

LG Display Co., Ltd.  
Form 6-K  
August 14, 2013  
Table of Contents

# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER

PURSUANT TO RULE 13a-16 OR 15d-16

UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of August 2013

## LG Display Co., Ltd.

(Translation of Registrant's name into English)

LG Twin Towers, 128 Yeoui-daero, Yeongdeungpo-gu, Seoul 150-721, Republic of Korea

(Address of principal executive offices)

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F       Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submission to furnish a report or other document that the registration foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's home country), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes       No

**Table of Contents**

**SEMIANNUAL REPORT**

(From January 1, 2013 to June 30, 2013)

THIS IS A TRANSLATION OF THE SEMIANNUAL REPORT ORIGINALLY PREPARED IN KOREAN AND IS IN SUCH FORM AS REQUIRED BY THE KOREAN FINANCIAL SUPERVISORY COMMISSION.

IN THE TRANSLATION PROCESS, SOME PARTS OF THE REPORT WERE REFORMATTED, REARRANGED OR SUMMARIZED AND CERTAIN NUMBERS WERE ROUNDED FOR THE CONVENIENCE OF READERS. REFERENCES TO Q1 , Q2 AND Q3 OF A FISCAL YEAR ARE REFERENCES TO THE THREE-MONTH PERIODS ENDED MARCH 31, JUNE 30 AND SEPTEMBER 30, RESPECTIVELY, OF SUCH FISCAL YEAR. REFERENCES TO H1 OF A FISCAL YEAR ARE REFERENCES TO THE SIX-MONTH PERIOD ENDED JUNE 30 OF SUCH FISCAL YEAR.

UNLESS EXPRESSLY STATED OTHERWISE, ALL INFORMATION CONTAINED HEREIN IS PRESENTED ON A CONSOLIDATED BASIS IN ACCORDANCE WITH KOREAN INTERNATIONAL FINANCIAL REPORTING STANDARDS, OR K-IFRS, WHICH DIFFER IN CERTAIN RESPECTS FROM GENERALLY ACCEPTED ACCOUNTING PRINCIPLES IN CERTAIN OTHER COUNTRIES, INCLUDING THE UNITED STATES. K-IFRS ALSO DIFFERS IN CERTAIN RESPECTS FROM THE INTERNATIONAL FINANCIAL REPORTING STANDARDS AS ISSUED BY THE INTERNATIONAL ACCOUNTING STANDARDS BOARD. WE HAVE MADE NO ATTEMPT TO IDENTIFY OR QUANTIFY THE IMPACT OF THESE DIFFERENCES IN THIS DOCUMENT.

**Contents**

1.	<u>Company</u>	4
	A. <u>Name and contact information</u>	4
	B. <u>Domestic credit rating</u>	4
	C. <u>Capitalization</u>	5
	D. <u>Voting rights</u>	6
	E. <u>Dividends</u>	6
2.	<u>Business</u>	7
	A. <u>Business overview</u>	7
	B. <u>Industry</u>	7
	C. <u>New businesses</u>	9
3.	<u>Major Products and Raw Materials</u>	11
	A. <u>Major products</u>	11
	B. <u>Average selling price trend of major products</u>	11
	C. <u>Major raw materials</u>	11
4.	<u>Production and Equipment</u>	12
	A. <u>Production capacity and output</u>	12
	B. <u>Production performance and utilization ratio</u>	12
	C. <u>Investment plan</u>	13
5.	<u>Sales</u>	13
	A. <u>Sales performance</u>	13
	B. <u>Sales route and sales method</u>	13
6.	<u>Market Risks and Risk Management</u>	14
	A. <u>Market risks</u>	14
	B. <u>Risk management</u>	14
7.	<u>Derivative Contracts</u>	14
	A. <u>Currency risks</u>	14
	B. <u>Interest rate risks</u>	15



**Table of Contents**

8.	<u>Major Contracts</u>	15
9.	<u>Research &amp; Development</u>	16
	A. <u>Summary of R&amp;D-related expenditures</u>	16
	B. <u>R&amp;D achievements</u>	16
10.	<u>Intellectual Property</u>	22
11.	<u>Environmental Matters</u>	22
12.	<u>Financial Information</u>	25
	A. <u>Financial highlights (Based on consolidated K-IFRS)</u>	25
	B. <u>Financial highlights (Based on separate K-IFRS)</u>	27
	C. <u>Consolidated subsidiaries</u>	29
	D. <u>Status of equity investment</u>	30
13.	<u>Audit Information</u>	31
	A. <u>Audit service</u>	31
	B. <u>Non-audit service</u>	31
14.	<u>Board of Directors</u>	31
	A. <u>Members of the board of directors</u>	31
	B. <u>Committees of the board of directors</u>	32
	C. <u>Independence of directors</u>	32
15.	<u>Information Regarding Shares</u>	33
	A. <u>Total number of shares</u>	33
	B. <u>Shareholder list</u>	33
16.	<u>Directors and Employees</u>	33
	A. <u>Directors</u>	33
	B. <u>Employees</u>	34

Attachment: 1. Financial Statements in accordance with K-IFRS

**Table of Contents**

**1. Company**

A. Name and contact information

The name of our company is EL-GI DISPLAY CHUSIK HOESA, which shall be LG Display Co., Ltd. in English.

Our principal executive office is located at LG Twin Towers, 128 Yeoui-daero, Yeongdeungpo-gu, Seoul 150-721, Republic of Korea, and our telephone number is +82-2-3777-1010. Our website address is <http://www.lgdisplay.com>.

B. Domestic credit rating

Subject instruments	Month of rating	Credit rating	Rating agency (Rating range)
Commercial Paper	January 2006		NICE Information Service Co., Ltd.
	June 2006		
	December 2006	A1	
	June 2007		
			(A1 ~ D)
Paper	December 2007		Korea Investors Service, Inc.
	September 2008		
	December 2008		
	June 2006		
			Korea Investors Service, Inc.
		A1	
	December 2007		(A1 ~ D)
	September 2008		
Corporate	June 2006	AA-	NICE Information Service Co., Ltd.
	December 2006		
	June 2007	A+	
	September 2008		
Debenture	July 2009		NICE Information Service Co., Ltd.
	October 2009		
	February 2010		
	May 2010		
	December 2010	AA-	
	August 2011		(AAA ~ D)
	June 2012		
	October 2012		
	March 2013		

**Table of Contents**

June 2013		
June 2006	AA-	
January 2007		
June 2007	A+	
September 2008		
July 2009		
December 2009		Korea Investors Service, Inc.
February 2010		
May 2010		(AAA ~ D)
August 2010		
February 2011	AA-	
April 2011		
August 2011		
October 2011		
June 2012		
October 2012		
June 2013		
October 2009		
December 2009		
August 2010		
December 2010		
February 2011	AA-	Korea Ratings Corporation
April 2011		(AAA ~ D)
July 2011		
October 2011		
June 2012		
March 2013		
June 2013		

C. Capitalization

(1) Change in capital stock (as of June 30, 2013)

(Unit: Won, Share)

Date	Description	Change in number of common shares	Face amount per share
July 23, 2004	Offering <sup>(1)</sup>	33,600,000	5,000
September 8, 2004	Follow-on offering <sup>(2)</sup>	1,715,700	5,000
July 27, 2005	Follow-on offering <sup>(3)</sup>	32,500,000	5,000

(1) ADSs offering: 24,960,000 shares (US\$30 per share, US\$15 per ADS) / Initial public offering in Korea: 8,640,000 shares ( 34,500 per share)

(2) ADSs offering: 1,715,700 shares ( 34,500 per share) pursuant to the exercise of greenshoe option by the underwriters

(3) ADSs offering: 32,500,000 shares (US\$42.64 per share, US\$21.32 per ADS)

**Table of Contents**

(2) Convertible bonds  
Not applicable.

## D. Voting rights (as of June 30, 2013)

(Unit: share)

Description		Number of shares
A. Total number of shares issued:	Common shares	357,815,700
	Preferred shares	
B. Shares without voting rights:	Common shares	
	Preferred shares	
C. Shares subject to restrictions on voting rights pursuant to our articles of incorporation:	Common shares	
	Preferred shares	
D. Shares subject to restrictions on voting rights pursuant to regulations:	Common shares	
	Preferred shares	
E. Shares with restored voting rights:	Common shares	
	Preferred shares	
Total number of issued shares with voting rights (=A - B - C - D + E):	Common shares	357,815,700
	Preferred shares	

## E. Dividends

Dividends for the three most recent fiscal years

Description (unit)	2012	2011	2010
Par value (Won)	5,000	5,000	5,000
Profit (loss) for the period (million Won) <sup>(1)</sup>	28,549	(991,032)	1,002,648
Earnings per share (Won) <sup>(2)</sup>	80	(2,770)	2,802
Total cash dividend amount for the period (million Won)			178,908
Total stock dividend amount for the period (million Won)			
Cash dividend payout ratio (%)			17.8
Cash dividend yield (%) <sup>(3)</sup>			1.3
Stock dividend yield (%)			
Cash dividend per share (Won)			500
Stock dividend per share (share)			





**Table of Contents**

- (1) Profit (loss) for the period based on separate K-IFRS.
- (2) Earnings per share is based on par value of 5,000 per share and is calculated by dividing net income by weighted average number of common stock.
- (3) Cash dividend yield is the percentage that is derived by dividing cash dividend by the arithmetic average of the daily closing prices of our common stock during the one-week period ending two trading days prior to the closing of the register of shareholders for the purpose of determining the shareholders entitled to receive annual dividends.

**2. Business****A. Business overview**

We were incorporated in February 1985 under the laws of the Republic of Korea. LG Electronics and LG Semicon transferred their respective LCD business to us in 1998, and since then, our business has been focused on the research, development, manufacture and sale of display panels, applying technologies such as TFT-LCD, LTPS-LCD and OLED.

As of June 30, 2013, we operated TFT-LCD and OLED production facilities and a LCD research center in Paju, Korea and TFT-LCD production facilities in Gumi, Korea. We have also established subsidiaries in the Americas, Europe and Asia.

As of June 30, 2013, our business consisted of the manufacture and sale of LCD and OLED panels and monitor products. Because our non-LCD business represented an extremely small portion of our assets and revenues as of and for the six months ended June 30, 2013, we have included them as part of our LCD reporting business segment.

**2013 H1 consolidated operating results highlights**

(Unit: In billions of Won)

2013 H1	LCD business
Sales Revenue	13,375
Gross Profit	1,669
Operating Profit (Loss)	517

**B. Industry****(1) Industry characteristics and growth potential**

TFT-LCD technology is one of the widely used technologies in the manufacture of flat panel displays, and the demand for flat panel displays is growing. The flat panel display industry is characterized by entry barriers due to rapidly evolving technology, capital-intensive characteristics, and the significant investments required to achieve economies of scale, among other factors. There is intense competition among the players in the industry, and the industry as a whole has experienced continued growth in its production capacity in response to growth in demand for flat panel displays.

The demand for LCD panels for notebook computers and monitors has stagnated due to market maturation. The demand for LCD panels for television sets has been growing as digital broadcasting is becoming more common and as LCD television has come to play an important role in the digital display market. In addition, the demand for LCD panels for tablets, smartphones, industrial products and automobile displays, among others, has shown continued growth.

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

The average selling prices of LCD panels may continue to decline with time irrespective of general business cycles as a result of, among other factors, technology advancements and cost reductions.

**Table of Contents**

## (2) Cyclical

The TFT-LCD business is highly cyclical and sensitive to fluctuations in the general economy. While demand for products has steadily grown, the rate of such growth has decreased, and the industry experiences periodic volatility caused by imbalances between supply and demand due to capacity expansion within the industry.

Macroeconomic factors and other causes of business cycles can affect the rate of growth in demand for display panels. Accordingly, if supply exceeds demand, average selling prices of display panels may decrease. Conversely, if growth in demand outpaces growth in supply, average selling prices may increase.

## (3) Market conditions

Since 2011, due to a slowdown in growth in the TFT-LCD industry, TFT-LCD panel makers have slowed their respective rates of production capacity growth, while a number of them are pursuing other strategic alternatives such as mergers or formation of new alliances.

Most TFT-LCD panel makers are located in Asia.

a. Korea: LG Display, Samsung Display, Hydis Technologies, etc.

b. Taiwan: AU Optronics, Innolux, CPT, HannStar, etc.

c. Japan: Japan Display, Sharp, Panasonic LCD, etc.

d. China: BOE, CSOT, etc.

## (4) Market shares

Our worldwide market share of large-sized TFT-LCD panels (i.e., TFT-LCD panels that are 9 inches or larger) based on revenue is as follows:

	2013 H1 (1)	2012 (2)	2011(3)
Panels for Notebook Computers (4)	35.9%	34.5%	34.9%
Panels for Monitors	35.6%	32.3%	28.3%
Panels for Televisions (5)	25.3%	25.2%	24.7%
Total	29.1%	28.4%	27.3%

(1) Source: 2013 Q2 DisplaySearch Quarterly Large-Area TFT LCD Shipment Report.

(2) Source: 2012 Q4 DisplaySearch Quarterly Large-Area TFT LCD Shipment Report.

(3) Source: 2011 Q4 DisplaySearch Quarterly Large-Area TFT LCD Shipment Report (advanced version with LED backlight).

(4) Includes panels for netbooks and tablets.

(5) Includes panels for public displays.

(5) Competitiveness

Our ability to compete successfully depends on factors both within and outside our control, including product pricing, our relationship with customers, successful and timely investment and product development, cost competitiveness, success in marketing to our end-brand customers, component and raw material supply costs, foreign exchange rates and general economic and industry conditions.

---

**Table of Contents**

In order to compete effectively, it is critical to be cost competitive and maintain stable and long-term relationships with customers which will enable us to be profitable even in a buyer's market.

A substantial portion of our sales is attributable to a limited number of end-brand customers and their designated system integrators. The loss of these end-brand customers, as a result of customers entering into strategic supplier arrangements with our competitors or otherwise, would result in reduced sales.

Developing new products and technologies that can be differentiated from those of our competitors is critical to the success of our business. It is important that we take active measures to protect our intellectual property internationally by obtaining patents and undertaking monitoring activities in our major markets. It is also necessary to recruit and retain experienced key managerial personnel and skilled line operators.

As a leading technology innovator in the display industry, we continue to focus on delivering differentiated value to our customers by developing new technologies and products, including in the categories of three-dimensional ( 3D ), touch screens and next generation displays. With respect to 3D technology, we have commenced mass production of high definition 3D panels with reduced degrees of crosstalk, or the degree of 3D image overlapping, of less than 1% (which is less than what the human eye can perceive). We have also acquired the technical skills and have established a supply chain management system that enables us to provide one-stop solutions to our customers with respect to touch module products. In addition, we have shown that we are technologically a step ahead of the competition by developing products such as 10.1-inch flexible LCDs, 2.6 mm thin televisions (the thinnest in the world at the time) and 19-inch flexible e-papers. We are a leader in large OLED panel display technology, as demonstrated by our 55-inch OLED display panel unveiled at the Consumer Electronics Show in Las Vegas in January 2012, which was the largest OLED panel at the time.

Moreover, we entered into long-term sales contracts with major global firms to secure customers and expand partnerships for technology development.

C. New businesses

In order to meet the rapidly increasing market demand for large TFT-LCD panels, we commenced mass production at P83, an eighth generation fabrication line located in our P8 facility, and P9, a new eighth generation production facility, in March 2011 and June 2012, respectively.

We also plan to strengthen our market position in future display technologies by strengthening our OLED business, accelerating the development of flexible display technologies and maintaining our leadership position in the LED backlight LCD market.

We are making an effort to increase our competitiveness, including in the LCD component parts market, by forming cooperative relationships with suppliers and purchasers of our products. As part of this effort, in March 2005, we established a joint venture company, Paju Electric Glass Co., Ltd., with Nippon Electric Glass Co., Ltd. We invested 14.4 billion in return for a 40% interest in Paju Electric Glass Co., Ltd. In November 2010 and April 2011, we invested an additional 14.8 billion and 4.4 billion, respectively, in Paju Electric Glass Co., Ltd. but the additional investments did not change our percentage interest in Paju Electric Glass Co., Ltd.

As part of our strategy to expand our production capacity overseas, we signed an investment agreement and a joint venture agreement in November 2009 with the City of Guangzhou, China, to build an eighth-generation panel fabrication facility in China and held a groundbreaking ceremony in May 2012. In December 2012, we established a joint venture company, LG Display (China) Co., Ltd., with Guangzhou GET Technologies Development Co., Ltd. and Shenzhen SKYWORTH-RGB Electronics Co., Ltd. to

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

manufacture and sell eighth-generation panels. We made an initial investment of US\$28 million and acquired a 70% equity interest in LG Display (China) Co., Ltd. In March 2013, we made an additional investment of US\$112 million, but the additional investment did not change our percentage interest in LG Display (China) Co., Ltd.

---

**Table of Contents**

In December 2009, we acquired a 30.6% limited partnership interest in LB Gemini New Growth Fund No. 16. Under the limited partnership agreement, we agreed to invest a total amount of 30 billion in the fund, and as of December 31, 2010, we had invested 8.3 billion in the fund. By becoming a limited partner of this fund, our aim is to seek direct investment opportunities as well as to receive benefits from the investment. In February 2011, we received a distribution of 1.4 billion from the fund, and in March and April 2011, we invested an additional 1.9 billion and 3.1 billion, respectively, in the fund. In June 2011, we received a further distribution of 0.7 billion as return of principal and 0.9 billion as dividends and we invested an additional 1.2 billion in the fund. In December 2011, we invested an additional 2.0 billion in the fund. In April, July and September 2012, we received distributions of 1.0 billion, 0.8 billion and 1.8 billion from the fund, respectively. In each of September, November and December 2012, we invested an additional 1.5 billion in the fund. In March and May 2013, we received distributions of 1.1 billion and 0.3 billion from the fund, respectively, and in June 2013, we invested an additional 1.5 billion in the fund. The additional investments did not change our investment commitment amount of 30 billion or our limited partnership interest in the fund, which remained at 30.6%.

In November 2010, in order to build Backlight-Module-System (BMS) lines that would help differentiate our technical skills from those of our competitors and increase our cost competitiveness, we entered into a joint venture with Compal Electronics, Inc., a Taiwanese company, and established LUCOM Display Technology (Kunshan) Ltd. in Kunshan, China. We invested US\$2.3 million and acquired a 51% equity interest in LUCOM Display Technology (Kunshan) Ltd. In February and April 2011, we invested an additional US\$3.1 million and US\$2.3 million, respectively, in LUCOM Display Technology (Kunshan) Ltd., but the additional investments did not change our percentage interest in LUCOM Display Technology (Kunshan) Ltd.

In April 2011, in order to enhance the product quality and assist the local development of coaters, a component used in our TFT-LCD products, we invested 20 billion and acquired a 16.6% interest in Narae Nanotech Corporation, a Korean equipment manufacturer. In June 2011, we invested an additional 10.0 billion and acquired a further 7.7% interest in Narae Nanotech Corporation. As of June 30, 2013, we held a 23% equity interest in Narae Nanotech Corporation.

In November 2011, in order to improve our cost competitiveness with respect to the glass substrate etching stage of our TFT-LCD panel manufacturing process, we invested 10.6 billion and acquired a 20.3% interest in Avatec Co., Ltd., a third party glass substrate etching processor. Avatec Co., Ltd. increased its paid-in capital in October 2012 and January 2013. We did not subscribe to additional equity on those occasions and, as a result, our equity interest in Avatec Co., Ltd. was diluted to 16.3% after the January 2013 paid-in capital increase.

In December 2011, in order to expand our module production capacity, we established LG Display U.S.A. Inc. in Texas, United States, and LG Display Reynosa S.A. de C.V. in Reynosa, Mexico. We invested in the form of paid-in capital 12.4 billion and 92 million in LG Display U.S.A. Inc. and LG Display Reynosa S.A. de C.V., respectively. We currently own a 100% interest in LG Display U.S.A. Inc. and a 1% interest in LG Display Reynosa S.A. de C.V. LG Display U.S.A. Inc. owns the remaining 99% interest in LG Display Reynosa S.A. de C.V.

In April 2012, in order to improve our cost competitiveness with respect to tempered glass used for touch screens, we invested 2.0 billion and acquired a 19.8% interest in Glonix Co., Ltd.



**Table of Contents****3. Major Products and Raw Materials****A. Major products**

We manufacture TFT-LCD panels, of which a significant majority is exported overseas.

(Unit: In billions of Won, except percentages)

Business area	Sales Type	Items (Market)	Usage	Major trademark	Sales in 2013 H1 (%)
TFT-LCD	Product/Service/Other Sales	TFT-LCD (Overseas <sup>(1)</sup> )	Panels for notebook computers, monitors, televisions, smartphones, tablets, etc.	LG Display	11,978 (89.6%)
		TFT-LCD (Korea <sup>(1)</sup> )	Panels for notebook computers, monitors, televisions, smartphones, tablets, etc.	LG Display	1,397 (10.4%)
Total					13,375 (100.0%)

Period: January 1, 2013 ~ June 30, 2013.

(1) Based on ship-to-party.

**B. Average selling price trend of major products**

The average selling price of LCD panels per square meter of net display area shipped in the second quarter of 2013 decreased by approximately 15% from the first quarter of 2013, largely as a result of a decrease in the proportion of small- to medium-sized products in our product mix due to a decrease in seasonal demand. There is no assurance that the average selling prices of LCD panels will not fluctuate in the future due to imbalances in supply and demand.

(Unit: US\$ / m<sup>2</sup>)

Description	2013 Q2	2013 Q1	2012 Q4	2012 Q3
TFT-LCD panel <sup>(1)(2)</sup>	657	770	802	733

(1) Quarterly average selling price per square meter of net display area shipped.

(2) Excludes semi-finished products in the cell process.

**C. Major raw materials**

Prices of major raw materials depend on fluctuations in supply and demand in the market as well as on change in size and quantity of raw materials due to the increased production of large-sized panels.

(Unit: In billions of Won, except percentages)

Business	Items	Usage	Cost <sup>(1)</sup>	Suppliers
----------	-------	-------	---------------------	-----------

Edgar Filing: LG Display Co., Ltd. - Form 6-K

Area	Purchase type			Ratio (%)		
					Samsung Corning Precision	
TFT-LCD	Raw Materials	Glass	LCD panel	1,163	15.2%	Glass Co., Ltd., Nippon Electric Glass Co., Ltd., etc.
		Backlight	manufacturing	2,169	28.3%	Heesung Electronics Ltd., etc.
		Polarizer		1,217	15.9%	LG Chem, etc.
		Others		3,107	40.6%	-
Total			7,656	100.0%	-	

**Table of Contents**

Period: January 1, 2013 ~ June 30, 2013.

- (1) Based on total cost for purchase of raw materials which includes manufacturing and development costs, etc.

**4. Production and Equipment****A. Production capacity and output****(1) Production capacity**

The table below sets forth the production capacity of our Gumi and Paju facilities in the periods indicated.

(Unit: 1,000 Glass sheets)

Business area	Items	Location of facilities	2013 H1 <sup>(1)</sup>	2012 <sup>(2)</sup>	2011 <sup>(2)</sup>
TFT-LCD	TFT-LCD	Gumi, Paju	4,191	9,195	8,376

- (1) Calculated based on the maximum monthly input capacity (based on glass input substrate size for eighth generation glass sheets) during the period multiplied by the number of months in the period (i.e., 6 months).  
(2) Calculated based on the maximum monthly input capacity (based on glass input substrate size for eighth generation glass sheets) during the year multiplied by the number of months in a year (i.e., 12 months).

**(2) Production output**

The table below sets forth the production output of our Gumi and Paju facilities in the periods indicated.

(Unit: 1,000 Glass sheets)

Business area	Items	Location of facilities	2013 H1	2012	2011
TFT-LCD	TFT-LCD	Gumi, Paju	3,824	7,853	6,850

Based on glass input substrate size for eighth generation glass sheets.

**B. Production performance and utilization ratio**

(Unit: Hours, except percentages)

Production facilities	Available working hours in 2013 H1	Actual working hours in 2013 H1	Average utilization ratio
Gumi	4,344 <sup>(1)</sup>	4,240 <sup>(1)</sup>	97.6%

Edgar Filing: LG Display Co., Ltd. - Form 6-K

Paju	(181 days) <sup>(2)</sup> 4,344 <sup>(1)</sup>	(177 days) <sup>(2)</sup> 4,344 <sup>(1)</sup>	
	(181 days) <sup>(2)</sup>	(181 days) <sup>(2)</sup>	100.0%

- (1) Based on the assumption that all 24 hours in a day have been fully utilized.
- (2) Number of days is calculated by averaging the number of working days for each facility.

**Table of Contents**

C. Investment plan

In 2013, we expect that our capital expenditures on a cash out basis will be approximately 4 trillion or, on a delivery basis, between approximately 3 trillion and 3.5 trillion, primarily to fund the expansion of our OLED and LTPS-based panel production capacities, as well as other expansions and improvements to our existing facilities. Such amount is subject to change depending on business conditions and market environment.

**5. Sales**

A. Sales performance

(Unit: In billions of Won)

Business area	Sales types	Items (Market)	2013 H1	2012	2011
TFT-LCD	Products, etc.	Overseas <sup>(1)</sup>	11,978	27,280	22,328
		Korea <sup>(1)</sup>	1,397	2,150	1,963
		Total	13,375	29,430	24,291

(1) Based on ship-to-party.

B. Sales route and sales method

(1) Sales organization

As of June 30, 2013, each of our Television Business Unit and IT/Mobile Business Unit had individual sales and customer support functions.

Sales subsidiaries in the United States, Germany, Japan, Taiwan, China and Singapore perform sales activities and provide local technical support to customers.

(2) Sales route

Sales of our products take place through one of the following two routes:

LG Display HQ and overseas manufacturing subsidiaries g Overseas sales subsidiaries (USA/Germany/Japan/Taiwan/China/Singapore), etc. g System integrators and end-brand customers g End users

LG Display HQ and overseas manufacturing subsidiaries g System integrators and end-brand customers g End users

(3) Sales methods and sales terms

Direct sales and sales through overseas subsidiaries, etc. Sales terms are subject to change depending on the fluctuation in the supply and demand of LCD panels.

(4) Sales strategy

As part of our sales strategy, we have secured stable sales to major personal computer makers and leading consumer electronics makers globally, strengthened sales of high-resolution, IPS, narrow bezel and other high-end display panels in the tablet, notebook computer and monitor markets, led the television market with our differentiated television panels and increased the proportion of sales of our premium television panels, such as our ultra-high definition ( Ultra HD ) and large OLED television panels, in our product mix.

In the smartphone, industrial products (including aviation and medical equipment) and automobile displays segment, we have continued to build a strong and diversified business portfolio by expanding our business with customers with a global reach on the strength of our high-end products applying IPS technology.

## **Table of Contents**

### (5) Purchase orders

Customers generally place purchase orders with us one month prior to delivery. Our customary practice for procuring orders from our customers and delivering our products to such customers is as follows:

Receive order from customer (overseas sales subsidiaries, etc.) g Headquarter is notified g Manufacture product g Ship product (overseas sales subsidiaries, etc.) g Sell product (overseas sales subsidiaries, etc.)

## **6. Market Risks and Risk Management**

### A. Market risks

Our industry continues to experience continued declines in the average selling prices of display panels irrespective of cyclical fluctuations in the industry, and our margins would be adversely impacted if prices decrease faster than we are able to reduce our costs.

The TFT-LCD industry is highly competitive. We have experienced pressure on the prices and margins of our major products due largely to additional industry capacity from panel makers in Korea, Taiwan, China and Japan. Our main competitors in the industry include Samsung Display, Hydis Technologies, AU Optronics, Innolux, CPT, HannStar, Japan Display, Sharp, Panasonic LCD, BOE and CSOT.

Our ability to compete successfully depends on factors both within and outside our control, including product pricing, performance and reliability, successful and timely investment and product development, success or failure of our end-brand customers in marketing their brands and products, component and raw material supply costs, and general economic and industry conditions. We cannot provide assurance that we will be able to compete successfully with our competitors on these fronts and, as a result, we may be unable to sustain our current market position.

Our results of operations are subject to exchange rate fluctuations. To the extent that we incur costs in one currency and generate sales in a different currency, our profit margins may be affected by changes in the exchange rates between the two currencies. Our sales of display panels are denominated mainly in U.S. dollars, whereas our purchases of raw materials are denominated mainly in U.S. dollars and Japanese Yen. Our risk management policy regarding foreign currency risk is to minimize the impact of foreign currency fluctuations on our foreign currency denominated assets and liabilities.

### B. Risk management

The average selling prices of display panels have declined in general and could continue to decline with time irrespective of industry-wide cyclical fluctuations. Certain contributing factors for this decline will be beyond our ability to control and manage. However, in anticipation of such price decline we have continued to develop new technologies and have implemented various cost reduction measures. In addition, in order to manage our risk against foreign currency fluctuations, we may from time to time enter into cross-currency interest rate swap contracts and foreign currency forward contracts.

## **7. Derivative Contracts**

### A. Currency risks

We are exposed to currency risks on sales, purchases and borrowings that are denominated in currencies other than in Won, our functional currency. These currencies are primarily the U.S. dollar, the Japanese Yen and the Euro.





**Table of Contents**

We generally use forward exchange contracts with a maturity of less than one year to hedge against currency risks.

Interest on borrowings is denominated in the currency of the borrowing. Generally, borrowings are denominated in currencies that match the cash flows generated by our underlying operations, primarily in Won and the U.S. dollar.

In respect of other monetary assets and liabilities denominated in foreign currencies, we ensure that our net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates, when necessary, to address short-term imbalances. In addition, we also adjust the factoring volumes of foreign currency denominated receivables and utilize usances as means of settling accounts payable relating to capital expenditures for our facilities, in response to currency fluctuations.

B. Interest rate risks

Our exposure to interest rate risks relates primarily to our long term debt obligations. As of June 30, 2013, we had no interest swap contracts outstanding.

**8. Major contracts**

Our material contracts, other than contracts entered into in the ordinary course of business, are set forth below:

Type of agreement	Name of party	Term	Content
Technology licensing agreement	Semiconductor Energy Laboratory	October 2005 ~	Patent licensing of LCD and OLED related technology
	Ferguson Patent Properties	October 2007 ~	Patent licensing of LCD driving technology
Technology licensing/supply agreement	Hewlett-Packard	January 2011 ~	Patent licensing of semi-conductor device technology
	Chunghwa Picture Tubes	November 2007 ~	Patent cross-licensing of LCD technology
	HannStar Display Corporation	November 2009 ~	Patent cross-licensing of LCD technology
	AU Optronics Corporation	August 2011~	Patent cross-licensing of LCD technology
	Innolux Corporation	July 2012 ~	Patent cross-licensing of LCD technology, etc.

**Table of Contents****9. Research & Development**

## A. Summary of R&amp;D-related expenditures

(Unit: In millions of Won, except percentages)

Items		2013 H1	2012	2011
Material Cost		265,045	494,422	550,200
Labor Cost		260,147	412,805	365,375
Depreciation Expense		169,975	259,467	217,874
Others		124,188	206,093	180,582
Total R&D-Related Expenditures		819,355	1,372,787	1,314,031
Accounting Treatment	Selling & Administrative Expenses	174,144	301,239	248,328
	Manufacturing Cost	589,155	873,323	942,015
	Development Cost (Intangible Assets)	56,056	198,225	123,688
R&D-Related Expenditures / Revenue Ratio				
(Total R&D-Related Expenditures ÷ Revenue for the period × 100)		6.2%	4.7%	5.4%

## B. R&amp;D achievements

*Achievements in 2011*

## 1) Introduction of glass-free mobile 3D product (4.3-inch WVGA)

Development and preparation for mass production of our first glass-free 3D product (utilizing barrier cell)

## 2) Introduction of the world's first 12.5-inch AH-IPS notebook product

Development of the world's first 12.5-inch notebook utilizing AH-IPS technology

Achievement of a maximum circuit logic power of 1.0W

Development of a slim and light AH-IPS model (development of a model that utilizes IPS and flat PCB)

## 3) Introduction of an integrated 14.0-inch touch panel notebook product

Development of a 14.0-inch touch panel notebook product as part of our plan to develop and expand our integrated touch panel products portfolio

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

- 4) Introduction of our 15.6-inch dream color IPS notebook product

Development of a notebook utilizing H-IPS technology

Realization of a 100% color reproduction rate by applying RGB LED technology

Realization of 1.073G color by applying 10-bit color depth technology

- 5) Development and mass production of 9.7-inch LCD panels for tablets

Application of AH-IPS and slim LCD technology

Decreased thickness by 20% and weight by 7% compared to LCD panel for conventional tablets

- 6) Development of the world's first 3D FPR 23-inch full high-definition ( FHD ) TN monitor product

Minimization of flicker / crosstalk by applying FPR technology

Minimization of cost increase by applying one layer 3D film

Realization of high luminance 3D images (two times the luminance compared to images from monitors utilizing shutter glass technology)

**Table of Contents**

- 7) Introduction of our first 50-inch Cinema TV product

Application of 21:9 screen display ratio (2560 x 1080 resolution)

Application of 960ch + EPI source driver integrated circuits ( D-IC ) for optimal high-resolution

Application of scanning technology under the Horizontal 2Edge structure

- 8) Development of the world's first 3D FPR 23-inch IPS FHD monitor product

Minimization of flicker / crosstalk by applying FPR technology

Minimization of cost increase by applying one layer 3D film

Realization of high luminance 3D images (two times the luminance compared to images from monitors utilizing shutter glass technology)

- 9) Development and introduction of the world's first 15.6-inch HD FPR 3D notebook product

Realization of the world's first 15.6-inch HD FPR 3D product

Realization of high luminance 3D images (two times the luminance compared to images from notebooks utilizing shutter glass technology)

Minimization of cost increase by applying one layer 3D film

- 10) Development and introduction of the world's first 17.3-inch Dream Color AH-IPS notebook product

Development of the world's first 17.3-inch notebook computer applying AH-IPS

Realization of Dream Color (100% color reproduction rate) by applying RGB LED

Realization of 1.073G color by applying Color Depth 10-bit technology

Realization of 89 degrees viewing angle (up/down/left/right) by applying IPS technology

- 11) Development and introduction of a 15.6-inch HD product with the world's lowest (at the time) power consumption from logic circuit (0.5W).

Application of DRD Z-inversion, HVDD and low voltage process

Application of high intensity LED (2.3cd) and Vcut light guide plate

Increase in battery life due to logic circuit power consumption reduction

- 12) Development of the world's smallest (at the time) Narrow Bezel Notebook Model

The first in the world to apply 4.5 mm narrow bezel

Formation of camera hole by B/M mask patterning

- 13) Development of a new 10.1-inch WX smartbook LCD

Development of the our first 10.1-inch WXGA LCD following in the footsteps of our 9.7-inch XGA model

Realization of reduced power consumption, high permeability and increased viewing angle by application of IPS technology.

- 14) Development of a 42-inch FHD product applying COT technology

Simplifying panel production process by applying COT (Color Filter on TFT) technology

Luminance increased by 10%

- 15) Development of 42-inch, 47-inch and 55-inch direct slim LCD TV

Development of the world's first direct-mounted 11.0 mm depth ultra-slim liquid crystal display module ( LCM ) model

Application of 96 block local dimming and M240Hz technology

**Table of Contents**

- 16) Development of a 47-inch super narrow public display panel

Development of our first super narrow bezel (seam 6.9 mm) product for application in public display panels

- 17) Introduction of the world's first 15.6-inch FHD AH-IPS notebook product

Development of the world's first 15.6-inch FHD model applying AH-IPS technology

Development of slim & light AH-IPS model (thickness: 3.4 mm; weight: 330g)

Achieving the following viewing angles by applying IPS technology; 178° from top to bottom; 178° from left to right

- 18) Development of a 15.6-inch FHD notebook applying a new backlight arrangement

Optimization of light placement by application of New Concept LED Backlight

Reduction in the number of LED integrated circuits (78ea g 10ea) by application of mid-power LED

Reduced energy consumption pursuant to a reduction in the number of LED integrated circuits (7.4W g 5.9W)

- 19) Development of the world's first 215/25/27 FHD TN and 215 FHD IPS 3D monitor

Minimization of flicker/crosstalk by application of FPR technology

Minimization of cost increase by applying one-layered 3D film

Realization of high luminance 3D images (two times the luminance compared to images from monitors utilizing shutter glass technology)

- 20) Development of a 4.5-inch true HD AH-IPS display smartphone product

For 4G LTE smartphones (introduced in September 2011)

Application of true HD720 resolution and AH-IPS technology

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

- 21) Development of the world's first 14.0-inch HD 3D FPR notebook product

Realization of the world's first 14.0-inch 3D FPR display

Realization of high luminance 3D images (two times the luminance compared to images from notebook panels utilizing shutter glass technology)

- 22) Development of the world's first AH-IPS GIP / DRD column inversion technology

Development of AH-IPS GIP / DRD by application of shrink GIP technology

Realization of TN-equivalent panel size through reduced panel load

Achieved TN-equivalent logic energy consumption levels

*Achievements in 2012*

- 1) Introduction of the world's first 13.3-inch high definition plus ( HD+ ) AH-IPS notebook product

Development of the world's first 13.3-inch HD+ model applying AH-IPS technology

- 2) Development and introduction of a 14.0-inch HD product with the world's lowest (at the time) rate of logic circuit energy consumption (0.4W)

Application of DRD Z-inversion, HVDD and low voltage process

Application of high intensity LED (2.3cd) and Vcut light guiding plate

Increase in battery life due to reduced logic circuit energy consumption

**Table of Contents**

- 3) Introduction of a 14.0-inch HD+ notebook product with a high color reproduction rate

Development of a 14.0-inch HD+ 72% color reproduction rate model

Development of a slim model applying 0.3 mm glass etching

- 4) Introduction of a 15.6-inch FHD glasses-free 3D notebook product

Development of the first notebook product applying switchable barrier type 3D technology that does not require the use of glasses

- 5) Development of the world's first 23-inch FHD monitor product applying AH-IPS 4Mask technology

Increased display panel luminance by application of AH-IPS technology (20% more luminance compared to display panels applying conventional IPS technology)

Simplified panel production process by application of AH-IPS 4Mask technology

30% reduction in energy consumption resulting from increased efficiency of LED and circuit components

Increased productivity in the manufacture of circuit and mechanical components resulting from increased standardization

- 6) Development of TN monitor products (20-inch HD+, 21.5-inch FHD and 23-inch FHD) applying new LED

20% reduction in energy consumption resulting from increased efficiency of LED and circuit components (based on 23W power consumption models)

Increased productivity in the manufacture of circuit and mechanical components resulting from increased standardization

- 7) Development of products with new edge backlight unit (32-inch, 37-inch and 42-inch FHD)

Vertical 2Bar LED backlight unit g Vertical 1Bar LED backlight unit

Reduced energy consumption by 25% resulting from a reduction in the number of LED integrated (based on 32-inch display panel)

- 8) Development of 42-inch FHD product with new direct backlight unit



Development of LED Lens through the improvement of LED Beam spread angle ( 72ea based on 42-inch display panel)

Same thickness as conventional edge LED lighting lamp (35.5 mm)

- 9) Development of products with the world's narrowest bezels of 3.5 mm (47-inch and 55-inch FHD)

Narrow set design possible using 3.5 mm bezel

- 10) Development of the world's first panel products without borders on three sides (32-inch, 42-inch, 47-inch and 55-inch FHD)

Made possible by removing the forward-facing case top, resulting in zero bezel on three sides

- 11) Development of monitor products without borders on three sides (21.5-inch, 23-inch and 27-inch FHD)

Made possible by removing the forward-facing case top, resulting in zero bezel on three sides, and application of double-sided adhesive to secure the position of the panel and backlight

Used double guide panels to reduce light leakage issues in IPS panels

- 12) Development of 12.5-inch HD AH-IPS slim and light notebook display panels

Achieved thickness of 2.85t

Reduced the number of LEDs required by using high intensity LEDs (2.5cd)

**Table of Contents**

- 13) The world's first GF2 Touch Tablet Product Development (10.1WXGA LCM + Touch)

Touch Concept: GF2, Touch IC In-House

Reduced cost by applying TMIC

Reduced power consumption by applying 6 in 1 (Buck version) PMIC

Reduced cost and power consumption by applying AH-IPS + DRD-Z

Reduced cost by applying Taper LGP

- 14) Development of Automotive 9.2WV product that applies wide temperature AH5-IPS technology

For use in Center Information Displays and Rear Seat Entertainment Displays mounted on K9 model Kia cars

Wide temperature materials/components used and AH5-IPS technology applied

- 15) Application and introduction of the world's first large multi-model on a glass (MMG) type product (60-inch FHD and 32-inch HD)

Increased glass efficiency by successfully applying large MMG technology for the first time in the industry

Developed three sided and six sided chamfers for eighth generation 60-inch FHD panels and 32-inch HD panels, respectively

- 16) Development of the world's first 84-inch Ultra HD display panel product

a-Si based 1G 1D Ultra HD panel with steady charging

Developed extra-large edge LED with rigid heat resistant structure

- 17) Development of 2000 nit bright public display panel for outdoor use (47-inch FHD)

Use of optimal-temperature panel prevents any blackening effect when exposed to direct sunlight

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

Use of quarter-wave plate (applying FPR technology) allows viewers wearing polarized sunglasses to view the public display panel with ease

Applied heat resistant structure without heat sink

Improved bright room contrast ratio by applying Shine Out ARC POL technology

- 18) Development of seam (AtA) 5.6 mm super-narrow bezel ( SNB ) public display panel (55-inch FHD)

Bezel thickness minimized (2.9 mm for pad, 1.6 mm for non-pad)

Developed SNB structure technology

- 19) Development of 47-inch and 55-inch display panel products applying vertical 1Bar structure

Our first 47-inch and 55-inch display panel products applying vertical 1Bar LED backlight units

Reduced number of LEDs needed, resulting in reduced energy consumption (for example, energy consumption for the 47-inch display panel was reduced from 65.5W to 55.8W)

- 20) Development of the world's first 29-inch 21:9 ratio three-side borderless monitor product

Made possible by removing the forward-facing case top, resulting in zero bezel on three sides

Double-sided adhesive used to secure the position of the panel and backlight

Double guide panels used to resolve light leakage issues in IPS panels

**Table of Contents**

- 21) Development of the world's first 12.9-inch high-resolution slim AH-IPS display panel

Ultra-high resolution WQSXGA+ (239 PPI)

Achieved 400 nit brightness by improving panel luminance and applying high intensity LED PKG and new 1Bar structure

Developed 2.95 mm slim model through glass etching and application of rigid PCB

- 22) Development of the world's first ultra-slim all-in-one product applying G2 Touch technology (4.67WXGA, LGE Optimus G)

320 PPI high resolution AH-IPS display panel

Ultra-slim LCM by applying G2 Touch and OCR Direct Bonding technologies

- 23) Development of the world's first TV product applying DRD technology (32-inch, 37-inch HD)

Simplified circuit structure for HD TV by applying DRD technology (source D-IC reduced from 4ea g 2ea)

- 24) Development of customer co-designed TV (32-inch to 55-inch FHD)

Co-designed TV model that integrates LCM and the front cover in a single body

Differentiated set bezel design

- 25) Development of the world's first borderless TV product with 7.8 mm bezel (47-inch FHD)

Borderless on the top and left/right sides with a borderless like bottom design

- 26) Development of the world's largest, at the time, 55-inch FHD OLED TV product

Utilizes WRGB OLED technology with a thickness of 4.45 mm

- 27) Development of the first touch notebook product with direct bonding of touch screen module ( TSM ) (12.5-inch FHD)

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

Applied direct bonding between LCM and TSM to reduce thickness (4.8 mm)

Direct bonding multi-sourcing in response to customer demand

- 28) Development of 23.8-inch desktop monitor product

Developed new display panel size for desktop monitor products

Narrower bezels (8 mm for the top and left/right sides) compared to conventional bezels

- 29) Development of the world's first clear borderless (borderless on all four sides) monitor product (27-inch FHD)

Applied Narrow Bezel Vertical LED Structure technology by changing the LED backlight structure

Developed even black matrix structure on all four sides

### *Achievements in 2013*

- 1) Developed 19.5-inch desktop monitor product

Developed new display panel size for desktop monitor products

Increased yield of glass panel area per glass substrate by cutting glass substrates at 19.5 inches

- 2) Developed 11.6-inch Tab Book product applying GF2 touch technology

Applied GF2 direct bonding process

**Table of Contents**

- 3) Developed 5.0-inch and 5.5-inch high resolution (over 400 PPI) smartphone products applying AH-IPS technology

Luminance increased by 10% compared to conventional panels (5.0-inch FHD panel has 403 PPI and 5.5-inch FHD panel has 440 PPI)

Developed new source D-IC to drive 4 lanes of MIPI with speeds of up to 1 Gbps per lane

- 4) Developed the world's first 60-inch three-side borderless product

Made possible by removing the forward-facing case top, resulting in zero bezel on three sides with a borderless like bottom design

- 5) Developed the world's first 47-inch and 55-inch FHD TV product with 2.3 mm narrow bezels

Achieved optimal slim design by minimizing bezel width to 2.3 mm

- 6) Developed 55-inch and 65-inch Ultra HD products with narrow bezels

Ultra HD (55-inch model has 80 PPI and 65-inch model has 68 PPI)

Achieved high transmittance panel by applying 1 Gate 1 Data structure

Achieved narrow bezels (55-inch model has 6.9 mm and 65-inch has 7.5 mm) by optimizing panel and mechanical design

- 7) Developed 42-inch, 47-inch and 55-inch FHD three-side borderless products with direct backlight units

Borderless design made possible by removing the forward-facing case top, resulting in zero bezel on three sides

- 8) Developed 5-inch HD smartphone product utilizing oxide cell technology

Reduced energy consumption and achieved narrower bezels by using indium gallium zinc oxide (IGZO) cell technology (energy consumption reduced by 26.7% and bezel size reduced by 23.0% compared to products utilizing conventional silicon (a-Si) cell technology)

- 9) Developed FHD a-Si AH-IPS technology for use in smartphone products (more than 400 PPI)

## Edgar Filing: LG Display Co., Ltd. - Form 6-K

Improved structure and technology compared to conventional FHD panels (luminance increased by 30%, achieved 443 PPI in 5.0-inch FHD panel)

Developed new D-IC and IC bonding materials and processes

- 10) Developed new line of 19.5-inch HD+ monitor products with IPS technology

Developed new line of display panels for desktop monitor products

Increased yield of glass panel area per glass substrate by cutting glass substrates at 19.5 inches

### **10. Intellectual Property**

As of June 30, 2013, our cumulative patent portfolio (including patents that have already expired) included a total of 21,686 patents, consisting of 10,257 in Korea and 11,429 in other countries.

### **11. Environmental Matters**

We are subject to a variety of environmental regulations and we may be subject to fines or restrictions that could cause our operations to be interrupted. Our manufacturing processes generate worksite waste, including water and air pollutants, at various stages in the manufacturing process, and we are subject to a variety of laws and regulations relating to the use, storage, discharge and disposal of such chemical by-products and waste substances. We have installed various types of anti-pollution equipment, consistent with environmental standards, for the treatment of chemical waste and equipment for the recycling of treated waste water at our various facilities. However, we cannot provide assurance that environmental claims will not be brought against us or that the local or national governments will not take steps toward adopting more stringent environmental standards. Any failure on our part to comply with any present or future environmental regulations could result in the assessment of damages or imposition of fines against us, suspension of production or a cessation of operations. In addition, environmental regulations could require us to acquire costly equipment or to incur other significant compliance expenses that may materially and negatively affect our financial condition and results of operations.

**Table of Contents**

We have also voluntarily agreed to reduce emission of greenhouse gases, such as trifluoride oxide and perfluoro compounds, or PFCs, including sulfur hexafluoride, or SF6, gases, by installing abatement systems to meet voluntary emissions targets for the TFT-LCD industry for 2010. As part of our voluntary activities to reduce emission of greenhouse gases, we installed trifluoride oxide abatement systems at all of our production lines.

We also installed an SF6 abatement system in P1 in April 2005, and have taken steps to install additional SF6 abatement systems through the use of Clean Development Mechanism, or CDM, projects. We manage our CDM projects jointly with LG International Corp. On July 10, 2010, after becoming the first TFT-LCD company to receive the UNFCCC CDM Executive Board's approval of our CDM project, we installed an SF6 abatement system in P6. We received a total of 343,971 tonnes of CO<sub>2</sub> equivalent of certified emission reduction credits, or CERs, from the UN for the reduction of greenhouse gas emissions in P6 during the period from August 1, 2010 to December 31, 2010, all of which was sold in December 2011. We also received a total of 579,583 tonnes of CO<sub>2</sub> equivalent of CERs for the reduction of greenhouse gas emissions in P6 during the period from January 1, 2011 to January 31, 2012. In August 2011, we commenced the installation of an SF6 abatement system in P7 through the implementation of CDM projects which became operational in February 2012. We received a total of 222,270 tonnes of CO<sub>2</sub> equivalent of CERs from the UN for the reduction of greenhouse gas emissions in P6 and P7 during the period from February 1, 2012 to March 31, 2012. We intend to ask a third party accreditation agency to examine the reduction of our greenhouse gas emissions since April 1, 2012 as part of our application for receiving CERs from the UN.

In 2010, we were designated by the Korean government as one of the companies subject to greenhouse gas emission and energy consumption targets under the Framework Act on Low Carbon, Green Growth. As a result, we may need to invest in additional equipment and there may be other costs associated with meeting reduction targets, which may have a negative effect on our profitability or production activities. In addition, if we fail to meet a reduction target and are unable to comply with the government's subsequent enforcement notice relating to such failure, we may be subject to fines.

In connection with the greenhouse gas emission and energy reduction target system, we submitted a statement of our domestic emissions and energy usage for the year 2012 to the Korean government (i.e., the Ministry of Environment and the Ministry of Trade, Industry & Energy) in March 2013 after it was certified by the Korean Foundation for Quality, a government-designated certification agency.

The table below sets forth yearly levels of our greenhouse gases emissions and energy usage in the statement submitted to the Korean government:

(Unit: thousand tonnes of CO<sub>2</sub> equivalent; Tetra Joules)

Category	2012	2011	2010
Greenhouse gases	6,161	5,928	5,576
Energy	61,169	53,223	45,841

In addition, in order to improve the efficiency and reliability of measuring our greenhouse gas emission reduction activities, we have implemented improvements to our Plant Energy & Environment System (our electronic greenhouse gas inventory system) in 2012.

Operations at our manufacturing plants are subject to regulation and periodic monitoring by the Korean Ministry of Environment and local environmental protection authorities. We believe that we have adopted adequate anti-pollution measures and have minimized our impact on the environment by improving existing and developing new technologies for the effective maintenance of environmental protection standards consistent with local industry practice. In addition, we have continually monitored, and we believe that we are in compliance in all material respects with, the applicable environmental laws and regulations in Korea. Expenditures related to such compliance may be substantial. Such expenditures are generally included in capital expenditures. As required by Korean law, we employ licensed environmental specialists for each environmental area, including air quality, water quality, toxic materials and radiation. We currently have ISO 14001 certifications with respect to the environmental record for P1 through P98, our OLED production facility in Gumi, Korea, our Gumi module production plant and our Paju module production plant, as well as our module production plants in Nanjing and Guangzhou, China.



**Table of Contents**

In addition, with respect to P1 through P98 and our module production plants in Gumi and Paju, we have established and are currently operating a new green management system, which was certified by BSI Group Korea in November 2011. Furthermore, we have been certified by the Korean Ministry of Environment as a Green Company, with respect to our environmental record for P1 and our module production plant in Gumi since 1997, with respect to our operations at P2 and P3 since 2006, and with respect to our operations at P4, P5 and P6 since 2008. Also, we received certification to self-inspect designated waste products with respect to our Paju plant by the Ministry of Environment in 2011, which was recertified in 2013. In addition, in recognition of our efforts to reduce greenhouse gas emissions, we were awarded a commendation from the Minister of Environment in the efforts against climate change category in the 2013 Green Management Awards, which was jointly hosted by the Ministry of Environment and the Ministry of Trade, Industry and Energy.

We also have an internal monitoring system to control the use of hazardous substances in the manufacture of our products as we are committed to compliance with all applicable environmental laws and regulations, including European Union Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU, and restricts the use of certain hazardous substances in the manufacture of electrical and electronic equipment.

In addition, as part of our commitment to purchase environment-friendly raw materials, we have implemented a green purchasing system that prevents the introduction of hazardous materials at the purchasing stage. The green purchasing system has been a key component in our efforts to comply with RoHS and other applicable environmental laws and regulation.

In October 2005, we became the first TFT-LCD company to receive accreditation as an International Accredited Testing Laboratory by the Korea Laboratory Accreditation Scheme, which is operated by the Korean Ministry of Knowledge Economy. In September 2006, we received international accreditation from TUV SUD, EU's German accreditation agency, as a RoHS testing laboratory. Our efforts to keep pace with the increasingly stringent accreditation standards and to receive and maintain such accreditations are part of our on-going efforts to systematically monitor environmentally controlled substances in our component parts inventory. Moreover, we participated in reforming IEC 62321, an international testing standard published by the International Electrotechnical Commission and used by RoHS, and the commission adopted our halogen-free combustion ion chromatography method in as IEC 62321-3-2, which was published in June 2013.

**Table of Contents****12. Financial Information**

## A. Financial highlights (Based on consolidated K-IFRS)

(Unit: In millions of Won)

Description	As of June 30, 2013	As of December 31, 2012	As of December 31, 2011	As of December 31, 2010	As of December 31, 2009 <sup>(1)</sup>
Current assets	8,329,787	8,914,685	7,858,065	8,840,433	8,226,142
Quick assets	5,934,128	6,524,678	5,540,695	6,625,216	6,558,362
Inventories	2,395,659	2,390,007	2,317,370		