## **INDUSTRY OVERVIEW**

This section contains information and statistics on the industry in which our Group operates. The information set out in this section has been extracted from an industry review report compiled by CCID Consulting as commissioned by our Company. CCID Consulting, an Independent Third Party, is principally engaged in the provision of market research and management consultancy services. The principal activities of its subsidiaries comprise the provision of data information management services, and public relationship consultancy services. The amount of fees payable by us to CCID Consulting is RMB400,000. Save for the aforesaid industry review report compiled by CCID Consulting, no other such report was commissioned by our Company. In view of the background and credentials of CCID Consulting, the method of research adopted by CCID Consulting in preparation of the industry review report, the independence of CCID Consulting from our Company and the confirmation from CCID Consulting that the data in its report is true and reliable, our Directors consider that there is no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. The information has not been independently verified by us and no representation is given as to its accuracy.

#### **INTRODUCTION**

We have commissioned CCID Consulting, an independent market research company based in China, to analyse and report on the deployment market of optical fibers and low-voltage equipment integration services market in China. To provide an analysis of these markets, CCID Consulting combined research by applying its macro-economic outlook and its understanding of the development patterns of the relevant industry. Data collection was carried out by analysts with specific knowledge of the deployment market of optical fibers and low-voltage equipment integration services market. Secondary sources such as company report and historical market data were generated through the analysis of relevant data such as trade and consumption that were prepared by various PRC Government and industry associations, such as Ministry of Industry and Information Technology, National Bureau of Statistics, Ministry of Communications and Ministry of Railways. In preparing its report, CCID Consulting also conducted interviews with telecommunication operators and low-voltage equipment integration companies in the PRC to support its forecast model. The interviews also served as a method of cross-checking and data verification. Market forecasts present the view of CCID Consulting of the key demand market drivers to determine the future development of the deployment market of optical fibers and low-voltage equipment integration services market in China. The information and statistics as set forth in this section have been extracted from the report issued by CCID Consulting.

## **INDUSTRY OVERVIEW**

#### DEPLOYMENT SERVICES OF OPTICAL FIBERS

#### I. Market overview

#### • Market overview on the use of internet

Internet users use different internet access technologies, such as optical fibers, digital subscriber line, mobile telecommunications service and cable modem, to access internet. Given that the use of optical fibers is one of the internet access technologies, the demand on the internet access may indirectly affect the development of the deployment services of the optical fibers. The number of internet users in China grew rapidly from 2000 to 2010. During the years from 2000 to 2010, the annual compound growth rate of the number of household internet users in China was approximately 35.1% and the number of household internet users in China from 2000 to 2010. The following diagram set forth the number of household internet users in China from 2000 to 2010:



#### Number of household internet users in China from 2000 to 2010

Number of household internet users

Source: CCID Consulting

## **INDUSTRY OVERVIEW**

In view of the nature of the optical fibers which can generally transmit the data at a faster rate if compared with other internet access technologies as mentioned above and considering that the growth of the broadband internet users implicitly shows the demand on faster transmission rate of internet users, the demand on the optical fibers as well as the deployment services of optical fibers is expected to be driven by the growth of broadband internet users. During the years from 2004 to 2010, the number of broadband internet users in China maintained a steady growth with the compound annual growth rate of approximately 32.0%. The number of broadband household internet users in China reached to approximately 126.3 million in 2010. The following diagrams set forth the number of broadband network in Beijing, Liaoning Province, Jilin Province, Shaanxi Province and Anhui Province in China in 2010:





Source: CCID Consulting





Source: CCID Consulting

# **INDUSTRY OVERVIEW**

#### • Market overview on the deployment of optical fibers

During the years from 2008 to 2010, the income generated from the deployment market of optical fibers in China grew gradually with the compound annual growth rate of approximately 9.9% and reached RMB62.2 billion in 2010. The following diagram set forth the income generated from deployment market of optical fibers in China from 2008 to 2010:

# The income generated from optical fibers deployment industry in China between 2008 to 2010



Sources: CCID Consulting

#### • Market overview on the deployment of optical fibers with micro-ducts and mini-cables

As for the traditional deployment method, such as direct burial of optical fibers, the number of optical fibers deployed is usually based on the estimated final demand of optical fiber infrastructure, resulting in an excessive one-time investment and problems such as idleness of optical fibers and low utilisation rates.

In utilising micro-ducts and mini-cables system integration methods, the micro-ducts and mini-cables can be blown into the pipes in phase depending on the then market demand, thereby reducing the initial investment and providing greater flexibility in expansion capacity.

The three major telecommunication operators in China are still testing the applications of micro-ducts and mini-cables and are currently carrying out pilot projects of micro-ducts and mini-cables in a number of provinces and cities such as Beijing, Anhui Province, Shaanxi Province, Hebei Province, Liaoning Province and Jilin Province. Among the three major telecommunication operators, China Mobile Communications Corporation (中國移動通信集團) is more willing to try the application of micro-ducts and mini-cables system integration methods.

Major manufacturers of optical fibers have introduced micro-ducts and mini-cables related products and are promoting the application of micro-ducts and mini-cables. However, as the telecommunication operators in the PRC are still treating the market of micro-ducts and mini-cables as a pilot phase, the development of the market regarding the deployment of micro-ducts and mini-cables in China is at an early stage.

## **INDUSTRY OVERVIEW**

### • Techniques adopted in the deployment of the optical fibers

Currently, except a few rare methods being used in particular geographical environment, such as for deployment of optical fibers in seabed, there are various commonly used methods regarding the deployment of optical fibers including (i) the traditional deployment methods such as direct burial and aerial access to deploy optical fibers and (ii) the micro-ducts and mini-cables system integration methods which involve the application of a combination of certain deployment methods known as in-sewer, pipe jacking and cable troughing utilising micro-ducts and mini-cables and related techniques.

The size of market of optical fibers deployment industry utilising micro-ducts and mini-cables has been relatively steady during the recent years. As of the end of 2010, the market size of optical fibers deployment industry utilising micro-ducts and mini-cables in China reached RMB820.0 million, of which 55% accounted for telecommunication operators, and accounted for 1.3% of the entire optical fibers deployment market.

#### II. Our market share and competition

Considering the size of our business regarding the provision of the deployment services of optical fibers and the scale of the deployment industry of optical fibers, we believe that our market share is minimal to the aforesaid industry as at the Latest Practicable Date.

In relation to deployment services by traditional deployment methods, we primarily compete with all companies which are engaged in the provision of the deployment services, such as China Communications Services Corporation Limited (中國通信服務股份有限公司) which provides integrated support services in the field of information technologies including but not limited to telecommunications infrastructure services ranging from design, construction and project supervision and management.

As at the Latest Practicable Date, there is no significant entrance barrier for new comers to enter into the optical fiber deployment industry. However, our Directors believe that new comers who provide deployment services of optical fibers by traditional deployment methods have to tackle certain difficulties including but not limited to (i) the qualifications required under relevant PRC laws and regulations to conduct the business; (ii) the operational and management experience in the industry; (iii) the standard of technology; (iv) the ability to maintain sufficient working capital; and (v) the ability to manage the construction works, while new comers who provide deployment services of optical fibers by micro-ducts and mini-cables system integration methods have to tackle further difficulties such as (i) obtaining rights to use public sewer systems; (ii) infringement of intellectual properties rights of others; and (iii) technology and technique required.

With nearly no significant entrance barrier, we may be in competition with new comers, which may include manufacturers which manufacture micro-ducts and/or products similar to micro-ducts or otherwise.

## **INDUSTRY OVERVIEW**

### III. Market trend

### • Major challenges to the market

Currently, three major telecommunication operators have experienced our micro-ducts and mini-cables system integration methods on trial basis. Given that the deployment services of optical fibers by using the micro-ducts and mini-cables system integration methods are mainly rendered for the major telecommunication operators in the PRC, the development of such market is principally subject to the attitude and demand of the telecommunication operators in the PRC and the growth of the deployment market of optical fibers in the PRC.

#### • Future opportunities

According to the Ministry of Housing and Urban-Rural Development of the PRC (中華人民共和國住房和城鄉建設部), the level of urbanisation in China, which is expressed in the ratio of municipal population to total population in China, is expected to exceed 50% at the end of 2015 resulting in greater opportunities for the growth of deployment market of optical fibers in China. The following diagram set forth the estimate or forecast of the income generated from deployment market of optical fibers in China from 2011 to 2013:





Sources: CCID Consulting

# **INDUSTRY OVERVIEW**

#### LOW-VOLTAGE EQUIPMENT INTEGRATION SERVICES

#### I. Market overview

#### • Composition of the applications of the low-voltage equipment integration

Low-voltage equipment integration principally refers to communication automation, building automation, office automation, fire automation and security automation. The application of the low-voltage equipment integration is focused primarily on several industries, such as construction industry, transportation industry and financial industry. The following diagram set forth the composition of the applications of the low-voltage equipment integration in 2010:

#### Composition of the applications of the low-voltage equipment integration in 2010



Source: CCID Consulting

Note: Others principally comprise the application of the low-voltage equipment integration on petroleum industry and electricity and water conservancy industries

## **INDUSTRY OVERVIEW**

#### • Growth of the domestic market

In 2011, while the global economy was affected by a series of uncertainties including the European debt crisis, the overall economy still maintained a positive development momentum, especially the pace of global economic recovery was driven by the steady growth of economies such as China. With the continuous increase in construction investments, the market demand for low-voltage equipment integration services further increased accordingly.

The market of low-voltage equipment integration services grows gradually under the continuous increase in construction investment in the PRC which drives the demand of modernisation of functions for intelligent buildings.

During the years from 2007 to 2011, the income generated from the low-voltage equipment integration services market grew with the compound annual growth rate of approximately 24.5% and reached to approximately RMB69.5 billion in 2011. The following diagram set forth the income generated from the low-voltage equipment integration industry in China from 2007 to 2011:



# The income generated from the low-voltage equipment integration industry in China between 2007 and 2011

Source: CCID Consulting

## **INDUSTRY OVERVIEW**

#### II. Our market share in Hebei Province and competition

Considering the size of our business regarding the provision of the low-voltage equipment integration services and the scale of the low-voltage equipment integration industry in Hebei Province, we believe that our market share is minimal to the aforesaid industry in Hebei Province as at the Latest Practicable Date.

We basically compete with numerous local enterprises, including but not limited to Tsinghua Tongfang Co., Ltd, Tellhow Sci-tech Co., Ltd and CSCEC Electronic Engineering Co., Ltd, which possess the relevant qualifications in the low-voltage equipment integration industry. As at the Latest Practicable Date, there is no significant entry barrier for new comers to enter into the low-voltage equipment integration industry. However, our Directors believe that new comers have to tackle certain difficulties including but not limited to (i) the qualifications required under relevant PRC laws and regulations to conduct the business; (ii) the operational and management experience in the industry; (iii) the standard of technology; and (iv) ability to maintain sufficient working capital.

Our Directors intend to maintain our Group's competitive edge through adopting the business strategies set out in the section headed "Business objective and future plans" in this document.

#### III. Market trend

#### • Major challenges to the market

As for the future competition, given that the low-voltage equipment integration market is situated at a growing stage, the concentration and the competition of the market will be gradually increased. New entrants will be demanded for high capital strength and technological capability requirements. In the foreseeable future, local enterprises with stronger capital strength and technological capabilities are expected to be able to survive and increase its market share in the industry.

## • Future opportunities

The 12th Five-Year Plan for Construction Industry (建築業發展「十二五」規劃) issued by Ministry of Housing and Urban-Rural Development (中華人民共和國住房和城鄉建設部) has focused on the development of high and new technologies and the PRC Government has formulated relevant development planning on intelligent buildings. This national policy is expected to drive ample business opportunities for low-voltage equipment integration companies in the PRC.

# **INDUSTRY OVERVIEW**

In the coming two to three years, with the rapid development in the construction, transportation and financial industries in China, the market for low-voltage equipment integration is expected to grow in 2011 and 2012. It is anticipated that it will reach to approximately RMB69.5 billion in 2011 and RMB87.9 billion in 2012. The following diagram set forth the forecast of the income generated from low-voltage system integration market in China from 2011 to 2012:

# The forecast of the income generated from low-voltage equipment integration market in China from 2011 to 2012



Source: CCID Consulting