



Sui Northern Gas Pipelines Limited

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NEWSLETTER

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Customer Service Center

Inauguration at I-9 Islamabad

Mr. Shahid Khaqan Abbasi, Honorable Minister for Petroleum and NR, in presence of Mr. M. Arif Hameed, MD SNGPL, graced the inauguration ceremony of SNGPL's 32nd customer service center, in the Company's I-9 office at Islamabad. This is in furtherance of the Company's relentless efforts to achieve absolute customer satisfaction

by providing dedicated quality services to its valued customers. A few members of the senior management including Mr. Amer Tufail, DMD (S), Mr. Ijaz Ahmad Chaudhry, GM (ISB), Mr. Azam Khan Wazir, GM (LS), Syed Jawad Naseem, GM (RA) and others were also present at the occasion.

The CS center will serve as a one window shop where all concerned are available to resolve the issues of the consumers.

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PAKISTAN OIL & GAS SUMMIT | CRACKDOWN AGAINST GAS THIEVES | SPONSORSHIP OF A CHAIR ON GAS ENGINEERING

Editorial Board

Patron-in-Chief
M. Arif Hameed

Chief Co-ordinator
Syed Jawad Naseem

E Team
Media Affairs Department



The Company already features 13 regions, 34 sub areas and 85 complaint centers in order to ensure service at the doorstep. 5 new regions have been recently included and 8 new regions are further being proposed to be added in the Company's network, taking into account the expansion in the network over last several years. This will further facilitate customer service and contribute towards reduction in UFG. 8 new customer service centers have also been included in the system.

SNGPL being a leading community serving organization, is committed to honor its Corporate Social Responsibility (CSR) Policy, while treating customer care as a foremost responsibility. The CS center will serve as a one window shop where all concerned are available to resolve the issues of the consumers. The CS center features appropriate heating /

SNGPL being a leading community serving organization is committed to honor its Corporate Social Responsibility (CSR) Policy

cooling arrangements, clean drinking water and waiting areas with comfortable seating arrangements.

The setting up of this customer service center is a giant leap forward in reaching out to the

Company's consumers and bridging the gap between the service provider and millions of users.



Editor's Note

Dear readers,

The consumer satisfaction carries prime importance for the Company's well-being and success as a major service provider. In fact, SNGPL has always taken keen interest in customer satisfaction throughout its network. Recently, in the month of March 2014, the Company's 32nd Customer Service center was inaugurated by Mr. Shahid Khaqan Abbasi, Minister for P & NR, in the presence of Mr. M. Arif Hameed, Managing Director, SNGPL, in Islamabad, on April 28, 2014 in a simple yet dignified ceremony. This demonstrates Company's continuous commitment towards provision of quality services.

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Furthermore, SNGPL is also enlarging its vision of 'care for employee'. From the onset of summers, to ensure employees' health and well-being, an extensive medical camp was arranged at the Head Office. Comprehensive medical checkup of employees was conducted during the camp and an overwhelming response from the employees' side was also witnessed.

In a nutshell, SNGPL seeks to reach out to both its consumers and employees in order to retain its status as a leading public utility of the country.

Syed Jawad Naseem
General Manager
(Regulatory Affairs / Media)



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PAKISTAN OIL & GAS SUMMIT AND ENERGY EXHIBITION 2014

International Research Networks (IRN), a UK based oil & gas event management Company in collaboration with Ministry of Petroleum & Natural Resources, organized a two-day Oil & Gas Summit and Energy Exhibition 2014 from 19-20 March, 2014 at Marriott Hotel, Islamabad. Mr. Shahid Khaqan Abbasi, Federal Minister for Petroleum & Natural Resources, was the Chief Guest at the inauguration. While addressing the opening session of the summit, he expressed that the Summit would go a long way in highlighting the country's hydrocarbon resources and working out strategies to effectively explore this natural wealth to overcome the energy crisis in the country. He also apprised the audience that Government of Pakistan is working on several fronts to effectively meet the country's energy requirements and several measures are being adopted

The Summit would go a long way in highlighting the country's hydrocarbon resources and working out strategies to effectively explore this natural wealth to overcome the energy crisis in the country.

Mr. Shahid Khaqan Abbasi,
was the Chief Guest addressing at the opening session of the summit

in this regard. He further stated that GOP would soon initiate import of Liquefied Natural Gas (LNG) for the country; the modalities of which have been worked





out and negotiations on government-to-government basis are underway with Qatar.

Heads of Oil & Gas companies along with their senior officials operating in Pakistan participated in the Summit. On the advice of Ministry of P&NR, SNGPL along with other companies had placed a stall at the Energy Exhibition which provided an excellent opportunity to both upstream as well as downstream oil & gas sector to showcase their expertise and investment opportunities. Participants of the Summit were made cognizant of the Company's Pipeline EPC expertise and hot tap operation skills through custom made documentary / animation movies. SNGPL's telecommunication department demonstrated in the exhibition, its

ability to get real time data from remote sources which was highly appreciated by the participants. During the summit, different technical sessions were also held wherein experts highlighted the need to explore new oil & gas avenues and various possibilities of investment in this sector.

A group of SNGPL'S senior management participated in the 2 day summit and exhibition led by Mr. Amer Tufail – DMD (Services). The Summit was also attended by Mr. Ali Hussain Qureshi – SGM (Transmission), Mr. Sohail M Gulzar

- Sr. General Manager (CP&D / Projects), Mr. Mahmood Hussain – General Manager (Telecom), Mr. Ejaz A Chaudhry – General Manager (Islamabad), Syed Jawad Naseem – General Manager (RA / Media), Mr. Kashif Siddiqui- General Manager (Sales), Mr. Imran Yousaf Khan – Chief Engineer (CP&D), Mr. Sheheryar Qazi – Chief Engineer (Ops-Faisalabad), Mr. Furrukh Majeed Bala - Chief Engineer (HSE) and Mr. Rafique Ahmad – Chief Engineer (Transmission Wah).

Imran Yousaf Khan
Chief Engineer (CP&D)





61st NATIONAL CHAMPIONSHIP

Pakistan Cycling Federation arranged the 61st National Cycling Championship which was held in Lahore, w.e.f 17–21 March, 2014. Mr. M. Arif Hameed, Managing Director SNGPL, was invited as the Chief Guest by the Pakistan Cycling Federation (PCF), for the final events and Prize Distribution Ceremony of the cycling championship. This event was organized by Pakistan Cycling Federation and the participant teams were WAPDA, HEC, FATA, SSGCL, ARMY, PUNJAB, BALOCHISTAN, KPK and ISLAMABAD. The team of WAPDA won this Cycling Championship and our sister company's team i.e. SSGCL was the runner up of the Championship.

During the ceremony, Mr. Munawer Baseer, President PCF and Mr. Azhar Ali Shah, Secretary PCF raised the following requests to the worthy Managing Director:

1. **Participation of SNGPL Cycling team in future championships.**
2. **Construction of stairs for the seating arrangement of spectators.**
3. **Financing for international cycling events.**



AL CYCLING SHIP

In response to the request of PCF, worthy Managing Director said that SNGPL has already established its own Sports Cell and is actively participating in the sports events. SNGPL has won the President's Trophy Grade-I, 2013-2014 (Cricket), which is an example of our commitment towards healthy sports activities.

Further, the Chief Guest announced that the efforts will be made to establish our own cycling team and to participate in the next National Cycling Championship.

He further ensured the officials of the PCF, that their concerns regarding the construction of stairs for seating purpose and the financing of events; will be put forth before the Board of Directors of SNGPL for further consideration.

**The efforts will
be made to
establish our
own cycling team
and to participate
in the next
National Cycling
Championship**

Mr. M. Arif Hameed
Managing Director, SNGPL



SPONSORSHIP OF A CHAIR ON GAS ENGINEERING AT THE DEPARTMENT OF MECHANICAL ENGINEERING, UNIVERSITY OF ENGINEERING & TECHNOLOGY, PESHAWAR



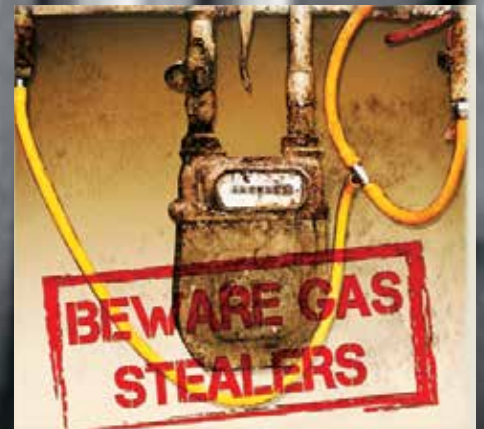
SNGPL is already sponsoring two 'Chairs' on Gas Engineering at University of Engineering and Technology (UET), Lahore and University of the Punjab (PU). The Chairs were constituted to fulfill the OGRA Licensing conditions to promote higher education. Company's Corporate Social Responsibility policy also has an objective of providing support in promoting education.

As per directive of the Board of Directors, SNGPL has recently sponsored a Chair on Gas Engineering at University of Engineering and Technology Peshawar. In this regard, a Memorandum of Understanding (MOU) was signed between Sui Northern Gas Pipelines Limited (SNGPL) and University of Engineering and Technology (UET) Peshawar on 02.04.2014, for sponsoring a Chair on Gas Engineering at The Department of Mechanical Engineering of UET Peshawar. MOU was signed by Mr. M. Arif Hameed, MD, SNGPL and Engr. Syed Imtiaz Hussain Gilani, Vice Chancellor of UET, Peshawar. According to MOU, SNGPL will sponsor a Chair on Gas Engineering for



research work, regarding alternate energy sources especially solar energy and developing innovative techniques for energy conservation. SNGPL will provide an annual grant of Rs. 3.32 million to the Department of Mechanical Engineering of UET Peshawar for this purpose.

By: Asma Maqbool
(HSE Engr – HO)



CRACKDOWN AGAINST GAS THIEVES

Sui Northern Gas Pipelines Limited in its crackdown on gas thieves has detected 18,732 cases involved in gas theft during the period July-2013 to Feb-2014. The category-wise breakup of these cases includes 4,308 Commercial, 14,024 Domestic, 253 Special Domestic and 147 Industrial cases. This has been made possible through dedicated efforts of Executives/Staff of the Company under the guidelines of the Management. Support of Law Enforcement Agencies has also helped in the cause.

Total volume of 9,308 MMCF has been booked to consumers amounting to Rs. 5,288 Million during the above mentioned period. Recovery of theft charges is underway.

The deterrence created as a result of vigilant activities has made a positive impact on UFG losses of the Company. The comparison with corresponding period of previous Fiscal year 2012-13 reflects a reduction by 0.2%.

Nazia Rasheed
Engineer (UFG-C, South), Head Office

RAID AT GHARI HAYAT KHAN & GHARI ATTA MUHAMMAD PESHAWAR

Task force teams of Peshawar Region conducted raids at Garhi Atta Muhammad and Garhi Hayat Khan where the local contractors had laid approximately 1.5 KM illegal rubber and inferior quality PE network on their own. Due to law & order situation prevailing in the above said belt, task force teams have faced enormous resistance in conducting effective raids.

On March 20, 2014, the task force teams of Peshawar Region conducted successful raids and managed to disconnect and uplift the illegal network through which gas was being supplied to more than 900 houses, where high capacity generators were also being utilized, due to power issues in this area.

Such measures clearly demonstrate the management's resolve towards reduction in UFG.

Pictorial evidence of the raids conducted is given below:-





TREATMENT OF LAND SLIDING PROBLEM RAWAT - MURREE PIPELINE



12" diameter x 35.33 mile Rawat – Murree transmission pipeline was commissioned in May 2006. This pipeline traverses through hilly terrain between MP 18 to MP 35.33 (end point). Rawat - Murree pipeline at MP 34.33 has suffered lateral deflection and loss of soil cover due to sliding of loose material along the steep slope adjacent to Islamabad - Murree expressway. Approximately, 200-250 ft of pipeline is affected by the slide. Land sliding in monsoon season is the

major cause of this issue. Comprehensive civil protective works were undertaken during previous years, but in view of highly vulnerable nature of hilly terrain and resultant behavior of soil at land sliding point, conventional protective works could not serve as the permanent solution to the recurring problem. To address the issue of pipeline sliding at particular location in order to ensure its long term stability and safety, services of M/s NESPAK were hired to design sound

foundation system along the distressed stretch, who have proposed permanent solution after carrying out geophysical survey, geotechnical field investigations and laboratory testing. The execution of the protective works proposed by the NESPAK over the exposed segment is likely to commence shortly.

Imran Yousaf Khan
Chief Engineer (CP&D)

TEMPORARY CROSSING AT BASANTRI NULLAH NEAR SHAKARGARH



The recent flood in the country not only damaged the lives and properties of people but also affected SNGPL's infrastructure. One of the major impacts of this flood was severe damage to our gas pipeline of 10" dia laid in Basantri Nullah near Shakargarh which caused disruption of gas supply to Shakargarh City. Although gas supply to Shakargarh City was restored through temporary arrangement of 4" dia PE pipe, but for the sake of long term safety of this line and to avert the future recurrence of such incident, a technical study was carried out for the ultimate solution. Study reveals that crossing of the nullah by adopting Horizontal Directional Drilling (HDD) technique is the only best possible solution which will cope-up with heavy downpours during monsoon season in the future. The execution of the crossing through HDD method is likely to commence shortly.

Imran Yousaf Khan
Chief Engineer (CP&D)



IT Round Up

CC&B Compliance Activities

In view of the sensitivity of the data being posted in CC&B, IT Compliance team was established to ensure the authenticity and completeness of posted data by monitoring and cross verifying the critical transactions. Currently IT-Compliance team is carrying out audit against the following activities on daily as well as monthly basis:

A - Compliance of CC&B Data Center Operations

1. Billable Charge Theft for other than Domestic Categories (OTD)
2. Billable Charge Rebate All Categories (OTD and Domestic)
3. Bill Revisions / Cancellation for other than Domestic Categories (OTD)

B - Compliance of IT General Control

1. Compliance on New Connection/Application Program
2. Compliance on Two Factor Authentication Usage
3. Compliance regarding the User Creations / Renovation and User Access groups

C - Compliance of Business User Activities (CC&B)

1. Compliance on data where Service Line Activity completed but Meter field activity is pending
2. Audit on data contains Meter field activity completed, but no service line existed
3. Monitoring of New Consumer Registration Process

IT Round Up



Inventory Roll Out Training Session in progress 1

The number of transactions verified by compliance, with volume and monetary impact, during the month of February 2014 are tabulated below:

Transaction Type	No. of Transactions	Volume (RO_HM3)	Total Amount (PKR)	Volume (CM)	Other charges (PKR)
Total Billable Charge Transactions Verified	906	106,828	193,861,192	93,209	61,118,753
Total Bill Revisions - OTD Transactions Verified	675	-	-	236,420	-
Total Transactions for the Billing Month Feb-2014	1,581	106,828	193,861,192	329,629	61,118,753

ERP HR and Payroll Modules

Human resource management involves the establishment and execution of HR and Payroll policies, programs and procedures that influence the performance capabilities and loyalties of the organization's employees. SNGPL is working on HRMS (Oracle HR & Payroll) modules successfully since 2009, and IT/MIS HR& Payroll team is providing full functional and technical support to ensure smooth business operational activities.

Other than implementation of HRMS (Core HR & Payroll Modules), the following milestones were also achieved. These accomplishments have been carried out by the combined and coherent efforts of the IT-HR & Payroll team members.

- I. Post Implementation Audit Review (HR & Payroll)
- II. 2011-13 CBA agreement. Payment to more than 7,000 employees
- III. Automation of Provident Fund from Legacy system to Oracle Payroll
- IV. Automation of Pension Gratuity to Oracle Payroll

ERP Inventory and Procurement Modules

Inventory and Procurement modules have been functioning in SNGPL for quite some time now. Inventory module has now been rolled out to 26 out of a total of 39 Stores locations whereas Procurement module is being operated from Head Office at the moment.

The new online locations include 5 locations of Faisalabad and 2 locations of Sargodha.

Sr.	Region	Store Locations	Online Since
1.	Lahore	Lahore D (040)	June 2013
2.	Multan	Multan (T) Multan (D) Multan (C) Multan Base Store (C) Multan Base Store Project (HQ)	September 2013
3.	Manga	Manga UFG (D) Manga Base Store (D) Manga New Towns Project (HQ) Manga Autar Project (HQ)	November 2013
4.	Bahawalpur	Bahawalpur (D) R Y Khan (D)	January 2014
5.	Peshawar	Peshawar (D)	February 2014
6.	Nowshera	Nowshera Camp Project (HQ) Wah Camp Project (HQ) Lachi Camp Project (HQ)	February 2014
7.	Wah	Wah (D). ISD (D) Wah (T)	February 2014
8.	Faisalabad	Faisalabad (D) Faisalabad (T) Faisalabad (C) Faisalabad Camp Project FCS- Faisalabad Camp Project	March 2014
9.	Sargodha	Sargodha (D) Sargodha Camp Project	March 2014



GM IT/MIS opening the roll out training session for Faisalabad and Sargodha. With these rollout locations the count has now reached 26 out of 39.

IT Round Up

CC&B Scripting Activities

There are multiple activities being performed by IT/MIS under the umbrella of CC&B to ensure smooth operations of business. IT/MIS Script Team, as suggested by the name, performs all the front end steps required to complete new commissioning, meter replacement and meter reconnection activities through scripts. Scripting is very helpful in case of large number of manual entries, relating to a particular task. All these activities are performed with accuracy and zero error in minimum possible time which may not be achievable if performed manually.

Some of the key figures highlighting the volume of work completed by this team are listed below:

Total records processed since April 2011	7,009,038
New Commissioning:	798,499
Meter Replacement:	872,173
Meter Reconnection	121,431

It took only six resources of script team to perform these tasks over the mentioned period whereas it would not have been possible to complete these activities manually even with sixty resources. This indeed is a great contribution by IT/MIS for the facilitation of business processes.

IT/MIS in-house development for various departments

In addition to implementation of various commercial off-the-shelf products such as ERP, CC&B etc, IT/MIS development team has developed customized software for various departments. In this edition, we will provide a brief overview of another customized application developed in-house by IT/MIS.

Medical Reimbursement System

User Department: Logistic Support

Medical Reimbursement System automates manually maintained medical expenses. Some functional points of Medical Reimbursement System are given below:

- Reimbursement of medical bills filed by employees.
- Reimbursement of bills received from doctors on panel.
- Generates the referral letter to employees for treatment in hospitals or for laboratory tests.
- Reimbursement of bills received from laboratories and hospitals.
- Records invoices, ailments, medical expense breakup for different expense heads and jobs information.
- System does not allow user to enter bills against those dependents (Son, Daughter) whose age is 25 years.
- Once record is frozen by user then only the administrator has the right to unfreeze the record.
- System allows user to define employees and their dependants information, department, designation, personal information, photographs, chronic diseases, etc.
- System allows user to define doctors who are on panel.
- System allows user to assign different doctors to employees and their dependants.
- System allows user to define Hospital/ Laboratory, Laboratory Test, diseases, expense head, medicine.
- System generates multiple reports including Employee wise medical expense report, Company-wise medical expense report and doctor-wise medical expense.

INTERACTIONS



Air Vice Marshal Mujahid Anwar SI(M) presenting souvenir to Mr. M. Arif Hameed (MD, SNGPL)



Engineer Amir Muqam (Advisor to Prime Minister) with Mr. M. Arif Hameed (MD, SNGPL) during his visit to SNGPL, Head Office



Mr. M. Arif Hameed (MD, SNGPL) sharing his views during an interview with SUN TV reporter



Mr. M. Arif Hameed (MD, SNGPL) discussing various issues with Mr. Sarmad Ali (MD, Marketing and Advertising Sales, Jang Group)



Department of CP&D hosted a sumptuous dinner for Mr. M. Arif Hameed (MD, SNGPL)





NATURAL GAS TRANSPORTATION TARIFF

UNDER THIRD PARTY ACCESS REGIME DETERMINATION OF PRINCIPLES AND RATIONALE

In order to foster competition and making natural gas downstream sector more liquid, the Regulators all over the World have prescribed Third Party access i.e. allowing shippers / end-users/ market players to use transmission and distribution network of gas utility companies which are considered natural monopolies. In Pakistan, a proactive step was undertaken by Oil and Gas Regulatory Authority (OGRA) by laying down the time limit in licenses granted to the SUI COMPANIES as to their exclusive rights in respect of the use of the transmission and distribution gas network for transmission, distribution and sale of natural gas to their consumers falling in the franchised areas covered in the respective license. Since the statutory time limit has elapsed and with a view to facilitate transmission, distribution and sales of RLNG, the Authority has

notified Natural Gas Third Party Access Rules 2012 which would govern third party regime. It is felt that an overview of the transportation tariffs is brought to the knowledge of all stakeholders for proper appreciation and implementation of third party regime as envisaged in the statutory Rules, 2012.

What is Transportation Tariff?

- A Tariff is a fee paid by the consumer to a pipeline operator for the use of pipeline. It covers the costs of investment and financing, operating and maintaining the pipe and includes an element of profit for the Operator. These costs may include such items and regulatory fees, local taxes and other charges levied commercial entities.

Transport Tariff Setting

- There are two crucial steps for designing transport tariff:
 1. The calculation of revenue requirements, depending predominantly on the value of asset base, its depreciation and the rate of return.
 2. Allocation of the revenue requirements to the system users.
- Since the tariff is based on operational (inclusive of gas use for compression) and investment costs, including a reasonable rate of return, recovery methodology should not result in losses or in excess profits to the Transmission System Operator



(TSO) and simultaneously the methodology chosen should ensure financial sustainability of the system.

- The core of the tariff for a domestic gas pipeline system in the Regulated Asset Value (RAV) according to the regulatory rules as agreed by the appropriate regulatory body with the TSO. This value derives from asset base originally set when the tariff setting process was initiated to which subsequent investments in the system are added. Such new investment is normally added to the asset base at its full cost and offers no methodological problems.
- The difficulties arise with the valuation of the original assets (**“legacy assets”**) for which a number of

alternative methods exist for setting the asset base, as follows:

1. The actual real investment cost in case of a new facility operated separately from other systems;
 2. The book value of the system as it appears in the accounts of TSO;
 3. The replacement value of the system, net of depreciation for a notional period; and
 4. Value placed on the system when privatized or otherwise sold.
- Each of the above base has some methodological or practical problems as follows:

1. In an integrated operation, the value of transmission may not be easily separable (“common assets”)
2. Book value may be too low since the impact of past inflation has not been registered in the accounting practices thereby seriously distorting book values to the point where they have little relationship to current costs.
3. Replacement valuation is somewhat difficult to determine on account of estimating inflationary impact, technological obsolescence, prices of steel, exchange rate fluctuations and other factors, resulting in somewhat subjective and volatile replacement value.



(Revaluation of SNGPL Assets in 1980's)

4. Computing depreciation on the economic life of pipeline and its technical lifetime is very crucial as after the depreciation period there would be no RAV to calculate rate of return.
- The central point is that the RAV for a fixed investment declines over time as its depreciated value falls and therefore, the annual allowable revenue declines over time as the capital base falls. A mature pipeline will therefore appear to have lower transportation charges than a new one. However, in case of ongoing investments the transportation charges may have gradual decline over economic life of the system. **Hence, it is imperative that the valuation of TSO assets is realistically made and depreciation allowance is scientifically calculated adequately generating annual revenue in a cost reflective and financially sustainable manner.**
 - Given the status of a TSO as a utility monopoly, the level of regulated

return on capital has an important political as well as economic importance i.e. this return on capital in the public eyes is perceived as profit of TSO whereas factually it is not so. The rate of return on RAV is essentially linked to the weighted average cost of capital (**WACC**) involving:

1. Setting a debt / equity ratio
2. Cost of debt finance
3. Estimating a normal equity return
4. Adjustment for risk category of the enterprise
5. Taxes and other levies including debt raising costs
6. Comparable return and investors expectation

- The use of rate of return (ROR) regulation has been widely criticized over the entire field of regulation to provide any incentive to reduce costs and for the inherent tendency for operator to increase their RAV unnecessarily (**"gold plating"**). As an alternative, price capping regulation has been introduced to prevent this and offer incentives to reduce cost. Also that in some regulatory regimes, the regulator approves new investments so that there is no incentive for padding of the RASV and creation of underutilized capacity. However, in a sector that is as capital intensive as gas transmission, large parts of cost are fixed and not subject to cost saving.
- ROR always contains an implicit assumption about the future level of pipeline use; typically that it works at full capacity or as close to it as can be managed given operational flexibility needs. This also necessitates long-term demand projections/commitments for planning new investments in future. Take or Pay obligations would provide comfort to TSO in this regard.

- To sum up, total revenue requirements is the fundamental element in any rate setting exercise. It is an annual revenue that covers all costs of operation, plus an element of profit calculated as an allowance rate of return on the asset value of the operation as follows:

1. The cost of amortizing the pipes as represented by a depreciation charge on the capital asset.
2. A financing and profit element as a return on the asset value of the pipeline system, consisting of regulated value of the pipeline system (RAV) and the allowed capital return (ROR) on this value.
3. Annual operating costs which can include both fixed and variable elements. The former would normally include the staff required to keep the pipeline running, including administrative operations. The main element of the variable costs is the cost of fuel gas required to operate the compressor (unless the system user provides gas in kind), repairs and maintenance and other normal operational expenses.

- Once the annual revenue requirement is determined, the second stage of deriving a regulated tariff involves spreading the allowed annual revenue across actual gas shipments to derive **a unit tariff**. In order to provide a stable framework for gas transport, it is common to base tariff derivation upon forecast gas flows through a system for one or more years into the future and then adjust TSO revenues up or down when actual flows are known. The tariffs are usually broken into:

1. Commodity charges (variable operating costs)

2. Capacity charge (consisting of fixed operating costs; depreciation and ROR on RAV (capital charges).

- Normally the balance between capacity and commodity charges is about 90/10 and capacity tariffs are intimately linked with capacity booking procedures which need to be strictly negotiated and monitored.
- The rules of access have important financial implications for the shippers as well as the TSO and must be made part of GTA. The capacity booking provides a regular settlement procedure under which the shipper will pay according to the set tariff for the gas actually moved and, additionally, any extra charges for costs incurred in moving gas volumes which are above or below originally contracted capacities. It must be recognized that the central feature which distinguishes gas trading from other physical commodities is that the gas shippers receive at the exit point will never be the same as that which they provide at the entry point (through it has to conform to agreed gas quality/ specification) and that the TSO is usually obliged in the event of supply/ demand imbalance to make up the difference rather than suspend the flow of gas out of the system to any particular shipper. This aspect of gas transportation of third

party must be thoroughly negotiated and documented- balancing gas interchangeability, keeping in view system operational constraints and risks involved. **(Balancing and Settlement Code is prescribed under TPA).**

Overall Revenue Requirement / Cost / Tariff Allocation to the Shippers

- There are four types of tariff methodologies currently in use to allocate the overall costs to the shippers:

1. Postal

Postal tariffs use a single fixed fee for the transport of any volume of gas within the area covered by the tariff i.e. total allowed revenues is divided by the requires system capacity, resulting in a unit tariff. It is simple and practices for low pressurized distribution network.

However, postal tariff does not provide signals for efficient use of the system and appears to be discriminatory between consumers in different parts of large systems, given that different amounts of investment have been required to serve different consumers.

2. Point – to – point Tariffs

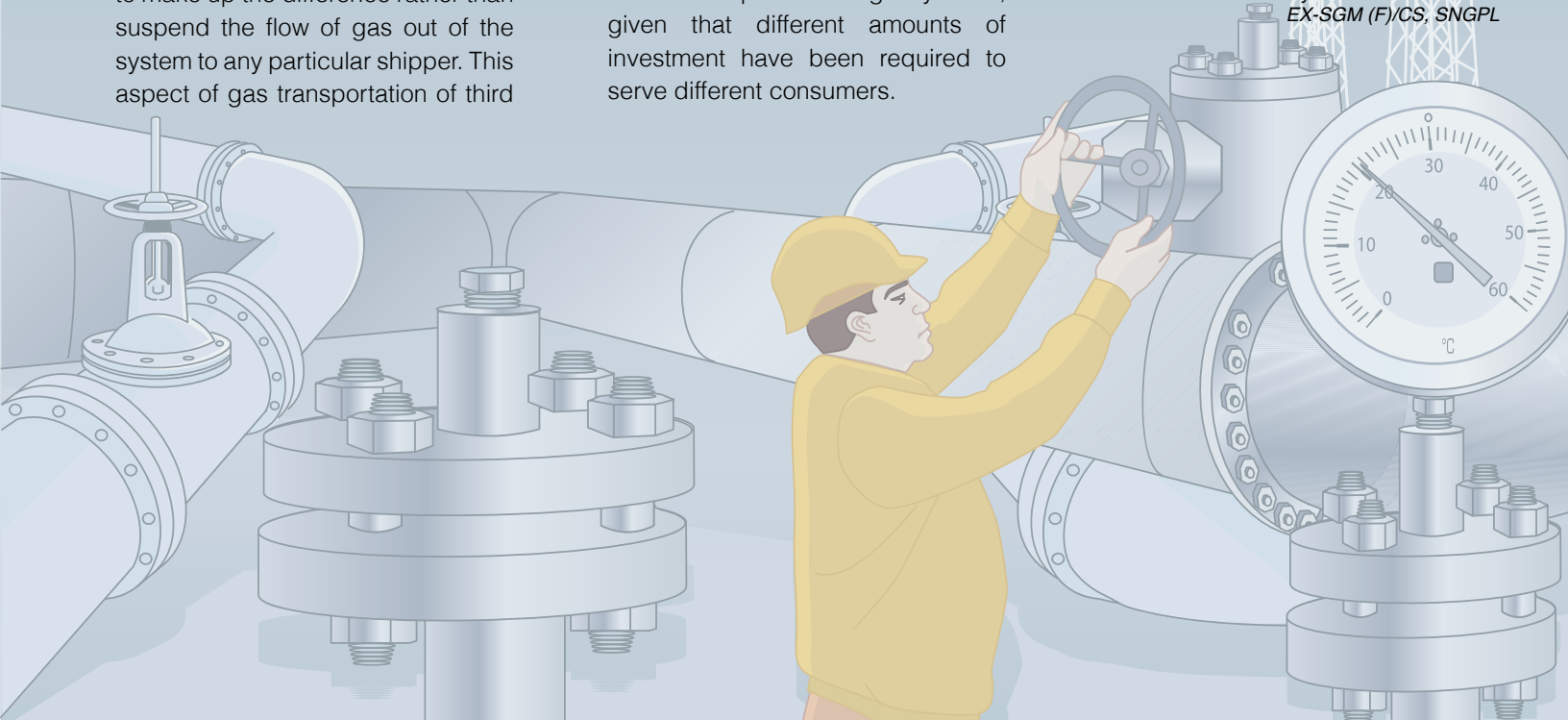
Point – to – point tariff is quoted for every entry / exit pair within the system. This method is advantageous to the TSO who will have an overview of the flows requested and the required capacity to serve it. However, it becomes opaque and complex, if there are a large number of entry and exit points.

3. Entry –Exit Tariffs

In this tariff system, a separate tariff is quoted for each entry and exit point. This is similar to point to point system i.e. booking is done separately for each entry and exit point, with actual movements being based, ex- post, upon combining a shipper's portfolio of capacity contracts. Entry / Exit tariffication requires detailed physical and financial modeling of system flows which become more complex and difficult to understand.

The overall tariff process is shown for ease of understanding (taken from Energy Charter publication on Gas Transit Tariff Report of January 2006). The tariff mechanism in the Rules 2012 is in line with the above rationale.

By: **Mahboob Elahi**
EX-SGM (F)/CS, SNGPL



CORROSION & CORROSION ECONOMICS

Corrosion economics is a vast field and has many aspects depending upon what is included and who is affected. The cost of corrosion can be defined as the sum of fractions of design, manufacturing, operation and maintenance, developments in latest technology, and loss of asset value.

A change in cost of corrosion is largely dependent on the changes in corrosion control practices. The changes in corrosion control practices have an adverse affect on corrosion economics. Technology development is one of the important aspects in the corrosion economics of any structure.

The results of corrosion economics can be analyzed using the following three important concepts:

1. **Corrosion Management**
2. **Life Cycle Costing (LCC)**
3. **Cost-benefit Analysis**

1. **Corrosion Management** is defined as all those activities which are performed to mitigate corrosion of a structure during its life cycle. These activities include design of system, manufacturing of system, maintenance of system, inspection, repair and rehabilitation of structure.

2. **The Life Cycle Costing** is defined as the cash expenditures incurred during the life cycle of a structure. These expenditures include the cost of construction, maintenance cost and the cost of losses incurred during the construction/maintenance activities. The structure which is

designed by minimizing the life cycle cost will provide better results at lower cost.

3. A Cost-benefit Analysis is defined as the benefits gained by spending the cost on corrosion related issues like the operation, maintenance, repair and functioning of system. The cost benefit analysis has both aspects of economics. In some cases the cost of mitigation of corrosion can cost a lot of money while in other cases the cost of mitigation of corrosion can be very low and just replacing a structure at lower cost can be beneficial.

The annual corrosion cost includes the following:

1. **Direct costs**
2. **Indirect costs**

The **direct cost** of corrosion can be divided into following points:

1. The costs of design, includes the following:

- Material selection.
- Any additional material which includes materials with increased wall thickness so that the structure can cope for the corrosion allowance.
- Coatings, inhibitors, corrosion prevention tapes, sealants and all other materials which are used to prevent the structure from corrosion.
- Cost of manpower and the cost of machinery/gadgets.

2. The Cost of Management:

- Inspection, monitoring and maintenance.
- Corrosion related repairs.
- Rehabilitation.

Indirect costs include the cost borne by the owner and operator of the structure during its life cycle. It is a complex phenomenon and can be analyzed by using the important concept of risk based assessment. It can be further elaborated

as the cost borne by the operators/ owners by paying the taxes, penalties etc during the operation / maintenance of the systems. As in the case of rehabilitation of a structure the same comprise the cost of road cuts, repairing costs of the roads etc.

Corrosion is a complex phenomenon which can be defined as the deterioration of a metallic structure due to its interaction with environment. A vast variety of experimentation and studies has been done and are underway in the World regarding corrosion related issues. Corrosion is a phenomenon which sometimes costs a little and sometimes huge costs are involved. The first barrier to mitigate the corrosion of a metallic structure (buried pipelines) is proper coating. A large variety of coating materials are available but the one which mitigates the corrosion at economical cost is the best. The cost of coating materials should not be compromised. A good coating and timely repairs of the coating increases the service life of a metallic structure. The corrosion economics can be further defined using the following three important concepts:

1. **Economic** including the objective of reducing material losses resulting from the degradation of metallic structures.

The losses can be categorized into:

- **Direct losses**
- **Indirect losses**

The direct losses include the cost incurred by replacing the corroded part of a metallic structure which has been under the adverse effects of corrosion. This cost also includes the costs associated with the operation of replacement like the cost of manpower, cost of machinery, the cost of contingencies, cost of material and the cost of operation.

The indirect losses are those losses which have resulted from the direct losses, for example if a pipeline is to be replaced, the system needs to be



shut down, like the losses incurred by shutting down the system or the losses incurred by compromising the efficiency of the system.

2. **Safety** of operating equipment which can be greatly affected by corrosion related issues and consequently the cost will be on the higher side.

Corrosion economics is a vast field and has many aspects depending upon what is included and who is affected.

3. **Conservation** of precious resources is the most important factor. The metal resources in the World are limited and should be conserved. Alternate energy sources should be used to conserve energy. The energy used in fabrication of metallic structures and maintenance should be based on economical designs in order to conserve energy and the precious metal resources.

TWO DAY MEDICAL CAMP AT HEAD OFFICE



Health, Safety & Environment (HSE) Department of SNGPL organized a two day Medical Camp on April 8, 2014 at SNGPL Head Office, Lahore.

The health surveillance activities incorporated in the medical camp was an effort to monitor the employees' health and well-being. These comprehensive tests laid vital importance on regular checkups and ensured accurate results for all employees present at the camp.

Following medical examinations were carried out in the Medical Camp:

1. Data Entry:

It is carried out to gather baseline medical related data of the employees.

2. Personal Protective Equipment (PPE) Awareness:

Promoting awareness amongst employees regarding usage of Personal Protective Equipment is essential to

ensure their safety and prevention from injuries during operational activities.

3. Height & Weight Recording:

Details regarding height and weight are required for calculating body mass index (BMI) and for necessary input for other test. Results of several tests are correlated with the height and weight.

4. Blood Pressure (Hypertension):

Blood pressure of employees is noted to check whether he/she is hypertensive. Digital meters are utilized for the purpose.

5. Blood Sugar Testing:

To check whether an employee is diabetic or not, random blood sugar screening is carried out using digital glucometer.



6. Eye Refraction Testing:

Eye refraction tests are essential for Company drivers and for all those employees who need to concentrate for a long time on a computer screen.

7. Hepatitis B and C Screening:

Hepatitis is spreading at a rapid pace in the region and to control this disease it is essential to screen the employees carrying this viral disease in order to start proper medical treatment.

8. Bone Scanning:

To check the level of Vitamin D and Calcium in our bones, scanning is carried out giving instantaneous results. Use of soft drinks is a major contributing factor in high level of abnormal bone scan results.

9. General Medical Examination:

The Company medical officers were engaged in carrying out general medical examination of each employee.

History of the employee is taken and present condition is checked and noted on the format.

10. Pulmonary Function Testing:

Pulmonary function tests are performed to check the capacity of lungs of an employee. Frequent exposure to dust, fumes or vapor and smoking can cause loss of capacity of lungs.

Mr. M. Arif Hameed, Managing Director SNGPL along with the senior management also went through the tests and appreciated the efforts made by HSE Department in this regard.



REMEMBRANTS



Mr. Nadeem Asghar SGM(CS)

Mr. Nadeem Asghar, SGM(CS) was given a heartening farewell in an extravagant ceremony by the senior management and his colleagues. He bears a unique example that has passed CSS exam but opted for service at SNGPL in September 1976 at the Purchase & Stores Department, Faisalabad. Later on, at Head Office, he rendered his services as a competent analyst / programmer for a long period of 11 years. He has experience in all aspects of procurement but supply chain remains his key area.

He has to his credit, a Masters degree in Economics from Government College,

Lahore and Masters degree in Business Administration from IBA, University of the Punjab, Lahore. Additionally, he was selected as a USAID scholar for a six months training program in Management of Information Systems at Florida Atlantic University, Florida, USA.

Mr. Nadeem Asghar, SGM(CS) also pursued his passion for teaching and training at SNGTI. He was one of the few officers who opted to attend the "TRAINING FOR TRAINERS PROGRAMME" at SNGTI, in its very initial days. He later on, imparted his expert views and skills to the trainees at SNGTI

for more than two decades.

He had occupied an important place at SNEOA, while strengthening the executive officers body and imparting the policy of owning your Company to all. In his message to the young employees of SNGPL, Mr. Nadeem Asghar has whole heartedly persuaded them to make loyalty, hard work and ownership their key principles. The smile on his face and the shine in his eyes clearly displayed the satisfaction he has earned in his entire service.

Farewell Message from Mr. Nadeem Asghar

My dear friends and colleagues,

On the eve of my retirement, I hereby bid farewell to the Company I have been associated with for 38 long years. After a dedicated time period served at SNGPL, it is time that I must express my gratitude for the guidance and affection bestowed upon me throughout this journey. I could not have reached this milestone without the support and cooperation of my seniors and colleagues.

I really have no words to express my feelings on this occasion and would only say:

THANK YOU, YOU MEAN A LOT TO ME.



Mr. Muhammad Pervaiz SGM(D-N)



SNGPL bid a warm farewell to Mr. Pervaiz, SGM (D-N) in an exquisite ceremony at Head Office, Lahore.

As a Chemical Engineer by profession, Mr. Pervaiz joined SNGPL on March 3, 1981, as an Assistant Engineer at Faisalabad Transmission Office. He gained vast experience serving at various regions of the Company in different capacities. Prior to his retirement, till April 14, 2014, he served as the GM (Corrosion) and later as the SGM (North Distribution). He will be remembered as a devoted employee of the Company.





RETIREMENTS

Mr. Muhammad Ashraf GM (Stores)

Mr. Muhammad Ashraf, GM (Stores) was given a farewell at Head Office in the presence of senior management and colleagues on March 29, 2014. His service at SNGPL is stretched over a long period of 34 years. As an experienced employee of the company, he has served at various departments in different capacities. His contributions will be cherished and will add to the Company's well-being in the long run.

Sh. Saeed Ahmed Rahi IT Department



Sh. Saeed Ahmed Rahi was given farewell party at his retirement, by his fellow colleagues and seniors in the IT department



Celebration of Earth Hour

on March 29, 2014

Earth Hour is the world's largest voluntary action and celebration of our planet's natural resources. It is an initiative to encourage individuals around the world to take accountability for their ecological footprint and engage in dialogue and resource exchange that provides real solutions to our environmental challenges. Participation in Earth Hour, by switching off lights for an hour, symbolizes a commitment to conserve energy.

From its debut in one city in one country, in 2008 – Sydney, Australia – when 2.2 million individuals turned their lights off to take a stand against climate change; it has now become a truly global practice.

In a few years, Earth Hour has grown into the largest campaign around the world. According to WWF Thailand, electricity consumption was reduced by 73.34 mega watts, which, over one hour, is equivalent to 41.6 tonnes of carbon dioxide.

Pakistan joined more than 7000 cities and 156 countries around the world in celebrating Earth Hour 2014. Several simultaneous events took place across the country, to pledge to conserve Pakistan's environment and natural resources.

In order to show commitment to conserve our Natural Resources and to save our Planet, SNGPL celebrated Earth hour on 29.03.14 at Head Office Lahore, Regional Office Lahore, Islamabad, Faisalabad, Multan and Peshawar. All the Lights were switched off at 08:30pm for an hour. Special note on the significance of Earth hour was circulated from worthy Managing Director. HSE Department also circulated a Bulletin in this regard to all executives.

It is a moment of great pride that SNGPL as a leading utility of the country, showed commitment towards the restoration and conservation of energy.

By: Asma Maqbool
(HSE ENGR – HO)

Emergency Handling and Planning

Provision of Safe Emergency Exit

at Head Office



SONGPL's HSE Department is based on the ISO 14001:2004 & OHSAS 18001:2007 Standards. Emergency Response Procedure is an integral part of the Company's HSE Management System.

Emergency Handling and Planning focuses on preparing equipment and procedures for use when a disaster or emergency occurs. Emergency Planning measures can take many forms such as the construction of shelters, provision

of assembly points, training of the staff, installation of warning devices such as smoke detectors, and executing Mock drills etc. The employees must be educated about their responsibilities in case of any alarming situation, which might occur.

Considering the need of the hour, Civil department has completed the project of extension of Emergency stairs from 7th floor to roof top and from B-2 to B-1. Earlier, the emergency stairs were

available from 7th floor to ground floor and B-1. There was no emergency exit available from B-2 to B-1 and from 7th floor to roof top. But now evacuation routes for these areas have also been made available. All the evacuation routes of HO are operational. In case of any incident / emergency, the staff can easily use these Emergency routes for safe evacuation.

By: **Asma Maqbool**
(HSE ENGR – HO)



WE AT **SNGPL** ARE WORKING ROUND THE **CLOCK**

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Health, Safety & Environment Department



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