

The following table sets forth, for the periods and dates indicated, certain information concerning the Noon Buying Rate in Won per US\$1.00.

Year Ended December 31,	At End			
	of			
	Period	Average(1)	High	Low
		(Won per US\$1.00)		
2015	1,169.3	1,133.7	1,196.4	1,063.0
2016	1,203.7	1,160.5	1,242.6	1,090.0
2017	1,067.4	1,141.6	1,207.2	1,067.4
2018	1,112.9	1,099.3	1,141.7	1,054.6
2019	1,155.5	1,165.8	1,220.7	1,111.8
October	1,169.1	1,183.4	1,205.5	1,163.0
November	1,181.3	1,167.3	1,181.3	1,154.4
December	1,155.5	1,174.7	1,194.5	1,155.5
2020 (through April 17)	1,217.8	1,198.9	1,267.3	1,156.3
January	1,191.3	1,167.5	1,192.0	1,156.3
February	1,214.9	1,195.3	1,218.5	1,179.0
March	1,218.9	1,218.2	1,267.3	1,181.1
April (through April 17)	1,217.8	1,222.5	1,230.6	1,211.7

Source: Federal Reserve Board

Note:

(1) The average rates for annual and interim periods were calculated by taking the simple average of the Noon Buying Rates on the last day of each month during the relevant period. The average rates for the monthly periods (or a portion thereof) were calculated by taking the simple average of the daily Noon Buying Rates during the relevant month (or a portion thereof).

Item 3.B. Capitalization and Indebtedness

Not Applicable

Item 3.C. Reasons for the Offer and Use of Proceeds

Not Applicable

Item 3.D. Risk Factors

Our business and operations are subject to various risks, many of which are beyond our control. If any of the risks described below actually occurs, our business, financial condition or results of operations could be seriously harmed.

Risks Relating to KEPCO

Increases in fuel prices will adversely affect our results of operations and profitability as we may not be able to pass on the increased cost to customers at a sufficient level or on a timely basis.

In 2019, fuel costs constituted 31.6% of our cost of sales, and the ratio of fuel costs to our sales was 31.2%. Our generation subsidiaries purchase substantially all of the fuel that they use (except for anthracite coal) from suppliers outside Korea at prices determined in part by prevailing market prices in currencies other than Won. For example, most of the bituminous coal requirements (which accounted for approximately 51.1% of our fuel requirements in 2019 in terms of electricity output) are imported principally from Indonesia, Australia, Russia and, to a lesser extent, South Africa and others, which accounted for approximately 29%, 37%, 15%, 5% and

14%, respectively, of the annual bituminous coal requirements of our generation subsidiaries in 2019. Approximately 81% of the bituminous coal requirements of our generation subsidiaries in 2019 were purchased under long-term contracts and the remaining 19% from the spot market. Pursuant to the terms of our long-term supply contracts, prices are adjusted periodically based on prevailing market conditions. In addition, our generation subsidiaries purchase a significant portion of their fuel requirements under contracts with limited duration. See Item 4.B. “Business Overview–Fuel.”

The prices of our main fuel types, namely, bituminous coal, oil and liquefied natural gas, or LNG, fluctuate, sometimes significantly, in tandem with their international market prices. For example, the average weekly spot price of “free on board” Newcastle coal 6000 GAR published by Bloomberg (Bloomberg Ticker: COASNE60) decreased from US\$107.53 per ton in 2018 to US\$77.49 per ton in 2019 and to US\$69.48 per ton as of March 30, 2020. The prices of oil and LNG are substantially dependent on the price of crude oil, and according to Bloomberg (Bloomberg Ticker: PGC RDUBA), the average daily spot price of Dubai crude oil decreased from US\$69.30 per barrel in 2018 to US\$63.22 per barrel in 2019 and to US\$22.51 per barrel as of March 30, 2020. Furthermore, because the prices of LNG are dependent on the price of crude oil, an increase in such fuel prices can result in an increase in the prices of LNG, which, in turn, affect the cost of purchasing electricity from independent power producers. We cannot assure you that fuel prices will remain stable or will not significantly increase in the remainder of 2020 or thereafter. In addition, effective from January 1, 2020, the International Maritime Organization regulation referred to as IMO 2020 mandated, among other requirements, a reduction in the fuel sulfur content cap from 3.5% to 0.5%. While the effects of new environmental regulations, such as IMO 2020, are difficult to predict, such regulations may significantly increase the operating cost of the shipping lines, in which the increased costs are expected to pass on these additional costs onto customers like us via higher freight rates. If fuel prices increase substantially in the future within a short span of time, our generation subsidiaries may be unable to secure adequate fuel supplies at prices commercially acceptable to them. In addition, any significant interruption or delay in the supply of fuel, bituminous coal in particular, from any of their suppliers may cause our generation subsidiaries to purchase fuel on the spot market at prices higher than the prices available under existing supply contracts, which would result in an increase in fuel costs.

Because the Government regulates the rates we charge for the electricity we sell to our customers (see Item 4.B. “Business Overview–Sales and Customers–Electricity Rates”), our ability to pass on fuel and other cost increases to our customers is limited. If fuel prices increase rapidly and substantially and the Government, out of concern for inflation or for other reasons, maintains the current level of electricity tariff or does not increase it to a level to sufficiently offset the impact of high fuel prices, the fuel price increases will negatively affect our profit margins or even cause us to suffer operating and/or net losses, and our business, financial condition, results of operations and cash flows would suffer.

The Government may also set or adjust electricity tariff rates that may not be necessarily responsive to fuel price movements. For example, effective on January 1, 2017, the Government made several adjustments to the existing rate structure in order to ease the burden of electricity tariff on residential consumers. The progressive rate structure applicable to the residential sector, which applies a gradient of increasing tariff rates for heavier electricity usage, was changed from a six-tiered structure with the highest rate being no more than 11.7 times the lowest rate (which gradient system has been in place since 2005) into a three-tiered structure with the highest rate being no more than three times the lowest rate, in order to reflect the changes in the pattern of electricity consumption and reduce the electricity charges payable by consumers. Additionally, a new tariff structure was implemented to encourage energy saving by offering rate discounts to residential consumers that voluntarily reduce electricity consumption while charging special high rates to residential consumers with heavy electricity consumption during peak usage periods in the summer and the winter. Further, during July and August 2018, the Government reduced residential electricity charges by temporarily relaxing the application of the current tariff structure and offering higher rate discounts to economically or otherwise disadvantaged customers to ease the burden on households that have significantly increased their use of air conditioners during a heatwave. Subsequently, a joint task force team, consisting of industry experts, scholars and government officials, was formed, which announced a proposal for amending the current tariff structure aimed to lower electricity

rates for households during the summer. As a result, in July 2019, the residential electricity tariff rate system was amended to expand the usage ceiling for the first two tiers of rates (from 200 kilowatts to 300 kilowatts for the first tier and from 400 kilowatts to 450 kilowatts for the second tier) applied during July and August each year. Although the rate discounts offered to residential consumers who voluntarily reduced electricity consumption and those offered to traditional wet markets were abolished the rate discount for electric vehicles will be gradually terminated in phases by June 2022, there can be no assurance that other potential future adjustments in electricity tariff rates and rate discount will not have an adverse impact on our business, results of operations, financial condition and profitability.

In addition, partly because the Government may have to undergo a lengthy deliberation process to approve an increase in electricity tariff, which represents a key component of the consumer price index, the electricity tariff may not be adjusted to a level sufficient to ensure a fair rate of return to us in a timely manner or at all, and we cannot assure that any future tariff increase by the Government will be sufficient to fully offset the adverse impact on our results of operations from current or potential rises in fuel costs. For example, the net losses between 2018 and first half of 2019, were largely due to sustained rises in fuel costs that were neither timely nor sufficiently offset by a corresponding rise in electricity tariff rates. If fuel costs increase and the Government maintains the current level of electricity tariff and does not increase it to a level to sufficiently offset the impact of rising fuel costs, our operating results, profit margins, business, financial condition and cash flows may be adversely affected. On the other hand, if fuel prices decrease, the public may demand a corresponding decrease in electricity tariff rates, and as a result the Government may decrease electricity tariff rates; however, we cannot assure you that the resulting tariff rate reduction will not be excessive and thus have a detrimental effect on our profit margins, results of operations or cash flows or that, if the fuel prices were to rise again subsequent to the tariff reduction, the tariff rates would be further adjusted upwards in a timely manner, in sufficient amounts or at all so as to fully offset the adverse impact from the increase in fuel prices.

We plan to prepare a proposition for a sustainable tariff system designed to mitigate the financial burden on us. Though the timeline is subject to change, we are tentatively aiming to prepare the proposition by the first half of 2020, which will include (1) a reasonable adjustment of the rate discount applicable to the residential customers with low electricity usage and (2) an introduction of the tariff system to the residential sector where the rates change depending on the demand in a given season or time (namely, the "time-of-use tariff"). However, it is difficult to predict when and whether the Government will increase tariff rates, and, if the adjustment occurs, by how much and which classes of customers will be affected, as various factors are considered in making such adjustments, including operating costs for supplying electricity, fuel prices, foreign exchange rates, the effect of electricity tariff on inflation, efficiency of national energy consumption and consumer welfare.

The Government may adopt policy measures to substantially restructure the Korean electric power industry or our operational structure, which may have a material adverse effect on our business, operations and profitability.

From time to time, the Government considers various policy initiatives to foster efficiency in the Korean electric power industry, and at times have adopted policy measures that have substantially modified our business and operations. For example, in January 1999, with the aim of introducing greater competition in the Korean electric power industry and thereby improving its efficiency, the Government announced a restructuring plan for the Korean electric power industry, or the Restructuring Plan. For a detailed description of the Restructuring Plan, see Item 4.B. "Business Overview—Restructuring of the Electric Power Industry in Korea." As part of this initiative, in April 2001 the Government established the Korea Power Exchange to enable the sale and purchase of electricity through a competitive bidding process, established the Korea Electricity Commission to ensure fair competition in the Korean electric power industry, and, in order to promote competition in electricity generation, split off our electricity generation business to form one nuclear generation company and five non-nuclear generation companies, in each case, to be wholly owned by us. In 2002, the Government introduced a plan to privatize one of our five non-nuclear generation subsidiaries, but this plan was suspended indefinitely in 2004 due to prevailing market conditions and other policy considerations.

In August 2010, the Ministry of Trade, Industry and Energy announced the Proposal for the Improvement in the Structure of the Electric Power Industry, which was designed to promote responsible management by and improve operational efficiency of government-affiliated electricity companies by fostering competition among them. Pursuant to this proposal, while our six generation subsidiaries continued to be our wholly-owned subsidiaries, in January 2011 the six generation subsidiaries were officially designated as “market-oriented public enterprises” (same as us) under the Act on the Management of Public Institutions, whereupon the President of Korea appoints the president and the standing director who is to become a member of the audit committee of each such subsidiary; the selection of non-standing directors of each such subsidiary is subject to approval by the minister of the Ministry of Economy and Finance; the president of each such subsidiary is required to enter into a management contract directly with the minister of the Ministry of Trade, Industry and Energy; and the Public Agencies Operating Committee (which is comprised largely of Government officials and those recommended by Government officials) conducts performance evaluation of such subsidiaries. Previously, our president appointed the president and the statutory auditor of each such subsidiary; the selection of non-standing directors of each such subsidiary was subject to approval by our president; the president of each such subsidiary entered into a management contract with our president; and our evaluation committee conducted performance evaluation of such subsidiaries. As a result of these changes, our six generation subsidiaries took on additional operational responsibilities and management autonomy with respect to construction and management of generation units and procurement of fuel, while we as the parent company continued to oversee and coordinate, among others, finances, corporate governance, overseas businesses, including nuclear export technology and overseas resource development, that jointly affect us and our generation subsidiaries. See also Item 16G. “Corporate Governance—The Act on the Management of Public Institutions—Applications of the Act on Our Generation Subsidiaries,”

In June 2016, the Government announced the Proposal for Adjustment of Functions of Public Institutions (Energy Sector) for the purpose of streamlining the operations of government-affiliated energy companies by discouraging them from engaging in overlapping or similar businesses with each other, reducing non-core assets and activities and improving management and operational efficiency. The initiatives contemplated in this proposal that would affect us and our generation subsidiaries include the following: (i) the generation companies should take on greater responsibilities in overseas resource exploration and production projects as these involve procurement of fuels necessary for electricity generation while fostering cooperation among each other through closer coordination, (ii) KHNP should take a greater role in export of nuclear technology, and (iii) the current system of retail sale of electricity to end-users should be liberalized to encourage more competition. In accordance therewith, we transferred a substantial portion of our assets and liabilities in our overseas resource business to our generation subsidiaries as of December 31, 2016. In addition, pursuant to this Proposal, we considered a sale in the public market of a minority of our shares in our five non-nuclear generation subsidiaries, KEPCO KDN and KHNP. However, the planned sales have been put on hold, primarily due to prevailing market conditions. In any event, we plan to maintain a controlling stake in each of these subsidiaries.

Other than as set forth above, we are not aware of any specific plans by the Government to resume the implementation of the Restructuring Plan or otherwise change the current structure of the electric power industry or the operations of us or our generation subsidiaries materially in the near future. However, for reasons relating to changes in policy considerations, socio-political, economic and market conditions and/or other factors, the Government may resume the implementation of the Restructuring Plan or initiate other steps that may change the structure of the Korean electric power industry or the operations of us or our generation subsidiaries materially. Any such measures may have a negative effect on our business, results of operations and financial condition. In addition, the Government, which beneficially owns a majority of our shares and exercises significant control over our business and operations, may from time to time pursue policy initiatives that could directly or indirectly impact our business and operations, and such initiatives may vary from the interest and objectives of our other shareholders.

Our capacity expansion plans, which are principally based on projections on long-term supply and demand of electricity in Korea, may prove to be inadequate.

We and our generation subsidiaries make plans for expanding or upgrading our generation capacity and transmission infrastructure based on the Basic Plan Relating to the Long-Term Supply and Demand of Electricity, or the Basic Plan, which is generally revised and announced every two years by the Government. In December 2017, the Government announced the Eighth Basic Plan to revise the Seventh Basic Plan, for the former to be effective for the period from 2017 to 2031. The Eighth Basic Plan focuses on, among other things, (i) decreasing the reliance on nuclear and coal-based supply sources, (ii) increasing utilization of renewable energy sources and (iii) balancing the existing cost-based pool system of purchase of electricity with an environmentally-focused pool system. Furthermore, the Eighth Basic Plan includes the following implementing measures: (i) six new nuclear generation units in a planning stage would not be constructed, (ii) extension of life of 10 decrepit nuclear generation units would not be granted, (iii) Wolsong #1 unit is not counted as part of domestic energy generation capacity, (iv) seven decrepit coal-fired generation plants will be retired by 2022, (v) six other coal-fired generation plants shall be converted to LNG fuel use and (vi) domestic renewable energy generation capacity shall be expanded to 58.5 gigawatts by 2030. Currently, the Government is in the process of establishing the Ninth Basic Plan, which is expected to be released in 2020, to expand the electric power facilities based on the demand outlook from 2020 to 2034.

In June 2019, the Ministry of Trade, Industry and Energy adopted the Third Basic National Energy Plan following consultations with representatives from civic groups, the energy industry and academia. The Third Basic National Energy Plan, which is a comprehensive plan that covers the entire spectrum of energy industries in Korea, covers the period from 2019 to 2040. The Third Basic National Energy Plan is consistent with the First and the Second Basic National Energy Plans in terms of the general policy direction and aims to promote sustainable growth and improvement of people's quality of life by converting to new and renewable energy. Specifically, it establishes the following five key tasks: (i) strengthening management of energy demand from various sectors, such as commerce and transportation, and promoting a rational electricity tariff system to improve the national energy consumption efficiency by 38% and reduce the energy demand by 18.6% by 2040; (ii) converting to clean and safe energy through gradual reduction of nuclear power generation and decisive reduction of coal power generation by prohibiting construction of new coal-fired power plants and increasing the portion of renewable energy sources to approximately 35% by 2040; (iii) expanding the power distribution in areas near those with demands for renewable energy and fuel cells and strengthening the roles and responsibilities of local governments; (iv) fostering the growth of the future energy industries (including renewable energy, hydrogen fuel and other efficient sources of energy limited to technology), promoting the value-add for traditional energy industries and maintaining a core energy ecosystem for nuclear power plants; and (v) improving the energy, gas and heat market systems to facilitate the national energy conversion and building platforms based on big data to foster creation of new energy industries.

We cannot assure that the Eighth Basic Plan, the Ninth Basic Plan, the Third Basic National Energy Plan, or their respective successor plans will successfully achieve their intended goals, the foremost of which is to ensure, through carefully calibrated capacity expansion and other means, balanced overall electricity supply and demand in Korea to end users while promoting efficiency and environmental friendliness in the consumption and production of electricity. If there is significant variance between the projected electricity supply and demand considered in planning our capacity expansions and the actual electricity supply and demand, or if these plans otherwise fail to meet their intended goals or have other unintended consequences, this may result in inefficient use of our working capital, and undue financing costs on the part of us and our generation subsidiaries, among others, which may have a material adverse effect on our results of operations, financial condition and cash flows.

From time to time, we may experience temporary power shortages or circumstances bordering on power shortages due to factors beyond our control, such as extreme weather conditions. Such circumstances may lead to increased end-user complaints and greater public scrutiny, which may in turn require us to modify our capacity expansion plans, and if we were to substantially modify our capacity plans, this might result in additional capital

expenditures and, as a result, have a material adverse effect on our results of operations, financial condition and cash flows.

Although the Government makes significant efforts to encourage conservation of electricity, including through public education campaigns, there is no assurance that such efforts will have the desired effect of substantially reducing the demand for electricity or improving efficient use thereof.

We are subject to various environmental regulations and related government initiatives, including in relation to climate change, which could cause significant compliance costs and operational liabilities.

We are subject to national, local and overseas environmental laws and regulations, including increasing pressure to reduce emission of carbon dioxide from our electricity generation activities as well as our natural resource development endeavors overseas. Our operations could expose us to the risk of substantial liability relating to environmental, health and safety issues, such as those resulting from the discharge of pollutants and carbon dioxide into the environment and the handling, storage and disposal of hazardous materials. We may be responsible for the investigation and remediation of environmental conditions at current or former operational sites. We may also be subject to related liabilities (including liabilities for environmental damage, third party property damage or personal injury) resulting from lawsuits brought by governments or private litigants. In the course of our operations, hazardous wastes may be generated, disposed of or treated at third party-owned or -operated sites. If those sites become contaminated, we could also be held responsible for the cost of investigation and remediation of such sites for any related liabilities, as well as for civil or criminal fines or penalties.

We intend to fully comply with our environmental obligations. However, our environmental measures, including the use of, or replacement with, environmentally friendly but more expensive parts and equipment and budgeting capital expenditures for the installation or modification of such facilities, may result in increased operating costs and liquidity requirement. The actual cost of installation, replacement, modification and/or operation of such equipment and related liquidity requirement may depend on a variety of factors that are beyond our control. There is no assurance that we will continue to be in material compliance with legal or regulatory requirements or satisfy social norms and expectations in the future in relation to the environment, including in respect of climate change.

In recent years, partly driven by growing public awareness and sensitivity toward climate change and other environmental issues as well as in an effort to capture the economic and social potential associated with renewable energy and “new energy”-related industries (such as smart grids, energy storage systems and electrical vehicles, among others), the Government has introduced and implemented a number of new measures designed to reduce greenhouse gas emission, minimize environmental damage and spur related business opportunities. Some key examples of such Government initiatives pertinent to our and our generation subsidiaries’ operations are as follows:

- ***Greenhouse Gas Emission Trading System, Related Emission Reduction Targets and the Greenhouse Gas Reduction Roadmap.***
 - i In accordance with the Act on Allocation and Trading of Greenhouse Gas Emission Allowances, enacted in March 2013, the Government is currently in the process of implementing a greenhouse gas emission trading system under which the Government will allocate the amount of permitted greenhouse gas emission to companies by industry and a company whose business emits more carbon than the permitted amount is required to purchase the right to emit more carbon through the Korea Stock Exchange. The categories of allowances traded include the Korean Allowance Unit (KAU), which is the emissions allowance allocated to applicable companies by the Government; Korean Credit Unit (KCU), which is a tradable unit converted from external carbon offset certifications including the Korean Offset Credit; and Korean Offset Credit (KOC), which is the verified carbon offset credit obtained by companies for reducing carbon emissions through absorption or otherwise. The greenhouse gas emission trading system is expected to be

implemented in three stages. During the first phase (2015 to 2017), the Government set up and conducted a test run of the trading system to ensure its smooth operation, allocating the greenhouse gas emission allowances free of charge. In July 2018, the Government released the allocation plan for the second phase (2018 to 2020), during which 97% of the greenhouse gas emission allowances may be allocated free of charge, with 3% allocated through an auction. During the third phase (2021 to 2025), the Government plans to expand the scale of the system with aggressive greenhouse gas emission reduction targets and allocating 10% of the greenhouse gas emission allowances through an auction.

i In December 2016, the Government announced the Climate Change Response Initiatives and the 2030 National Greenhouse Gas Reduction Roadmap, which set forth the greenhouse gas emission trading system as one of the primary means to reach the emission and greenhouse gas reduction targets of the policies. The Second Climate Change Response Initiative was adopted in October 2019, which sets forth a national target of greenhouse gas level as 536 million tons in the aggregate, representing a 37% reduction from the base case projection of greenhouse gas in 2030 and a 24.4% reduction as compared to the emission amount in 2017. In the electricity conversion sector, greenhouse gas reduction of 24 million tons (with a potential additional reduction of 34 million tons) from the base case projection of greenhouse gas level in 2030 is requested by 2030, and our business is classified as part of this sector. The additional potential reduction amount will be confirmed prior to the finalization of the Government's 2020 Nationally Determined Contributions (NDCs). Adhering to such emission and greenhouse gas reduction requirement may result in significant additional compliance costs. For example, the daily market price of the KAUs traded through the Korea Exchange was Won 8,640 per ton in early 2015, and the price has increased continuously thereafter, reaching its peak price at Won 40,900 per ton on December 23, 2019. We cannot predict how the price of the KAUs will fluctuate over time, and such volatility may adversely affect our results of operation, financial condition and cash flows.

- *Regulation of Coal-Fired Generation Units.* As a measure to address the high level of particulate matter pollution, the Government temporarily suspended the operations of eight coal-fired generation units that are 30 years or older throughout the month of June 2017. Subsequently, in July 2017, two of these units were shut down completely and one unit switched fuel from coal to wood pellets. One of these units stopped its operation in January 2019 for switching fuel to wood pellets. As part of the Comprehensive Measures against Particulate Matter and the Eighth Basic Plan, announced by the Government in September 2017 and December 2017, respectively, the Government set forth the following policy directions relating to coal-fired generation units: (i) two coal-fired generation units scheduled for construction and four existing coal-fired generation units shall convert to LNG fuel use, (ii) in principle, construction of new coal-fired generation units shall not be planned, (iii) seven of the coal-fired generation units that are 30 years or older will be shut down on an accelerated schedule, (iv) beginning in 2018, coal-fired generation units that are 30 years or older shall temporarily cease operations from March through June of each year, (v) coal-fired generation units shall be put through comprehensive functional and environmental upgrades and (vi) coal-fired generation units shall be subject to emission standards that came into effect in January 2019 that are twice as more rigorous than the previous standards. In October 2018, the Government introduced a pilot regulation to lower the output of 35 coal-fired generation units to approximately 80% of their capacity that emit more than a certain amount of particulate matter. The regulation was formally implemented in January 2019, targeting 40 coal-fired power plants with high emissions of particulate matter. From March to June 2019, the scope expanded to cover 60 units in total. In addition, coal-fired generation units originally scheduled for preventive maintenance during the second half of 2019 were required to undertake such maintenance earlier in the spring of 2019. In November 2019, the Government pursued a reduction of coal-fired generation units in order to implement the Special Measures to Respond to the High Concentration Period (December to February) of Particulate Matter. During this period, 8 to 15 coal-fired generation units that require preventive maintenance or are otherwise older units were first shut down, with a maximum of 49 coal-fired generation units subject to a cap of 80% on the output within

the remaining reserve capacity range. As a result, the particulate matter emission was reduced by 2,503 tons, approximately 39% decrease compared to the same period during the previous year. We plan to continue to participate in the effort to reduce the particulate matter emissions from coal-fired generation units, not only during the winter but also during the spring. For example, in March 2020, we suspended the operations of between 21 and 28 coal power generation plants and imposed a cap of 80% on the output of up to 37 coal-fired generation units. Additionally, the Government adjusted the schedule to close down two decrepit coal-fired generation units (Boryeong #1 and #2), which will shut down around December 2020. Additionally, other coal-fired generation units, Samchunpo #1 and #2, will shut down around April 2020 and Honam #1 and #2 units by January 2021. While such measures may be subject to change, we expect to incur significant costs of complying with such measures, including in connection with more stringent particulate matter pollution regulations, retrofitting and overall replacement of environmental facilities.

- *Coal and LNG Consumption Taxes.* In January 2014, largely based on policy considerations of tax equity among different fuel types as well as environmental concerns, the Ministry of Economy and Finance announced that, effective July 1, 2014, consumption tax will apply to bituminous coal, which previously was not subject to consumption tax unlike other fuel types such as LNG or bunker oil. Pursuant to the amended Individual Consumption Tax Act effective as of April 1, 2019, which involved an increase of the unit tax rate for coal by Won 10 per kilogram across the board, the base tax rate (which is subject to certain adjustments) is Won 46 per kilogram for bituminous coal; however, due to concerns on the potential adverse effect on industrial activities, the applicable tax rate is applied differently based on the net heat generation amount. The currently applicable tax rate for bituminous coal is Won 43 per kilogram for net heat generation of less than 5,000 kilocalories, Won 46 per kilogram for net heat generation of 5,000 to 5,500 kilocalories and Won 49 per kilogram for net heat generation of 5,500 kilocalories or more. In contrast, the consumption tax and surcharge on importation of LNG decreased by Won 48 and Won 20.4 per kilogram, respectively, which came into effect in April 2019. The currently applicable consumption tax rate and surcharge on importation of LNG are Won 12 and Won 3.8 per kilogram, respectively. We expect an increase in our overall fuel costs, as bituminous coal currently represents the largest fuel type for our electricity generation, while the decrease in consumption tax and surcharge on importation of LNG will result in a decrease of our power purchase cost.
- *Renewable Portfolio Standard.* Under this program, each of our generation subsidiaries is required to generate a specified percentage of total electricity to be generated by such generation subsidiary in a given year in the form of renewable energy or, in case of a shortfall, purchase a corresponding amount of a Renewable Energy Certificate (a form of renewable energy credit) from other generation companies whose renewable energy generation surpass such percentage. The target percentage was 3.5% in 2016, 4.0% in 2017, 5.0% in 2018, 6.0% in 2019, 7.0% in 2020 and will incrementally increase to 10.0% by 2023. Fines are to be levied on any subsidiary that fails to do so in the prescribed timeline. In 2018, all six of our generation subsidiaries met the target through renewable energy generation and/or the purchase of a Renewable Energy Certificate. Compliance by our generation subsidiaries of the 2019 target is currently under evaluation, and if any generation subsidiary is found to have failed to meet the target for 2019 or for subsequent years, such generation subsidiary may become subject to fines. Additionally, as the target percentage is subject to change, changes to the target percentage may result in additional expenses for our generation subsidiaries.
- *Renewable Energy 3020 Plan.* In December 2017, the Ministry of Trade, Industry and Energy announced the Renewable Energy 3020 Plan, an initiative to increase the generation and use of renewable energy on a nationwide basis. The Government plans to increase the required percentage of total electricity to be generated from renewable energy sources from 7% in 2016 to 10.5% and 20% by 2022 and 2030, respectively. Moreover, the Government plans to increase the domestic renewable energy generation capacity to 63.8 gigawatts by 2030 through the expansion of solar and wind power generation capacities to 36.5 gigawatts and 17.7 gigawatts, respectively, by 2030.

- *New Energy Industry Fund.* In January 2016, the Ministry of Trade, Industry and Energy announced an initiative to promote the new energy industry by creating the New Energy Industry Fund, which is made up of funds sponsored by government-affiliated energy companies. We contributed Won 500 billion to the funds in 2016. The purpose of these funds is to invest in substantially all frontiers of the new energy industry, including renewable energy, energy storage systems, electric vehicles, small-sized self-sustaining electricity generation grids known as “micro-grids”, among others, as well as invest in start-up companies, ventures, small- to medium-sized enterprise and project businesses that engage in these businesses but have not previously attracted sufficient capital from the private sector.
- *Environmental and safety considerations in electricity supply and demand planning.* In March 2017, the Electric Utility Act was amended to the effect that starting in June 2017, future national planning for electricity supply and demand in Korea should consider the environmental and safety impacts of such planning. Accordingly, the costs related to environmental and safety impacts, such as the desulfurization costs, have been reflected in our variable cost of generating electricity since August 2019. In December 2019, the Regulation on the Operation of the Electricity Market was revised, under which the specific plans of the Cost Evaluation Committee (defined below) to reflect the cost of greenhouse gas emission allowances will be finalized within two years of such revision.

Complying with these Government initiatives and operating programs in furtherance thereof has involved and will likely continue to involve significant costs and resources on our part, which may adversely affect our results of operation, financial condition and cash flows. For example, we have spent approximately Won 710 billion for the greenhouse gas emission allowances in 2019, compared to Won 53 billion in 2018, and we anticipate that such cost will continue to increase in 2020 and thereafter. Further, as we are required to supply increasing amount of renewable energy, we expect that the environmental-related risks will continue to increase. We may not be able to pass on the increased cost to customers at a sufficient level or on a timely basis. Further, we and our generation subsidiaries could also become subject to substantial fines and other forms of penalties for non-compliance. There is no assurance that, particularly given the wide-ranging policy priorities for the Government, it will in fact raise the electricity tariff to a level sufficient to fully cover additional costs associated with implementing and operating these programs and otherwise complying with these programs, do so on a timely basis or at all. If the Government does not do so or provide us and our generation subsidiaries with other forms of assistance to offset the costs involved, our results of operation, financial condition and cash flows may be materially and adversely affected.

See Item 4.B. “Business Overview–Environmental Programs.”

We may require a substantial amount of additional indebtedness to refinance existing debt and for future capital expenditures.

We anticipate that a substantial amount of additional indebtedness will be required in the coming years in order to refinance existing debt, make capital expenditures for construction of generation plants and other facilities and/or make acquisitions, invest in renewable energy and the “new energy industry” projects and fund our overseas businesses. In 2017, 2018 and 2019, our capital expenditures in relation to the foregoing amounted to Won 13,711 billion, Won 13,695 billion and Won 15,795 billion, respectively, and our budgeted capital expenditures for 2020, 2021 and 2022 amount to Won 16,211 billion, Won 17,529 billion and Won 17,002 billion, respectively.

While we currently do not expect to face any material difficulties in procuring short-term borrowings to meet our liquidity and short-term capital requirements, there is no assurance that we will be able to do so. We expect that a portion of our long-term debt will need to be paid or refinanced through foreign currency-denominated borrowings and capital raising in international capital markets. Such financing may not be available on terms commercially acceptable to us or at all, especially if the global financial markets experience significant turbulence or a substantial reduction in liquidity or due to other factors beyond our control. If we are unable to

obtain financing on commercially acceptable terms on a timely basis, or at all, we may be unable to meet our funding requirements for capital expenditures or debt repayment obligations, which could have a material adverse impact on our business, results of operations and financial condition.

We and our generation subsidiaries have undertaken various programs to reduce debt and improve the overall financial health. For further information, see Item 4.B. "Business Overview—Debt Reduction Program and Related Activities." Despite our best efforts, however, for reasons beyond our control, including macroeconomic environments, government regulations and market forces (such as international market prices for our fuels), we cannot assure whether we or our generation subsidiaries will be able to successfully reduce debt burdens or otherwise improve our financial health to a level that would be optimal for our capital structure. If we or our generation subsidiaries fail to do so or the measures taken by us or our generation subsidiaries to reduce debt levels or improve financial health have unintended adverse consequences, such developments may have an adverse effect on our business, results of operations and financial condition.

The movement of Won against the U.S. dollar and other currencies may have a material adverse effect on us.

The Won has fluctuated significantly against major currencies from time to time. Even slight depreciation of Won against U.S. dollar and other foreign currencies may result in a material increase in the cost of fuel and equipment purchased by us from overseas since the prices for substantially all of the fuel materials and a significant portion of the equipment we purchase are denominated in currencies other than Won, generally in U.S. dollars. Changes in foreign exchange rates may also impact the cost of servicing our foreign currency-denominated debt. As of December 31, 2019, 17.5% of our long-term debt (including the current portion but excluding issue discounts and premium) without taking into consideration of swap transactions, was denominated in foreign currencies, principally U.S. dollars. In addition, even if we make payments in Won for certain fuel materials and equipment, some of these fuel materials may originate from other countries and their prices may be affected accordingly by the exchange rates between the Won and foreign currencies, especially the U.S. dollar. Since the substantial majority of our revenues are denominated in Won, we must generally obtain foreign currencies through foreign currency-denominated financings or from foreign currency exchange markets to make such purchases or service such debt. As a result, any significant depreciation of Won against the U.S. dollar or other major foreign currencies will have a material adverse effect on our profitability and results of operations.

We may not be successful in implementing new business strategies.

As part of our overall business strategy, we plan to (i) expand clean energy and stabilize electricity supply and demand, (ii) enhance sales profitability and competitiveness, (iii) explore convergence-based new businesses and markets, (iv) secure future strategic technologies and establish infrastructure for digital transformation, and (v) strengthen management efficiency and embody social value.

Due to their inherent uncertainties, such new and expanded strategic initiatives expose us to a number of risks and challenges, including the following:

- new and expanded business activities may require unanticipated capital expenditures and involve additional compliance requirements;
- new and expanded business activities may result in less growth or profit than we currently anticipate, and there can be no assurance that such business activities will become profitable at the level we desire or at all;
- certain of our new and expanded businesses, particularly in the areas of renewable energy, require substantial government subsidies to become profitable, and such subsidies may be substantially reduced or entirely discontinued;
- we may fail to identify and enter into new business opportunities in a timely fashion, putting us at a disadvantage vis-à-vis competitors, particularly in overseas markets; and
- we may need to hire or retrain personnel to supervise and conduct the relevant business activities.

As part of our business strategy, we may also seek, evaluate or engage in potential acquisitions, joint ventures, strategic alliances, restructurings, combinations, rationalizations, divestments or other similar

opportunities. The prospects of these initiatives are uncertain, and there can be no assurance that we will be able to successfully implement or grow new ventures, and these ventures may prove more difficult or costly than what we originally anticipated. In addition, we regularly review the profitability and growth potential of our existing and new businesses. As a result of such review, we may decide to exit from or to reduce the resources that we allocate to new or existing ventures in the future. There is a risk that these ventures may not achieve profitability or operational efficiencies to the extent originally anticipated, and we may fail to recover investments or expenditures that we have already made. Any of the foregoing may have a material adverse effect on our reputation, business, results of operations, financial condition and cash flows.

We plan to pursue overseas expansion opportunities that may subject us to different or greater risks than those associated with our domestic operations.

While our operations have, to-date, been primarily based in Korea, we and our generation subsidiaries may expand, on a selective and opportunistic basis, overseas operations in the future. In particular, we and our generation subsidiaries may further expand our project portfolio to include the construction and operation of conventional thermal generation units, nuclear generation units and renewable energy power plants, transmission and distribution and (primarily through our generation subsidiaries) mining and development of fuel sources.

Overseas operations often involve risks that are different from those we face in our domestic operations, including the following:

- challenges of complying with multiple foreign laws and regulatory requirements, including tax laws and laws regulating our operations and investments;
- volatility of overseas economic conditions, including fluctuations in foreign currency exchange rates;
- difficulties in enforcing creditors' rights in foreign jurisdictions;
- risk of expropriation and exercise of sovereign immunity where the counterparty is a foreign government;
- difficulties in establishing, staffing and managing foreign operations;
- differing labor regulations;
- political and economic instability, natural calamities, war and terrorism;
- lack of familiarity with local markets and competitive conditions;
- changes in applicable laws and regulations in Korea that affect foreign operations; and
- obstacles to the repatriation of earnings and cash.

Any failure by us to recognize or respond to these differences may adversely affect the success of our operations in those markets, which in turn could materially and adversely affect our business and results of operations.

Furthermore, while we seek to enter into overseas business opportunities in a prudent manner, some of our new international business ventures carry inherent risks that are different from our traditional business of electricity power generation, transmission and distribution. While the overseas businesses in the aggregate currently do not comprise a material portion of our overall business, as we are relatively inexperienced in these new types of overseas businesses, the actual revenues and profitability from, and investments and expenditures into, such ventures may be substantially different from what we plan or anticipate and may have a material adverse impact on our overall business, results of operations, financial condition and cash flows.

An increase in electricity generated by and/or sourced from independent power producers may erode our market position and hurt our business, growth prospects, revenues and profitability.

As of December 31, 2019, we and our generation subsidiaries owned approximately 66.8% of the total electricity generation capacity in Korea (excluding plants generating electricity for private or emergency use). New entrants to the electricity business will erode our market share and create significant competition, which could have a material adverse impact on our financial condition and results of operations.

In particular, we compete with independent power producers with respect to electricity generation. The independent power producers accounted for 27.3% of total power generation in 2019 and 33.2% of total generation capacity as of December 31, 2019. As of December 31, 2019, there were 20 independent power producers in Korea, excluding renewable energy producers. Private enterprises became permitted to own and operate coal-fired power plants in Korea only after the Ministry of Trade, Industry and Energy approved plans for independent power producers to construct coal-fired power plants under the Sixth Basic Plan announced in February 2013. Under the Eighth Basic Plan announced in December 2017, (i) six coal-fired units under construction with aggregate generation capacity of 6,260 megawatts are scheduled to be completed between 2021 and 2022, and (ii) two coal-fired units scheduled for construction shall be converted to LNG fuel use. Currently there are no additional plans for construction of coal-fired power plants by independent power producers beyond 2024, as the construction schedule of such generation units is being adjusted. While it remains to be seen whether construction of these generation units will be completed as scheduled, if these units were to be completed as scheduled and/or independent power producers are permitted to build additional generation capacity (whether coal-fired or not), our market share in Korea may decrease, which may have a material adverse effect on our results of operations and financial condition.

In addition, under the Community Energy System adopted by the Government in 2004, a minimal amount of electricity is supplied directly to consumers on a localized basis by independent power producers outside the cost-based pool system. Such system is used by our generation subsidiaries and most independent power producers to distribute electricity nationwide. The purpose of this system is to geographically decentralize electricity supply and thereby reduce transmission losses and improve the efficiency of energy use. These entities do not supply electricity on a national level but are licensed to supply electricity on a limited basis to their respective districts under the Community Energy System. As of March 31, 2020, the aggregate generation capacity of suppliers participating in the Community Energy System amounted to less than 1% of that of our generation subsidiaries in the aggregate. We currently do not expect the Community Energy System to be widely adopted, especially in light of the significant level of capital expenditure required for such direct supply. However, if the Community Energy System is widely adopted, it may erode our currently dominant market position in the generation and distribution of electricity in Korea and may have a material adverse effect on our business, results of operations and financial condition.

While we are currently the dominant market player in the electricity distribution in Korea, we cannot assure you that our market dominance will not face potential erosion in the future. For example, in June 2016, the Government announced the Proposal for Adjustment of Functions of Public Institutions (Energy Sector), which contemplated a gradual opening of the electricity trading market to the private sector. Although the proposal was withdrawn after a year of deliberation, a number of economists and civic groups are continuing to demand for the liberalization of the electricity trading market. It is difficult to predict whether and in what direction the liberalization of the electricity trading market will happen in the future, and such event may result in substantial reduction of our market share in electricity distribution in Korea, which would have a material adverse effect on our business, results of operation and cash flows.

See also Item 4.B. "Business Overview—Competition."

Labor unrest or increases in labor cost may adversely affect our operations.

We and each of our generation subsidiaries have separate labor unions. As of December 31, 2019, approximately 72.9% of our and our generation subsidiaries' employees in the aggregate were members of these labor unions. Since a six-week labor strike in 2002 by union members of our generation subsidiaries in response to a proposed privatization of one of our generation subsidiaries, there has been no material labor dispute. However, we cannot assure you that there will not be a major labor strike or other material disruptions of operations by the labor unions of us and our generation subsidiaries if the Government resumes privatization or other restructuring initiatives or for other reasons, which may adversely affect our business and results of operations.

Furthermore, the Government, as part of a response to low fertility amidst an aging population in Korea and to make the lives of workers more stable, has pledged to reduce the number of non-permanent workers and increase the employment of permanent workers, in part by transitioning from non-permanent to permanent positions in the public sector. In accordance with guidelines announced by the Government in July 2017, we have completed transitioning temporary workers to permanent positions as of December 31, 2018. In addition, we have finalized the measure with the subcontracted workers who provide meter-reading facility management and inbound call services to convert them to permanent employees by establishing subsidiaries and hiring the subcontracted workers through such subsidiaries, as of the end of 2019. Our generation subsidiaries have partially completed transitioning of non-permanent workers to permanent positions by hiring them for an indefinite period or establishing subsidiaries and hiring them through such subsidiaries. Our thermal generation subsidiaries plan to form a labor-management consultative body to transition the in-house subcontracted workers for the fuel and environmental facilities to permanent positions. Although the Government guidelines suggest that we transition the non-permanent workers to permanent positions within our existing budget for the related business, we cannot assure you that this will not result in increased costs for us or our generation subsidiaries and have an adverse impact on us or our generation subsidiaries' financial condition and results of operations.

Additionally, domestic and international policy changes may affect our relationship with our employees, such as the Government's potential ratification of four of the eight essential conventions of International Labor Organization and potential reformation of the public employee wage structure. We cannot assure you that such policy changes will not negatively affect our relationship with our employees, which may in turn adversely affect our business and results of operations.

Operation of nuclear power generation facilities inherently involves numerous hazards and risks, any of which could result in a material loss of revenues or increased expenses.

Through KHNP, we currently operate 24 nuclear-fuel generation units. Operation of nuclear power plants is subject to certain hazards, including environmental hazards such as leaks, ruptures and discharge of toxic and radioactive substances and materials. These hazards can cause personal injuries or loss of life, severe damage to or destruction of property and natural resources, pollution or other environmental damage, clean-up responsibilities, regulatory investigation and penalties and suspension of operations. Nuclear power has a stable and relatively inexpensive cost structure (which is least costly among the fuel types used by our generation subsidiaries) and is the second largest source of Korea's electricity supply, accounting for 25.9% of electricity generated in Korea in 2019. Due to significantly lower unit fuel costs compared to those for thermal power plants, our nuclear power plants are generally operated at full capacity with only routine shutdowns for fuel replacement and maintenance, with limited exceptions.

From time to time, our nuclear generation units may experience unexpected shutdowns or maintenance-related stoppage. For example, following an earthquake in the vicinity in September 2016, four nuclear generation units at the Wolsong site were shut down for approximately three months as part of a preventive and safety assurance program although these units were not directly affected by the earthquake. Any prolonged or substantial breakdown, failure or suspension of operation of a nuclear unit could result in a material loss of revenues, an increase in fuel costs related to the use of alternative power sources, additional repair and maintenance costs, greater risk of litigation and increased social and political hostility to the use of nuclear power, any of which could have a material adverse impact on our financial condition and results of operations.

In addition, heightened concerns regarding the safety of operating nuclear generation units could impede with our ability to operating them for an extended period of time or at all. For example, the nuclear power plant at Wolsong #1 unit began operations in 1982 and ended its operations in 2012 pursuant to its 30-year operating license. In February 2015, the Nuclear Safety and Security Commission ("NSSC") evaluated the safety of operating Wolsong #1 unit and approved its extended operation until November 2022. However, a civic group filed a lawsuit to annul such decision, and in February 2017, the Seoul Administrative Court ruled against the NSSC. The NSSC appealed this decision, and the civic group filed an injunction to suspend the operation of the Wolsong #1 unit. The civic group's injunction was denied in July 2017. KHNP, which operated the unit pursuant to the NSSC's initial decision, has joined this lawsuit. On June 15, 2018, the board of directors of KHNP decided to (i) retire Wolsong #1 unit earlier than planned due to its economic inefficiency and (ii) discontinue the construction of Chunji #1 and #2 as well

as Daejin #1 and #2 units. On December 24, 2019, the NSSC approved the permanent shutdown of Wolsong #1, and the Board of Audit and Inspection of Korea is currently carrying out an investigation into whether the board of directors of KHNP has made a reasonable assessment in making the decision to shut down Wolsong #1. As of December 31, 2019, impairment loss in connection with the property, plant and equipment of Wolsong #1 unit accrued to Won 572,216 million and reversal of impairment loss was Won 16,693 million. As of December 31, 2019, impairment loss in connection with the property, plant and equipment of Chunji #1 and #2 as well as Daejin #1 and #2 units amounted to Won 38,886 million. Although the board of directors did not make any decisions regarding Shin-Hanul #3 and #4 units, which are new nuclear plants under construction, we cannot assure you that the construction of these units will not be discontinued. As of December 31, 2019, impairment loss in connection with the property, plant and equipment of Shin-Hanul #3 and #4 units accrued to Won 134,736 million. The Government currently has preliminary plans to refund us for reasonable expenditures incurred in relation to the phase-out of nuclear power plants in accordance with the Government's energy transition policy.

There are ten other nuclear generation units whose life under their initial operating license will expire in the next ten years, or by 2030, and we may find it more difficult to have the life of other nuclear units extended as well. The failure to extend the life of these units would result in a loss of revenues from such units and the increase in our overall fuel costs (as nuclear fuel is the cheapest compared to coal, LNG or oil), which could adversely affect our results of operation and financial condition. Furthermore, in September 2016, Greenpeace and 559 Korean nationals brought a lawsuit against the NSSC to revoke the permit the NSSC granted to KHNP in relation to the construction of Shin-Kori #5 and #6 nuclear generation units. The lower court ruled on this case in February 2019, both parties appealed, and the case is currently pending in the Seoul High Court. Additionally, in May 2019, a group of 729 Korean nationals brought a lawsuit against the NSSC, challenging its decision to suspend the operation of Shin-Kori #4. In July 2019, we have applied to participate in the lawsuit as a stakeholder. The case is currently pending in the Seoul High Court. We cannot assure you that there will not be new challenges to prohibit the construction of these new nuclear units in the future, whereby we may experience a loss of revenues and an increase in fuel costs (as nuclear fuel is the cheapest compared to coal, LNG or oil) as a result of such prohibition, which could adversely affect our results of operation and financial condition.

In order to prevent damages to the nuclear facilities such as a result of the tsunami and earthquake in March 2011 in Japan, KHNP prepared a comprehensive safety improvement plan including, but are not limited to, installing additional automatic shut-down systems for earthquakes, extending coastal barriers for seismic waves, procuring mobile power generators and storage batteries, installing passive hydrogen removers at nuclear facilities and improving the radiology emergency medical system. All follow-up measures will be finalized in December 2024 due to changes in the plan. KHNP also developed 10 additional supplementary safety measures by analysis of overseas plants and its current operations and implemented eight of such measures in 2017, with the two remaining measures to be implemented by 2022. However, there is no assurance that a similar or worse natural disaster may require the adoption and implementation of additional safety measures, which may be costly and have a material adverse impact on our financial condition and results of operations.

Subsequently, the Government unveiled its roadmap to shift in energy sources in October 2017 and announced the Eighth Basic Plan to implement such roadmap in December 2017. The Eighth Basic Plan focuses on, among other things, (i) decreasing the reliance on nuclear and coal-based supply sources, (ii) increasing utilization of renewable energy sources and (iii) balancing the existing cost-based pool system of purchase of electricity with an environmentally-focused pool system. Accordingly, six new nuclear generation units in a planning stage (Shin-Hanul #3 and #4, Chunji #1 and #2 and Daejin #1 and #2) would not be constructed, while new nuclear plants under construction, including Shin-Kori #5, #6, Shin-Hanul #1 and #2, shall begin operation by 2024 upon completion of the construction. Future extensions of life of decrepit nuclear generation units would not be granted and the proportion of renewable energy sources would be increased. We cannot assure you that these policies will not have an adverse impact on our or our generation subsidiaries' financial condition and results of operations.

The construction and operation of our generation, transmission and distribution facilities involve difficulties, such as opposition from civic groups, which may have an adverse effect on us.

From time to time, we encounter social and political opposition against construction and operation of our generation facilities (particularly nuclear units) and, to a lesser extent, our transmission and distribution facilities.

For example, we recently faced intense opposition from local residents and civic groups to the construction of transmission lines in the Milyang area, which we resolved through various compensatory and other support programs. Such opposition delayed the schedule for completion of this project. Although we and the Government have undertaken various community programs to address concerns of residents in areas near our facilities, civic and community opposition could result in delayed construction or relocation of our planned facilities, which could have a material adverse impact on our business and results of operations.

Our risk management policies and procedures may not be fully effective at all times.

In the course of our operations, we must manage a number of risks, such as regulatory risks, market risks and operational risks. Although we devote significant resources to developing and improving our risk management policies and procedures and expect to continue to do so in the future, our risk management practices may not be fully effective at all times in eliminating or mitigating risk exposures in all market environments or against all types of risk, including risks that are unidentified or unanticipated, such as natural disasters or employee misconduct. For example, in May 2013, the NSSC discovered that certain parts used in several of our then-operating nuclear generation units had been supplied based on falsified certificates. This discovery led to full internal investigation and investigation by the Prosecutor's Office, which in turn led to prosecutions and convictions of several current and former employees of KHNP on related and separate bribery charges, as well as termination of the then-president of KHNP as part of a broad disciplinary action. The incident also led to suspended operation of the related nuclear generation units for several months pending safety inspection. A similar incident involving falsified certificates and bribery occurred also in November 2012. We and KHNP have fully cooperated with the authorities in terms of investigations as well as remedial and preventive measures, including enhanced internal compliance policies and procedures. In November 2019, prosecutors indicted six of KHNP's employees for, among others, failing to immediately shut down Hanbit #1 reactor when its thermal output exceeded the threshold specified by the nuclear safety technical operations manual and filing false reports to the NSSC. KHNP is also indicted for secondary liability from its employees' alleged wrongdoings. The case stemmed from the NSSC's investigations into the manual shutdown of Hanbit #1 reactor during a diagnostic test in May 2019. The case is currently pending, and we cannot assure you that the outcomes of the ongoing case will not have any material adverse effect on us, our reputation and our operating results. To prevent similar incidents from occurring again, KHNP is working to improve its risk monitoring and management system. For additional information, see Item 4.B. "Business Overview-Nuclear Safety."

In April 2019, a forest fire broke out in Goseong in Gangwon Province, about 210 kilometers from Seoul, causing damages to nearby towns, covering approximately 700 hectares. The National Forensic Service has investigated the cause of the fire and has determined that the fire seems to have started by an electrical arc from our utility pole's wire, which broke as a result of a strong wind. Based on this finding, the Police Department of Goseong conducted follow-up investigations and issued a recommendation to prosecute seven employees of KEPCO in connection with the fire. The prosecutors have taken over the case, and the investigations are still ongoing, the results of which may have a material adverse effect on us, our reputation and our operating results. In December 2019, we have agreed to pay 60% of the losses caused by the fire as determined by the Korea Claim Adjuster Association, a government organization, based on the fire victims' official claims and verification thereof. However, the amount we need to pay may increase depending on the results of the ongoing investigations or any litigations relating to the fire. In addition, we are compensating the fire victims by providing a number of services, such as free supply of electricity, and implementing measures to prevent future fires that may result from an electrical arc, including a special maintenance program during the dry season between March and May. Despite our efforts, however, similar incidents such as the above may occur again, and we cannot assure you that such incidents will not have any material adverse effect on us, our reputation and our operating results.

Further, our operational activities like the generation of electricity involve inherent operating risks that may result in accidents involving serious injury or loss of life, environmental damage or property damage. In December 2018, an employee of KOWEPO's subcontractor died in an accident at a Tae'an thermal power unit, leading to a public scrutiny and review by the Ministry of Employment and Labor. As a result, KOWEPO was required to halt the operations of three Tae'an thermal power units (Tae'an #9 and #10 units as well as Tae'an Integrated Gasification Combined Cycle (IGCC)) between December 2018 and May 2019. In response to the

accident, during the first half of 2019, we have mitigated 1,440 on-site risk factors by cooperating with the Government to conduct safety assessments.

We believe we and our subsidiaries are in compliance in all material respects with internal compliance policies and procedures and all other additional safety measures initiated internally or required by regulatory and governmental agencies. However, we cannot assure you that, despite all precautionary and preventative measures undertaken by us, these measures will prove to be fully effective at all times against all the risks we face or that an incident that could cause harm to our reputation and operation will not happen in the future, including due to factors beyond our control.

Our risk management procedures may not prevent losses in debt and foreign currency positions.

We manage interest rate exposure for our debt instruments by limiting our variable rate debt exposure as a percentage of our total debt and closely monitoring the movements in market interest rates. We also actively manage currency exchange rate exposure for our foreign currency-denominated liabilities by measuring the potential loss therefrom using risk analysis software and entering into derivative contracts to hedge such exposure when the possible loss reaches a certain risk limit. To the extent we have unhedged positions or our hedging and other risk management procedures do not work as planned, our results of operations and financial condition may be adversely affected.

The amount and scope of coverage of our insurance are limited.

Substantial liability may result from the operations of our nuclear generation units, the use and handling of nuclear fuel and possible radioactive emissions associated with such nuclear fuel. KHNP carries insurance for its generation units and nuclear fuel transportation, and we believe that the level of insurance is generally adequate and is in compliance with relevant laws and regulations. In addition, KHNP is the beneficiary of Government indemnity that covers damages which the insurance cannot cover. However, such insurance is limited in terms of amount and scope of coverage and does not cover all types or amounts of losses which could arise in connection with the ownership and operation of nuclear plants. Accordingly, material adverse financial consequences could result from a serious accident or a natural disaster to the extent it is neither insured nor covered by the government indemnity.

In addition, our non-nuclear generation subsidiaries carry insurance covering certain risks, including fire, in respect of their key assets, including buildings and equipment located at their respective power plants, construction-in-progress and imported fuel and procurement in transit. Such insurance and indemnity, however, cover only a portion of the assets that these generation subsidiaries own and operate and do not cover all types or amounts of loss that could arise in connection with the ownership and operation of these power plants. In addition, our generation subsidiaries are not permitted to self-insure, and accordingly have not self-insured, against risks of their uninsured assets or business. Accordingly, material adverse financial consequences could result from a serious accident to the extent it is uninsured.

In addition, because neither we nor our non-nuclear generation subsidiaries carry any insurance against terrorist attacks, an act of terrorism would result in significant financial losses. See Item 4.B. "Business Overview—Insurance."

We may not be able to raise equity capital in the future without the participation of the Government.

Under applicable laws, the Government is required to directly or indirectly own at least 51% of our issued capital stock. As of December 31, 2019, the last day on which our shareholders' registry was closed, the Government, directly and through Korea Development Bank (a statutory banking institution wholly owned by the Government), owned 51.1% of our issued capital stock. Accordingly, without changes in the existing Korean law, it may be difficult or impossible for us to undertake, without the participation of the Government, any equity financing in the future.

We may be exposed to potential claims made by current or previous employees for unpaid wages for the past three years under the expanded scope of ordinary wages and become subject to additional labor costs arising from the broader interpretation of ordinary wages under such decision.

Under the Labor Standards Act, an employee is legally entitled to “ordinary wages.” Under the guidelines previously issued by the Ministry of Employment and Labor, ordinary wages include base salary and certain fixed monthly allowances for work performed overtime during night shifts and holidays. Prior to the Supreme Court decision described below, many companies in Korea had typically interpreted these guidelines as excluding from the scope of ordinary wages fixed bonuses that are paid other than on a monthly basis, namely on a bi-monthly, quarterly or semi-annual basis, although such interpretation had been a subject of controversy and had been overruled in a few court cases.

In December 2013, the Supreme Court of Korea ruled that regular bonuses fall under the category of ordinary wages on the condition that those bonuses are paid regularly and uniformly, and that any agreement which excludes such regular bonuses from ordinary wage is invalid. One of the key rulings provides that bonuses that are given to employees (i) on a regular and continuous basis and (ii) calculated according to the actual number of days worked (iii) that are not incentive-based must be included in the calculation of “ordinary wages.” The Supreme Court further ruled that in spite of invalidity of such agreements, employees shall not retroactively claim additional wages incurred due to such court decision, in case that such claims bring to employees unexpected benefits which substantially exceeds the wage level agreed by employers and employees and cause an unpredicted increase in expenditures for their company, which would lead the company to material managerial difficulty or would be a threat to the existence of the company. In that case, the claim is not acceptable since it is unjust and is in breach of the principle of good faith.

As a result of such ruling by the Supreme Court of Korea, we and our subsidiaries became subject to a number of lawsuits filed by various industry-wide and company-specific labor unions based on claims that ordinary wage had been paid without including certain items that should have been included as ordinary wage. In July 2016, the court ruled against us, and in accordance with the court’s ruling, in August 2016 we paid Won 55.1 billion to the employees for three years of back pay plus interest. As of December 31, 2019, 25 lawsuits were pending against our subsidiaries for an aggregate claim amount of Won 61 billion, for which our subsidiaries set aside an aggregate amount of Won 29 billion to cover any potential future payments of additional ordinary wage in relation to the related lawsuits. We cannot presently assure you that the court will not rule against our subsidiaries in these lawsuits, or that the foregoing reserve amount will be sufficient to cover the amounts payable under the court rulings.

Additionally, since the issue of determining which labor costs should be additionally included as part of ordinary wages has not been fully resolved by the courts reviewing the lawsuits to which our subsidiaries are a party and other ordinary wage lawsuits filed against other companies, we cannot presently assure you that there will not be additional lawsuits in relation to ordinary wages and that we or our subsidiaries may not become liable for greater amount of damages as a result of these lawsuits. Furthermore, court decisions or labor legislations expanding the definition of ordinary wages may prospectively increase the labor costs of us and our subsidiaries. As a result, there can be no assurance that the above-described lawsuits and circumstances will not have a material adverse effect on our results of operations. See Item 8.A. Consolidated Statements and Other Financial Information – Legal Proceedings.

We are subject to cyber security risk.

Recently, our activities have been subject to an increasing risk of cyber-attacks and information leakages, the nature of which is continually evolving. For example, in December 2014, KHNP became subject to a cyber terror incident. Hackers hacked into the computer network of former KHNP employees and threatened to shut down certain of KHNP’s nuclear plants. The hacking incident did not jeopardize our nuclear operation in any material respect and none of the stolen information was material to our nuclear operation or the national nuclear

policy. In response to such incident, we and our subsidiaries have further bolstered anti-hacking and other preventive and remedial measures in relation to potential cyber terror. We are also continuing to strengthen our security management system by maintaining the international standard security standard, ISO2700, and the Korean standard, Personal Information Management System certification. In September 2019, the cyber security organization, physical protection, and technical information management organization were reorganized into an integrated security management organization for maximal effectiveness. Further, KHNP has established an organization dedicated to nuclear control security in accordance with the Government's strengthened information security regulation. However, there is no assurance that a similar or more serious hacking or other forms of cyber terror will not happen with respect to us and our generation subsidiaries, which could have a material adverse impact on our business, financial condition and results of operations.

We previously engaged in limited activities relating to Iran and may become subject to sanctions under relevant laws and regulations of the United States and other jurisdictions as a result of such activities, which may adversely affect our business and reputation.

The U.S. Department of the Treasury's Office of Foreign Assets Control, or OFAC, administers and enforces certain laws and regulations (which we refer to as the OFAC sanctions) that impose restrictions upon activities or transactions within U.S. jurisdiction with certain countries, governments, entities and individuals that are the subject of OFAC sanctions, including Iran. Even though non-U.S. persons generally are not directly bound by OFAC sanctions, in recent years OFAC has asserted that such non-U.S. persons can be held liable on various legal theories if they engage in transactions completed in part in the United States or by U.S. persons (such as, for example, wiring an international payment that clears through a bank branch in New York). The European Union also enforces certain laws and regulations that impose restrictions upon nationals and entities of, and business conducted in, member states with respect to activities or transactions with certain countries, governments, entities and individuals that are the subject of such laws and regulations, including Iran. The United Nations Security Council and other governmental entities also impose similar sanctions.

In addition to the OFAC sanctions described above, the United States also maintains indirect sanctions under authority of, among others, the Iran Sanctions Act, the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010, or CISADA, the National Defense Authorization Act for Fiscal Year 2012, or the NDAA, the Iran Threat Reduction and Syria Human Rights Act of 2012, or ITRA, various Executive Orders, the Iran Freedom and Counter-Proliferation Act of 2012, or IFCA, and the Countering America's Adversaries Through Sanctions Act, or CAATSA. These indirect sanctions, which we refer to collectively as U.S. secondary sanctions, provide authority for the imposition of U.S. sanctions on foreign parties that provide services in support of certain Iran-related activities.

On July 14, 2015, the so-called "P5+1" powers (consisting of the United States, the United Kingdom, Germany, France, Russia, and China) and the European Union, or the EU, entered into an agreement with Iran known as the Joint Comprehensive Plan of Action Regarding the Islamic Republic of Iran's Nuclear Program, or the JCPOA. The JCPOA was intended to significantly restrict Iran's ability to develop and produce nuclear weapons. Upon implementation of the JCPOA on January 16, 2016 the United States, the EU, and the UN suspended certain nuclear-related sanctions against Iran following an announcement by the International Atomic Energy Agency that Iran had fulfilled its initial obligations under the JCPOA. Most U.S. secondary sanctions concerning Iran were suspended following January 16, 2016.

However, on May 8, 2018, the U.S. Government announced that it was ending its participation in the JCPOA and that it would take steps to re-impose secondary sanctions targeting Iran. Sanctions that had been lifted pursuant to the JCPOA were re-imposed after two wind down periods; one ending on August 6, 2018 and one ending on November 4, 2018. Since November 4, 2018, sanctions that have been lifted pursuant to the JCPOA have been re-imposed. Consequently, dealings with Iran may now subject foreign parties to U.S. secondary sanctions.

Violations of OFAC sanctions via transactions with a U.S. jurisdictional nexus can result in substantial civil or criminal penalties. A range of sanctions may be imposed on companies that engage in sanctionable activities within the scope of U.S. secondary sanctions, including, among other things, the blocking of any property subject to U.S. jurisdiction in which the sanctioned company has an interest, which could include a prohibition on transactions or dealings involving securities of the sanctioned company or the sanctioned company effectively losing access to the U.S. financial system.

We previously engaged in limited activities relating to Iran, but all of such activities have been terminated upon the withdrawal of the United States from the JCPOA.

Certain institutional investors, including state and municipal governments in the United States and universities, as well as financial institutions, have proposed or adopted initiatives regarding investments in companies that do business with countries that are the target of OFAC sanctions, including Iran. Accordingly, as a result of our historical activities related to Iran, certain investors may not wish to invest in our shares or ADSs or do business with us. In September 2016, the New Jersey Department of the Treasury's Division of Investment notified of its preliminary determination of divestment pursuant to the New Jersey divestment laws. Such preliminary determination was reversed in February 2017 after we explained such determination was based on incorrect information about our business in Iran. As of October 2019, we were listed on the Texas Comptroller of Public Accounts' list of Scrutinized Companies with ties to Iran. As of February 2020, we were listed on the Iowa Public Employees' Retirement System's (IPERS) Iran Prohibited Companies List. Such divestment initiatives and the decision not to invest in, or to divest from our shares or ADSs may have a material negative impact on our reputation and the value of our shares or ADSs.

Violations of sanctions can result in penalties or other consequences adverse to us. Certain of our counterparties may be subjected to sanctions. If we violate sanctions, we may ourselves be subjected to sanctions or penalties. Our business and results of operations may be adversely affected or we may suffer reputational damage. In addition, such sanctions may prevent us from consummating or continuing any of the projects we are currently pursuing in Iran, which could adversely affect our results of operations. Also, at any time, certain investors may divest their interests in our shares if we are found to have violated or are suspected of violating applicable sanctions law arising from our operation in a sanctioned country such as Iran.

We purchase goods and services from Russia and those activities may be adversely impacted in a material manner by economic sanctions concerning Russia imposed by the United States and other jurisdictions.

The United States and the European Union have imposed economic sanctions concerning Russia. OFAC sanctions concerning Russia, *inter alia*, block the property of certain designated individuals and entities, target certain sectors of the Russian economy and prohibit certain transactions with certain targeted persons in targeted sectors of the Russian economy, and restrict investment in and trade with the Crimea region of Ukraine. Additionally, non-U.S. persons that engage in certain prohibited transactions concerning Russia or with certain sanctioned Russian persons or entities may be subject to secondary sanctions. In August 2017, the United States Congress passed CAATSA, which introduced a host of new U.S. secondary sanctions concerning Russia including, *inter alia*, for certain dealings with the Russian energy sector, support for Russia's energy export pipelines and engaging in a "significant transaction" with a person that is part of, or operates for or on behalf of, Russia's defense or intelligence sectors. Additionally, a non-U.S. person that knowingly facilitates a "significant transaction" or transactions for or on behalf of any person subject to sanctions imposed by the U.S. with respect to the Russian Federation or any child, spouse, parent, or sibling of such a sanctioned person may also be subject to secondary sanctions.

In 2019, we purchased 15.3% of our bituminous coal requirements from Russia. Additionally, we also purchase uranium and uranium separation services from a Russian supplier. In 2019, the total value of all goods and services purchased from Russia was approximately US\$ 1.2 billion.

The extent to which the recent coronavirus (COVID-19) outbreak impacts our business, results of operations and financial condition will depend on future developments, which are highly uncertain and cannot be predicted.

The rapid and diffuse spread of the recent coronavirus (COVID-19) and global health concerns relating to this outbreak have had severe negative impact on, among other things, financial markets, liquidity, economic conditions and trade and could continue to do so or could worsen for an unknown period of time, which could in turn have a material adverse impact on our business, results of operations and financial condition. A number of governments and organizations have revised GDP growth forecasts for 2020 downward in response to the economic slowdown caused by the spread of COVID-19, and it is possible that the COVID-19 outbreak will cause a prolonged global economic crisis or recession. The extent to which the COVID-19 outbreak impacts our business, results of operations and financial condition will depend on future developments, including the timeliness and effectiveness of actions taken or not taken to contain and mitigate the effects of COVID-19 both in Korea and internationally by governments, central banks, healthcare providers, health system participants, other businesses and individuals, which are highly uncertain and cannot be predicted. In particular, the continued spread of the coronavirus could adversely impact our business by (i) disrupting our employees' and contractors' ability to provide ongoing services to us, (ii) reducing customer demand for electricity, (iii) reducing the supply of electricity, or (iv) prompting the Government to enact emergency measures such as electricity tariff adjustments to ease the burden on the economically disadvantaged customers, each of which could have an adverse impact on our financial condition, results of operations, and cash flows. For example, as part of the broader measures to alleviate the economic burden due to the COVID-19, the Government has recently decided to defer by three months the electricity tariff payments for the months of April to June. This relief is available to small businesses and economically disadvantaged customers already receiving rate discounts from us. Additionally, the Government plans to support the small businesses in Daegu and certain parts of the Gyeongbook region (designated as the special disaster zone impacted by the COVID-19) by deducting 50% of the electricity payments due for the months of April to September. The Government has prepared a supplementary budget for this measure, but there is no guarantee that the amount reserved for this measure will be used to its fullest according to such budget. Each of and any combination of these factors could have an adverse impact on our financial conditions, results of operations and cash flows.

Risks Relating to Korea and the Global Economy

Unfavorable financial and economic conditions in Korea and globally may have a material adverse impact on us.

We are incorporated in Korea, where most of our assets are located and most of our income is generated. As a result, we are subject to political, economic, legal and regulatory risks specific to Korea, and our business, results of operations and financial condition are substantially dependent on the Korean consumers' demand for electricity, which are in turn largely dependent on developments relating to the Korean economy.

The Korean economy is closely integrated with, and is significantly affected by, developments in the global economy and financial markets. In recent years, adverse conditions and volatility in the worldwide financial markets, fluctuations in oil and commodity prices and the general weakness of the global economy have contributed to the uncertainty of global economic prospects in general and have adversely affected, and may continue to adversely affect, the Korean economy, which in turn could adversely affect our business, financial condition and results of operations. As the Korean economy is highly dependent on the health and direction of the global economy, the prices of our securities may be adversely affected by investors' reactions to developments in other countries. In addition, due to the ongoing volatility in the global financial markets, the value of the Won relative to the U.S. dollar has also fluctuated significantly in recent years, which in turn also may adversely affect our financial condition and results of operations.

Factors that determine economic and business cycles in the Korean or global economy are for the most part beyond our control and inherently uncertain. In light of the high level of interdependence of the global economy, any of the foregoing developments could have a material adverse effect on the Korean economy and financial markets, and in turn on our business and profitability.

More specifically, factors that could have an adverse impact on Korea's economy in the future include, among others:

- increases in inflation levels, volatility in foreign currency reserve levels, commodity prices (including oil prices), exchange rates (particularly against the U.S. dollar), interest rates, stock market prices and inflows and outflows of foreign capital, either directly, into the stock markets, through derivatives or otherwise, including as a result of increased uncertainty in the wake of the United Kingdom's formal exit from the European Union on January 31, 2020, commonly known as "Brexit";
- difficulties in the financial sectors in Europe, China and elsewhere and increased sovereign default risks in certain countries and the resulting adverse effects on the global financial markets;
- adverse developments in the economies of countries and regions to which Korea exports goods and services (such as the United States, Europe, China and Japan), or in emerging market economies in Asia or elsewhere that could result in a loss of confidence in the Korean economy, including potentially as a result of the Brexit;
- potential escalation of the ongoing trade war between the U.S. and China as each country introduces tariffs on goods traded with the other;
- social and labor unrest or declining consumer confidence or spending resulting from lay-offs, increasing unemployment and lower levels of income;
- uncertainty and volatility and further decreases in the market prices of Korean real estate;
- a decrease in tax revenues and a substantial increase in the Government's expenditures for unemployment compensation and other social programs that together could lead to an increased Government budget deficit;
- political uncertainty, including as a result of increasing strife among or within political parties in Korea, and political gridlock within the government or in the legislature, which prevents or disrupts timely and effective policy making to the detriment of Korean economy, as well as the impeachment and indictment of the former president following a series of scandals and social unrest, which also involved the investigation of several leading Korean conglomerates and arrest of their leaders on charges of bribery and other possible misconduct;
- deterioration in economic or diplomatic relations between Korea and its trading partners or allies, including deterioration resulting from territorial or trade disputes or disagreements in foreign policy, including as a result of any potential renegotiation of free trade agreements, or the ongoing tension between Korea and China in relation to the decision to allow deployment by the United States of the Terminal High Altitude Defense system known as "THAAD" in Korea;
- increases in social expenditures to support the aging population in Korea or decreases in economic productivity due to the declining population size in Korea;
- any other development that has a material adverse effect in the global economy, such as an act of war, the spread of terrorism or a breakout of an epidemic such as SARS, avian flu, swine flu, Middle East Respiratory Syndrome, Ebola or Zika virus, novel coronavirus (COVID-19), or natural disasters, earthquakes and tsunamis and the related disruptions in the relevant economies with global repercussions;
- hostilities involving oil-producing countries in the Middle East and elsewhere and any material disruption in the supply of oil or a material increase in the price of oil resulting from such hostilities; and
- an increase in the level of tensions or an outbreak of hostilities in the Korean peninsula or between North Korea and the United States.

Any future deterioration of the Korean economy could have an adverse effect on our business, financial condition and results of operations.

Tensions with North Korea could have an adverse effect on us and the market value of our shares.

Relations between Korea and North Korea have been tense throughout Korea's modern history. The level of tension between the two Koreas has fluctuated and may increase abruptly as a result of current and future events. In particular, there continues to be uncertainty regarding the long-term stability of North Korea's political leadership since the succession of Kim Jong-un to power following the death of his father in December 2011, which has raised concerns with respect to the political and economic future of the region. In February 2017, Kim Jong-un's half-brother, Kim Jong-nam, was reported to have been assassinated in an international airport in Malaysia.

In addition, there continues to be heightened security tension in the region stemming from North Korea's hostile military and diplomatic actions, including in respect of its nuclear weapons and long-range missile programs. Some examples from recent years include the following:

- In November 2017, North Korea conducted a test launch of another intercontinental ballistic missile, which, due to its improved size, power and range of distance, may potentially enable North Korea to target the United States mainland.
- Recently, on September 3, 2017, North Korea conducted its sixth nuclear test, claiming it had tested a hydrogen bomb that could be mounted on an intercontinental ballistic missile. In response, on September 12, 2017, the United Nations Security Council unanimously adopted a resolution imposing additional sanctions on North Korea including new limits on gas, petrol and oil imports, a ban on textile exports and measures to limit North Korean laborers from working abroad.
- On August 29, 2017, North Korea tested an intermediate-range ballistic missile which flew directly over northern Japan before landing in the Pacific Ocean. In response, the United Nations Security Council unanimously adopted a statement condemning such launch, reiterating demands that North Korea halt its ballistic missile and nuclear weapons programs.
- On July 4, 2017, North Korea tested its first intercontinental ballistic missile. In response, the U.S. government and the Government both issued statements condemning North Korea and conducted a joint military exercise on July 5, 2017. On July 28, 2017, North Korea tested a second intercontinental ballistic missile which landed in the Sea of Japan, inside Japan's Economic Exclusion Zone. In response, on August 5, 2017, the United Nations Security Council unanimously adopted a resolution that strengthened sanctions on North Korea. The resolution includes a total ban on all exports of coal, iron, iron ore, lead, lead ore and seafood, which is expected to reduce North Korea's export revenue by a third each year.
- In March 2017, North Korea launched four mid-range missiles, which landed off the east coast of the Korean peninsula.
- On September 9, 2016, North Korea conducted its fifth nuclear test, which has been the largest in scale among North Korea's nuclear tests thus far. According to North Korean announcements, the test was successful in detonating a nuclear missile. The test created a sizable earthquake in South Korea. In response, in February 2017 the U.N. Security Council adopted Resolution 2321 (2016) against North Korea, the purpose of which is to strengthen its sanctions regime against North Korea and to condemn North Korea's September 9, 2016 nuclear test in the strongest terms.
- On February 10, 2016, in retaliation of North Korea's recent launch of a long-range rocket, South Korea announced that it would halt its operations of the Kaesong Industrial Complex to impede North Korea's utilization of funds from the industrial complex to finance its nuclear and missile programs. In response, North Korea announced on February 11, 2016 that it would expel all South Korean employees from the industrial complex and freeze all South Korean assets there.
- On February 7, 2016, North Korea launched a rocket, claimed by them to be carrying a satellite intended for scientific observation. The launch was widely suspected by the international community to be a cover for testing a long-range missile capable of carrying a nuclear warhead. On February 18, 2016, the President of the United States signed into law mandatory sanctions on North Korea to punish it for its recent nuclear and missile tests, human rights violations and cybercrimes. The bill, which

marks the first measure by the United States to exclusively target North Korea, is intended to seize the assets of anyone engaging in business related to North Korea's weapons program, and authorizes US\$50 million over five years to transmit radio broadcasts into the country and support humanitarian assistance projects. On March 2, 2016, the United Nations Security Council voted unanimously to adopt a resolution to impose sanctions against North Korea, which include inspection of all cargo going to and from North Korea, a ban on all weapons trade and the expulsion of North Korean diplomats who engage in "illicit activities." Also, on March 4, 2016, the European Union announced that it would expand its sanctions on North Korea, adding additional companies and individuals to its list of sanction targets. On April 1, 2016, North Korea fired a short-range surface-to-air missile in apparent protest of these sanctions adopted by the United States and the United Nations Security Council.

- On January 6, 2016, North Korea announced that it had successfully conducted its first hydrogen bomb test, hours after international monitors detected a 5.1 magnitude earthquake near a known nuclear testing site in the country. The claims have not been verified independently. The alleged test followed a statement made in the previous month by Kim Jong-un, who claimed that North Korea had developed a hydrogen bomb.
- In August 2015, two Korean soldiers were injured in a landmine explosion near the South Korean demilitarized zone. Claiming the landmines were set by North Koreans, the South Korean army re-initiated its propaganda program toward North Korea utilizing loudspeakers near the demilitarized zone. In retaliation, the North Korean army fired artillery rounds on the loudspeakers, resulting in the highest level of military readiness for both Koreas. High-ranking officials from North and South Korea subsequently met for discussions and entered into an agreement on August 25, 2015 intending to deflate military tensions.
- From time to time, North Korea has fired short- to medium-range missiles from the coast of the Korean peninsula into the sea. In March 2015, North Korea fired seven surface-to-air missiles into waters off its east coast in apparent protest of annual joint military exercises being held by Korea and the United States.
- North Korea renounced its obligations under the Nuclear Non-Proliferation Treaty in January 2003 and conducted three rounds of nuclear tests between October 2006 to February 2013, which increased tensions in the region and elicited strong objections worldwide. In response, the United Nations Security Council unanimously passed resolutions that condemned North Korea for the nuclear tests and expanded sanctions against North Korea.

North Korea's economy also faces severe challenges, including severe inflation and food shortages, which may further aggravate social and political tensions within North Korea. In addition, reunification of Korea and North Korea could occur in the future, which would entail significant economic commitment and expenditure by Korea that may outweigh any resulting economic benefits of reunification. On April 27, 2018, May 26, 2018 and September 18, 2018, President Moon Jae-in met Kim Jong-un in a summit to discuss, among other matters, denuclearization of the Korean Peninsula. On June 12, 2018, President Donald Trump and Kim Jong-un in turn had an official summit in Singapore and on February 27, 2019, the parties held the second official summit in Hanoi, Vietnam. However, in March 2019, announcement was made that no agreement was reached in the second bilateral summit meeting between the United States and North Korea. On June 30 2019, for the first time, President Moon Jae-in, President Donald Trump and Kim Jong-un met in Panmunjom, a symbolic place of division in Korea, and the parties agreed to resume the United States and North Korea working-level negotiations, and on October 4, 2019, such working-level negotiations took place in Stockholm, Sweden. However, the negotiations did not result in any definitive agreement or any follow-up plans.

There can be no assurance that the level of tension on the Korean peninsula will not escalate in the future or that the political regime in North Korea may not suddenly collapse. Any further increase in tension or uncertainty relating to the military, political or economic stability in the Korean peninsula, including a breakdown of diplomatic negotiations over the North Korean nuclear program, occurrence of military hostilities, heightened concerns about the stability of North Korea's political leadership or its actual collapse, a leadership crisis, a breakdown of high-level contacts or accelerated reunification could have a material adverse effect on our

business, financial condition and results of operations, as well as the price of our common shares and our American depositary shares.

We are generally subject to Korean corporate governance and disclosure standards, which differ in significant respects from those in other countries.

Companies in Korea, including us, are subject to corporate governance standards applicable to Korean public companies which differ in many respects from standards applicable in other countries, including the United States. As a reporting company registered with the Securities and Exchange Commission and listed on the New York Stock Exchange, we are, and will continue to be, subject to certain corporate governance standards as mandated by the Sarbanes-Oxley Act of 2002, as amended. However, foreign private issuers, including us, are exempt from certain corporate governance standards required under the Sarbanes-Oxley Act or the rules of the New York Stock Exchange. We and our generation subsidiaries are also subject to a number of special laws and regulations to Government-controlled entities, including the Act on the Management of Public Institutions. For a description of significant differences in corporate governance standards, see Item 16G, "Corporate Governance." There may also be less publicly available information about Korean companies, such as us, than is regularly made available by public or non-public companies in other countries. Such differences in corporate governance standards and less public information could result in less than satisfactory corporate governance practices or disclosure to investors in certain countries.

You may not be able to enforce a judgment of a foreign court against us.

We are a corporation with limited liability organized under the laws of Korea. Substantially all of our directors and officers and other persons named in this annual report reside in Korea, and all or a significant portion of the assets of our directors and officers and other persons named in this annual report and substantially all of our assets are located in Korea. As a result, it may not be possible for holders of the American depositary shares to affect service of process within the United States, or to enforce against them or us in the United States judgments obtained in United States courts based on the civil liability provisions of the federal securities laws of the United States. There is doubt as to the enforceability in Korea, either in original actions or in actions for enforcement of judgments of United States courts, of civil liabilities predicated on the United States federal securities laws.

Risks Relating to Our American Depositary Shares (ADSs)

There are restrictions on withdrawal and deposit of common shares under the depositary facility.

Under the deposit agreement, holders of shares of our common stock may deposit those shares with the depositary bank's custodian in Korea and obtain American depositary shares, and holders of American depositary shares may surrender American depositary shares to the depositary bank and receive shares of our common stock. However, under current Korean laws and regulations, the depositary bank is required to obtain our prior consent for the number of shares to be deposited in any given proposed deposit which exceeds the difference between (i) the aggregate number of shares deposited by us for the issuance of American depositary shares (including deposits in connection with the initial and all subsequent offerings of American depositary shares and stock dividends or other distributions related to these American depositary shares) and (ii) the number of shares on deposit with the depositary bank at the time of such proposed deposit. We have consented to the deposit of outstanding shares of common stock as long as the number of American depositary shares outstanding at any time does not exceed 80,153,810 shares. As a result, if you surrender American depositary shares and withdraw shares of common stock, you may not be able to deposit the shares again to obtain American depositary shares.

Ownership of our shares is restricted under Korean law.

Under the Financial Investment Services and Capital Markets Act, with certain exceptions, a foreign investor may acquire shares of a Korean company without being subject to any single or aggregate foreign

investment ceiling. As one such exception, certain designated public corporations, such as us, are subject to a 40% ceiling on acquisitions of shares by foreigners in the aggregate. The Financial Services Commission may impose other restrictions as it deems necessary for the protection of investors and the stabilization of the Korean securities and derivatives market.

In addition to the aggregate foreign investment ceiling, the Financial Investment Services and Capital Markets Act and our Articles of Incorporation set a 3% ceiling on acquisition by a single investor (whether domestic or foreign) of the shares of our common stock. Any person (with certain exceptions) who holds our issued and outstanding shares in excess of such 3% ceiling cannot exercise voting rights with respect to our shares exceeding such limit.

The ceiling on aggregate investment by foreign investors applicable to us may be exceeded in certain limited circumstances, including as a result of acquisition of:

- shares by a depositary issuing depositary receipts representing such shares (whether newly issued shares or outstanding shares);
- shares by exercise of warrant, conversion right under convertible bonds, exchange right under exchangeable bonds or withdrawal right under depositary receipts issued outside of Korea;
- shares from the exercise of shareholders' rights; or
- shares by gift, inheritance or bequest.

A foreign investor who has acquired our shares in excess of any ceiling described above may not exercise his voting rights with respect to our shares exceeding such limit and the Financial Services Commission may take necessary corrective action against him.

Holders of our ADSs will not have preemptive rights in certain circumstances.

The Korean Commercial Act and our Articles of Incorporation require us, with some exceptions, to offer shareholders the right to subscribe for new shares in proportion to their existing ownership percentage whenever new shares are issued. If we offer any rights to subscribe for additional shares of our common stock or any rights of any other nature, the depositary bank, after consultation with us, may make the rights available to you or use reasonable efforts to dispose of the rights on your behalf and make the net proceeds available to you. The depositary bank, however, is not required to make available to you any rights to purchase any additional shares unless it deems that doing so is lawful and feasible and:

- a registration statement filed by us under the U.S. Securities Act of 1933, as amended, is in effect with respect to those shares; or
- the offering and sale of those shares is exempt from or is not subject to the registration requirements of the U.S. Securities Act.

We are under no obligation to file any registration statement with the U.S. Securities and Exchange Commission in relation to the registration rights. If a registration statement is required for you to exercise preemptive rights but is not filed by us, you will not be able to exercise your preemptive rights for additional shares and you will suffer dilution of your equity interest in us.

The market value of your investment in our ADSs may fluctuate due to the volatility of the Korean securities market.

Our common stock is listed on the KRX KOSPI Division of the Korea Exchange, which has a smaller market capitalization and is more volatile than the securities markets in the United States and many European countries. The market value of ADSs may fluctuate in response to the fluctuation of the trading price of shares of