Annual Report 2001 – 2002

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FOREWORD

Oil and Gas Regulatory Authority (OGRA) has been set up under the Oil and Gas Regulatory Authority Ordinance dated 28th March 2002 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. As laid down in the Ordinance, the Authority comprises one Chairman and three members.

2. Consequent upon the establishment of OGRA on 28th March, 2002 the former Natural Gas Regulatory Authority was subsumed by OGRA and all properties and works done by the NGRA were transferred to and protected under the OGRA Ordinance. OGRA was, therefore, in a position to start its functions in respect of natural gas immediately upon its establishment. Licence applications from Sui Northern Gas Pipelines Limited (SNGPL), Sui Southern Gas Company Limited (SSGCL) and Mari Gas Company Limited (MGCL) were received. Applications for determination of revenue requirements of SNGPL and SSGCL for the financial year 2001-02 were received in pursuance of Section 8 of the OGRA Ordinance. OGRA carried out intricate assignment of determination of the revenue requirements of both the companies satisfactorily after conducting public hearings in both the cases. In the report, it would be observed that despite the unforeseen circumstances and the early set backs in the course of charting the assigned responsibilities; the Authority has successfully achieved certain milestones in its efforts to become fully functional and operative.

3. The OGRA Ordinance stipulates the submission of an annual report to the Federal Government containing the information and data on:

a) The conduct of Authority's affairs for the financial year 2001-02, including anticipated developments for the following year; and

b) The state of petroleum industry in Pakistan related to regulated activities with specific focus on the ownership, operation, management, control, efficiency, and cost of regulated activities, level of production, transportation, transmission and distribution capacity, present and future domestic demand for petroleum and other matters related to regulated activities.

4. A number of sections/sub-sections of the Ordinance related to the regulation of Oil, LPG and CNG have not come into force so far. The Government will enforce the said sections together or separately at appropriate time when OGRA is adequately staffed to effectively discharge its functions. This report would, therefore, cover mainly regulated activities in respect of downstream natural gas industry i.e. transmission, distribution and sale of natural gas for the period up to 31st December, 2002. However some anticipated activities of Oil, LPG and CNG are also covered.

5. I must place on record my appreciation for my colleagues and professional staff for their whole hearted and dedicated support in accomplishing the tasks in the shortest possible time.

Munir Ahmad
Chairman

31st December 2002

1 RAISON D' ETRE

1.1 The establishment of Independent Agencies to regulate the public utilities was a natural step to restructure Pakistan's economy. In an environment of preparing for the progressive privatization of the telecommunication, power and natural gas sectors, the respective regulatory Authorities namely the Pakistan Telecommunications Authority (PTA), National Electric Power Regulatory Authority (NEPRA) and the Natural Gas Regulatory Authority (NGRA) were established one after the other in a relatively short period of time.

1.2 It may be asked what's the need to have exclusive regulatory agencies for "public utilities"? What is so special about these utilities that they cannot be regulated in the normal manner like other departments of the state? It is submitted that "Public Utilities" are indeed very different from other sectors providing services to people at large. These utilities, be it a gas or electric company, operate in an environment of monopoly. As a matter of fact it is almost impossible to create competition, for example having more than one gas pipeline in a street owned by different owners is neither economical nor workable. The "Public Utilities" therefore become "natural monopolies" having "captive customers", who do not have the freedom to choose, hence are at the mercy of their local supplier of gas or electricity. At the same time public utilities require large sums of money to safely operate and expand their networks so that service is made available to increasing number of consumers. As the utilities are monopolies, they cannot be left to their own devices and a certain rate of return has to be fixed.

1.3 In this peculiar working environment, it becomes necessary to have an independent regulator and assign to him the responsibility to protect interest of all the stakeholders. The regulator has to ensure that the customers receive quality service at the most economic price. The investor of the utility earns a fair and equitable return on its investment. Finally the policy guidelines issued by the federal government are fully adhered to by the utility. In order to protect these sometimes-divergent interests, the regulatory authority not only requires a good measure of autonomy and independence but also has to acquire a reservoir of specialized expertise in the form of engineers with relevant experience, chartered accountants, economists and lawyers to effectively discharge its responsibilities. In order to determine the revenue requirements of the utility which ultimately translate into tariffs, the experts of the Authority have to go through with a fine tooth comb the operating expenses, efficiency of operation including line losses and the prudence in the creation of assets. Similarly with the de-regulation of midstream and downstream oil sector, the need for more competition, efficiency and quality control has attained prime importance to provide level playing field to investors and ensuring better service to consumers in term of quality, measurement and price. This is a full time assignment for which the creation of a permanent agency is essential.

2 ESTABLISHMENT OF THE AUTHORITY

2.1 OGRA Ordinance

2.1.1 Oil and Gas Regulatory Authority (OGRA) was established by the Federal Government on 28th March, 2002 in pursuance of the Oil & Gas Regulatory Authority Ordinance, 2002. The NGRA Ordinance, 2000 stood repealed on the commencement of OGRA Ordinance and all properties, assets and liabilities pertaining to NGRA were transferred to OGRA. The Chairman and Members, employees, experts, consultants and advisors appointed pursuant to NGRA Ordinance were deemed to have been appointed under the OGRA Ordinance. Similarly all agreements, orders, determinations, rules and regulations made by NGRA were let to be in force under the OGRA Ordinance. OGRA is required to meet all its expenses through fees and charges collected from the licensees in pursuance of the OGRA Ordinance.

2.1.2 An amendment to the OGRA Ordinance was promulgated on 8th November 2002 with a view to clarifying that upstream petroleum activities shall not be governed by OGRA. These activities shall continue to be regulated by the Ministry of Petroleum & Natural Resources. The petroleum producers can now lay the pipelines connecting the petroleum field to point of delivery without obtaining a licence from the OGRA provided that delivery of petroleum is made to a purchaser other than a retail consumer for natural gas or retail consumer for oil. However, if a producer claims transportation or transmission tariff then the provisions of OGRA Ordinance shall apply.

2.2 Organizational Structure

2.2.1 The Authority consists of a Chairman and three Members. The names of Chairman and Members appointed by the Federal Government through a competitive process on tenure basis in accordance with the provisions of the OGRA Ordinance are as follows: -

Name	Designation	Date of joining in Authority
Mr. Munir Ahmad	Chairman	September 2000
Mr. Jawaid Inam	Vice Chairman/ Member (Gas)	September2000
Mr. Mahboob Elahi	Member (Finance)	September 2002
Mr. Rashid Farooq	Member (Oil)	October 2002

2.2.2 Presently OGRA has been organized into six Departments namely Gas, Oil, Finance, Legal, Administration and Registrar's Office. OGRA has been initially organized with major thrust on natural gas since provisions relating to Oil, CNG and LPG related activities have not yet come into force. The process of activating the relevant provisions in respect of Oil, CNG, and LPG is underway.

2.3 Regulated Activities

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

a) Construction or operation of natural gas pipelines, storage facilities and other installations;

b) Transmission, distribution and sale of natural gas;

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

d) Marketing and storage of refined oil products;

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

f) Production, filling, marketing and distribution of LPG and CNG.

2.4 Key Powers And Functions

2.4.1 The OGRA Ordinance has entrusted the Authority with the following key powers and functions:

a) Exclusive power to grant, amend or revoke licences for regulated activities.

b) Promote competition and efficiency.

c) Develop and enforce performance & service standards.

d) Determine in consultation with Federal Government and Licensees a reasonable rate of return for natural gas licensees.

e) Prescribe procedures and standards for investment programmes of the gas utilities and oversee their capital expenditure to ensure prudence.

f) Determine annually the revenue requirements of gas utilities on the basis of prescribed rate of return taking into account the cost of gas, prudent capital investment & O & M cost and depreciation.

g) Determine and notify wellhead gas prices in accordance with Producers' Agreements with the Government.

h) Enforce compliance of licence conditions and ensure efficient practices in the regulated oil and gas sector.

i) Resolution of complaints and disputes between a person and a licensee or between licensees relating to regulated activities.

j) Enforce standards and specifications for petroleum products.

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

3. PERFORMANCE/CONDUCT OF AUTHORITY'S AFFAIRS

3.1. As mentioned in the preceding paragraphs, NGRA was already in the process of establishment and it had acquired the necessary space for the office building along with some professional staff, when the OGRA was established on 28th March, 2002. OGRA, therefore, started its assigned functions without loss of time. It was able to hire professional staff for natural gas regulated activities quickly. The performance of the Authority during the FY 2001-02 and up to 31st December, 2002 is reported as under:

3.2 Natural Gas Licencing Rules, 2002

3.2.1 The NGRA had been working on the formulation of the Natural Gas Licencing Rules since its creation. Draft Licensing Rules were framed in consultation with all the stakeholders i.e. the gas utilities, the Pakistan Petroleum Exploration & Production Companies Association (PPEPCA), the Ministry of Petroleum & Natural Resources and the Privatization Commission. The said rules were approved by the Federal Government and notified by the NGRA on 28th February, 2002. The NGRA Licencing Rules provide in detail:

- The procedure for filing of applications to the Authority for grant of licence, its initial and detailed scrutiny, publication of notices, procedure for intervention, filing reply and comments, evaluation of application and conduct of hearing by the Authority.
- The procedure for transfer or assignment of licence, its revocation & modifications and imposition of penalty for contravening the provisions of the Ordinance and Rules.
- A schedule of fees prescribed for transmission, distribution, sale, project or the integrated licence.
- The procedure for Authority's decision including tentative opinion.
- The important terms & conditions and obligations of licensee.

3.2.2 After the promulgation of OGRA Ordinance on 28th March, 2002 the above rules were deemed to have been issued under the OGRA Ordinance. The Authority is presently working on the revision of the rules to make them totally consistent with the OGRA Ordinance, 2002. However, till the notification of the revised rules, the present rules shall remain in force and licences for any regulated activity shall be issued there- under.

3.3 TARIFF RULES

3.3.1 Tariff Rules is one of the most important instruments in the process of utility regulation, since these 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 24th November 2002. The Tariff Rules provide in detail the:

- Procedures for filing of tariff petitions, admission of applications, service of notices, filing of interventions/reply & 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.
- Imposition of penalty for contravention of provisions of Ordinance, rules and decisions of the Authority.

3.4 Natural Gas Wellhead Price Rules

3.4.1 The OGRA Ordinance empowers the Authority to determine the wellhead gas prices for the producers of natural gas in accordance with the relevant agreements or contracts and notify the same in the official Gazette. To provide for the procedure for determination and notification of the wellhead price of natural gas for various producers, the Authority has drafted Natural Gas Wellhead Price Rules, which are by and large based on the existing Natural Gas (Price for Producers) Rules, 1976. The said rules were submitted to the Federal Government on 27th June 2002 for approval and notification. These rules have not yet been notified.

3.5 Complaints Redressal Regulations

3.5.1 One of the responsibilities of OGRA is to resolve complaints of persons against licensees or between the licensees. Draft regulations for complaints redressal have been prepared which have been circulated to the gas utilities, the oil marketing companies, the LPG & CNG companies and the consumers groups for their views. These regulations are likely to be notified by the end of February, 2003.

3.6 Budget Committee Rules

3.6.1 The OGRA Ordinance provides for the establishment of a Budget Committee to review the budget of the Authority and advise on certain financial matters related to the budget. The draft rules regarding constitution of the Budget Committee and its functions have been prepared and submitted to the Federal Government for approval and notification. These rules have not yet been notified.

3.7 Performance And Service Standards

3.7.1 The formulation of specifications, performance and service standards, in consultation with the licensees, for undertaking the regulated activities is amongst the important responsibilities of the Authority. An inhouse team of experts has formulated the standards and specifications for the construction, operation and maintenance of natural gas transmission as well as distribution pipelines. The formulated standards have been circulated to the operating companies for their comments. In formulating these standards, the standards enforced in the United States of America, Canada and Australia were studied. Before the finalization of these standards the Authority would also have the assistance of experts in this field from CIDA.

3.8 Recruitment Of Executives & Support Staff

3.8.1 The OGRA Ordinance empowers the Authority to employ officers, members of its staff, experts, consultants, advisers and other employees on such terms and conditions as it may deem fit. The Authority however, has adopted a transparent and competitive process for this purpose. All vacancies are advertised in the national newspapers detailing the qualifications and experience required for the job. Applications are scrutinized and short listed by a selection committee in accordance with the criteria laid down by the Authority for interviews or tests, as the case may be. The recruitment policy is merit oriented, however, the Authority does endeavour wherever possible to have a good inter- provincial mix.

3.9 Service Regulations

3.9.1 In pursuance of the provisions of the OGRA Ordinance draft Service Regulations for employees of the Authority have since been prepared and these are being examined by the Authority before notification. The Service Regulations provide for detailed procedures and conditions in respect of all disciplines like appointments, promotions, probation, confirmation, postings/transfers, seniority, leave, retirement, performance evaluation reports, record of service, disciplinary actions, appeal and representation, training and career planning in administrative matters. In financial matters, it deals with matters like pay, fixation of pay, allowances and other benefits, fee and honorarium, TA/DA, loan and advances, medical allowance and treatment, CP Fund, gratuity, group insurance of OGRA employees, welfare fund etc. It also provides for procedures for keeping the accounts of the Authority, delegation of financial powers to various officials and ensures a strict financial control on expenditure.

3.10 Determination Of Revenue Requirements Of Gas Utilities

3.10.1 Under the OGRA Ordinance, the Authority is required to determine in consultation with the Federal Government and the licensees, a reasonable rate of return for each licensee of natural gas. The process is likely to take some time, as it would require an elaborate study in the first instance for which the Authority has made necessary arrangements. In the meantime the Federal Government, with a view to removing the difficulties in the operation of the provisions of the Ordinance during transitional phase, has issued the following directions and policy guidelines:

- Till such time an appropriate rate of return is determined by the OGRA, in consultation with the Federal Government and the licensees, the OGRA shall determine the revenue requirements of the existing gas companies on the basis of the covenants stipulated in the loan agreements of SNGPL with the World Bank and SSGCL with the ADB.
- For the financial years 2001-02 and 2002-03, OGRA shall undertake determination or review of the revenue requirements (prescribed prices) of the existing gas companies and make retroactive adjustments in accordance with the present procedure, which is being followed by the Federal Government.

3.10.2 In pursuance of the above directions, the Authority has carried out the determination of the revenue requirements of both the gas utilities for the financial year 2001-02 which will be discussed in the succeeding paragraphs.

3.11 Determination of Revenue Requirement of SNGPL for FY 2001-02

3.11.1 Under the World Bank's loan covenants, Sui Northern Gas Pipelines Limited is entitled to 17.5% return on average fixed assets in operation. In order to meet 17.5% return, the company envisaged a shortfall of Rs. 2,744 million in its revenue requirement for the year 2001-02 for which it filed a petition on 28th May 2002 and requested for increase in prescribed prices for each category of its consumers by Rs. 8.61 per MCF w.e.f 1st July 2001. The Authority after processing the application issued public notice on June 21, 2002 inviting comments from all consumers and other interested persons on the petition. Notice for public hearing was published in newspapers and the public hearing of the petition took place in the office of OGRA, Islamabad on 29th July 2002 and continued for three days.

3.11.2 The Authority thereafter held several meetings and made extensive deliberations to determine a realistic revenue requirement of SNGPL for the year 2001-02. The points which were specifically considered by the Authority include operating fixed assets, operating revenues, operating expenses, LPG dealer deposits, late payment surcharge, unaccounted for gas (UFG) receivables and provision for doubtful debt.

3.11.3 On the basis of detailed scrutiny of the Petition and keeping in view the comments of interveners in the public hearing, the Authority in its decision of 8th August, 2002 determined a shortfall in the revenue requirement of SNGPL at Rs. 2,272 million as against the shortfall of Rs. 2,744 million for the year 2001-02. Consequently, the increase in Prescribed Prices of Rs. 8.61 per MCF was reduced to Rs. 7.13 per MCF over the SNGPL's previously notified prescribed prices w.e.f July 01, 2001.

3.11.4 SNGPL filed a review petition on September 13, 2002 against the decision of Authority dated August 8, 2002. The company was provided an opportunity of being heard in a pre-admission hearing during which it withdrew the review petition, as it could not find enough grounds for defending the same.

3.11.5 Based on the auditors initialed accounts, the company filed another petition on 12th October, 2002 requesting for an increase of Rs. 0.66 per MCF in its prescribed price over the Authority's provisional determination of 8th August, 2002. The Authority in its final determination of revenue requirement dated 24th October 2002, however, further reduced the revenue requirement of the company by Rs 30.374 million thereby affecting a decrease in its average prescribed prices by Rs. 0.09 per MCF over its provisional order dated August 8, 2002. Consequently the final increase in prescribed price allowed to the company was Rs. 7.04 per MCF w.e.f. 1.7.2001.

3.12 Determination of Revenue Requirement of SSGCL for FY 2001-02

3.12.1 Under the Asian Development Bank's loan covenants, SSGCL is entitled to 17% return on average net fixed assets in operation. In order to meet 17% return, the SSGCL envisaged a shortfall of Rs 1,178 million in its revenue requirement for the year 2001-02 for which it filed a petition under section 8(1) of the OGRA Ordinance, 2002 and requested for an increase in its prescribed prices for each category of its consumers by Rs 5.11 per MCF w.e.f July 01, 2001. The Authority after processing the application of SSGCL issued public notice inviting comments from all the consumers and other interested persons on the Petition in June 2002. Notice for public hearing was published in newspapers and the public hearing of the petition took place in the office of OGRA, Islamabad on July 26, 2002. The points which were specifically considered by the Authority in its determination included operating fixed assets, operating revenue, late payment surcharge, operating expenses, profit from meter manufacturing business, receivables and provision for doubtful debt and unaccounted for gas (UFG).

3.12.2 On the basis of detailed scrutiny of the petition and keeping in view the comments of interveners in the public hearing, the Authority determined the revenue requirement of the SSGCL for the year 2001-02 which in fact was surplus by Rs.

76 million as against the shortfall of Rs. 1,178 million claimed by the petitioner. Consequently, Rs. 0.32 per MCF were reduced from the existing prescribed prices of the company w.e.f. 1st July 2001.

3.12.3 SSGCL filed a review petition against the Authority's decision dated August 6, 2002. The company was provided an opportunity of being heard in a meeting of the Authority. Later on the company withdrew the petition as it could not find enough grounds to defend the same.

3.12.4 The company also filed another petition for determination of final revenue requirements for FY 2001-02 in November, 2002, based on auditor's initialed accounts. It requested the Authority to further reduce its prescribed price by Rs. 0.89 per MCF making the total reduction in its prescribed price by Rs. 1.21 per MCF w.e.f. 1st July, 2001. The petition is under process.

3.13 Directions Issued To SNGPL & SSGCL

3.13.1 At the time of determination of revenue requirements for SNGPL and SSGCL, the Authority gave following directions to SNGPL and SSGCL for compliance in their subsequent petitions:

- To ensure prudence in capital expenditure-Detailed justification to be provided by utilities.
- To lay transmission lines or distribution spurs to a new town / area prior to laying distribution network.
- Starting from FY 2002-03, progressively reduce Unaccounted For Gas (UFG) to below 6%, within three years.
- To conclude agreement with Collective Bargaining Agent (CBA) on the basis of following principles:
    - Increase in the productivity and efficiency.
    - Prevailing domestic inflation rate.
    - Control on overtime expenditure.
    - Control on abuse of medical facility.

- Rightsizing of the manpower

- To make concerted efforts to evolve a more efficient recovery system and put in place an effective disconnection mechanism to ensure timely recovery of gas bills.

3.14 Notification Of Sale Prices

3.14.1 Under Section 8(3) of the Ordinance, the Federal Government has the authority to advise the sale prices for various categories of consumers based on the prescribed prices as determined by the Authority within forty days from receipt of the advice from the Authority in respect of the prescribed prices. Consequently the sale prices for various categories of consumers as advised by the Federal Government were notified by the Authority on 25th October, 2002.

3.15 Estimated Revenue Requirements Of Gas Utilities for FY 2002-03

3.15.1 SSGCL has submitted its petition for determination of estimated revenue requirement and prescribed prices for FY 2002-03. The company has sought an increase in its prescribed prices by Rs. 19.71 per MCF (Rs. 4,949 Million) w.e.f. 1st July, 2002. The Authority has started the process and issued public notice inviting comments from affected/interested persons. After public hearing the determination of estimated revenue requirement and provisional prescribed prices for SSGCL is expected to be finalized by mid February, 2003. SNGPL has not yet submitted its petition for determination of estimated Revenue Requirement for FY 2002-03.

3.16 Estimated Revenue Requirements of Gas Utilities For FY 2003-04

3.16.1 In accordance with the Natural Gas Tariff Rules, 2002, recently notified by the Federal Government, the gas utilities are required to file their petitions for determination of estimated revenue requirement and prescribed prices for FY 2003-04 on prospective basis by 1st December, 2002. Both the companies have been notified to comply with this provision of the Natural Gas Tariff Rules, 2002, so that the Authority is able to determine the Revenue Requirements of both the gas companies and advise the Federal Government prospectively for FY 2003-04. Determination of revenue requirement for FY 2003-04 on prospective basis is going to be a challenging proposition as against the past practice. The Authority is faced with the challenge of making most realistic projections of rate base (the value of operating assets), sales volume with an intricate sale mix for various categories of consumers, sales revenues, O & M cost including line losses to arrive at a realistic determination of revenue requirement for FY 2003-04. The Authority is also contemplating to develop specific benchmarks and targets for introducing incentive based efficiency factors, which will be agreed with the licensees prior to the issue of determinations.

3.17 Grant of Licences

3.17.1 SNGPL and SSGCL have submitted applications for grant of exclusive and integrated licences for transmission, distribution and sale of natural gas. Mari Gas has submitted application for grant of licence for sale of natural gas. Their applications are under process. Authority has held first public hearing in the case of SSGCL at Quetta on 23rd December, 2002 whereas hearing at Karachi is scheduled for 6th January, 2003. In the case of SNGPL public hearing will be held at Peshawar, Lahore and if required also at Islamabad before taking a decision on the grant of licences to the said companies. In the case of Mari Gas, notice to all consumers, general public, interested/affected persons and parties were issued through newspapers inviting their comments/ objections.

3.17.2 Before the issue of formal licence the Authority plans to circulate the licence along with all the conditions to the licensees and other consumer groups for their final inputs. This exercise is expected to be undertaken by March, 2003 and licences shall be issued thereafter.

3.18 Wellhead Gas Prices

3.18.1 OGRA has determined and notified wellhead gas prices for 27 fields including Mari gas field for the period July 2002 - Dec 2002. Except Mari gas field, all other fields are linked to international price of fuel oil / crude oil and calculation in their case is simple. In the case of MGCL, the gas price agreement stipulates a return of 30% on shareholders fund after meeting all operating expenditure including financial charges and taxes, depreciation and rupee part of capital expenditure. MGCL's price determination, therefore, requires detailed evaluation by the Authority.

3.19 Licencing Rules for Oil

3.19.1 The Oil & Gas Regulatory Authority is also responsible to regulate downstream oil sector to promote competition, efficiency and ensure quality control. This responsibility remained suspended for the time being, as necessary organizational infrastructure is needed to regulate such activities. With the induction of Member (Oil), the Authority is in the process of appointing consultants with the assistance of CIDA on formulation of rules/procedures for grant of licences for oil refineries, blending plants, marketing companies, oil pipelines and develop mechanism for competition, efficiency and quality control issues. It is expected that rules and regulations for these activities will be finalized in the next six months in consultation with all stakeholders.

3.20 STANDARDS FOR LPG AND CNG

3.20.1 While OGRA is in the formative phase for formulation of rules and regulations including safety standards, existing rules and regulations are also being reviewed in depth in order to accommodate the developments witnessed so far in this sector as well as the provisions of the OGRA Ordinance. Discussions and review process is underway with the CIDA consultant to finalize the new draft rules. The new draft rules will be circulated to the LPG and CNG stakeholders to get their final inputs before notification of the same.

3.21 Enforcement Regulations

3.21.1 In pursuance of the OGRA Ordinance the Authority is required to formulate rules for enforcing the provisions of the Ordinance, the rules & regulations, the terms & conditions of licences and decisions of the Authority. This work is presently being carried out by an in-house team.

3.22 Benchmarks

3.22.1 The Authority is in the process of formulating efficiency benchmarks for the gas utilities in respect of technical and financial standards including Unaccounted For Gas (line losses). These would be discussed with the gas companies prior to determination of revenue requirements for FY 2003-04 to arrive at attainable benchmarks. The benchmarks so finalized would be enforced and would form key elements in the determination of the revenue requirements of the gas companies.

4. INSTITUTIONAL DEVELOPMENT STUDIES

4.1 Development Of Uniform System Of Accounts

4.1.1 The OGRA Ordinance requires the Authority to prescribe a uniform form of accounts and accounting practices. In order to formulate uniform system of accounts (regulatory accounts), the Authority initiated a study under IDF grant of the World Bank. M/s Sidat Hyder & Co, a reputed firm of chartered accountants was selected in accordance with the World Bank selection guidelines for carrying out the study. The study has been completed in December, 2002.

4.1.2 Objectives of the Study

- Development of standard template and detailed chart of accounts.

- Develop standards for Regulatory Asset Value and CAPEX evaluation.

Implementation of the uniform system of accounts will be discussed with the gas utilities and a time frame shall be agreed to adopt the new system.

4.2 Development Of Tariff Regulatory Regime

4.2.1 Under the OGRA Ordinance, the Authority is required to determine in consultation with Federal Government and the licensee, a reasonable rate of return for each licensee. Presently the rate of return allowed to the gas utilities is a fixed return on their operating assets as provided in their loan agreements with the World Bank and Asian Development Bank. In order to develop a more efficient and incentive based financial regulatory system, the Authority decided to conduct a comprehensive study to enable the OGRA to take a rational decision in accordance with the Ordinance. The Authority was also able to secure funding from Public Private Infrastructure Advisory Facility (PPIAF), a multi-donor international agency that has provided a grant of US $ 293,000 for development of a tariff regulatory regime for natural gas sector in Pakistan. Request for proposal have been issued to six short listed international firms and their submissions are being evaluated jointly by OGRA and the World Bank.

4.2.2 Objectives Of The Study

- Develop an appropriate tariff regime for regulated natural gas sector of Pakistan
- Preparation of benchmarks to introduce indirect competition.
- Comprehensive analysis of operation and maintenance costs.
- Develop comprehensive financial model for tariff determination.

4.3 CIDA Funded Project

4.3.1 CIDA has provided 289 days of consulting services in the Oil and Gas Sector Programme for Pakistan in the following areas:

- Regulations: technical standards, complaints and dispute resolution
- Training pertaining to tariff hearings and financial modeling
- Information system planning
- Procedure for review of Authority's decisions
- Licence formats for natural gas, oil, LPG and CNG
- Regulations: quality control/measurement of petroleum products, LPG and CNG
- Competition and efficiency in Oil Sector
- Development of core processes

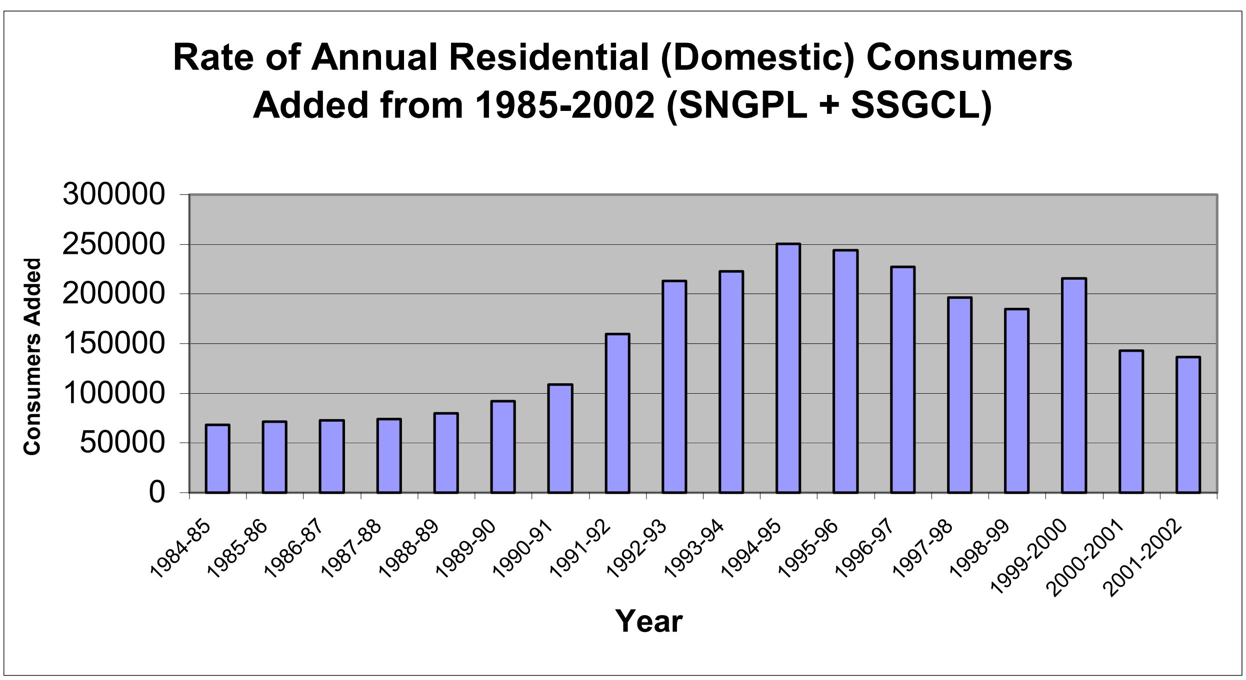
CIDA has also provided Canadian $13,000 for books and equipment.

4.3.2 All the above rules and regulations are expected to be finalized in consultation with stakeholders by December 2003.

5. STATE OF DOWNSTREAM GAS INDUSTRY DURING THE FINANCIAL YEAR 2001-02

5.1 Historical Background

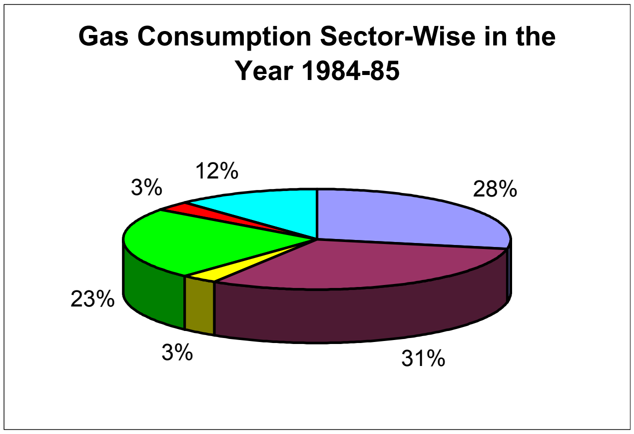
5.1.1 In the early years of their evolution and during periods of consolidation, the two transmission/distribution gas companies i.e. SNGPL and SSGCL concentrated mainly on connecting large loads in the power, fertilizer, and cement sectors besides supplying natural gas to the general industrial consumers. The supply of gas to commercial and domestic/residential consumers remained more or less a token addition to their distribution networks. The situation, however, began to change in the mid 1970's, when the state acquired the majority ownership. Supply of gas to residential consumers made a quantum jump during the mid1990's. The two gas companies which were adding about 60-70,000 consumers per annum in the late 1980's, jumped to over 200,000 per annum in 1995-96. The Chart -1 below gives the rate of increase of annual residential premises connected to natural gas supply from the year 1985 onwards.

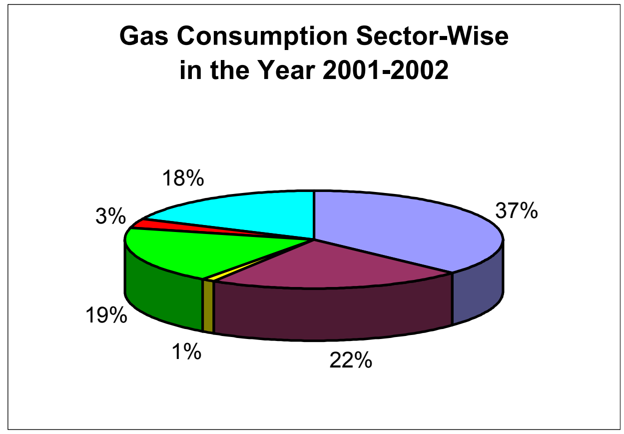


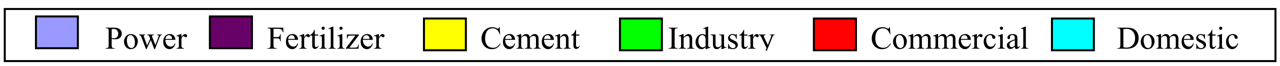
Source: SNGPL & SSGCL

Chart-1

5.1.2 This naturally altered to a great degree, the volumetric mix of supply to various sectors of consumption; charts 2 & 3 compare the natural gas consumption in various sectors between the year 1984-85 and 2001-02 on overall country basis:







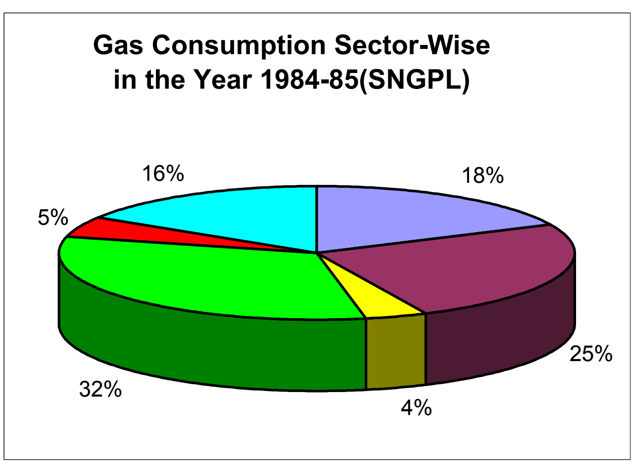
Source: Energy Year Book 1985

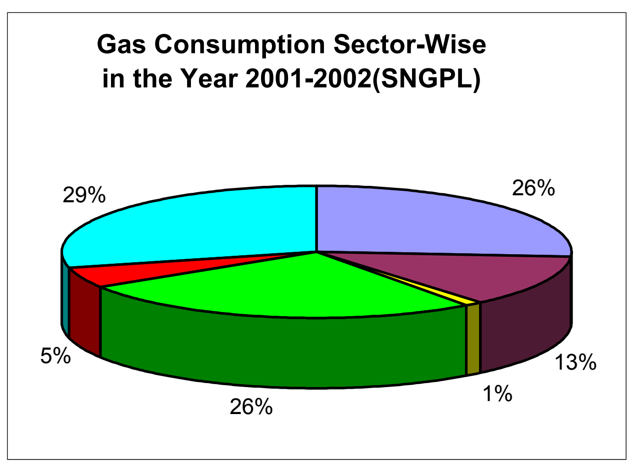
Source: Ministry of Petroleum & NR

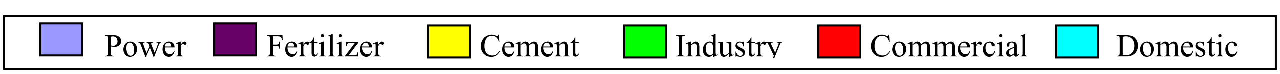
Chart 2

Chart 3

5.1.3 The comparison is far more significant (charts 4 & 5) in the area of operation of SNGPL, due to high consumption rates by the domestic consumers in view of the colder climate in northern parts of Pakistan.







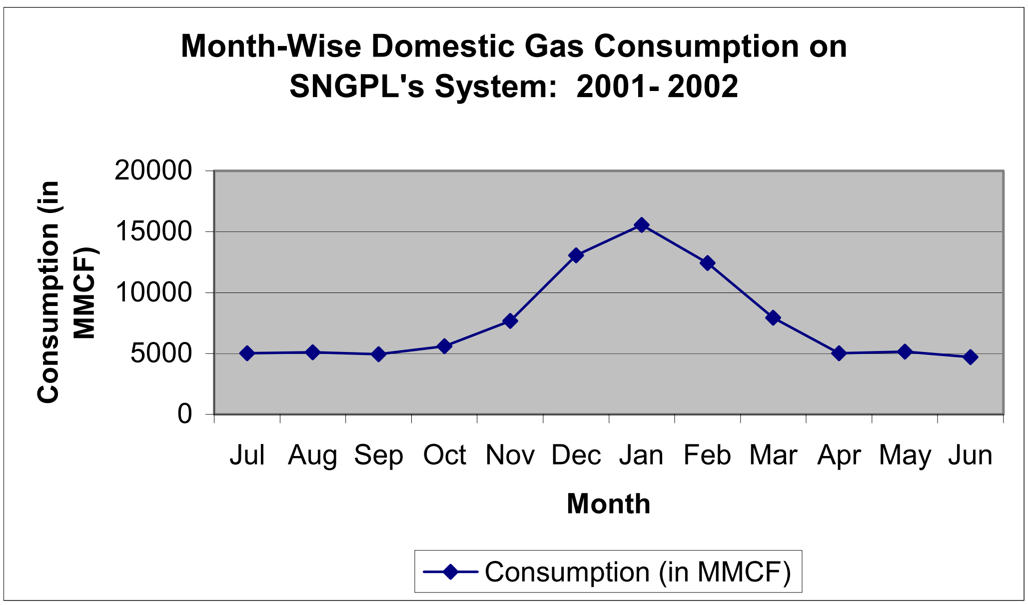
Source: SNGPL

Source: SNGPL

Chart 4

Chart 5

5.1.4 The domestic consumers not only consume more gas but also due to the summer-winter swing; their rate of gas consumption registers marked increase during the winter months, which at times results in need for load management during such periods. The swing in the monthly gas consumption on SNGPL's system is indicated by the graph given below:



Source: SNGPL

Chart 6

5.1.5 The natural gas consumption of the country increased to 2267 million cubic feet (MMCFD) during the year 2001-2002. Power generation is the biggest sector of gas consumption followed by fertilizer plants, Industrial, domestic and commercial consumers. The country has about 8,500 kilometers transmission lines and a substantially large distribution network spread over 56,972 kilometers in length, serving more than 3.726 million consumers of various categories. There are three major players namely Sui Southern Gas Company Limited, Sui Northern Gas Pipelines Limited and Mari Gas Company Limited engaged in natural gas related regulated activities. Their activities and ownership are discussed in the following paragraphs: -

5.2. Sui Northern Gas Pipeline Limited

5.2.1 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 follows:

Sr. No.	Categories of Shareholders	Percentage
a)	The President, Islamic Republic of Pakistan	36.00
b)	Individuals	13.72
c)	Investment Companies	3.11
d)	Insurance Companies	5.25
e)	Joint Stock Companies	11.88
f)	Financial Institutions	26.11
g)	Modaraba Companies	0.81
h)	Foreign Companies	1.90
i)	Others	1.21
	Total:	100.00

Source: SNGPL

5.2.2 SNGPL's gross value of operating fixed assets as on 30th June, 2002 was Rs. 49,073 million. The companies' transmission and distribution network stood at 5,405 km and 34,093 km respectively. During this period the company has added 243 km of transmission and 1270 km of distribution pipelines. The company has planned an addition of 267 km and 1783 km in the transmission and distribution network respectively for the year 2002-03.

5.2.3 The Company's transmission system capacity has improved from 1085 MMCFD in 2000-01 to 1125 during 2001-02. The company plans to subsequently enhance its capacity to 1500 MMCFD by June, 2004 after completion of its gas infrastructure development project which will cost around Rs. 12,428 million.

5.2.4 Unaccounted For Gas (UFG) on SNGPL's system was 7.91 % during 2001-2002. The company has targeted to reduce it to 7.5 % during 2002-03 and has planned to bring it below 6% by June, 2005 in accordance with the direction of the Authority.

5.2.5 SNGPL is presently supplying gas to more than 2 million consumers, the breakup of which is given below: -

Domestic:	2,073,677
Commercial:	37,622
Industrial:	2,548
Total:	**2,113,847**

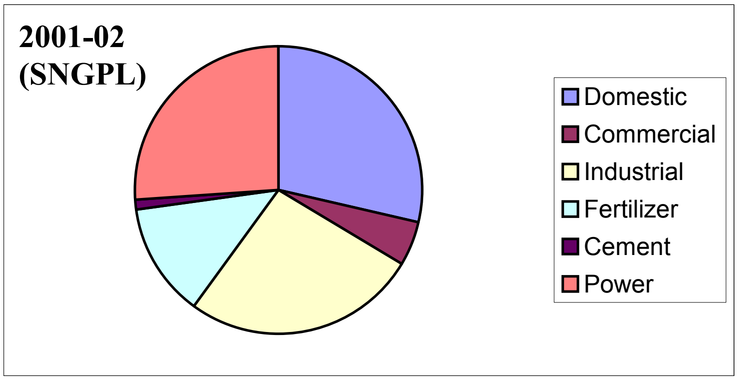
5.2.6 Total sale of gas to the above consumers during the year 2001-02 was 881 MMCFD, which is expected to increase to 961 MMCFD during 2002-03 to cater for the requirements of about 103,000 additional consumers planned by the company for the year 2002-03.

5.2.7 The category wise breakup of consumption during 2001-02, along with comparison is as below:

(MMFCD)

Sector	**2000-01**	**2001-02**	**2002-03 (Projected)**
Domestic	248	253	268
Commercial	42	43	45
Industrial	211	233	235
Fertilizer	112	112	127
Cement	10	10	19
Power	221	230	267
Total	**844**	**881**	**961**

Source: SNGPL



5.2.8 The ten years projected demand/supply analysis on SNGPL's system is as below:

Description	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Demand	1,371	1,401	1,436	1,466	1,496	1,526	1,556	1,586
Supply	1,027	1,482	1,708	1,643	1,601	1,581	1,524	1,458
Gain/Shortfall	(344)	81	272	177	105	55	(32)	(128)

Source: SNGPL

5.3 Sui Southern Gas Company Limited

5.3.1 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 follows:

	Shareholding	Percentage
a)	The President, Islamic Republic of Pakistan	70.43
b)	Financial institution	2.24
c)	Investment companies	11.34
d)	Insurance companies	9.02
e)	Joint stock companies	2.46
f)	Modaraba companies	0.24
g)	Individual & others	4.13
h)	Foreign share holder	0.14
Total		100

Source: SSGCL's Annual Report, 2001-02

5.3.2 SSGCL's gross value of fixed assets as on 30th June, 2002 was Rs. 34,746 million. The company's transmission and distribution network stood at 2,782 KM and

2,2861 KM respectively. The company has projected an increase of 61 km and 436 km in the transmission and distribution networks respectively during 2002-03.

5.3.3 The company's transmission system capacity has improved from 624 MMCFD in 2000-01 to 692 MMCFD during 2001-02. The company plans to further increase its carrying capacity to 1040 MMCFD by June, 2004 after completion of its Gas Infrastructure, Rehabilitation & Expansion Project (GIREP) at an estimated cost of Rs. 3,590 million.

5.3.4 Unaccounted for Gas (UFG) on SSGCL's system was 7.6 % during 2001-02. The company has targeted to reduce it to 7 % by the end of 2002-03 and bring it below 6 % by June, 2005 in accordance with the directions issued by the Authority.

5.3.5 Unlike the case of SNGPL, the load swing between winters and summers on SSGCL system is not that pronounced. Karachi is the major load centre of SSGCL where domestic gas consumption remains fairly constant throughout the year except in December/February when it marginally increases. However, the load of Quetta and other cities of Baluchistan increases very significantly and affects the overall load on SSGCL's system. To meet this increased demand, gas supply to KESC, WAPDA and Fauji Jordan Fertilizer is curtailed partially by SSGCL during winter months.

5.3.6 The company is supplying gas to over 1.6 million consumers the breakup of which is given below: -

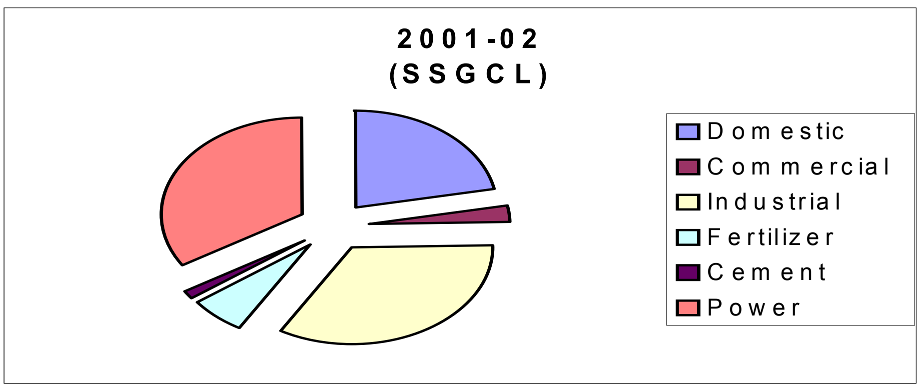
Domestic:	1,592,036
Commercial:	17,652
Industrial:	2,285
Total:	**1,611,973**

5.3.7 Total sale of gas to above consumers during 2001-02 was 642 MMCFD, which is expected to increase to 716 MMCFD during 2002-03 to cater for additional 51,000 consumers planned by the company. The category-wise break up of consumption for 3 years is as follows:

(MMCFD)

Sector	2000-01	2001-02	2002-03 (Projected)
Domestic	138	141	153
Commercial	18	18	20
Industrial	198	215	189
Fertilizer	36	41	75
Cement	9	9	20
Power	168	218	259
Total	567	642	716

Source: SSGCL



Source: SSGCL

5.3.8 The ten years projected demand/supply analysis on SSGCL's system is as below:

Description	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Demand	813	1,009	1,123	1,148	1,175	1,211	1,226	1,229
Supply	776	871	982	963	952	957	976	960
Gain/Shortfall	(37)	(138)	(141)	(185)	(223)	(254)	(250)	(269)

Source: SSGCL

5.4 Mari Gas Company Limited

5.4.1 The authorized capital of the company is Rs. 2,500 million whereas the paid-up capital is Rs. 368 million, which has been subscribed as follows:

	Shareholders	Percentage
a)	The President, Islamic Republic of Pakistan	20
b)	Committee of administration 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

Source: MGCL

5.4.2 MGCL makes the sale within its concession area of Mari at Daharki, Sindh and the gas is then transmitted through the customers own pipelines, i.e. transmission and operations are carried out by each of the below five consumers/companies: -

- Guddu Power Plant (WAPDA), District Sukkur, Sindh
- Fauji Fertilizer Plant, Goth Machi, Punjab
- Pak Saudi Fertilizer Plant, Mirpur Mathelo, Sindh
- Engro Chemical Fertilizer Plant, Daharki, Sindh
- Sui Southern Gas Company Limited

5.4.3 The company is selling about 450 MMCFD gas from Mari gas field to its consumers as under: -

Consumer/Company		Gas sale (MMCFD)
a)	WAPDA's Guddu Power Plant	112
b)	Fauji Fertilizer	156
c)	Pak. Saudi Fertilizer	85
d)	Emgro Chemical	97
e)	SSGCL	0.60
Total		450.60

6. DEMAND – SUPPLY SCENARIO AND GAS IMPORTS

6.1. As discussed in the earlier paragraphs, the shortfall in supply vis-à-vis the demand on the SNGPL and SSGCL systems in the year 2010 is 128 & 269 MMCFD respectively. This shortfall (397 MMCFD) is based on their projected average day loads, assuming a very modest increase in their domestic consumers base. An independent study carried out by Hagler Baily (Pakistan) claims that the most likely shortfall (during peak demand periods) on a country wise basis including the independent systems supplying gas to power plants and fertilizer factories, in the same year, is expected to be 1,888 MMCFD. Similarly, another study by Enerman Consultants predict the gap in supply – demand in year 2010 country wise as 1200 MMCFD. The global projections including the independent system of the Ministry of Petroleum and Natural Resources are as follows:

Years	2003	2004	2005	2006	2007	2008	2009	2010	2011
Demand	3339	3497	3713	3774	3912	4029	4079	4150	4355
Total supply	3308	3510	3467	3414	3333	3225	3203	3099	2974
Shortfall	-31	+13	-246	-360	-579	-804	-876	-1051	-1381

Source: Ministry of Petroleum & NR

6.2 Taking into account the projections of the Ministry of Petroleum and Natural Resources, which appear realistic since they are based on a moderate increase in the consumer base of the two transmission / distribution companies and the shortfalls on the independent system makes a strong case for import of gas from one or more sources being contemplated at present i.e. Turkmenistan, Iran and Qatar /Abu Dhabi.

6.3 It may be pointed out that the above-mentioned proposals for import of natural gas to Pakistan and beyond have been on the horizon for more than ten years. A number of Memoranda of Understanding have been signed at various levels. Since the laying of large diameter long distance pipelines is a mega project involving billions of dollars, it would require a consortium of international financers and multinational companies to finance and operate these pipelines. Implementation of such a mega project may require firm commitment from all the concerned parties.

7. CONCLUSIONS

7.1 The notification of Natural Gas (Licensing) Rules 2002 in February 2002 enabled the Oil and Gas Regulatory Authority to become fully functional and effective in its functions related to natural gas transmission, distribution and sale in the country. The Authority achieved almost all its major targets. The salient achievements of the Authority are listed below:

7.1.a The Authority has developed its two most important instruments namely the Licensing Rules and Tariff Rules both of which have been approved by the Federal Government and thereafter duly notified. This removed hindrances in its way to commence regulation of natural gas.

7.1.b The Authority has been able to attract quality professional staff including experienced engineers, chartered accountants, MBAs and law graduates through a transparent and competitive recruitment procedure. The induction of staff has been done on need basis. The authority would recruit more professional staff, when it starts regulation of the LPG, CNG and Oil sectors.

7.1.c The Authority has effectively and prudently utilized its resources including grants from the World Bank and the Canadian International Development Agency. Both the donor agencies are now considering of rendering more assistance to the Authority.

7.1.d One of the major achievements of the Authority was the determination of the revenue requirements of the two-transmission/distribution companies for fiscal year 2001-02. Through careful & minute scrutiny of their petitions as well as engaging the public, experts and other interested persons the Authority was successfully able to reduce the revenue requirement by Rs. 1975 million an amount which would have otherwise eroded the development surcharge receipts of the Federal Government by the same amount and therefore, could have resulted in increase of selling price of natural gas to consumers.

7.1.e The Authority has successfully demonstrated that by careful scrutiny even in an essentially cost plus environment substantial savings can be affected in the operation of the public utilities. The fact that the return to the companies is based on their fixed assets in operation, the prudence in the creation of assets becomes a matter of vital importance. The Authority has, therefore, sent a clear message to the companies and issued specific directions in that respect.

7.2. In the light of the above submission it can be said with reasonable confidence that the year 2001-02 has been a successful and productive year. The Authority has been able to make its presence felt in all the relevant quarters through its professional and correct approach in its conduct. A truly good beginning has been made in the natural gas regulation, which has been duly recognized by international agencies like the World Bank, the Asian Development Bank and Canadian International Development Agency. The Oil & Gas Regulatory Authority is confident that in the future years it will not only continue effectively the role it has been assigned but would further improve its performance through dedication and professionalism.