



Exploration and Challenge of Natural Gas Trading in China

CHEN Gang
Nov. 15 2017

Part I Gas Market Liberalization and the Present Situation

Foundation of Gas Market Liberalization



- Only with a liberalized and fully competitive natural gas OTC market can lead to healthy online trading.
- SHPGX is mainly working on establishing a healthy external environment in the current ice breaking stage.
- PNG: By bidding natural gas from CNPC, SHPGX helps to distribute natural gas more efficiently compared to the traditional planned distribution under the condition that the pipeline is still unbundled.
- LNG: By bidding LNG from CNOOC, SHPGX helps to find out the spot price of the LNG truck market.

Top Level Design of the Gas Market Liberalization

新华社
新主流 新体验
Copyright © Xinhua News Agency. All Rights Reserved

中共中央国务院印发《关于深化石油天然气体制改革的若干意见》

2017-05-21 18:27:19

浏览量: 500002

来源: 新华社

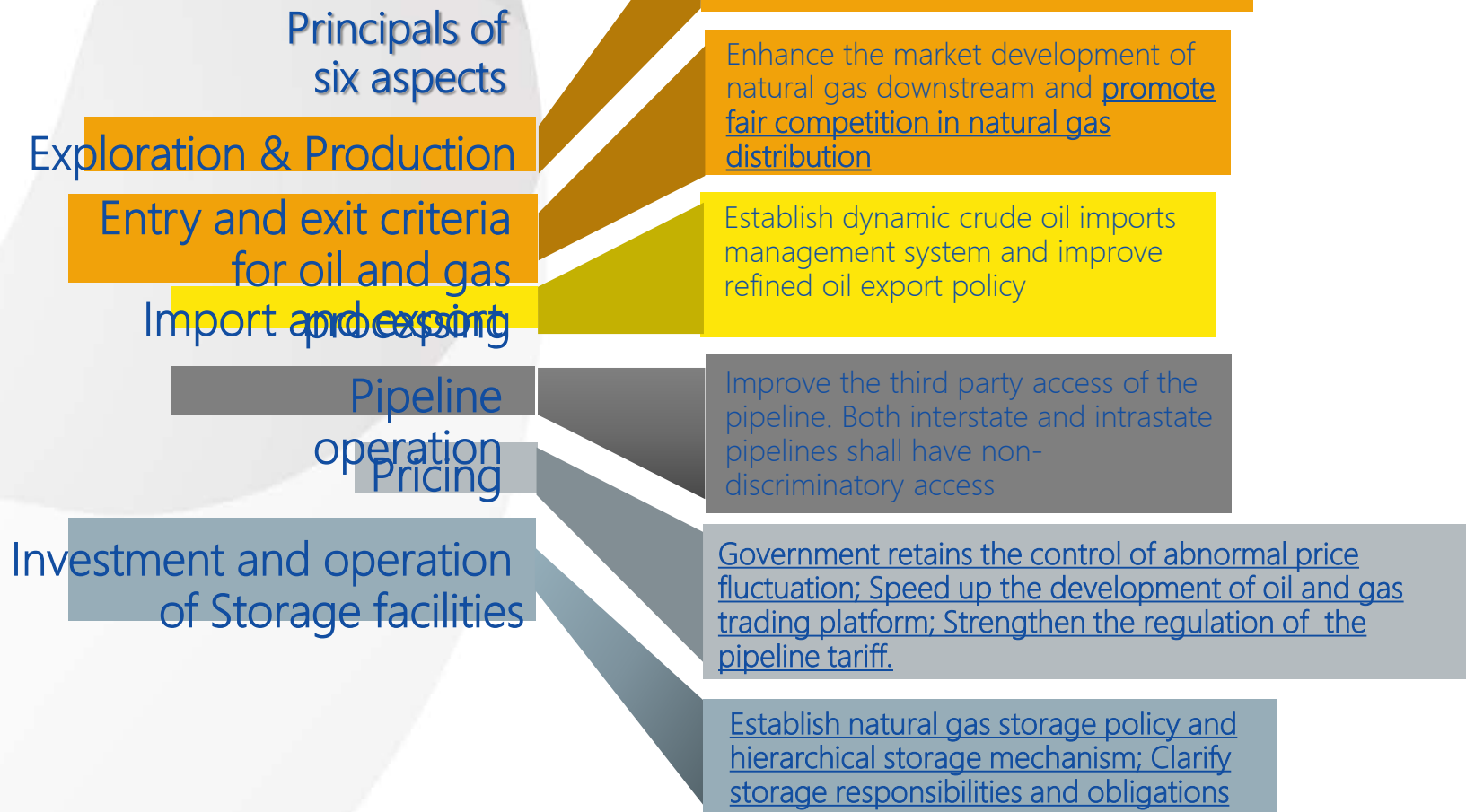
语音播报

原标题: 中共中央 国务院印发《关于深化石油天然气体制改革的若干意见》

新华社北京5月21日电 近日,中共中央、国务院印发了《关于深化石油天然气体制改革的若干意见》(以下简称《意见》),明确了深化石油天然气体制改革的指导思想、基本原则、总体思路和主要任务。

《意见》指出,深化石油天然气体制改革,要全面贯彻党的十八大和十八届三、四、五、六中全会精神,深入贯彻习近平总书记系列重要讲话精神和治国理政新理念新思想新战略,认真落实党中央、国务院

< 写评论 评论 收藏 分享 A



Recent Natural Gas related Reform Acts

Date	State department	Act	Impact
2016/8/26	NDRC	Notice on strengthening local natural gas transmission and distribution tariff regulation to reduce the cost of gas business	After determine the methodology of interstate pipeline transport tariff, NDRC asked local price department to strengthen the regulation of local natural gas transmission tariff, with cost reduction background, local natural gas transmission tariff is expected to decrease.
2016/9/2	NEA	Notice on the oil and gas pipeline network facilities to open the relevant information	Pipeline infrastructure information disclosure, has taken the first step to promote the fair and open third-party facilities.
2016/10/9	NDRC	Notice on the Measures for Natural Gas Pipeline Tariff Regulation (Trial) and the Measures for Regulation of Natural Gas Pipeline Transportation Cost (Trial)	Independent accounting of transmission tariff laid down the foundation of natural gas market liberation and third party access, strict cost supervision will improve the efficiency of monopoly, avoid excessive investment, reduce the cost of downstream gas users.
2016/10/15	NDRC	Notice on Clear Price Policy for Storage Facilities	Liberalize the natural gas price and gas storage price, cleared the profit mode for gas storage facilities, create environment for its independent operation, encourage more capital to participate in the construction of gas storage facilities, improve the natural gas peak shaving capacity.
2016/11/5	NDRC	Notice on Promoting Market-oriented Reform of Fertilizer Gas Price	Liberalize gas price for fertilizer has limited effects for fertilizer industry, with the gas price liberalization for fertilizer industry, the volume of liberalize gas reached 50%, natural gas price market liberalization achieved significant progress.
2016/11/11	NDRC	Notice on policy of natural gas gate price in Fujian Province	With CNPC transport it's gas from west, Fujian will pilot fully liberalize city gate gas price, two main upstream player CNOOC, CNPC is expected to compete, pipeline natural gas price will be fully market liberalize, and accumulate experience for city gate liberalization country wide
2016/11/15	MLR	National Mineral Resources Plan (2016-2020)	The plan proposed gradually liberalize oil and gas upstream E&P market during 13th Five-Year plan(2016-2020), indicating that the upcoming oil and gas system reform program will include this part, natural gas upstream is expected to be more diverse.
2016/11/24	NEA	Coalbed methane (coal mine gas) development and utilization of "13th Five-Year Plan(2016-2020)"	The plan proposed that new proved coalbed gas reserve will reach 420 billion m3, 2 or 3 coalbed gas industrial base will be established. Coalbed gas production will reach 24 billion m3 in 2020, as a important part of unconventional gas , coalbed gas may have a large development.

NDRC: National Development and Reform Commission Resources

NEA: National Energy Administration

MLR: Ministry of Land and

Pipeline Tariff Regulated Prior Pipeline Independence



中华人民共和国国家发展和改革委员会
National Development and Reform Commission

意见征求

关于向社会公开征求对《天然气管道运输价格管理办法（试行）》和《天然气管道运输定价成本监审办法（试行）》意见的公告

根据《中共中央 国务院关于推进价格机制改革的若干意见》（中发[2015]28号）精神，为探索建立新形势下管道运输价格机制，加强管道运输价格监管，提高价格监管的科学性、规范性和透明度，我委会同有关方面拟定了《天然气管道运输价格管理办法（试行）》和《天然气管道运输定价成本监审办法（试行）》（以下称《办法》）。现予以公告，向社会公开征求意见。欢迎各界人士踊跃参与，积极建言献策。

此次公开征求意见的时间为2016年8月16日至2016年9月5日。欢迎各界人士通过网络、传真等方式提出意见。请登陆国家发展改革委门户网站

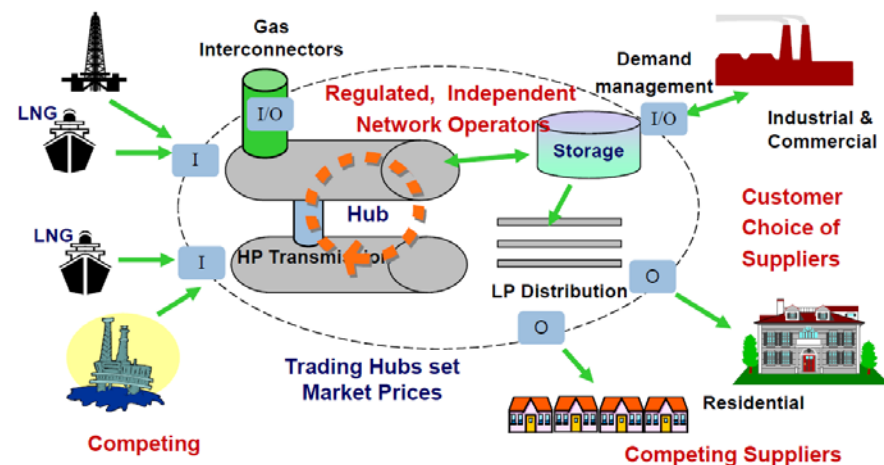
（<http://www.ndrc.gov.cn>）首页“意见征求”专栏或价格司子站，进入“《天然气管道运输价格管理办法（试行）》和《天然气管道运输定价成本监审办法（试行）》公开征求意见”栏目提出意见建议。传真请发至（010）68502194。

感谢您的参与和支持！

附件：

- 1、《天然气管道运输价格管理办法（试行）》
- 2、《天然气管道运输定价成本监审办法（试行）》
- 3、《天然气管道运输价格管理办法（试行）》和《天然气管道运输定价成本监审办法（试行）》的起草说明

MARKET-BASED BALANCING Illustration of the Developing EU Gas Market



Third party access to Natural Gas Infrastructure



- CNPC pilots third party access to Jiangsu, Caofeidian LNG terminal from 2014 to 2016, gained positive result and demonstration effect.
- CNPC、Sinopec、CNOOC disclosed pipeline infrastructure information and the requirements for the third party access.
- TongYu and YingZhang Pipelines, which are operated by private companies, disclosed basic information, tariff and access requirements for third party.

The civil Advices of National Pipeline Company

1 vs N?

Financial
independence

Operation
independence

Legal identity
independent

Current Mission

- SHPGX put dispersed offline transactions together on a public, transparent market-orient exchange, which promotes competition, breaks oligopoly, exposes contradictions, and enforces the system and price reform. Hence, the market efficiency will be increased and the national energy security will be ensured.

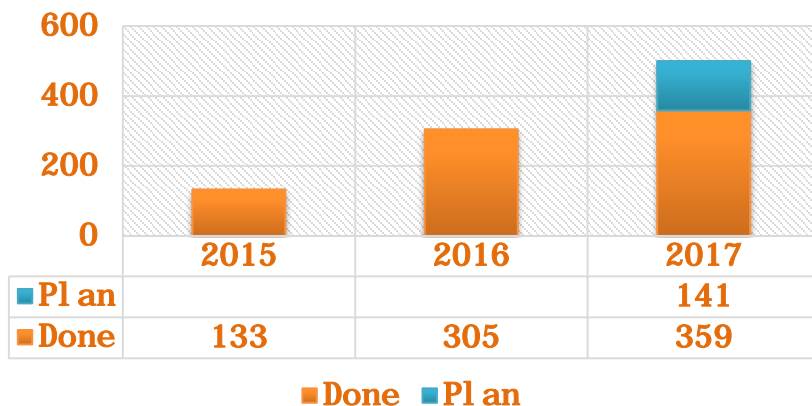


- Recently, NDRC issued " Implementation of CPC Central Committee and State Council Advice on Deepening the Reform of Oil and Gas System " , which includes the independence of gas pipelines, the non-discriminatory access, the improvement of the energy trading system, the standardization of the market entry criteria and the establishment of long-term stable trading mechanism.

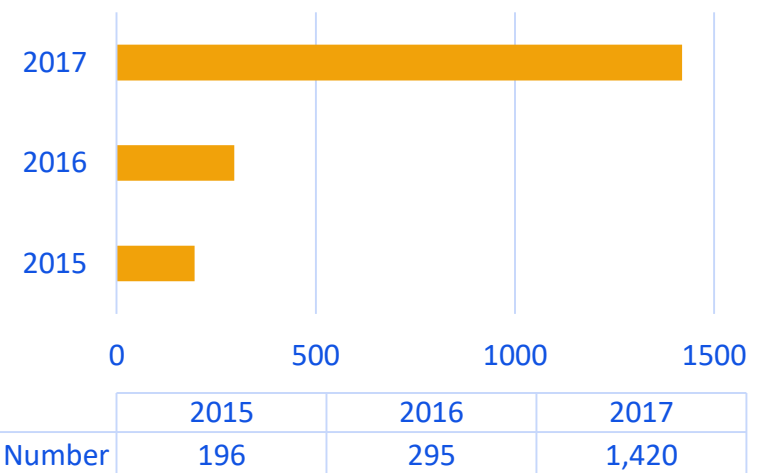
Part II Exploration of Market-oriented Gas Trading

SHPGX - Overview

SHPGX Trading Volume (100 million m³)

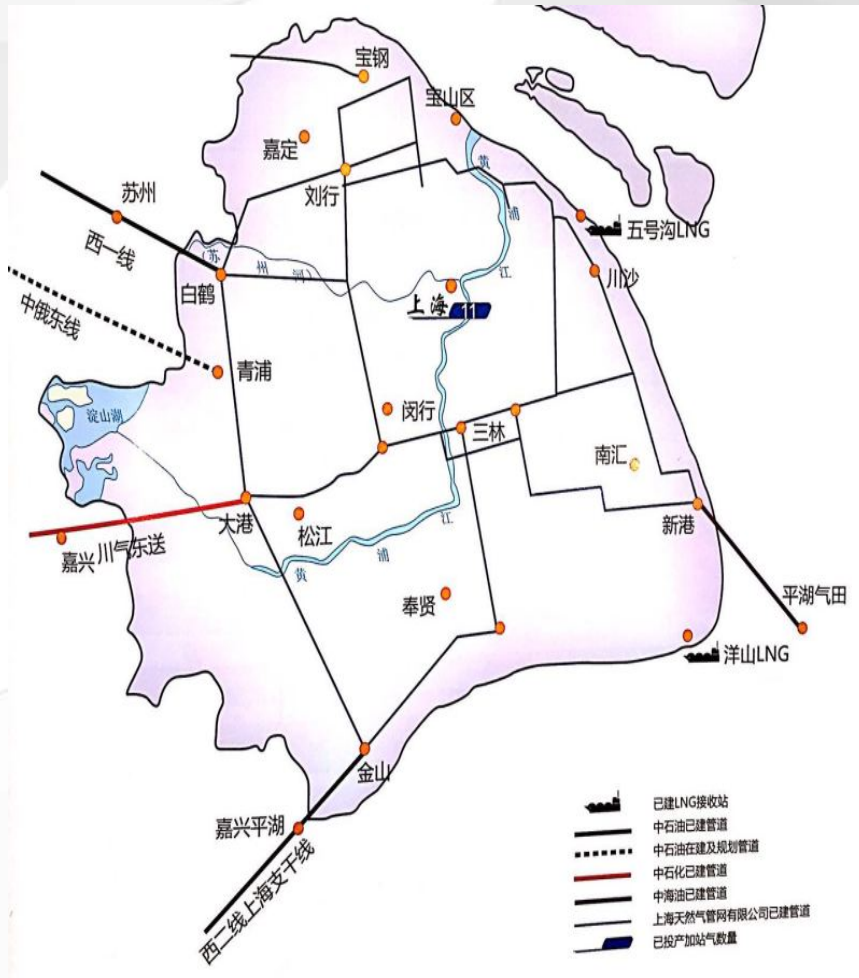


Number of Members



- It is projected that the trading volume on SHPGX will be 50 Billion m³ in 2017, which is increased by 63% and accounts for 11% of natural gas consumption in China;
- 1125 companies has become new members of SHPGX by far and the total members of the company has amounted to 1420.

Summer Bidding - 500 Million m3 PNG



- “Notice on Issuing Shanghai 2017 Natural Gas Supply and Demand Balance Plan” called for the promotion of resource bidding. Taking out 500 million m3 gas from the overall arrangement as the pilot of supply side auction, which is expected to benefit the downstream market.

Category	Parameters	Remarks
Auction date	9:00-11:30 AM 13:00-15:00 PM	Special Session on Aug30
Listing Volume	2 million, 3 million, 5million, 7 million, 8million cubic meter	5 listings for both morning and afternoon session;
Deal Price: 1.9RMB/m3		

Important Opportunity for PNG Online Trading on SHPGX 2017



中华人民共和国 价格司
国家发展和改革委员会

首页 > 政策法规

国家发展改革委关于降低 非居民用天然气基准门站价格的通知

发改价格规〔2017〕1582号

各省、自治区、直辖市发展改革委、物价局，中国石油天然气集团公司、中国石油化工集团公司：

按照党中央、国务院关于推进供给侧结构性改革的总体要求，国家根据天然气管道定价成本监审结果下调管道运输价格，结合天然气增值税税率调整情况，决定降低非居民用天然气基准门站价格。现就有关事项通知如下。

一、降低非居民用气基准门站价格

非居民用气基准门站价格每千立方米降低100元。调整后的各省（区、市）非居民用气基准门站价格见附表。

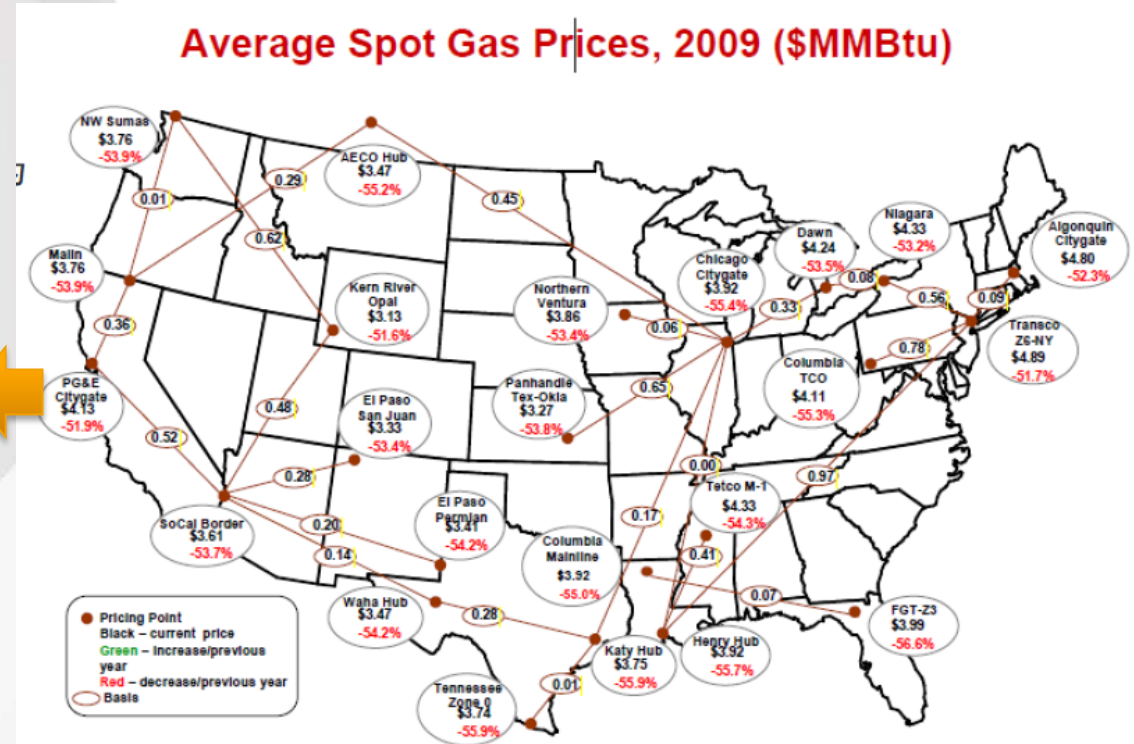
二、实施时间

自2017年9月1日起实施。

(3) Promote the open and transparent trading of natural gas. Gas producers and users are encouraged to trade on the trading platform. For all the transactions on Shanghai and Chongqing oil and gas exchange, the prices will be deregulated. Trading platform should uphold the principles of openness, fairness and impartiality, standardize the operation, maintain strict management and innovation, timely release the information of trading volume and price timely in order to form a fair market lay down the foundation for the price deregulation.

The Basic Framework of SHPGX-PNG Bidding

To achieve trading concentration, Shanghai, Beijing, Guangzhou, Lanzhou, Chengdu were chosen as the benchmark price corresponding to the five major sales area of CNPC. The difference of the citygate prices is taken as premium and discount.



Source: Derived from Platts data.

Updated March 5, 2010

2181

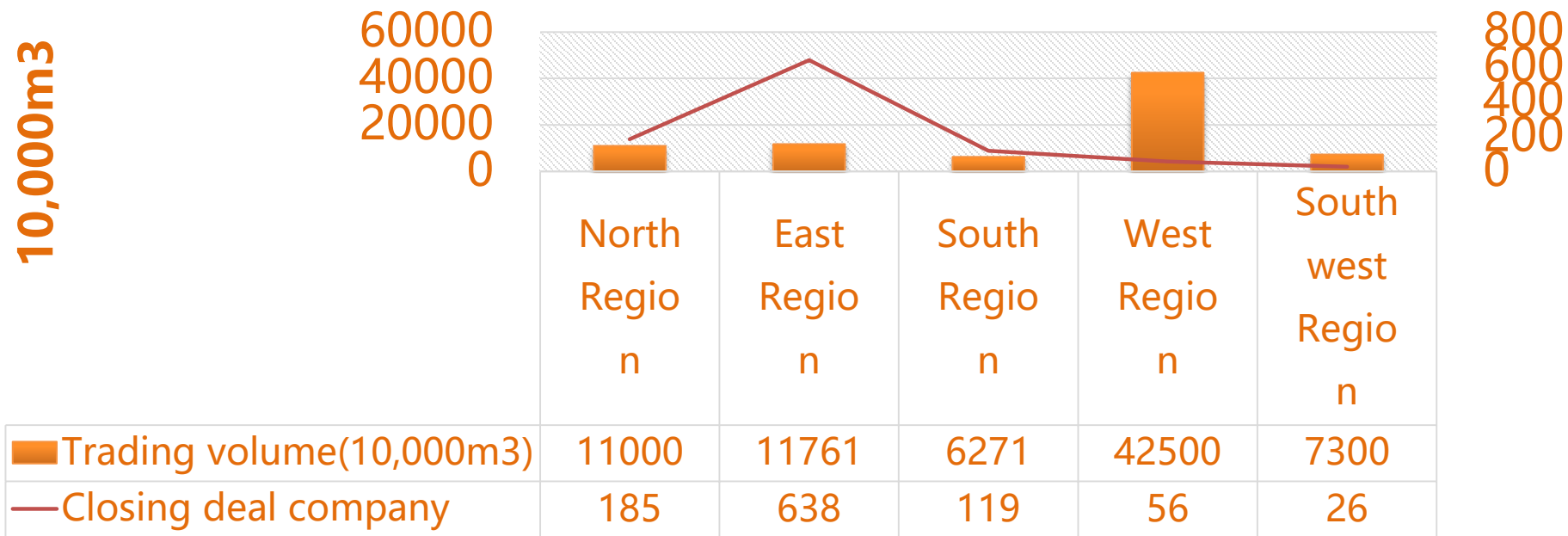
Source: FERC website

The overview of SHPGX-PNG Bidding

Date	Product	Seller	Area	Time	Delivery from	Delivery till	Mode	Volume (Million m3)
Sep.12	PNG	CNPC	East	9:00	9/12	9/13	T+0+2	4
Sep.12	PNG	CNPC	East	14:00	9/12	9/14	T+0+3	5
Sep.14	PNG	CNPC	East	14:00	9/14	9/15	T+0+2	16
Sep.15	PNG	CNPC	South	9:00	9/18	9/22	T+3+5	11
Sep.18	PNG	CNPC	North	9:00	9/19	9/20	T+1+2	5
Sep.18	PNG	CNPC	West	10:00	9/22	9/30	T+4+9	50
Sep.18	PNG	CNPC	Southwest	13:30	9/22	9/30	T+4+9	11
Sep.18	PNG	CNPC	East	17:00	9/19	9/22	T+1+4	8.31
Sep.19	PNG	CNPC	North	15:15	9/20	9/30	T+1+11	55
Sep.20	PNG	CNPC	West	9:00	9/22	9/30	T+2+9	35
Sep.21	PNG	CNPC	South	9:00	9/22	9/30	T+1+9	19
Sep.21	PNG	CNPC	East	10:30	9/22	10/1	T+1+10	22.30
Sep.22	PNG	CNPC	South	10:00	9/22	9/30	T+0+9	1.71
Sep.27	PNG	CNPC	West	9:00	9/30	10/15	T+3+16	150
Sep.28	PNG	CNPC	East	9:00	10/1	10/14	T+3+14	18
Sep.28	PNG	CNPC	South	13:30	9/30	10/31	T+2+32	31
Sep.28	PNG	CNPC	East	18:30	10/14	11/1	T+16+1 9	4
Sep.29	PNG	CNPC	East	9:00	10/14	11/1	T+15+1 9	40
Sep.29	PNG	CNPC	North	10:00	9/30	10/31	T+1+32	50
Sep.29	PNG	CNPC	West	11:00	10/15	10/31	T+16+1 7	190
Sep.29	PNG	CNPC	Southwest	12:00	9/30	10/31	T+1+32	620

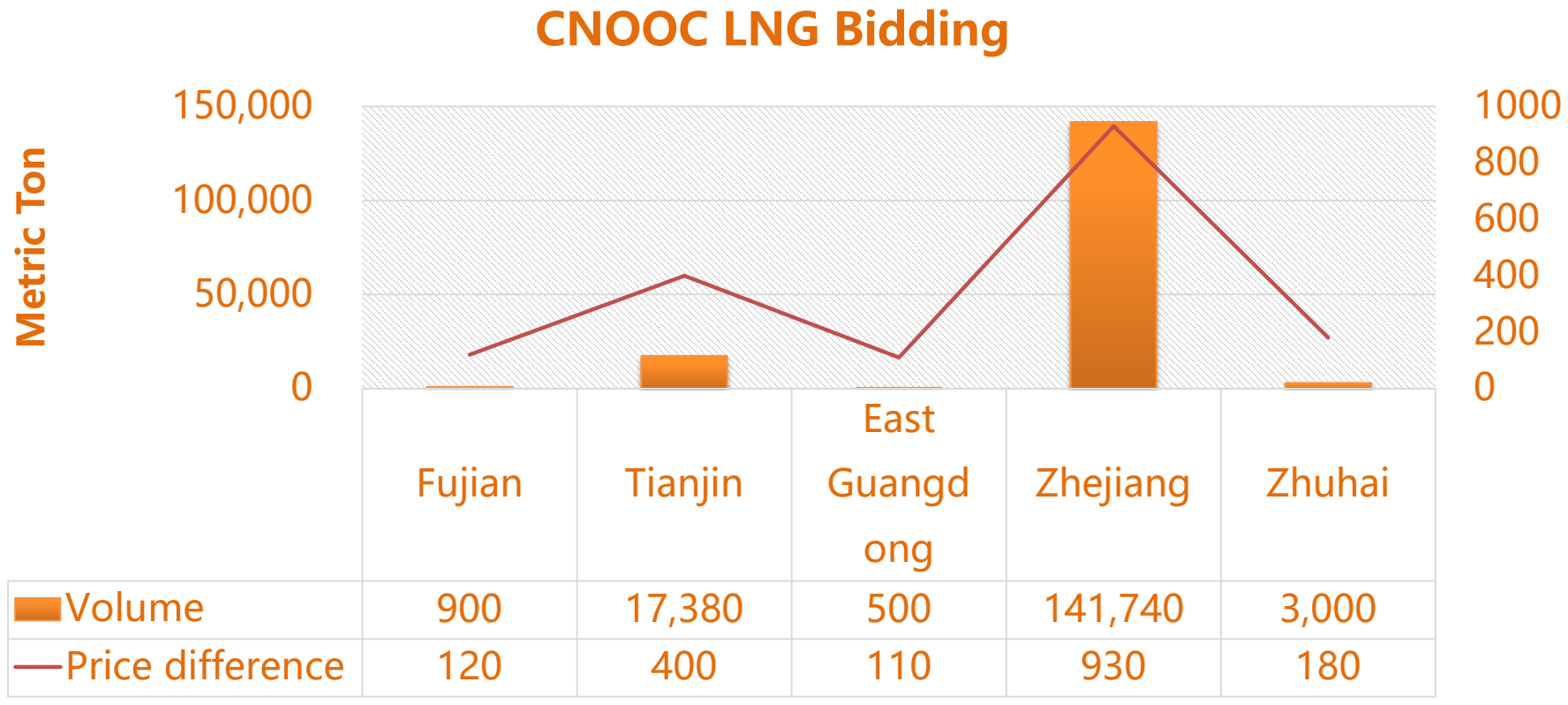
The latest updates of SHPGX-PNG Bidding

CNPC PNG Bidding



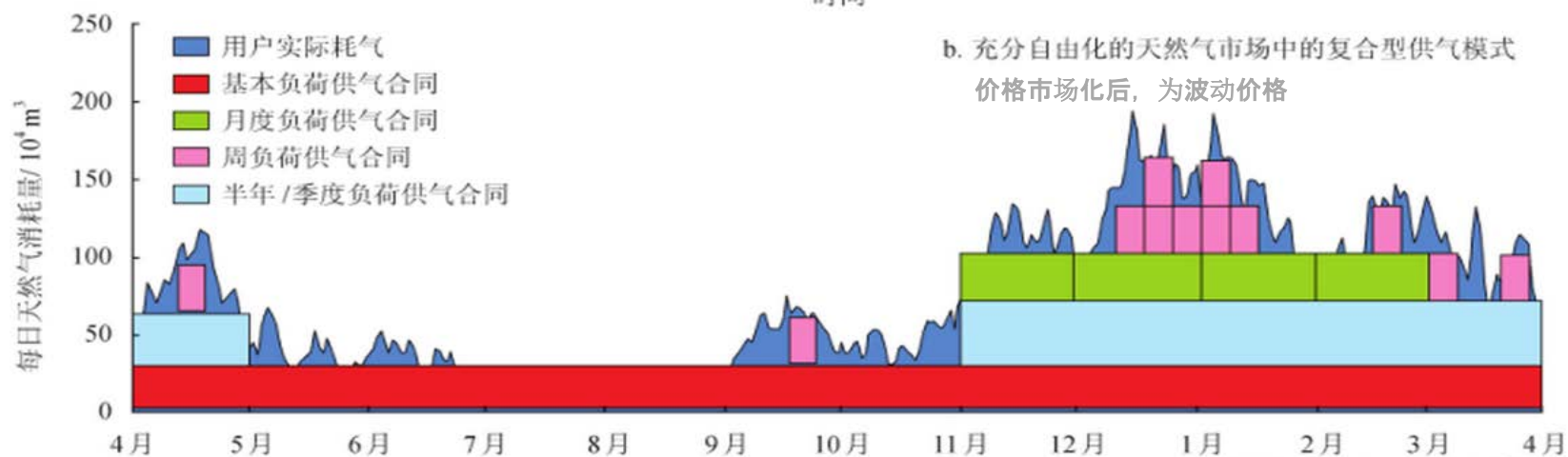
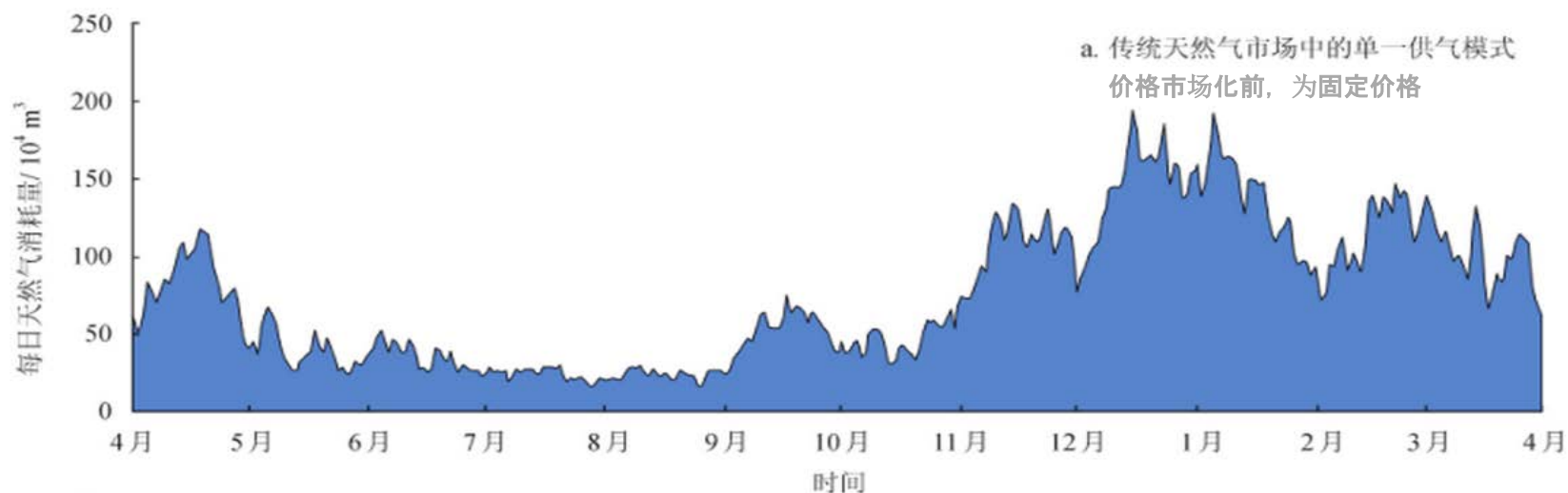
- All 5 CNPC region sales company bidding online, more than 1000 company participated bidding. Every bidding is more than 100 rounds, the highest rounds is 487.

The latest updates of SHPGX-LNG Bidding



- 16 bidding sessions up to date, which covered most coastal provinces.

The Design of SHPGX- Natural Gas Physical Trading



The Trading Model of the US and Europe Gas Market

The Forward market

- Matured forward market promotes investment, effective market competition, efficient operation, and establishment of risk management system.
- Crucial to form a reasonable basis price of physical market.

The Day-Ahead market

- Participants optimize their facility and financial status.
- Spot price is based on demand and supply(including pipeline congestion).

The Intra-day market

- Quickly adjust the imbalance of pipeline system.
- Avoid delivery over imbalance period and reduce cost.

The Balancing market

- Pipeline operators and shippers make up the balance demand.
- The balancing market is part of Intra-day market.
- Market promotes the pipeline operator to balance the pipeline network.

Part III The introduction of Shanghai Petroleum and Natural Gas Exchange

Shareholders



1. Xinhua News Agency holds 33% share, CNCP, Sinopec, CNOOC each holds 10% , and the major downstream gas utility companies hold 7% each.

2. Registered capital is 1 billion RMB

3. SHPGX registered in China Shanghai free-trade zone. Its office located on the 17th floor of China Financial Center, Pudong, Shanghai.

SHPGX Official Launch (www.shpgx.com)



On Nov 2016, Shanghai Petroleum and Natural Gas Exchange officially launched.



SHPGX Vision

- Our strategy is to extend from gas to petroleum, from spot market to forward market, and from domestic market to international market;
- To build three platforms with international influence.



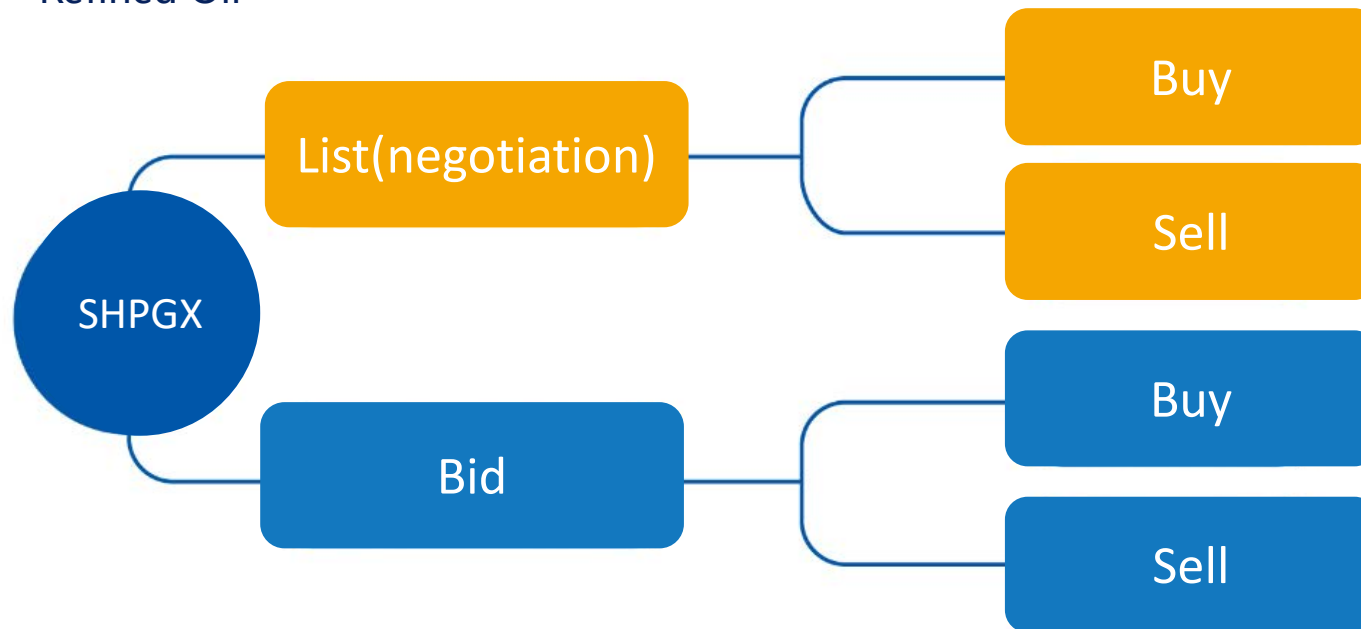
Trading Products and Modes

Trading Products

- Pipeline Natural Gas (PNG)
- Liquefied Natural Gas (LNG)
- Liquefied Petroleum Gas (LPG)
- Refined Oil

Trading time:

Monday to Friday (except national holidays),
9:00-11:30 AM, 13:30-15:00 PM.



Trading System



SHPGX
上海石油天然气交易中心

欢迎您: 99900301
 [退出](#)

普通交易大厅

专场交易大厅

市场状态: 闭市 开市时间: 09:00 闭市时间: 15:00 当前时间: 2015-05-31 18:11:59

合同搜索

[合同处理](#)

[发货信息](#)

[发货信息](#)

[发货管理](#)

[开票信息](#)

[开票信息](#)

[挂单模板](#)

[查看LNG挂单模板](#)

[创建LNG模板](#)

[查看管道气挂单模板](#)

[创建管道气模板](#)

[交易大厅](#)

[当日委托](#)

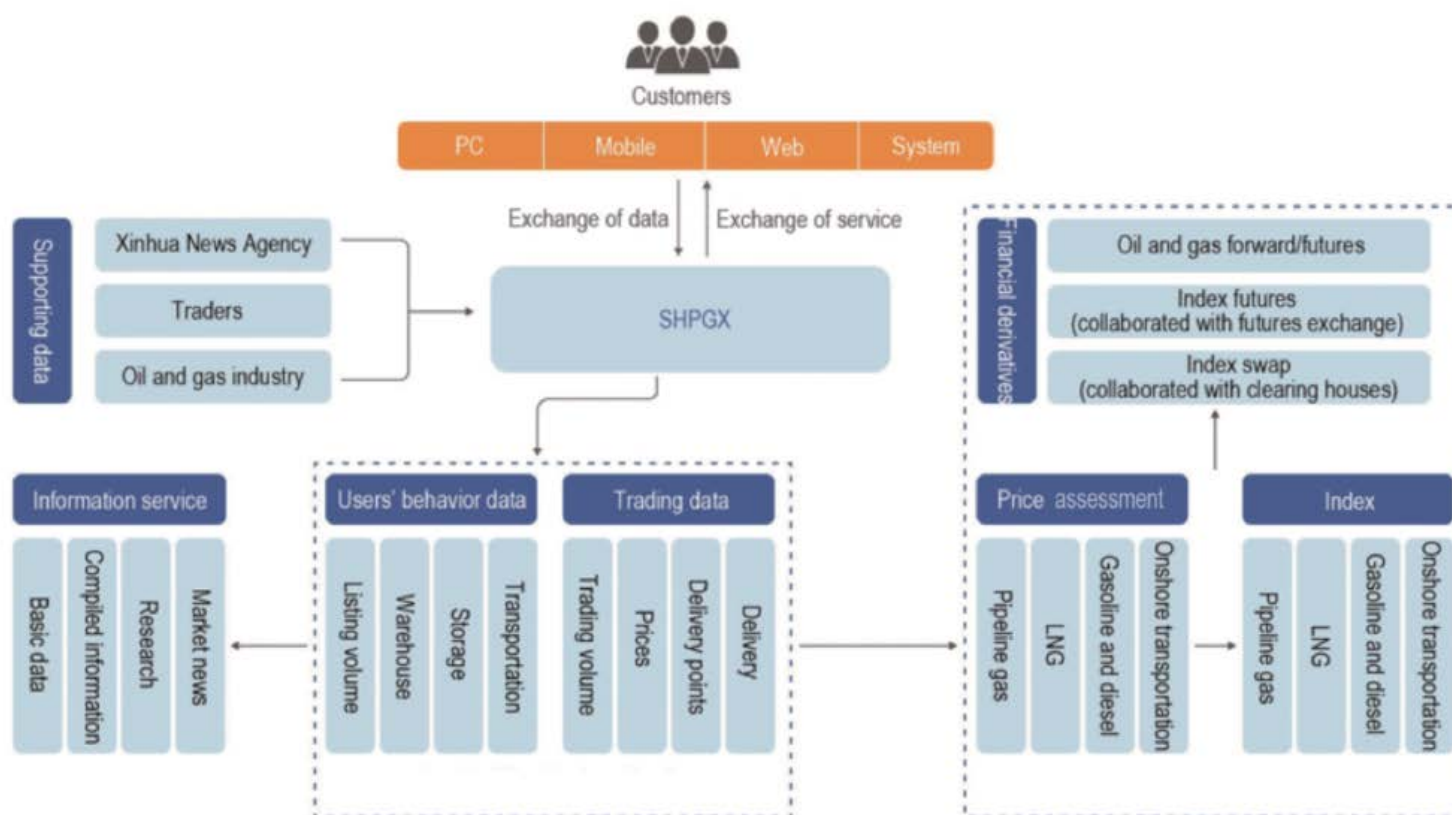
卖出挂牌

商品类型: 请选择
 区域: 请选择
 合同类型: 请选择
 [搜索](#)
[查看全部](#)

挂单号	商品类型	交收方式	商品名称	交收地址	首报底价	挂卖量	成交量	交收起始日	交收截止日	出价
150529000009	管道天然气	月交收	PNG	合肥第一门站	2.40元/立方米	20000000立方米	1000000立方米	2015-07-01	2015-07-31	议价
150529000008	管道天然气	日交收	PNG	合肥第一门站	2.45元/立方米	1000000立方米	500000立方米	2015-05-30	2015-05-30	议价
150529000004	管道天然气	日交收	PNG	天津第一门站	2.43元/立方米	1000立方米	100立方米	2015-05-30	2015-05-30	议价
150528000011	管道天然气	周交收	PNG	合肥第一门站	2.50元/立方米	250000立方米	50000立方米	2015-06-01	2015-06-07	出价
150528000009	管道天然气	月交收	PNG	合肥第一门站	2.78元/立方米	10000立方米	0立方米	2015-07-01	2015-07-31	禁止出价
150528000008	管道天然气	月交收	PNG	天津第一门站	2.66元/立方米	10000000立方米	3000000立方米	2015-06-01	2015-06-30	议价
150527000013	管道天然气	月交收	GNG	南京第一门站	1000.00元/吨	10吨	0吨	2016-01-01	2016-01-31	出价

Service System

SHPGX provides the service of trading, delivery, clearing and storage based on fairness, openness and credibility.





Thank you