



PCFCP

盤錦遼東灣新區石化及精細化工產業園區 基本情況

國家級經濟技術開發區

遼寧省綜合改革試驗區

國家新型工業化產業示範基地



PCFCP

**Petrochemical and Fine Chemical Industry Park in
Liaodong Bay New District , Panjin
General Situation**

**China National Economic and Technological Development Zone
Pilot region for comprehensive reforms in Liaoning Province
China National New Industrial Industry Demonstration Base**



盤錦市素有石油城和化工城之稱，地處遼寧省西南部，位於遼寧沿海經濟帶的核心位置，屬溫帶半濕潤季風氣候，面積4131平方公里，人口144萬。

盤錦緣油而建，因油而興，是中國著名的石油產地和石化工業城市。盤錦發展石化產業歷史悠久，廣大市民支持當地發展石化及精細化工產業。盤錦市是遼寧省首個千億級石化產業集群，擁有規模以上石化企業206家，其中不乏中國石油集團、華錦集團、臺灣長春化工、臺灣聯成化學、德國南方化學以及美國AP等一批世界及行業領軍企業。作為一座典型的移民城市，盤錦極具包容性和吸引力，特別是濱海新城遼東灣新區的建設發展，更為盤錦的對外開放和產業發展注入了全新的活力。





Panjin is known as Oil City and Chemical Industry City, located in the southwest of Liaoning Province, in the core position of Liaoning Coastal Economic Belt, with a semi-humid monsoon climate, The total area is around 4131 square kilometers, with the population of 1.44 million.

Panjin is established and developed because of oil, and it is the well known as oil production and petrochemical industry city. Panjin has a long history of petrochemical industry development with overwhelming general public's support the development of petrochemical and fine chemical industry. Panjin City is the first petrochemical industrial cluster in the production value of hundred billion level, It has 206 sizable petrochemical companies. among those, a numbers of companies are world-class level in the industry such as China Petrochemical Corporation, Huajin Chemical Corporation, Taiwan Changchun Chemical, Union Petrochemical Corp. (Taiwan), Süd-Chemie, and America AP Corp.. As a typical immigrant city, Panjin has containment to attract outsiders, especially the establishment and development of new coastal city - Liaodong Bay Zone promotes the opening for industry development of Panjin.



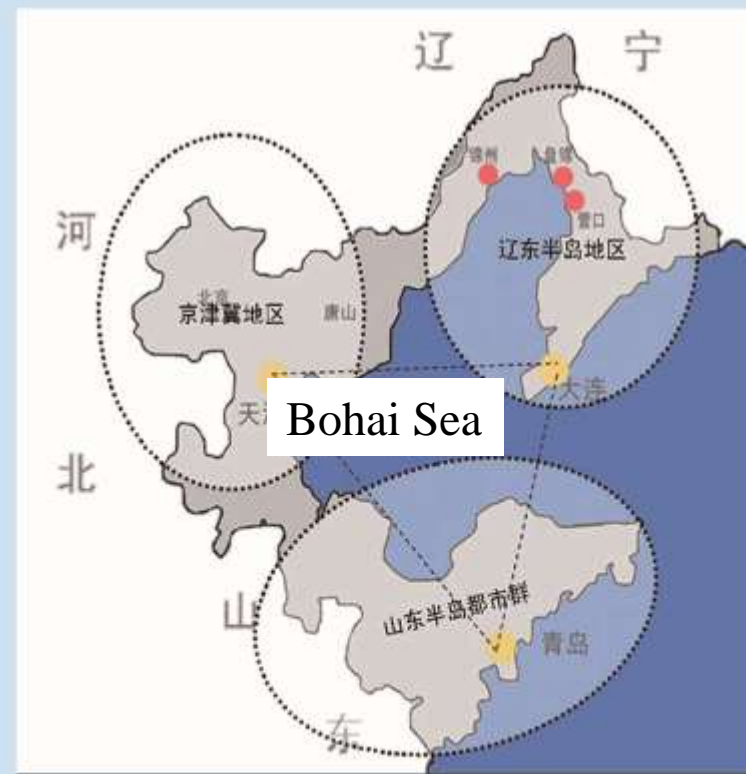
區位優勢

盤錦遼東灣新區地處渤海遼東灣灣底，位於環渤海經濟圈及遼寧沿海經濟帶的核心位置，是中國東北及內蒙古以東地區的最近出海通道。



Position advantage

Panjin Liaodong Bay New District is at the innermost position of the Boha Liaodong Bay, and located in the core position of Bohai Economic Circle and Liaoning Coastal Economic Zone, It is the nearest port on sea for Northeast China and the East Mongolia Regions.



區位優勢

◆遼東灣新區是國家級開發區、國家新型工業化石化產業示範基地、遼寧省綜合改革試驗區，承載著海峽兩岸石化及精細化工產業合作的歷史使命。

◆新區規劃起步區面積95.49平方公里，中期規劃面積306平方公里，規劃控制面積439平方公里，由城區、港區和產業區三大組團構成，是盤錦舉全市之力開發建設的一座濱海新城。

◆新區年平均氣溫為7.0-9.5℃，最高氣溫32℃，最低氣溫-22℃。年降水量670-800毫米，年日照時數為2600-2880小時，無霜期172-188天。

◆新區平均高程3.8米，所處地貌單元屬下遼河河口三角洲的自陸地向水下延伸部分，地勢自岸向海緩傾，附近水道交錯，淺灘廣布。地貌發育主要受控於基底構造和現代動力，地層岩性主要為粉砂夾粉質粘土、淤泥質粉質土粉砂互層、粉質粘土粉砂互層、粉質粘土、粉質粘土夾粉砂、細砂。。



Position advantage

- ◆ Liaodong Bay New District is a China National Economic and Technological Development Zone, China National New Industrial Industry Demonstration Base, and Pilot region for comprehensive reforms in Liaoning Province, it bears the historical mission of cross-strait cooperation of petrochemical and fine chemical industry.
- ◆ For the new district, the initial planned area is 95.49 square kilometers, the area will be developed in the medium-term to 306 square kilometers, and the total planned control area is 439 square kilometers. The new district consists of urban area, harbor district, and industrial district, and it is a new coastal city established by the endeavor of the whole city.
- ◆ In the new district, the average temperature is 7.0-9.5℃, the highest temperature is 32℃, and the lowest temperature is -22. The annual precipitation is 670-800 millimeter, annual sunshine duration is 2600-2800 hours, and the frost-free season is 172-188 days.
- ◆ The average elevation of the new district is 3.8m, and the landform is the part extending to the water from the land in the fan delta of Liaohe River. The elevation becomes lower gradually from the coast to the sea, and there is interlaced water channel nearby and many shoals, the geomorphic development is mainly affected by base structure and modern dynamic, and the formation lithology is mainly the mixture of silt and silty clay, muddy and silty soil silt interbedded strata, silty clay silt interbedded strata, silty clay, mixture of silty clay, silt, and fine sand.





• 物流優勢

園區擁有發達的集疏運體系，高度集成了港口、鐵路、公路、管道等物流方式。園區毗鄰盤錦港，盤錦港擁有專業的原油碼頭（30萬噸級）和化學品碼頭（10萬噸級以下）。園區陸路交通完善發達，連接瀋陽與盤錦港的疏港鐵路貫穿園區，可直達園區內主要企業。園區周邊公路交通四通八達，擁有沈大高速、京沈高速、丹錫高速等多條高速公路。園區公共管廊初具規模，長度達到36公里。完善發達的集疏運體系為入園企業提供了可靠便捷的物流保障。

• 產業基礎

遼東灣石化及精細化工產業園區是盤錦市發展石化及精細化工產業的專業園區，規劃面積42.5平方公里。園區規劃由新加坡裕廊規劃設計院按照世界級石化及精細化工產業基地標準設計打造，規劃科學，佈局合理，功能齊全。

園區產業基礎雄厚，產業規模位居遼寧省前列，擁有中國兵器集團、臺灣長春企業集團、實來石化、和運集團、聯成化學、中信集團（能源）、歐德油儲等一批行業知名企業。特別是臺灣長春企業集團和臺灣聯成化學公司的入駐，為園區推動海峽兩岸石化及精細化工產業合作提供了重要契機。





•Logistics Advantages

With highly developed logistics system, the petrochemical industrial park has integrated sea port, railway, highway, pipe lines for distribution of raw materials and products. The park is adjacent to Panjin port, which has professional crude oil terminal (300,000-ton) and chemical terminals (100,000-ton). Land transport, with port railway between Shenyang and Panjin port crossing over the park is developed, which makes a through way to enterprises within the park to be possible. The highway traffic around the park, including several highways, such as Shenyang-Dalian Highway, Beijing-Shenyang Highway, Dandong-Xilinhote Highway, extends in all directions. With public pipeline in the park taking shape, its length has reached 36 kilometers. The well designed and developed collecting and distributing system provides reliable and convenient logistics support for enterprises in the park.

•Industrial Base

Petrochemical and Fine Chemical Industrial Park in Liaodong Port is a professional park in Panjin for developing petrochemical and fine chemical industry. The total planned area is 42.5 square kilometers. The park planning carried out by Singapore Jurong Planning and Design Institute has scientific planning, proper distribution and complete function.

The park has solid industrial base, in which the scale of the industry tops the Liaoning Province. The park acquires many well-known enterprises, such as China North Industries Group Corporation, Taiwan Changchun Group, Baolai Petrochemical Group, Helian Group, Union Petrochemical Corporation (UPC Taiwan), CITIC Group Corporation (Energy), Oiltanking. Especially the residence of Taiwan Changchun Chemical and Liaocheng Chemical Corporation offers an important opportunity to promote the cross-strait cooperation in petrochemical and fine chemical industry.





◆盤錦港位於遼東灣灣底，是國家一類開放口岸，東北及內蒙古以東地區最近出海通道。港口擁有12.1公里自然岸線，39公里碼頭岸線，陸域面44.2km²，港口水深-14.5至-25米，可佈置65個萬噸級泊位，通過能力超過3億噸。

◆盤錦港目前完成投資260億元，已建成5萬噸級泊位7個，另有10個5萬噸級泊位和1個30萬噸級原油泊位處於建設和收尾階段。到2020年，盤錦港將建成35個萬噸級泊位，年通過能力突破1億噸。

◆港區採用雙堤環抱的佈置形式，規劃了東、西兩個作業區，東作業區為公用碼頭作業區，西作業區主要為港區後方大型石化產業配套服務。港口按照功能劃分為液體散貨區、通用散雜區、滾裝泊位區、集裝箱區、倉儲及物流區、海洋工程裝備園區、石油化工園區配套碼頭區和預留發展區等8個區域。

◆其中，盤錦港30萬噸級原油碼頭計畫總投資16.9億元，總長430米，泊位設計吞吐量為1600萬t/a，是加速遼東灣新區石化產業集群形成，打造世界級石化及精細化工產業基地的重要支撐，可直接解決兵器工業集團精細化工及原料工程專案等一批化工企業的原材料、成品存儲運輸問題，為區內石化企業提供了便捷的出海通道，為經濟區臨海、臨港產業發展提供良好依託。



◆Panjin port, located in the innermost position of the Liaodong Bay, is the first-class open port as the nearest access to the sea in northeast area and the east area of Inner Mongolia. The port has 12.1 kilometers natural coastline, 39 kilometers terminal coastline; 44.2 km² land area, -14.5 to -25m depth of water and more than 300 million ton of traffic capacity. It can arrange sixty-five 10,000-ton berths.

◆Panjin port, at present, has achieved 26 billion yuan of investment and built seven 50,000-ton berths. In addition, another ten 50,000-ton berths and one 300,000-ton crude oil berths is under construction and in the completion stage. Upto 2020, Panjin port will build thirty-five 10,000-ton berths, which annual traffic capacity will break through 100 million ton.

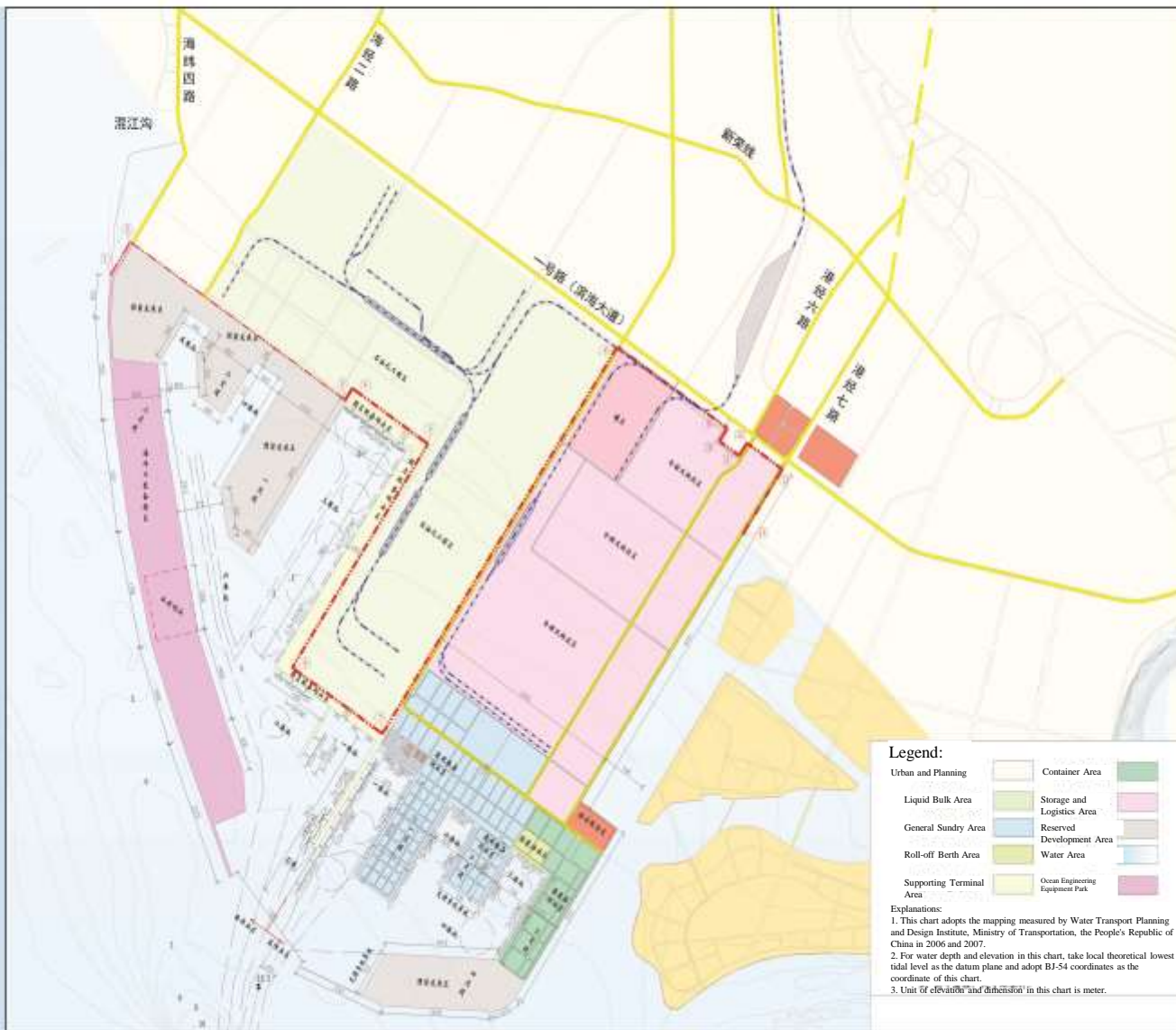
◆With the layout form of double-dyke surround, the west and east operation area of the port is planned. The east operation area is the operation area of public terminal, and west operation mainly provide supporting services for large-scale petrochemical industry behind the park. The port is divided into liquid bulk area, general sundry area, roll-off berth area, container area, storage and logistics area, ocean engineering equipment area, petrochemical area, supporting terminal area, reserved development area by function.

◆Among them, 300,000-ton crude oil berths in Panjin port will cost total investment of 1.69 billion yuan, with total length of 430m and handling capacity of 16 million t/a. It is an important support for promoting the formation of petrochemical industrial cluster in Liaodong bay new district, and developing world-class petrochemical and fine chemical industrial base, whilst it directly provide the solution for storage and transport of raw material and finished product for a number of chemical enterprises, such as special case for fine chemical and raw material project of China North Industries Group Corporation, provides convenient access to the sea for petrochemical industry in the park, and offers favorable environment to development of sea-front and port-vicinity industry.

盤錦港榮興港區布置規劃及陸域港界圖



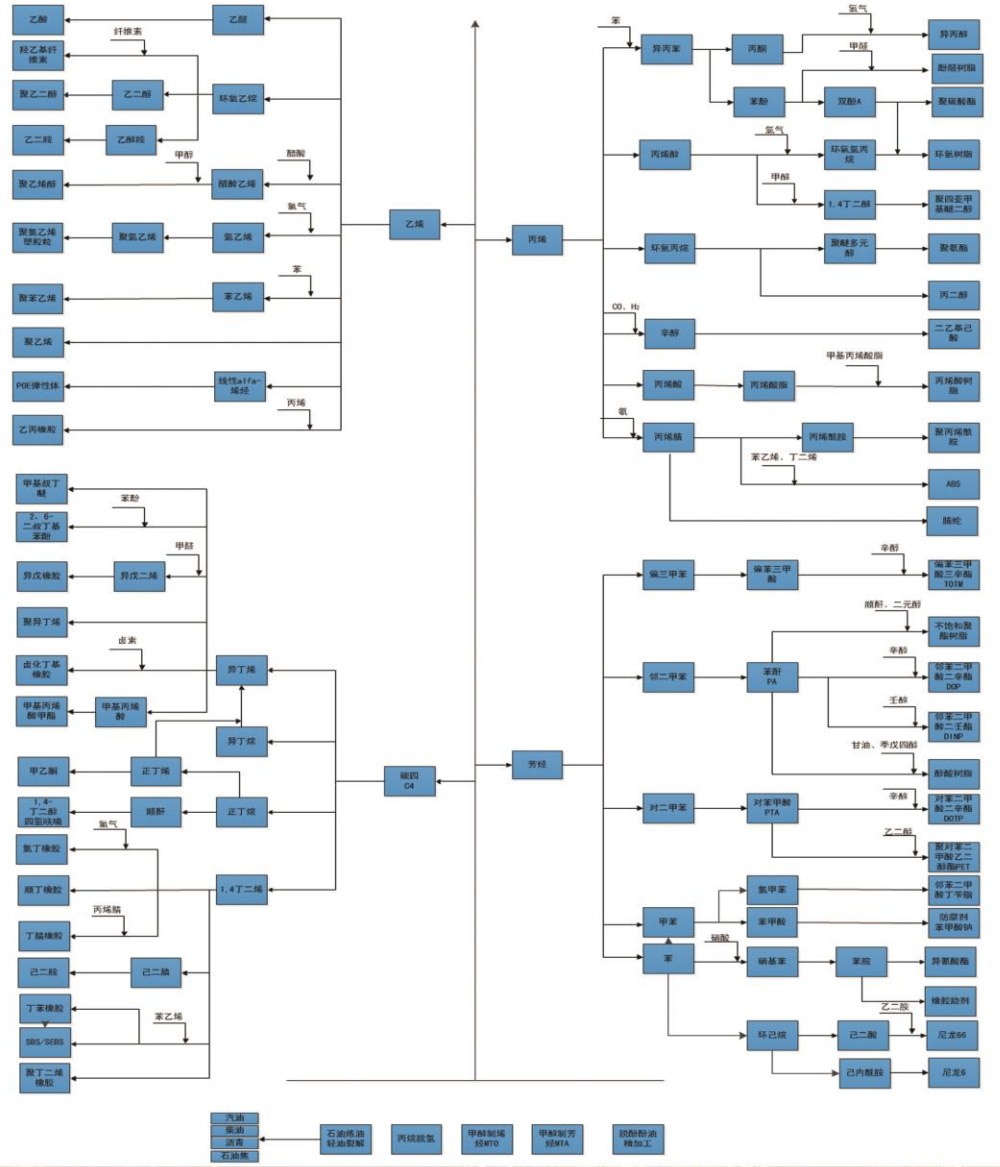
Layout Planning and Land Area of Port Boundary of Rongxing Port Area in Panjin Port



盤錦遼東灣新區石化及精細化工產業規劃

遼東灣新區石化及精細化工產業規劃由新加坡裕廊國際編制，在綜合考慮國內外化工市場、遼寧省石化及精細化工發展現狀，化工行業未來發展方向等因素的基礎上，確定發展以乙烯、丙烯、C4、芳烴為源頭的四大主導產業鏈，形成以醇、醚、酚、醛、酮、酸、酯等種類齊全基本有機化學品及三大合成材料為核心的產業格局。

遼東灣新區石化園區主要產業鏈示意圖



作為致力於推動海峽兩岸石化及精細化工產業合作的示範性園區，遼東灣新區石化及精細化工產業園區不斷優化產業政策，完善基礎設施，提升服務水準，吸引了一批臺灣重點石化及精細化工企業的入駐和關注。



臺灣聯成化學科技股份有限公司在盤投資三個專案。其中，化工液體儲罐倉庫、化工乾貨倉庫專案總投資2.2億元，占地面積600畝，將建設儲罐總庫容321.600立方米，儲存散貨的甲類倉庫5座及50000/5000噸泊位碼頭兩座。其次，順酐、丁二醇/四氫呋喃、氫氣專案總投資7.3億元，占地面積600畝，將建設16萬噸/年順酐、6萬噸/年丁二醇/四氫呋喃、1萬立方/年氫氣裝置及配套設施。再次，苯酐增塑劑專案總投資9億元，占地面積600畝，將建設成為全國最大的苯酐增塑劑生產基地。

長春化工總投資（30億美元），占地2500畝。專案分三期建設：一期投資總額60億元，主要建設10萬噸/年離子膜氯堿，6萬噸/年異丙醇，8萬噸/年環氧氯丙烷，5萬噸/年液態環氧樹脂，15萬噸/年1, 4-丁二醇，6萬噸/年聚四亞甲基醚二醇專案；規劃二期投資總額20億元，建設專案有：18萬噸/年丙烯醇專案、6000噸/年電子級化學品專案、環氧樹脂稀釋劑專案、5萬噸級液體化學品泊專案；三期投資總額100億元，將生產苯酚、丙酮、雙酚A（BPA）等。



As a model park focusing on promoting cooperation of cross-strait petrochemical and fine chemical industry, Petrochemical and Fine Chemical Industry Park of Liaodong Bay constantly promoting its industrial policies, infrastructures and service level, which has attracted several key enterprises petrochemical and fine chemical industry from Taiwan.

Total investment of Changchun Chemical is 3,000 million USD with area of 2,500 mu. The project is divided into three phrases: Total investment of Phrase I is 6,000 million RMB, including ionic membrane chlorine-alkali (100,000 tons per year), isopropanol (60,000 tons per year), epichlorohydrin (80,000 tons per year), liquid epoxy resin (50,000 tons per year), 1, 4-butanediol (150,000 tons per year) and PTMEG (60,000 tons per year); total investment of Phrase II is 2,000 million RMB, including propenol (180,000 tons per year), electron chemicals (6,000 tons per year), epoxy resin diluents and liquid chemicals of 50,000 tons; total investment of Phrase III is 30,000 million RMB for producing phenol, acetone and bisphenol A (BPA), etc.



Taiwan UPC Technology Corporation invested in three projects . Among them, project of chemical logistics in liquid tank storage and chemical dry warehouse was invested 220 million RMB, with area of 600 mu, to constructe general storage capacity of 321,600 m³, 5 Class A warehouses for bulk cargoes and two terminals of 50000/5000 tonnage. Project of maleic anhydride, butanediol/THF, and hydrogen was invested 730 million RMB, with area of 600 mu, including equipments and supporting facilities for maleic anhydride (160,000 tons per year), butanediol/THF (60,000 tons per year) and hydrogen (10,000 m³ per year). Project of phthalic anhydride plasticizer was invested 900 million RMB, with area of 600 mu, expected to become the biggest national production base of phthalic anhydride plasticizer.

UPC 守。





HOBINCO GROUP

中國兵器集團-華錦集團



該專案總投資597.6億人民幣，2015年7月先後獲省環保廳和發改委環評批復和專案核准，預計2016年7月完成專案前期準備工程，2016年10月完成總體工程設計。



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Total investment of the project is 59.76 billion RMB. In July 2015, environmental assessment was reviewed and approved by Provincial Environmental Protection Department and NDRC. Primary preparation works of the project is expected to be completed in July 2016.

Overall engineering design is expected to be completed in October 2016.



HOBINCO GROUP

中國兵器集團-華錦集團



		裝置能力（萬噸/年）	
序號	裝置名稱		
煉油生產裝置	1	常壓	1500
	2	減壓	560
	3	煤油加氫精製	160
	4	蠟油加氫裂化	280
	5	潤滑油分離	120
	6	渣油加氫裂化	160
	7	渣油加氫	460
	8	催化裂化	400
	9	氣體分餾	90
	10	碳二回收裝置	60
	11	S-ZORB	150
	12	1#加氫精製	300
	13	柴油加氫裂化RLG	150
	14	1#PSA	8
	15	MTBE	14
	16	烷基化	16
	17	芳烴聯合裝置	200
	18	造氣制氫	



HORRICO GROUP

CNGC-Huajin Group

No.	Name	Capability (ten thousand tons/year)
1	Atmospheric Pressure	1500
2	Pressure-relief	560
3	Kerosene Hydrofining	160
4	Gas Oil Hydrocracking	280
5	Lube Oil Separating	120
6	Residual Hydrocracking	160
7	Residue Hydrotreating	460
8	Catalytic Cracking	400
9	Gas Fractionation	90
10	C2 Recovery Device	60
11	S-ZORB	150
12	1# Hydrocracking	300
13	Diesel Oil Hydrocracking RLG	150
14	1#PSA	8
15	MTBE	14
16	Alkylation	16
17	Aromatics Complex Plant	200
18	Gas Making & Hydrogen Production	
19	Sulfur Recovery	13×3



HOBINCO GROUP

中國兵器集團-華錦集團



		序號	裝置名稱	裝置能力（萬噸/年）
化 工 生 產 裝 置	1	乙烯裝置	100	
	2	乙苯	50	
	3	HDPE	40	
	4	E0/EG	30/50	
	5	聚丙烯	25	
	6	PO/SM	20/45	
	7	苯酚丙酮	50	
	8	丁二烯抽提	9	
	9	汽油加氫	30	



HORRICO GROUP

CNGC-Huajin Group ◆◆◆

	No.	Name	Capability (ten thousand tons/year)
Chemical Production Installations	1	Ethylene Plant	100
	2	Ethylbenzene	50
	3	HDPE	40
	4	EO/EG	30/50
	5	Polypropylene	25
	6	PO/SM	20/45
	7	Phenol-acetone	50
	8	Butadiene Extraction	9
	9	Gasoline Hydrotreating	30

BAOLAI
宝来集团

遼寧寶來石油化工集團



寶來石油化工集團始建於2003年。目前，集團公司占地4000畝，資產總額超過130億，可實現產值350億元，是集石油煉製、精細化工、石化貿易為一體的現代化集團企業。2015年，集團公司作為東北第一家民營企業獲得700萬噸/年的進口原油使用權。擁有重交道路瀝青、普通道路瀝青、針狀焦、石油焦、焦炭、石腦油、汽油、柴油、液化氣、石蠟、燃料油、潤滑油、機油料、渣油、變壓器油等近70個產品品種。

BAOLAI
宝来集团

CNGC-Huajin Group ◆◆◆



Baolai Petrochemical Group was founded in 2003. It is now a modern enterprise with total area 4,000 mu, total assets is estimated over 13 billion yuan , realizable production value of 35 billion combining petroleum refining, fine chemical industry and petrochemicals trading. As a private enterprise, it became the first group granted the permit to use import crude oil of 7 million per year in 2015. It has nearly 70 types of product such as heavy-duty road asphalt, common road asphalt, needle coke, petroleum coke, coke, naphtha, gasoline, diesel oil, liquefied gas, paraffin, fuel oil, lubricant, engine oil, residuum, transformer oil, etc.



盤錦和運實業集團有限公司始建於2001年，占地3000畝地，建設有三套液化石油氣（LPG）深加工裝置，共計70萬噸/年加工能力、10萬噸/年異丁烷脫氫精製高純異丁烯裝置、6萬噸/年丁基橡膠裝置、3萬噸/年溴化/氯化丁基橡膠裝置，同時聯產30萬噸/年MTBE。



Heyun Group Co. Ltd.



Panjin Heyun Group Co. Ltd., established in 2001 with a total area of 3000 acres consists of three sets of liquefied petroleum gas (LPG) processing devices with processing capacity of a total of 700,000 tons per year, isobutene devices with 100,000 tons of refining high purity of isobutane dehydrogenation per year, production devices with 60,000 tons of butyl rubber per year, production devices with 30,000 tons of bromide or chlorinated butyl rubber per year as well as 300,000 tons of methyl tert-butyl ether (MTBE) of co – production per year.



盤錦瑞德化工有限公司註冊成立於2011年12月。註冊資本金28340萬元，占地738畝，職工人數360人。

公司主營苯酐、輕苯、二甲苯、三甲苯、碳九、工業萘、甲基萘、吡啶等精細化工產品的生產和經營，兼營化學品進出口業務。公司總資產7.8億元。公司現有5萬噸/年苯酐生產裝置兩套、15萬噸/年重苯精製裝置一套、9.2萬立方米液體化工原料和產品儲罐、3.2萬KVA變電所一座。遠期規劃30萬噸/年兩苯精製生產專案、10萬噸/年輕苯精製生產專案等。

Panjin Ruide Chemical Co., Ltd.



Panjin Ruide Chemical Co., Ltd. was established in December 2011 with registered capital of 283.40 million, a total area of 738 acres and 360 staff.

The company mainly produces the fine chemicals including phthalic anhydride, light benzene, three toluene xylene, carbon nine, industrial naphthalene, methylnaphthalene, pyridine, etc. Meanwhile it is engaged in the import and export business on chemicals. The company's total assets of 780 million yuan. At present it has two sets of production lines with 50,000 tons of phthalic anhydride per year, a set of refining production lines with 150,000 tons of heavy benzol per year, 92,000 cubic meters of storage tank with liquid chemical raw material and production, a substation of 32,000 KVA. Besides, it has long-term plans for future expansion including refining production project with 300,000 tons two benzene, refining production project with 100,000 tons lighth benzene, etc.

其他重點產業

忠旺集團



總投資約850億元人民幣，建設300萬噸特大高精鋁(板帶箔)及鋁合金加工材專案300萬噸高純鋁專案、80萬噸鋁擠壓型材及深加工專案，以及設立忠旺有色金屬研究院，打造世界一流的鋁產業基地。

Other key industries

Liaoning Zhongwang Group Co., Ltd.



Liaoning Zhongwang Group Co., Ltd. is devoted to becoming the world-class aluminum industry base with a total investment of about 85 billion yuan. It has established a processing material project with 3 million tons of heavy and high precision aluminum (Strip and Foil) and aluminum alloy, 3 million tons of high purity aluminum project, 800,000 tons of aluminum extrusion profiles and fine work processing project as well as Zhongwang non-ferrous metal institute.

其他重點產業

中儲糧集團

東北綜合產業基地專案：建設用地約1778.3畝，總投資50億元，包括糧油中轉、糧油儲備、油脂加工三大功能板塊。



匯福糧油集團

蛋白加工專案：總投資13.6億元，建設5000t/d飼料蛋白生產線兩條。達產年預計實現銷售收入50億元。



Other key industries

China Grain Reserves Corporation

Comprehensive industrial base of the northeast project:

With a total area of 1778.3 acres and a total investment of about 5 billion yuan including three functional modules such as the transit of grain and oil, the storage of grain and oil and oils processing.



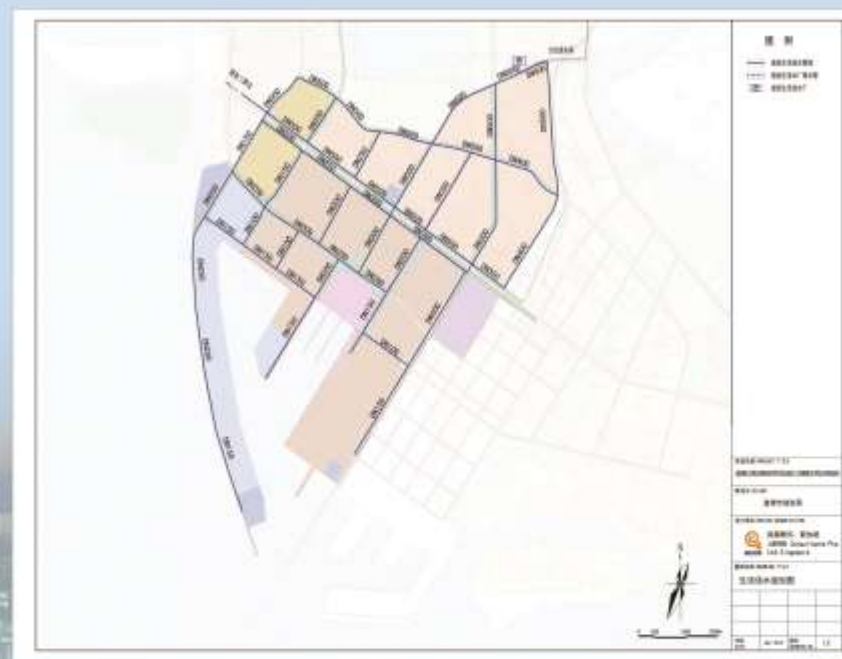
Huifu Grain and Oil Group Co., Ltd.

Protein processing project: With a total investment of about 1.36 billion yuan and two protein production lines of 5000t/d feed. Production year is expected to achieve sales revenue of 5 billion yuan.。

盤錦遼東灣新區石化及精細化工產業園區總體規劃及各專項基礎設施規劃由新加坡裕廊國際規劃設計院進行編制設計，並由遼東灣新區嚴格按照規劃組織實施。

一、園區生活給水、工業給水規劃和建設情況

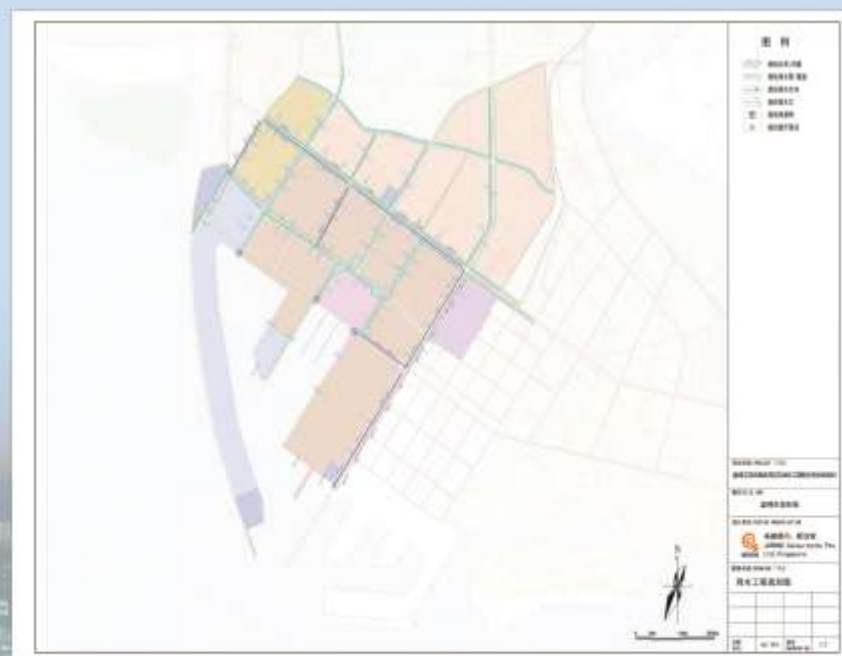
遼東灣新區石化及精細化工產業園區（以下簡稱園區）內主要路徑的生活給水、工業給水管網均已鋪設完成，並投入使用，滿足目前園區內生產企業和建設專家的用水需求。新區目前建有淨水廠兩座。生活區淨水廠一座，水源為大夥房水庫，配水規模近期規模為17萬m³/d，遠期規模為30萬m³/d。目前淨水能力6萬噸/日，二期6萬噸/日擴建工程正在建設中，2015年6月竣工運行；目前在建10萬噸工業淨水廠一座，水源取自榮興水庫、三角洲水庫，供水能力可達到40萬m³/d。園區水源總計規模可達到70萬m³/d。



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二、園區排水規劃和污水處理建設情況

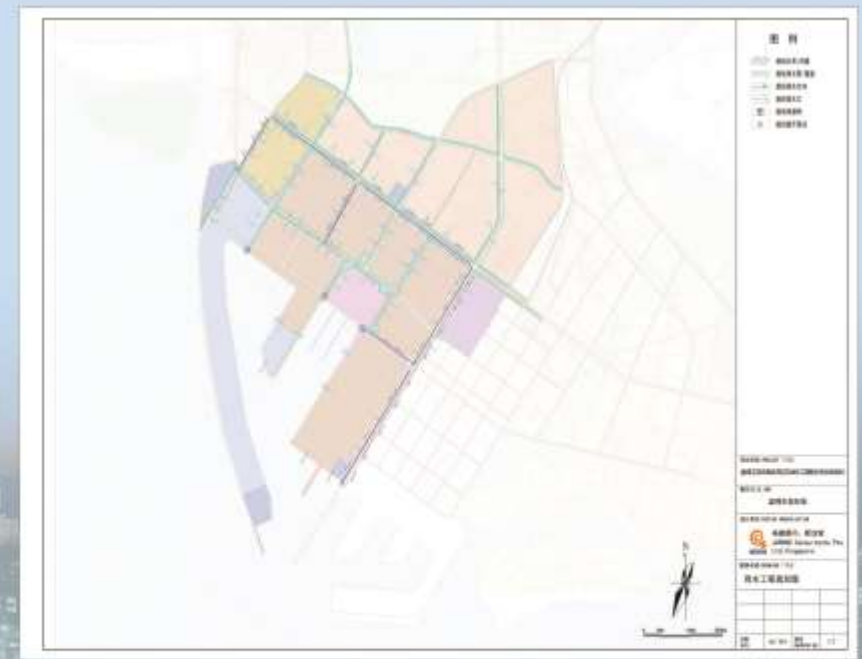
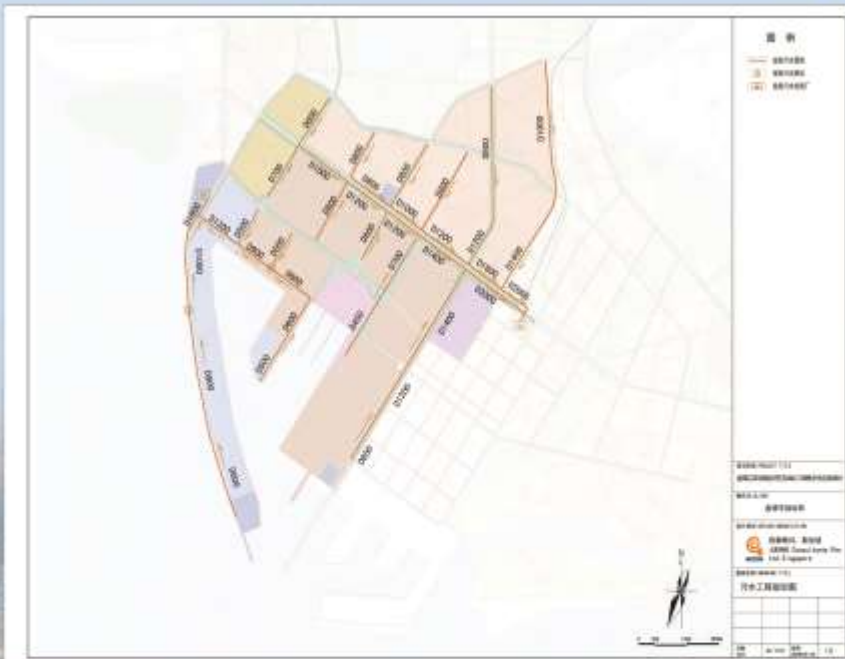
園區內主要路徑的污水管網、雨水管網均鋪設完成投入使用。園區污水管網最大口徑為D2000，沿濱海大道鋪設，由西向東排入園區污水處理廠，嚴格控制工業污水對外界環境的影響；由目前的三萬噸污水處理廠為園區內企業提供污水處理服務，並為各企業提供 2 萬噸/日中水進行回用。園區雨水管網結合園區特殊的傍河臨海的區位，做到集中收集，就近排放，任何時候均可借助低海拔的優勢使整個區域不會受到洪澇災害的侵襲。



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II. Draining planning and sewage treatment & construction condition in the Park

All the sewage pipe network and rainwater pipe network of main path in the Park have been laid completely and put into service. The maximum caliber of sewage pipe network in the Park is D2000, and is laid along coastal road, and the sewage shall be discharged into the sewage treatment plant from west to east, to strictly control the influence of industrial sewage to external environment; provide the sewage treatment service for the enterprises in the Park with current sewage treatment plant of 30,000 ton, and provide 20,000 tom reclaimed water per day for the enterprises for reuse. The rainwater pipe network combines with the special location near river and sea, achieving the concentrated collection, nearby discharge, and the advantage of low altitude can be utilized at any time to prevent the whole area from the disoperation of flood disaster.



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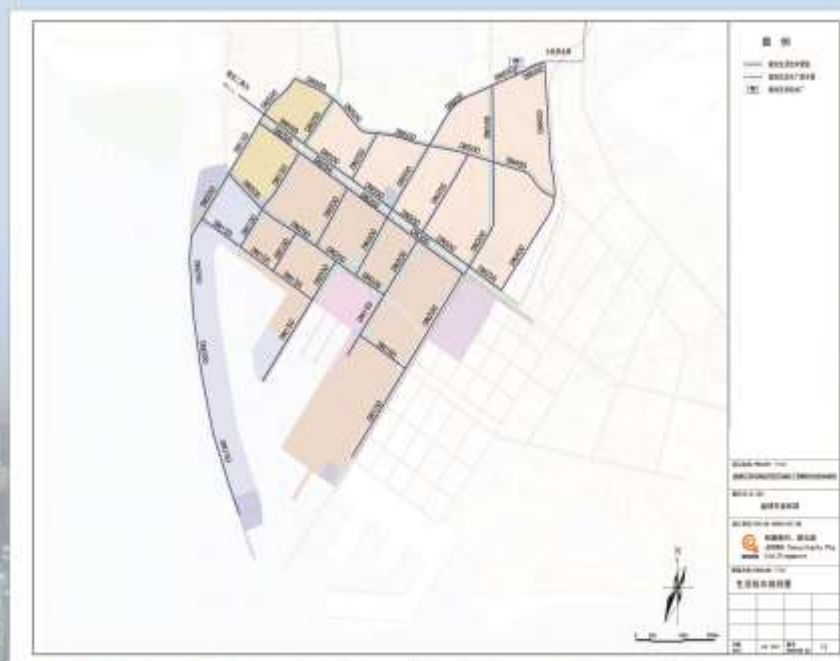
三、園區對外交通總體規劃和建設情況

園區現已形成公路、鐵路、港口一體化的立體交通格局。園區內主要路網建設已全部完成，形成十縱十橫的公路交通網絡，連接丹錫、沈大、京沈的新區高速公路已經竣工通車；疏港鐵路金角灣車站緊臨園區，各專用鐵路線直接接入企業廠區；園區毗鄰盤錦港，擁有豐富的岸線資源，由歐德油儲負責建設和運營專業化學品碼頭。



四、園區供電規劃和建設情況

園區現有220kv/66kv變電站兩座，66kv/10kv公用變電站一座，遠期規劃增設220kv/66kv變電站兩座。



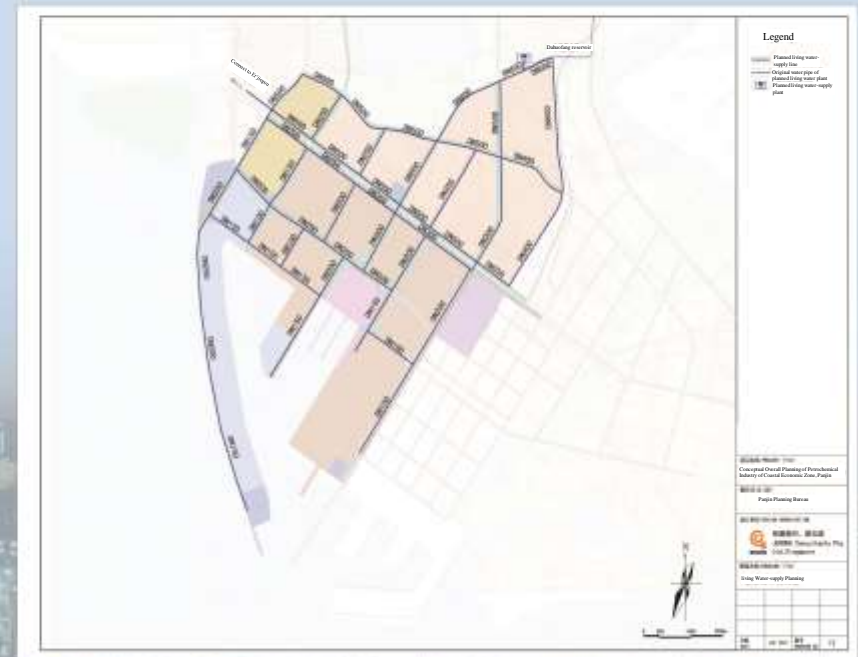
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III. Overall planning and construction condition of external traffic in the Park

At present, the integrative three-dimensional traffic structure with road, railway and port has been formed for the Park. In the Park, the construction of main road network has been completed, with a cross road traffic network formed, and the highway of New District has been completed and be open to traffic; the Jinbo Bay Station of port railway is close to the Park, and all special railway lines can be direct access to the enterprise factory; the Park is close to Panjin Port and has abundant shoreline resources, and Oiltanking is responsible for the construction and operation of the special terminal for chemicals.

IV. Power supply construction and construction condition in the Park

Now the Park has two transformer substations of 220kv/66kv and one public transformer substation of 66kv/10kv, and is planned to add two transformer substations of 220kv/66kv in the future.



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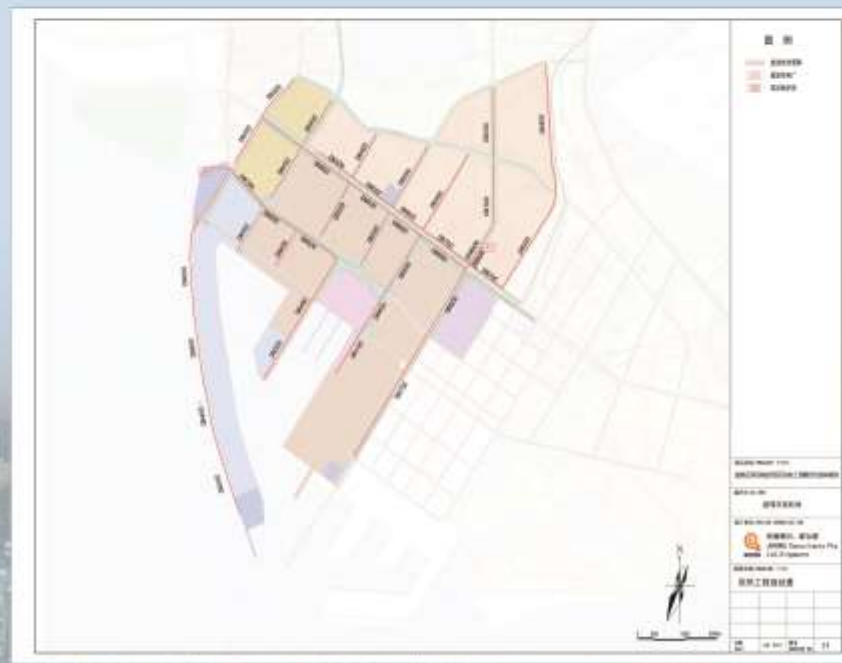
五、園區燃氣工程規劃和建設情況

園區內設有天然氣門站，主要路徑燃氣管網已經鋪設完成，投入使用。氣源來自西氣東輸秦沈線和大沈線燃氣管道，目前總量為248萬 m^3/d ，近期達到278.8萬 m^3/d 。



六、園區供熱工程規劃和建設情況

園區內有穩定熱源供應，近期可提供工業蒸汽1260mw，遠期可提供4000mw。目前3臺130mw鍋爐為園區內兩家企業供應蒸汽，2臺450mw鍋爐已開工建設，2015年7月投產；蒸汽最高壓力為9.81兆帕，最高溫度為540度。（自建蒸汽成本可參考目前長春公司電廠自產蒸汽用煤成本。長春公司用煤產自山西大同煤礦，發熱量為5500大卡，近日由秦皇島港運出至盤錦港到岸價約為520元/噸，其中運費約為20元/噸，具體價格隨煤價浮動。）



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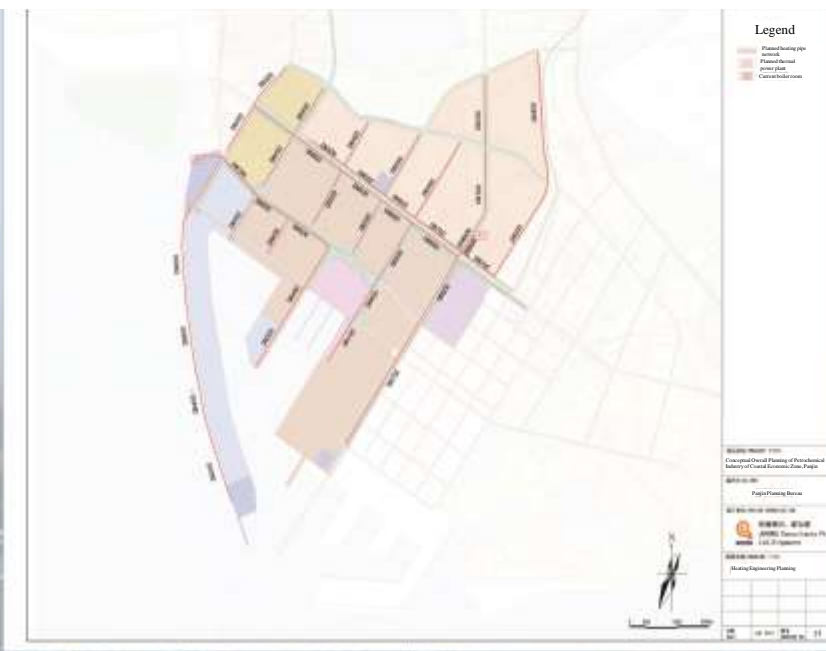
V. Gas engineering planning and construction condition in the Park

There are gas transmission terminal stations in the Park, and the gas pipe network of main path has been laid completely and put into service. The source of gas is from the gas pipeline of Line of Qinhuangdao – Shenyang and Line of Dalian – Shenyang for West-East natural gas transmission, at present, the gross is 2480,000 nm³/d, and it is prepared to reach 278.8nm³/d in recent period.



VI. Heating engineering planning and construction condition in the Park

There is stable heat source supply in the Park, and the 1260mw industrial steam can be provided in recent period, while 4000mw industrial steam can be provided in the future. At present, there are three 130mw boilers supplying steam for two enterprises in the Park, two 50mw boilers have been started for construction and will be put into production in July, 2015; the maximum pressure of steam is 9.81MPa, and the maximum temperature is 520°C. (Refer to the current costs of the coal used for steam produced by Changchun Company, Power Plant for costs of self-produced steam. The coal used by Changchun Company is made in Shanxi Datong Coal, its calorific value is 5,500 kilocalorie. Today, the CIF from Qinhuangdao Port to Panjin Port is about RMB 520 per ton, wherein, the freight is about RMB 20 per ton, while the specific price will float with the coal price.)



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七、園區電信局端規劃和建設情況

園區根據道路排水等相關基礎設施的建設情況科學佈置電信網路規劃，做到全域內光纖管網接入，滿足移動、電信、聯通三大電信運營商光纖接入條件。



八、公用管廊規劃及建設情況

園區目前已建成專用的油品管廊和化學品管廊共約37公里，占地90公頃。管廊帶直通油品碼頭與化學品碼頭，企業可根據需要租用管廊線位架設管線，輸入及輸出原料和產品，實現零距離物流。



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VII. Telecom office end planning and construction condition in the Park

The telecom network planning shall be arranged scientifically according to the construction condition of road drainage and other relevant infrastructures in the Park. Achieve the access of optical pipe network in intra-area, and meet the access conditions of optical fiber of the Three telecom operators, China Mobile, Telecom and Unicom.



VIII. Public pipe rack planning and construction condition

At present, the special pipe rack for oils and chemicals has been completed in the Park, with approximate 37km in total and 902 hectare for occupation of land. The pipe rack zone directly connects with the terminal for oils and chemicals. The enterprise can rent the pipe rack line as needed to construct pipelines, to input and output raw materials and products, and achieve zero-distance logistics.



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九、工業氣體

園區工業氣體由美國AP公司提供。園區與氣體供應商的協議中約定，工業氣體在園區銷售價格應為環渤海地區合理較低價格。（各類氣體產品的最後價格和產品供應由用氣企業與供氣企業根據實際需求具體洽談）



碼頭管廊帶

十、園區公用配套的基本價格

生活用水	1.85元/噸。
工業供水	臨時用水（含基建）5元/噸，正式用水3.25元/噸。
工業用電	1. 電度電價： 1-10千伏0.5806元/千瓦時 20千伏0.5576元/千瓦時 35-110千伏0.5476元/千瓦時 110千伏0.5436元/千瓦時 220千伏及以上0.5246元/千瓦時 2. 基本電價： 最大需量：33元/千瓦/月 變壓器容量：22元/千伏安/月
污水處理費	2.63-4.00元/噸（根據處理成本的變化進行調整）
天然氣	3.85元/立方米（隨著園區天然氣需求加大，將逐步下浮價格）
沙子	河沙100元/立方米（視距離遠近、用量及付款方式有所浮動）
石子	110元/立方米（視距離遠近、用量及付款方式有所浮動）

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IX. Industrial Gases

Industrial gases for the Park are provided by US AP Company. Park and gases supplier appoint in the agreement that the sales prices of industrial gases for the Park shall be reasonably low in the region around Bohai. (For the final prices and supply of various gas products, the enterprise using gases shall negotiate with the gas-supply enterprise in detail according to practical need)



Pipe gallery zone at the wharf

X. Basic Prices of Public Facilities in Park

Domestic water	RMB 1.85/t.
Industrial water	Temporary water (including capital construction) RMB 5/t, and official water RMB 3.25/t.
Industrial electricity	1. Electricity price per kilowatt: 1-10 KV RMB 0.5606/KWH 20 KV RMB 0.5576/KWH 35-110 KV RMB 0.5476/KWH 110 KV RMB 0.5436/KWH 220 KV and above RMB 0.5246/KWH 2. Basic electricity price: Maximum demand: RMB 33/KV/month Transformer capacity: RMB 22/KVA/month
Sewage treatment fee	RMB 2.63-4.00/t (adjusted according to the change of treatment cost)
Natural gas	RMB 3.85/m ³ (Price is lower gradually with the increase of natural gas quantity demanded by the Park)
Sand	River sand RMB 100/m ³ (fluctuating according to distance, quantity and payment method)
Stones	RMB 110/m ³ (fluctuating according to distance, quantity and payment method)



十一、城市功能和社會服務配套情況

園區位於遼東灣新區產業核心區，襟連遼濱水城。按照濱海城市標準規劃建設的遼濱水城，功能齊全，設施完備，遼東灣新區內中國醫大盛京醫院遼東灣分院、大連理工大學盤錦校區、盤錦職業技術學院、遼寧省實驗學校遼東灣分校（小學至高中一貫制）、盤錦市體育中心等，為入園企業及其員工提供了生活、文化、醫療、教育和文娛等全方位保障。盤錦市優越的教育資源為入駐企業提供了優越的人才保障：大連理工大學是985大學，是國內化工類院校頂尖院校之一，設博士生工作站、研究生院。2013年開學，現有在校生4000餘人，2016年計畫在校生達到1萬人，為園區提供高級技術人才和管理人才；盤錦職業技術學院目前有十餘個專業，6000餘名在校生，為園區提供中等技術人才；盤錦市還有石化技校、遼河油田技校、盤山縣職業學校等數所技工類學校共計在校學生可達9500人，每年為全市提供3000名以上技術工人（其中符合化工類企業用人需求的可達2000餘人），各院校也可以為大型企業量身招生培訓專業人才。盤錦市具有悠久的化工歷史和化工文化，化工從業人員儲備十分豐富，目前生產運營的長春化工等企業的招工工作都十分順利便捷。園區企業職工平均工資標準2700元/月。



XI. City Function and Social Service

The Park is located in industrial core area of Liaodong Bay New District and close to Liaobin Water City, which is constructed as per standard planning for coastal city with complete function and equipment. Liaodong Bay Branch of China Medical University Shengjing Hospital, Panjin Campus of Dalian University of Technology, Panjin Vocational & Technical College, Liaodong Bay Branch of Liaoning Experimental School (with system from primary school to senior middle school), Panjin Sports Center, etc. in Liaodong Bay New District provide comprehensive guarantee on life, culture, medical treatment, education, entertainment, etc. for the enterprises in the Park and their employees. Superior educational resources of Panjin provides talent guarantee for the settled enterprises; Dalian University of Technology, as a “985” University, is one of the top chemical colleges in China, and establishes doctoral workstations and graduate school. There were over 4,000 students at this school at the beginning of term in 2013. Students at school is planned to reach 10,000 in 2016, providing senior technical talents and management talents; Panjin Vocational & Technical College has over 10 majors, and over 6,000 students at school at present, providing medium technical talents for the Park; there also are Petrochemical Technical School, Liaohe Oilfield Technical School, Panshan Vocational & Technical College and other technical schools, and students at these schools are over 9,500 in total, providing over 3,000 technical workers (over 2,000 persons can meet the requirements of chemical enterprises) for the whole city annually. These schools also can enroll students and train professional talents for large enterprises specially. Panjin has a long chemical history and culture with rich reserve of chemical employees. Now the recruitment for Changchun Chemical and other enterprises in production and operation is very smooth and convenient. Mean salary standard of employees of enterprises in the Park is RMB 2,700/month.



歡迎來盤錦遼東灣新區投資興業



Welcome to Liaodong Bay New District, Panjin for Investment and Development

