992 million, which has been subscribed by the shareholders as on June 30, 2003 and as follows:

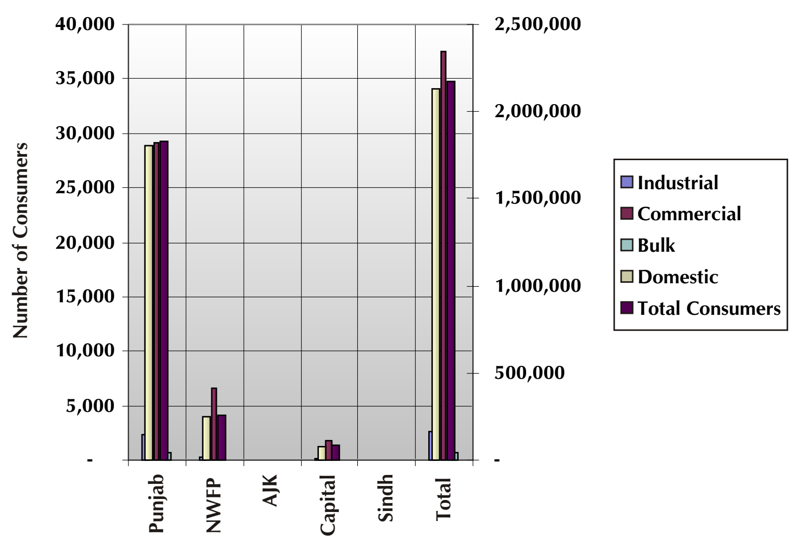
Sr. No.	Categories of Shareholders	Percentage
(a)	The President, Islamic Republic of Pakistan	36.00
(b)	Dawood Hercules Chemicals Ltd	16.23
(c)	Individuals	7.89
(d)	Insurance Companies	5.28
(e)	NIT and ICP	8.15
(f)	Banks, development financial institutions, non banking financial institutions	19.56
(g)	Muslim Commercial Bank Limited	4.14
(h)	Modarabas and Mutual Funds	1.36
(i)	Others	1.39
	Total:	**100.00**

- SNGPL's gross value of fixed assets as on June 30, 2003 was Rs 54,400 million. The company's transmission and distribution network stood at 5,759 km and 35,814 km respectively. During this period the company added 354 km of transmission and 1,721 km of distribution pipelines. The company has planned an addition of 301 km and 2000 km in the transmission and distribution network respectively for the year 2003-04.
- The Company's transmission system capacity has improved from 1,125 MMCFD in 2001-02 to 1300 MMCFD during 2002-03. The capacity will increase to 1,380 MMCFD during 2003-04.
- Unaccounted For Gas (UFG) on SNGPL's system was 7.98 % during 2001-02, 8.19% during 2002-03 and is targeted to reduce to 6.5% by June 2004.
- SNGPL is presently supplying gas to 2,173,694 consumers, the breakup of which is given below:-

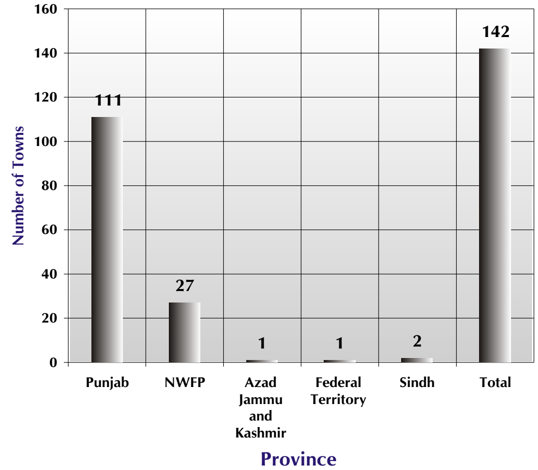
SNGPL

	Industrial	Commercial	Domestic	Bulk	Total Consumers
Punjab	2,355	29,152	1,800,260	665	1,832,432
NWFP	243	6,545	250,711	38	257,537
AJK	-	-	206	-	206
Capital	71	1,750	80,609	49	82,479
Sindh	1	24	1,016	-	1,041
Total	**2,670**	**37,471**	**2,132,802**	**752**	**2,173,695**

Number of Consumers/Province Wise (SNGPL)



Number of Towns (Province Wise - SNGPL)

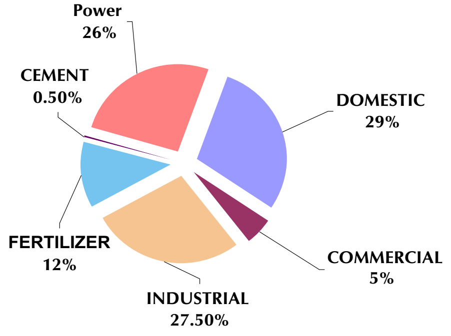


- The number of consumers added by the company during 2001-02 and 2002-03 were 105,329 and 105,261 respectively and has plans to connect 138,150 consumers during 2003-04.
- Total sale of gas to the consumers during the year 2001-02 was 881 MMCFD, 936 MMCFD during 2002-03 and expected gas sale during 2003-04 is 1311 MMCFD.
- The category wise breakup of consumption during 2002-03, along with a comparison is as below:

SNGPL (MMFCD)

Sector	2001-02	2002-03	2003-04 (Projected)
Domestic	253	268	286
Commercial	43	43	45
Industrial	233	259	271
Fertilizer	112	113	127
Cement	10	5	5
Power	230	248	577
Total	**881**	**936**	**1311**

Category Wise Consumption (2002-03)



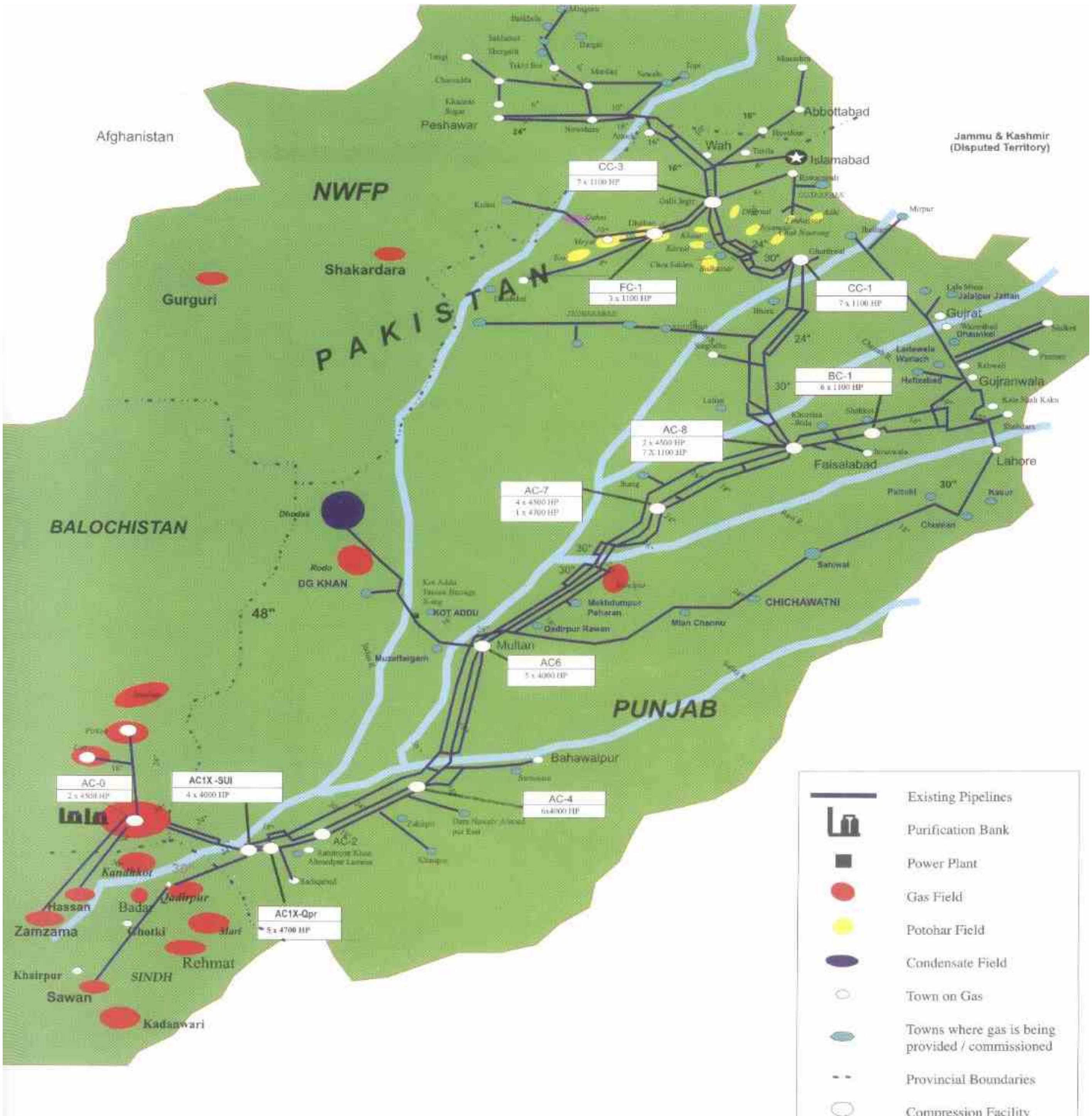
- During the peak winter months (December - February) the gas demand specifically of domestic consumers increases almost 3-4 times as compared to the summer months. To meet the increased requirements of domestic consumers, SNGPL partially curtails / restricts supplies to its major consumers like fertilizer, power plants and industrial consumers. To avoid disruption of supplies to the priority sectors, the fertilizer plants are advised to undertake their annual maintenance during these peak winter months. Gas supply to cement plants is totally curtailed and to WAPDA and KAPCO is curtailed partially.
- The overall average heating value of the pipeline system is given below:

Heating Value	
Year	(BTU/SCFT)
2001-02	947
2002-03	943
2003-04	936 (Projected)

New Towns and Villages

The company supplied gas to two new towns during the year 2002-03 and has planned to connect another nine towns and sixteen villages during the year 2003-04.

Sui Northern Gas Transmission System As On June 30, 2003



Note: - Zamzama gas is being supplied to SNGPL at Sui through SSGCL's IRBP.

- Hassan gas is being supplied to SNGPL at Sui through SSGCL's ILBP.

Sui Southern Gas Company Limited

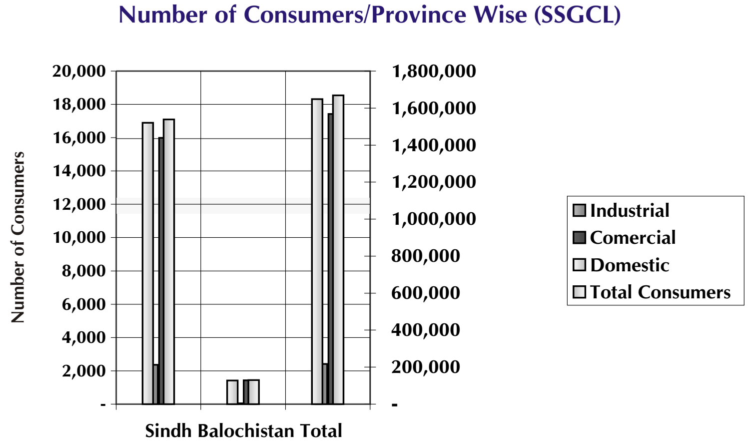
SSGCL's authorized capital is Rs. 10,000 million and the paid-up capital is Rs.6,712 million, which has been subscribed by the shareholders as on June 30, 2003:

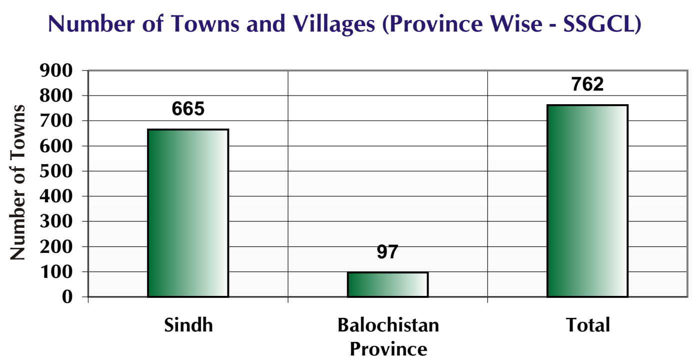
Sr.#	Shareholding	Percentage
a)	The President, Islamic Republic of Pakistan	70.43
b)	Financial institutions	2.32
c)	NIT & ICP	9.38
d)	Insurance companies	10.62
e)	Public Sector Companies and Corporations	2.04
f)	Modaraba companies	0.25
g)	Individuals and others	4.94
h)	Directors, CEO, Executives	0.02
	Total:	**100**

- SSGCL's gross value of fixed assets as on June 30, 2003 was Rs. 34,926 million. The company's transmission and distribution network stood at 2,809 KM and 24,516 KM respectively. The company added 62 km and 526 km in the transmission and distribution networks respectively during 2002-03. The company has plans to add 23 KM and 1100 KM in the transmission and distribution network respectively during 2003-04.
- The Company's transmission system capacity improved from 700 MMCFD in 2001-02 to 840 MMCFD during 2002-03. The capacity will increase to 983 MMCFD during 2003-04.
- Unaccounted for Gas (UFG) on SSGCL's system during 2001-02 was 7.6 %, during 2002-03 it was 7.57 % and is targeted to reduce it to 6.5 % by June 2004.
- Unlike the case of SNGPL, the load swing between winters and summers on the SSGCL system, except Quetta is not that pronounced. However, any increased demand during winter days is met by curtailment of gas supply to the cement, power and fertilizer sectors as per approved policy of the Government and procedure given in the Licence issued by OGRA.
- The company is supplying gas to 1,668,715 consumers, the breakup of which is given below: -

SSGCL

	Industrial	Commercial	Domestic	Total Consumers
Sindh	2,366	15,991	1,520,802	1,539,159
Balochistan	46	1,438	128,072	129,556
Total	**2,412**	**17,429**	**1,648,874**	**1,668,715**

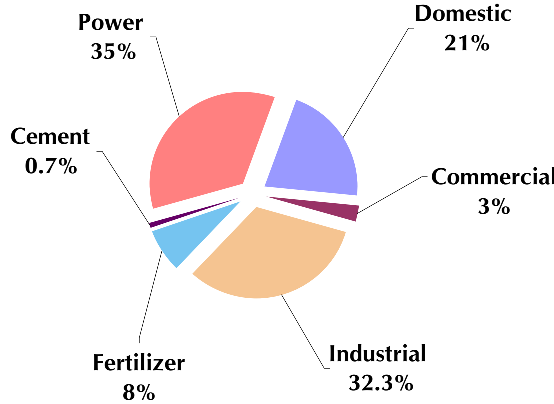




- The number of consumers added by the company during the year 2001-02 and 2002-03 were 61,616 and 56,789 respectively and has planned to connect 65,910 consumers during 2003-04.
- Total sale of gas to the consumers during 2001-02 was 642 MMCFD, 697 MMCFD during 2002-03 and expected gas sale during 2003-04 is 857 MMCFD.
- The category-wise break up of consumption for 3 years is as follows:

Sector	2001-02	SSGCL 2002-03	(MMCFD) 2003-04 (Projected)
Domestic	141	147	163
Commercial	18	19	22
Industrial	215	225	254
Fertilizer	41	56	60
Cement	9	5	2
Power	218	245	356
Total	**642**	**697**	**857**

Category Wise Consumption (2002-03) SSGCL

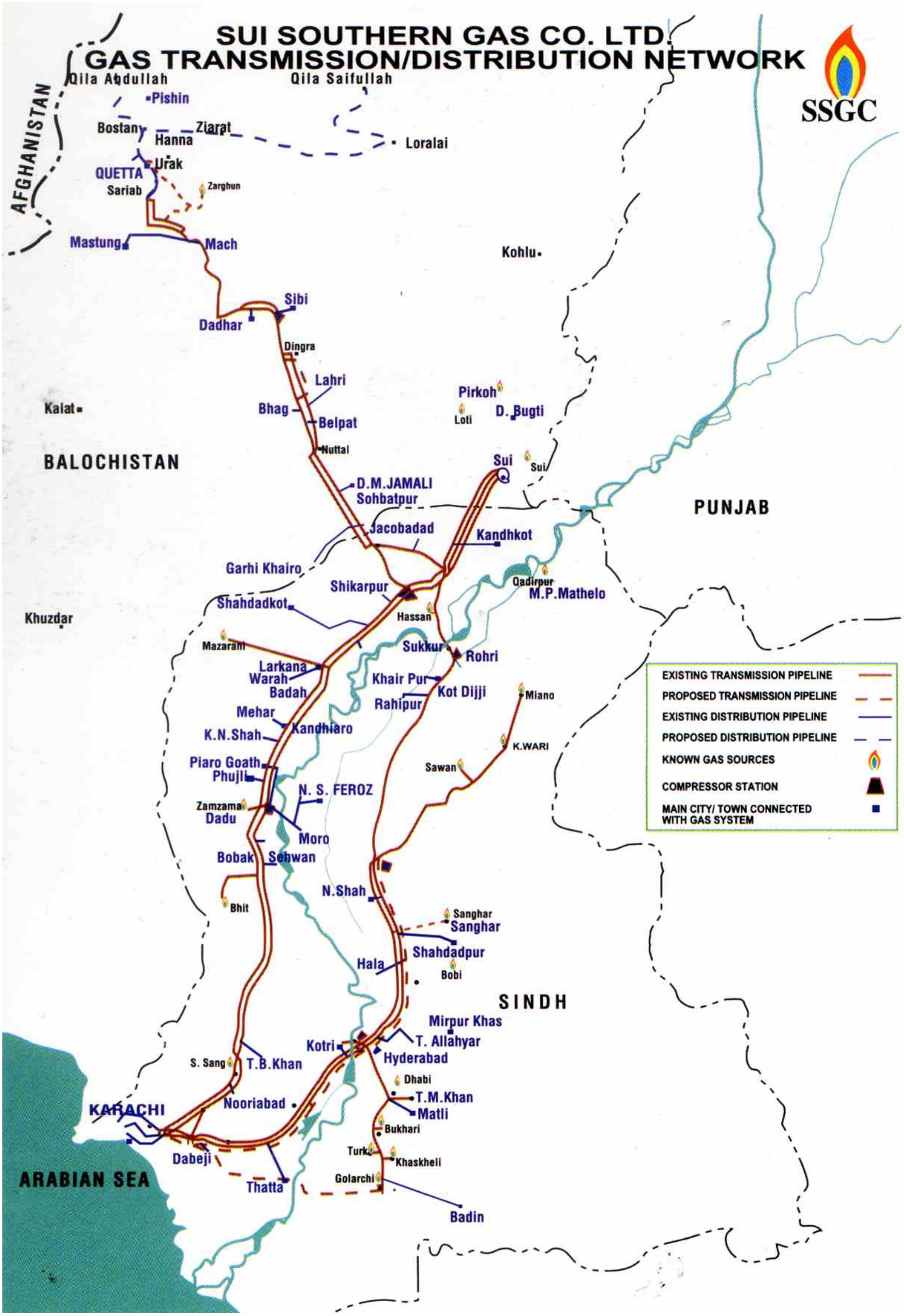


- The overall average heating value of pipeline system:

Year	Heating Value (BTU / SCFT)
2001-02	976
2002-03	975
2003-04	960 (Projected)

New Towns and villages

The Company supplied gas to 20 new villages during 2001-02 and to 26 new villages during 2002-03 and plans to supply gas to 9 new towns and 152 new villages during 2003-04.


SUI SOUTHERN GAS CO. LTD.
GAS TRANSMISSION/DISTRIBUTION NETWORK
SSGC
AFGHANISTAN
Qila Abdullah
Qila Saifullah
Pishin
Bostan
Ziarat
Hanna
Loralai
Urak
QUETTA
Sariab
Zarghun
Mastung
Mach
Kohlu
Sibi
Dadhar
Dingra
Lahri
Bhag
Belpat
Pirkoh
Loti
D. Bugti
Kalat
Nuttal
BALOCHISTAN
Sui
D.M.JAMALI
Sohbatpur
PUNJAB
Jacobadad
Kandhkot
Garhi Khairo
Shikarpur
Qadirpur
M.P.Mathelo
Shahdadkot
Hassan
Khuzdar
Mazarani
Sukkur
Rohri
Larkana
Warah
Badah
Khair Pur
Kot Dijji
Rahipur
Miano
Mehar
Kandhiaro
K.N.Shah
K.WARI
Piaro Goath
Phujli
Sawan
N. S. FEROZ
Zamzama
Dadu
Moro
Bobak
Sehwan
N.Shah
Bhit
Sanghar
Sanghar
Shahdadpur
Hala
Bobi
SINDH
Mirpur Khas
Kotri
T. Allahyar
Hyderabad
S. Sang
T.B.Khan
Dhabi
T.M.Khan
Nooriabad
Matli
KARACHI
Bukhari
Dabeji
Turk
Khaskheli
ARABIAN SEA
Golarchi
Thatta
Badin
EXISTING TRANSMISSION PIPELINE
PROPOSED TRANSMISSION PIPELINE
EXISTING DISTRIBUTION PIPELINE
PROPOSED DISTRIBUTION PIPELINE
KNOWN GAS SOURCES
COMPRESSOR STATION
MAIN CITY/ TOWN CONNECTED WITH GAS SYSTEM

Mari Gas Company Limited

The value of fixed assets of MGCL is Rs. 3,566 million. The authorized capital of the company is Rs. 2,500 million and the paid-up capital is Rs. 368 million. The share holding is as follows:

Sr.#	Shareholders	Percentage
a)	The President, Islamic Republic of Pakistan	20
b)	Fauji Foundation.	40
c)	Oil and Gas Development Company	20
d)	Financial institutions	9.22
e)	Individuals	8.40
f)	Insurance, Investment, Joint stock and Modaraba Companies and others	2.38
	Total:	**100**

- MGCL sells natural gas at Mari gas field gate (Dharki, Sindh) and the gas is then transmitted by the following consumers through their own pipelines to their plants:

Sr.#	Consumer	Gas Sale MMCFD
a)	Guddu Power Plant (WAPDA), District Sukkur, Sindh	101
b)	Fauji Fertilizer Plant, Goth Machi, Punjab	155
c)	Fauji Fertilizer Plant, Mirpur Methelo, Sindh	78
d)	Engro Chemical Fertilizer Plant, Dharki, Sindh	94
e)	SSGCL and MGCL own use	1
	Total	**429**

Gas reserves of Mari field as on June 30, 2003 are:

Original Recoverable	Cumulative Production	(Tcf) Balance Recoverable
6.8	2.63	4.17

Heating Value of the gas being supplied is on the average 740 BTU / SCFT.

Pakistan Petroleum Limited

The authorized share capital of the company is Rs. 10,000 million and the paid up share capital is Rs. 6,858 million. The share holding is given as follows:

Sr.#	Shareholders	Percentage
a)	Government of Pakistan	93.35
b)	International Finance Corporation	6.09
c)	Private Pakistani Shareholders	0.56
	Total:	**100.00**

- PPL sells 115 MMCFD gas at Kandhkot field gate (Jacobabad, Sindh) to WAPDA, which has its own pipeline to its Guddu Power Plant, district Sukkur, Sindh.
- Gas reserves of Kandhkot gas field as on June 30, 2003 are:

		(Tcf)
Original Recoverable	**Cumulative Production**	**Balance recoverable**
1.296	0.49	0.806

Heating Value of Kandhkot gas field is between 725 to 875 BTU / SCFT.

Oil and Gas Development Company Limited

- OGDCL is 100 % owned by the Government. The authorized share capital of the company is Rs. 25,000 million and the paid up capital is Rs. 10,752 million.
- Uch, Panjpir, Nandpur and Bhal Syedan fields fixed assets as on June 30, 2003 are:

Name of Field	Fixed Assets (Rs. In million)
Uch	13,072
Panjpir	1,238
Nandpur	1,206
Bhal Syedan	220

- OGDCL's regulated activities are transmission and sale of gas (about 250 MMCFD) from Uch gas field (Balochistan) to Uch Power Plant through its pipeline. Sale of gas (about 64 MMCFD) from Panjpir / Nandpur fields (Punjab) to Fauji Kabirwala Power Plant through its pipelines. 1.3 MMCFD Bhal Syedan gas is also being sold by OGDCL within its concession area to Altern Energy Power Plant.
- Gas reserves of Uch, Panjpir, Nandpur and Bhal Syedan fields are:

Name of field	Original Recoverable (Bcf)	Cumulative Production (Bcf)	Balance Recoverable (Bcf)	Heating Value BTU/SCFT
Uch	3,100	178.69	2,921.31	460
Panjpir	127.3	28.21	99.09	227
Nandpur	286	37.22	248.78	227
Bhal Syedan	2.902	1.77	1.132	1245

State of CNG Industry

- Pakistan is consuming, annually, 1.2 million tons of motor gasoline and 6.9 million tons of high-speed diesel (HSD) for automotive use in the transport sector. CNG was introduced in the country in 1992 as an alternate fuel for gasoline vehicles and a number of incentives were provided to the investors in the form of duty concessions, tax reductions, price differential vis-à-vis motor gasoline. Based on the incentives given by the Government, the CNG sector has shown remarkable growth attracting investment of about Rs 10.0 billion in terms of infrastructure, vehicle conversion, etc. So far 394 CNG stations are operational while almost 200 CNG stations are at commissioning stage. It is estimated that almost 400,000 petrol vehicles are running on CNG. CNG has also restricted growth in the demand of HSD which otherwise was on an increase due to the trend of large-scale conversion of petrol vehicles to diesel resulting in indirect diesel substitution. CNG as an alternate fuel contributed in the reduction of emissions level besides generating employment opportunities, while saving valuable foreign exchange through fuel substitution.
- It is estimated that due to the existing price differential with motor gasoline, CNG will continue to grow at a fast pace replacing motor gasoline. Since Pakistan is deficient in its HSD production and importing about 4.5 million tons of HSD per annum amounting to approximately $ 1.0 billion, there is an urgent need that the Government may consider providing incentives to use CNG in diesel vehicles by upfront cost reduction of CNG fitted diesel vehicles through fiscal measures to promote dedicated fleets of CNG buses / trucks.
- The provincial break up of operational CNG stations as of June 30, 2003 is as under:

Province / Area		Operational till 30th June 2003
1.	Punjab	221
2.	Sindh	81
3.	N.W.F.P	69
4.	Islamabad	22
5	Balochistan	01
	TOTAL	**394**

OGRA'S Role in the CNG Industry

- Process for applying and grant of CNG licence has been simplified for the convenience of the applicants. Supporting documents have been reduced to a bare minimum within the framework of the rules.
- Applicants are provided all assistance including scrutiny of applications through one window facility operational on all working days between 9-12 am.
- Processing time for the grant of licence has been reduced to one day in case the paper are complete.
- Investors are provided with comfort level in provision of information pertaining to procedure for grant of licences, approval of CNG equipments, imports and inspection procedures etc.
- CNG equipment approval process has also been simplified. Latest approved equipments are regularly notified through the CBR official gazette for convenience of the public / investors.
- Local manufacturers have been encouraged to manufacture / assemble CNG compressors and dispensers, after safeguarding the safety aspects, paving the way for indigenization and saving of valuable foreign exchange.
- Third party inspectors have been geared up to cater for the safety requirements of the industry. Periodical random inspections of the operational status are also conducted to ensure safe operation of the installations.
- CIDA consultants were engaged in drafting new CNG Rules under the OGRA Ordinance. The rules were drafted taking into account the past experience, gaps / shortcomings in the existing rules, emerging requirements, international developments, local culture, and enforcement lapses, etc.
- All CNG stations have been directed to strictly adhere to the safety regulations in all operational matters.
- All Oil Marketing Companies (OMCs) have also been requested to ensure compliance of safety regulations / procedures at CNG stations established at their retail outlets.
- Chief Inspector of Explosives has been requested to critically monitor the operation of CNG stations under their applicable laws to ensure their safe operation.
- Provincial Governments have been requested, through the Cabinet Division to ensure safe conversion of vehicles only at approved locations to ensure public safety.
- Provincial Weights and Measures Departments have been requested to check and ensure correct measurement of gas at CNG stations under their respective laws.
- Consumers are being provided comfort level for redressal of their complaints against the licensees. A number of complaints were received and immediate inspections were conducted to ascertain the veracity of the complaints and action taken thereof was also intimated to the complainants.

State of LPG Industry

- Pakistan is presently consuming about 3,50,000 TOE (tonnes of oil equivalent) per annum of LPG. Although LPG is mainly meant for domestic use but it is also being consumed in the automotive sector extensively due to price differential vis-à-vis motor gasoline. This requires formulation of a comprehensive policy by the Government on inter-fuel substitution in the automotive sector so that on one hand LPG use as domestic fuel could be maximized and on the other hand benefit of opportunity cost of fuel could accrue to the national exchequer. The present demand of LPG is in a constrained supply scenario as there is potential of 300,000 TOE / annum to replace kerosene and biomass fuels.
- The current LPG production of the country is around 962 Metric Tonnes per Day (MTD), including 562 MTD at refineries and 410 MTD at field plants. This production is inadequate to cater for the demand of the country. However, due to shortage of LPG against the demand, some companies import around 50 MTD of LPG to cater for the requirement of their consumers especially in winters.
- OGRA is facilitating investment in the sector through simplification of the licensing procedure, which will attract new investors thus expanding the supply infrastructure and generating a more competitive environment. The existing LPG supply sources are given as below:

LPG SUPPLIES BY SOURCE (MTD)		
1	Attock Refinery Ltd	14
2	Pak-Arab Refinery	371
3	Pakistan Refinery	135
4	National Refinery	42
	Refineries sub-total	562
5	Adhi	64
6	Bhangali	0.8
7	Dakhni	7.0
8	Dhodak	163
9	Dhulian	18
10	Dhurnal	16.3
11	Fimkassar	-
12	Kunnar	8.65
13	Meyal	33.16
14	Pariwali	25.85

15	Pindori	67
16	Ratana	0.3
17	Turkwal	6.2
	Plants sub-total	410
18	Imports	49.3
	TOTAL	**1021**

OGRA'S Role in LPG Industry

- Keeping in view the de-regulation of the LPG sector, the procedure for grant of LPG licences has been simplified for the convenience of the investors. Supporting documents have been reduced to a bare minimum within the framework of the rules. Processing time for the grant of a licence has been reduced from three months to a maximum of two weeks. Investors / Applicants are provided all the assistance required during filing of the application through our one window facility.
- LPG marketing companies were advised to maintain adequate stocks and supplies all over the country, especially in far flung areas and ensure uninterrupted supplies to domestic consumers. Companies were also advised to keep a strict check on over-charging, black marketing and report illegal activities like re-filling / decanting or misuse of LPG in vehicles. Continuous monitoring of the activities of the companies is being ensured through the regulatory mechanism, as provided in the rules.
- LPG marketing companies have been directed to strictly adhere to the LPG standards and ensure that all the requisite safety measures, as prescribed in the LPG Rules 2001, are in place. Maintenance of insurance coverage has been stressed to ensure proper safety arrangements.
- Consumers are being provided the opportunity and comfort level for any complaints against the licensees.

ABBREVIATIONS

APTMA	All Pakistan Textile Mills Association of Pakistan
Bcf	Billion Cubic Feet
BSCFD	Billion per cubic feet per day
BTU	British Thermal Unit
BTU/SCFT	British Thermal Unit per cubic feet
CBA	Collective Bargaining Agent
CBR	Central Board of Revenue
CIDA	Canadian International Development Agency
CNG	Compressed Natural Gas
CRCP	Consumer Rights Commission of Pakistan
E&P	Exploration & Producing Companies
ECA	Economic Consultant Associates
F.Y	Fiscal year
FRSH	Ford Rhodes Sidat Hyder
HSD	High Speed Diesel
IDF	Institutional Development Fund of World Bank
KAPCO	Kot Addu Power Company
KESC	Karachi Electric Supply Company
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum gas
MGCL	Mari Gas Company Ltd.
MMcf	Million per cubic feet
MMCFD	Million cubic feet per day
MP&NR	Ministry of Petroleum & Natural Resources
MTD	Metric ton per day
NGRA	Natural Gas Regulatory Authority
NSC	National Security Council
O&M	Operation and Maintenance
OGRA	Oil and Gas Regulatory Authority
OMC	Oil Marketing Companies
PARCO	Pak-Arab Refinery Company
PCA	Petroleum Concession Agreement
PDC	Petroleum Development Consultants
PPEPCA	Pakistan Petroleum Exploration and Producing Companies Association
PPIAF	Public Private Infrastructure Advisory Facility
ROA	Return on Assets
ROR	Rate of Return
TCF	Trillion Cubic Feet
TOE	Tones of Oil Equivalent
UFG	Unaccounted for Gas
USOA	Uniform system of Accounts