Shandong Refining Energy Group
The Rationale Behind Its Formation and Operations

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Vice President and Overseas Regional President, Shandong Dongming Petrochemical Group

September 2017 Singapore
Independent oil refineries have become an important force in the industry

Independent refineries will face more intense competition

Shortcomings and inadequacies in the development of independent refineries in Shandong Province

The formation of the Refining Group marks the direction of development for the next five years

The rationale behind the formation of the Shandong Refining Group
As at the end of 2016, China’s total oil refinery capacity has exceeded 700 million tonnes. With additional capacity under construction and new capacity being put into operation, China’s oil refining capacity will exceed 900 million tonnes in the next few years, far higher than its domestic demand. Hence, competition in China’s oil refinery industry is gradually intensifying.

Independent refineries contribute nearly 200 million tonnes in processing capacity, or about a quarter of China’s total refining capacity of 730 million tonnes, of which Shandong refineries can achieve primary processing capacity of 140 million tonnes, or 19.6% of China’s total refining capacity, and their secondary processing capacity is even greater.
I. Independent oil refineries have become an important force in the industry — Contributing 25% of total processing capacity

<table>
<thead>
<tr>
<th>Enterprises with Qualifications</th>
<th>7585</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shandong Dongming Petrochemical Group</td>
<td>750</td>
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<tr>
<td>Shandong Kenli Petrochemical Group</td>
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</tr>
<tr>
<td>Lihuayi Group</td>
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<tr>
<td>Dongying Yatong Petrochemical</td>
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<td>Sinochem</td>
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<td>Shandong Wonfull Petrochemical Group</td>
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<tr>
<td>Shandong Tianhong Chemical</td>
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<td>Shandong Shouguang Luqing Petrochemical</td>
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<td>Shandong Chambroad Petrochemicals</td>
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<tr>
<td>Dongying Qirun Chemical</td>
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<td>Shandong Haiyou Petrochemical Group</td>
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<tr>
<td>Wudi Xinyue Chemical</td>
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<tr>
<td>Shandong Hengyuan Petrochemical</td>
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<td>Shandong Qingyuan Group</td>
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<td>Shandong Shenching Chemical Group</td>
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<td>Shandong Jincheng Petrochemical Group</td>
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<td>Shandong Zhonghai Fine Chemical</td>
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<td>Dongying Haike Rulin</td>
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<td>Rizhao Landbridge Petrochemical</td>
<td>180</td>
</tr>
<tr>
<td>Shandong Dongfang Hualong Group</td>
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<tr>
<td>Zibo Xintai Petrochemical</td>
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<tr>
<td>Shandong Qingyishan Petrochemical</td>
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</tr>
<tr>
<td>Shandong Yuhuang Chemical</td>
<td>144</td>
</tr>
<tr>
<td>Shandong Qicheng Petrochemical</td>
<td>160</td>
</tr>
<tr>
<td>Shandong Shengxing Petrochemical</td>
<td>220</td>
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2. The 3 Enterprises that have Applied for Qualification: 517.5

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Dongying Hualian Petrochemical</td>
<td>170</td>
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<tr>
<td>Shandong Chengda New Energy</td>
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<tr>
<td>Shandong Binyang Fuel Chemical</td>
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3. Enterprises from Other Provinces: 2570

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Panjin Baolai</td>
<td>616</td>
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<tr>
<td>Ningxia Baota</td>
<td>700</td>
</tr>
<tr>
<td>Hebei Xinhai</td>
<td>372</td>
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<tr>
<td>Henan Fengli</td>
<td>222</td>
</tr>
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<td>Jiangsu Xinhai</td>
<td>250</td>
</tr>
<tr>
<td>Hubei Jin’ao</td>
<td>230</td>
</tr>
<tr>
<td>Dalian Jinyuan</td>
<td>80</td>
</tr>
<tr>
<td>Chengdu Shengma</td>
<td>100</td>
</tr>
</tbody>
</table>
II. Independent refineries will face more intense competition - Additional oil refining capacity of 170 million tonnes will result in excess capacity

Main increase in refining capacities in China (All quantities in 10-million tonnes)

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Additional Refining Capacity</th>
<th>Date of Operation</th>
<th>Region</th>
<th>Type</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yunnan Refinery</td>
<td>1300</td>
<td>Second Half of 2016</td>
<td>Yunnan</td>
<td>Newly built</td>
<td>PetroChina</td>
</tr>
<tr>
<td>CNOOC Huizhou</td>
<td>1000</td>
<td>Early 2017</td>
<td>Guangdong</td>
<td>Expansion</td>
<td>CNOOC</td>
</tr>
<tr>
<td>Zhongke Guangzhou Zhanjiang</td>
<td>1500</td>
<td>2019</td>
<td>Guangdong</td>
<td>Newly built</td>
<td>Sinopec</td>
</tr>
<tr>
<td>Dalian Hengli Petrochemical</td>
<td>2000</td>
<td>2020</td>
<td>Liaoning</td>
<td>Newly built</td>
<td>Hengli Group</td>
</tr>
<tr>
<td>Lianyungang Petrochemical</td>
<td>3200</td>
<td>Not known</td>
<td>Jiangsu</td>
<td>Newly built</td>
<td>Shenghong Petrochemical</td>
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<tr>
<td>Jinjiang Petrochemical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luoyang Refinery Expansion</td>
<td>1000 1000</td>
<td>Mid-2019</td>
<td>Henan Hebei</td>
<td>Expansion</td>
<td>Sinopec China Overseas</td>
</tr>
</tbody>
</table>

The above includes only newly built refineries with capacity exceeding 10 million tonnes, and excludes refineries with capacity below 10 million tonnes; the total is 170 million tonnes.
### Growth of China’s crude oil consumption is weak (PetroChina Economic and Technological Research Institute)

<table>
<thead>
<tr>
<th>Year</th>
<th>Apparent Consumption (100 million tonnes)</th>
<th>Year-on-year Growth (100 million tonnes)</th>
<th>Year-on-year Growth</th>
<th>Year-on-year Growth Rate</th>
<th>Actual Consumption Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>4.71</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2013</td>
<td>4.87</td>
<td>0.16</td>
<td>3.40%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2014</td>
<td>5.18</td>
<td>0.31</td>
<td>6.37%</td>
<td>2.97%</td>
<td>2.80%</td>
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<tr>
<td>2015</td>
<td>5.43</td>
<td>0.25</td>
<td>4.83%</td>
<td>-1.54%</td>
<td>4.4%</td>
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<tr>
<td>2016</td>
<td>5.56</td>
<td>0.13</td>
<td>2.39%</td>
<td>-2.43%</td>
<td>0.7%</td>
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### Decreasing demand in refined oil (PetroChina Economic and Technological Research Institute)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (100 million tonnes)</th>
<th>Gasoline</th>
<th>Diesel</th>
<th>Kerosene</th>
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<tbody>
<tr>
<td></td>
<td>Apparent Consumption</td>
<td>Year-on-year Growth</td>
<td>Year-on-year Growth Rate</td>
<td>Apparent Consumption</td>
</tr>
<tr>
<td>2012</td>
<td>2.78</td>
<td>-</td>
<td>-</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td>2013</td>
<td>2.84</td>
<td>2.2%</td>
<td>-</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>2.97</td>
<td>4.6%</td>
<td>2.4%</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>3.18</td>
<td>7.1%</td>
<td>2.5%</td>
<td>1.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>3.13</td>
<td>-1.6%</td>
<td>-8.6%</td>
<td>1.19</td>
</tr>
</tbody>
</table>

II. Independent refineries will face more intense competition — Decreasing domestic demand for refined oil
Natural-gas powered cars, biofuels (the proportion of Ethanol and biofuels in refined oil has increased from 6% in 2014 to 11% to date. Additional CTL diesel of 20 million tonnes accounts for 6% of refined oil consumption, biodiesel); methanol gasoline and electric vehicles are expected to replace up to 38 million tonnes, or 17%, of refined oil by 2020.

Support for tax policies on liquid coal and coal tar resulted in lower cost of production of liquid coal, increased production capacity and contributed 20 million tonnes of refined oil capacity.
II. Independent refineries will face more intense competition - Market competition between state-owned enterprises and other major private refineries such as Zhejiang Petrochemical

- Suspension of refined oil exports by the State
- Rights of policy discourse
- Reduction in procurement from local refineries
- Substantial reduction of pump prices of petrol stations around local refineries
- Competition from new upstart such as Zhejiang Petrochemical, Dalian Hengli Petrochemical, and Lianyungang Shenghong Petrochemical
- State-owned enterprises begin all-out competition with local refineries
III. Shortcomings and inadequacies in the development of independent refineries - Scale and capacity

Relatively small scale, scattered capacity and low value-added products

The 36 major local refineries in Shandong have a combined refining capacity of 3.44 million tonnes. There are a total of 10 local refineries in China with processing capacity of more than 5 million tonnes, and their sizes are relatively small. Multiple units of small-capacity vacuum distillation, catalytic and coking installations are deployed, resulting in higher cost due to energy consumption and maintenance as compared to major refineries.

Deep processing products such as alkenes, alkanes and aromatic oils produced by refineries in Shandong have relatively low added values. Although there is a demand gap in higher value-added ethylene and its downstream products such as synthetic resin, synthetic rubber and synthetic fibre, local refineries tend not to venture into such products due to high investment costs.

Supply and demand situation of China’s petrochemical product market
III. Shortcomings and inadequacies in the development of independent refineries - Price disadvantage

Prices of refined oil are “short-changed” by the end-customer sales channel

Without an end-customer sales channel, independent refineries are facing stiff competition and huge sales pressure in the refined oil market. Meanwhile, a high profit margin is enjoyed by end-customer sales companies such as China Petrochemical, Sinopec and independent petrol stations.

Since 2015, the difference in prices of gasoline and diesel between Shandong’s local refineries and the state-set retail price limit can be clearly seen – diesel at 700-1,500 Yuan/tonne and gasoline at 1,500-3,000 Yuan/tonne – the profits are reaped by the end-customer retail sector.
1. Notice on issues regarding the management of usage of imported crude oil (National Development and Reform Commission No. [2015] 253)

New oil consuming companies must sign an undertaking and promise to strictly implement the national oil refinery industry policies and must not construct new or expand existing refinery installations without approval from the Investment Control Department of the State Council. All local authorities must take verifiable and accountable measures to eliminate any illegal production capacity or replacement of such capacity. Any illegal construction shall be penalised according to the law. New oil consuming companies and their legal representatives shall establish credit records in the national social credit agencies.

2. Planning for the seven chemical industrial parks.

None of the existing local refineries with import qualification is located at any of the seven chemical industrial parks. This represents a stumbling block for future expansion of these existing local refineries. There are no petrochemical bases in Shandong.
III. Shortcomings and inadequacies in the development of independent refineries - Procurement prices, capital and logistic costs are high

- **Procurement price factors**: Procurement of crude oil in the international market is mainly based on spot or short-term contracts. In a disadvantageous market position, and lacking international bargaining power, such local refineries are prone to competitive bidding resulting in vicious competition. Lacking in both domestic and international implementation capacity, coupled with small procurement volume as a singular enterprise, the procurement price tends to be higher.

- **Capital factors**: Most companies are unable to fully absorb a large single order or the burden of excessive capital pressure, as they are limited by their international credit and letter of credit capacity, resulting in high capital cost.

- **Ports, international shipping and other logistic factors**: Apart from ports serving Huangdao and Rizhao, which are ports equipped with VLCC berthing, the port serving Dongying where most of the refineries are located can only handle tankers below 100,000 tonnes. Transportation by smaller vessels will incur higher cost. As most refineries have relatively smaller quotas, they are unable to use 300,000-tonne VLCC as the mode of transportation. Moreover, as such companies can only afford about 80-100 tonnes in each procurement, they suffer a double whammy of higher procurement prices as well as higher transportation cost.
Refineries deepen cooperation through alliance, clustering together for greater synergy

While strengthening their industrial alliance, local refineries should also establish a refining group and mutually exchange of shares to promote an even deeper cooperation, which would optimise the integration of local oil refineries in terms of raw materials, transportation, capital, as well as products, to achieve large capital and logistics, and enhance core competitiveness and voice in the market.
Objectives for the formation of the Shandong Refining Group

(1) Unified crude oil procurement and unified logistics
With the formation of the Shandong Refining Group, local refineries can effectively reduce their procurement and logistics costs.

(2) Unified sales in a consolidated sales market
The formation of the Shandong Refining Group can unify the sale of refined oil products, enhance refined oil storage capacity and improve the profitability of refined oil sales.

(3) Seek general export trade qualifications for refined oil
With the formation of the Shandong Refining Group, Shandong’s local refineries can gradually develop foreign markets and seek export policies for refined oil. This will further enhance the market competitiveness of local refineries in Shandong Province.

(4) Unified development of end-customer market
With the formation of the Shandong Refining Group, Shandong’s local refineries will gradually capture the end-customer market and, in protecting the interests of the refineries, grab a slice of the profits from the end-customer retail market (estimated to be about 50 billion Yuan of additional profit annually).

(5) Exploit our industrial advantage and extend the industry supply chain
With the formation of the Shandong Refining Group, Shandong’s local refineries can exploit their own resources and expertise to actively extend the industrial supply chain, and thereby add value to their products while eliminating competition in terms of products and resources amongst the enterprises within the province.

(6) Regulate and enhance industrial management
The formation of the Shandong Refining Group can promote compliance with rules, reasonable use of quotas and tax commitments, as well as boost financial contribution by local refineries in Shandong. This will provide the backdrop for the orderly, standardised and healthy development of local refineries in Shandong Province. With the aforementioned efforts, the Shandong Refining Group will eventually develop into a strong and massive petrochemical energy group with great international influence.

V. Rationale Behind the Formation of the Shandong Refining Group
(1) **Name of the Formation**
Shandong Refining Energy Group Co., Ltd

(2) **Principles of formation**
The formation of the Shandong Refining Group adheres to the principles of “Three Invariables” and “Five Unifications” to attain the objective of the “Five Benefits”.

**“Three Invariables”:** Business operation teams are invariable; the tax payment channel is invariable; and the independent management system of accountability of profit and loss is invariable.

**“Five Unifications”:**
- **unified planning** – strategise the direction of future development in accordance with enterprises’ strength and reasonable demand on the market;
- **unified raw material procurement** – with Oil Procurement Alliance as the platform, implement a consolidated procurement system for the purchase of bulk material like crude oil;
- **unified loan and settlement**;
- **unified transportation** – unified resource management for both domestic pipeline transportation and warehousing as well as overseas crude oil transportation;
- **unified sales and export of refined oil** and other products;
- **unified management of end-customer retail sectors** – to improve the retail sales ratio of refined oil from the refineries.

**“Five Benefits”:**
Firstly, benefit in cooperation with state-owned petrochemical enterprises to jointly assume responsibility in the protection of national energy security; secondly, benefit in amplifying the voice of local refineries in the petrochemical product market; thirdly, benefit in increasing tax revenue in Shandong Province due to higher profits by the refineries; fourthly, benefit in increasing synergy in the cooperative development amongst the local refineries and enhance the ability to weather risks; and fifthly, benefit in achieving national management standards for the petrochemical industry to maximise the existing resource quotas and in maintaining market order.
V. Rationale Behind the Formation of the Shandong Refining Group

Basic rationale behind the formation of Shandong Refining Group

(3) Method of formation
Establish a very tight-knit cooperation based on capital ties, to enable consistent interests among all the refineries. This replaces the current modus operandi of scattered cooperation between parties in crude oil procurement and refined oil sales. Meanwhile, the introduction of state-owned capital and industrial funds will further consolidate the fundamentals for future development of the Shandong Refining Group.

(4) Nature of the company and registered capital
The registered locality of the company is Jinan. Registered capital is set at RMB 90 billion; the first round of injection of capital by eight shareholding companies amounted to RMB 33.19 billion.

(5) Scope of business
The scope of business includes the processing of crude oil and sale of refined oil. The Shandong Refining Group will conduct the unified procurement of crude oil, unified sale of refined oil, unified logistics, transportation and warehousing, and unified management of funds for oil-related businesses. The objective is to realise an integrated process from crude oil procurement to refined oil sales, as well as an integrated supply of funds for investment to develop logistics to support the sale of refined oil products. Apart from refined oil, the scope of business of each individual refinery may include other petrochemical products. Detailed scope of business: Processing of crude oil and procurement of raw materials, wholesale and retail sales of refined oil, warehousing and oil and gas pipeline investment and management, equity investment, engineering and technical services; and in future, may include investment in oil and gas pipeline, port-side warehousing, warehousing of refined oil, ethylene, aromatic oils, new materials and other projects in the petrochemical industrial chain; as well as financial and insurance investments.
(6) Style of management

1. Production management
Each vacuum distillation installation shall be managed by its original shareholding company. The manager of the installation shall be responsible for the safety, environment protection, quality and energy consumption of the installation. Upon its formation, the Shandong Refining Group mainly manages operations related to crude oil and refined oil, and the building of supporting logistics facilities such as warehouses, pipelines and wharfs; while each shareholding company shall be responsible for managing productions and operations in products other than refined oil.

2. Procurement management
In accordance with the actual demands of various refineries, the Shandong Refining Group shall commission the China (Independent Oil Refinery) Purchasing Alliance, through its platform operated by Pacific Commercial Holdings Co., Ltd, to enquire, procure, ship and finance the raw materials in order to reduce currency exchange expenditure. Each refinery will then draw on the materials according to their respective usage quota. This unified logistics and unified settlement measure will help reduce the cost of raw material procurement and avoid competitive bidding among the refineries. In addition, policies on the regulation of the usage quota can help ensure sufficient yet non-excessive supply of imported crude oil into Shandong Province.

The procurement of raw materials is based on the operation and management method practised by state-owned oil refinery enterprises. The Production Planning Department of the newly formed Shandong Refining Group shall become the point of contact for production departments of the various refineries. Crude oil procurement settlement shall be based on the cost price at the international market, which also provides futures price locking services. Each refinery shall decide on the diversity of its own processed products and its procurement price.
3. Sales management
The Shandong Refining Group shall only be responsible for the unified sale of refined oil, while each refinery shall be responsible for its own petrochemical products other than refined oil. Business direction: Firstly, actively expand foreign markets upon obtaining general export qualification; Secondly, expand domestic market through the establishment of an e-Commerce platform. With the unified wholesale of refined oil, the Shandong Refining Group can garner better bargaining power with respect to some characteristics of refined oil markets. The various refineries shall then sell their refined oil at unified ex-factory prices predetermined for different regions. Specifically, the Group shall represent the various refineries as a unified entity to negotiate with major customers such as state-owned enterprises to determine the price and supply quantity. The various refineries shall act as production plants and warehouses to support the Shandong Refining Group in its unified delivery and regulation of warehousing to ensure sustained production operation of various refineries. The Group shall earn a sales commission and profit based on the cost of sales of the refined oil products, and improve pricing determination and give local refineries a voice in the industry. The selling price of refined oil shall be based on the operation and management method practised by state-owned oil refinery enterprises. An e-Commerce platform will be fully utilised as a sales channel. Prices will be determined based on region. Meanwhile, the Group will also promote the establishment of a refined oil retail network for local refineries.

4. Industry Management
The Shandong Refining Group shall represent the various refineries to coordinate with all levels of government agencies, and build relationships with state-owned enterprises to promote the healthy development of the industry. In addition, the Group shall also strengthen industry supervision and management to promote orderly and standardised industrial development.
Achieve the following development goals during the 13th Five-Year Plan period:

1. **Carry out corporate restructuring.** Quicken the pace of corporate restructuring to complete the formation of the Shandong Refining Group and integration of the 100 million-tonne production capacity. Put in place mechanisms for centralised raw material procurement and refined oil pricing.

2. **Construction of supporting facilities.** Construct petrochemical warehouses and oil and gas pipeline networks; construct raw material and refined oil warehouses; enhance warehousing and transportation capacity.

3. **Develop the port industry.** Exploit our proximity to the port to extend the industry supply chain and enhance the products’ value. Depending on the status of resources, plan the construction of ethylene, propylene and aromatic oil projects, as well as the development of high-end petrochemical products.

4. **Develop international operations.** Develop international trade, international shipping, international finance and international investments.

5. **Build a Chinese petroleum market in Shandong.** On this basis, develop a Shandong petroleum index to enhance Shandong’s influence on the world market.
IV. Direction of development for the Refining Group - Shandong petrochemical ecosystem

Shandong petrochemical ecosystem
1. Deepen cooperation to reduce cost of crude oil procurement.

The cost of crude oil accounts for 90% of the refinery’s total operating cost. Therefore, cost determines the business efficiency of the refinery. by China (Independent Oil Refinery) Purchasing Alliance, which was formed in February 2016.

The centralised procurement of imported crude oil will enhance our bargaining power and reduce vicious competition and finally, result in cost reduction. Unity will safeguard the interest of our industry, and enhance our collaboration with state-owned petroleum enterprises.

Cooperative alliance--Capital alliance--Unified procurement

The Alliance membership includes 22 refineries, and still growing
V. Key development directions for Shandong Refining Group

2. Exploit competitive advantage, such as product differentiation, professional product lines and integrated petrochemical projects

Independent refineries are facing a development bottleneck. Scattered production capacity and the current product structure are no longer competitive. We should exploit our unique installation advantages to develop differentiated or professionalised products, or create an integrated supply chain development model based on an industrial park concept.
3. Enhance unified regulation and coordination of logistics to improve efficiency

1. Unified scheduling of international shipping to reduce transportation cost and improve delivery orderliness;
2. Unified regulation of port and wharf information exchange to improve port efficiency;
3. Improve sharing of pipelines to enhance their utilisation rate;
4. Expand logistics facilities such as warehouse zones to increase warehousing capacity.
5. Increase the number of transport vehicles for hazardous goods to improve distribution capability.
V. Key development directions for Shandong Refining Group

4. Setting up end-customer channels for retail sales, synergising and technological innovation of sales techniques

(1) Actively develop end-customer channels such as building more petrol stations to improve the proportion of retail sales, and avoid “short-change” by intermediary petroleum enterprises. Currently, Dongming Petrochemical has about 200 petrol stations while Chambroad, Yatong and others have more than 100 petrol stations combined.

(2) A joint collaboration by 20 Shandong independent local refineries, called the “D20”, convened at a monthly pricing meeting to determine the buying price of refined oil by two major companies. The collaboration is showing good results.

(3) e-Commerce platforms by Dongming, Chambroad, Changyi and Huaxing have become the new highlight of sales channels. Direct end-customer sales at Dongming Petrochemical’s petrol station now accounts for 86%, or 87% of the market within a 300 km radius.
V. Key development directions for Shandong Refining Group

Let petroleum consumption become a new way of life for car owners
Enable the Chinese population to have access to quality and low-cost domestic petroleum products

Business model

Standardised and precise petrochemical supply chain with standard operation processes

Cloud platforms for petrol station procurements
- Refinery information
- Petrol pricing
- Refining enterprises
- Crude oil enterprises

Petrochemical supply chain
- Financial services
- Orders
- Cloud platform for distribution
  (Express distribution)
- Business coordination
- Information services
- Supply of raw materials
- Orders
- Precision delivery
- Vehicle deployment

Affiliated members
- Petrol stations
- Orders
- Distribution
- Orders
- Full industrial supply chain services
- New members join
- Financial support for the supply chain
- Supply protection
- Refuelling service
- Petrol quality guarantee
- Express payment
- Self-service invoicing
- Finance management with the cloud card
- Petrol pumping on credit

Smart petrol stations
- Management systems
- Petrol station information
- One-click navigation
- Petrol quality guarantee
- License plate management
- Value-added services

Smart petrol pumping
- General services
- License plate management
- Value-added services

The Yousiling App
- A cloud platform for financial services on the petrochemical network

Refinery end---Petrol station end======vehicle owner end (actual end-customer)
IV. Direction of development for Refining Group - Smart cloud petrol pumping
Thank you!

From Shandong Dongming Petrochemical Group