

**UPDATES ON UNIT PRICE OF THE FUEL COST ADJUSTED CHARGE**  
**For the three-month period from January 2021 to March 2021**

December 2020

**1. Calculation details of the Actual Fuel Cost and the Base Fuel Cost**

The formula for calculating the amount of the Actual Fuel Cost is by multiplying (i) and (ii) below for each type of fuel, bituminous coal, LNG and Bunker C oil and then summing up those multiplied values, thus drawing out the average fuel price.

- (i) the average of monthly fuel prices from three preceding months from one month before the start of each period as posted by the Korea Customs Service (refer to the Table 1)
- (ii) the Scale Factor which is the weighted value for each type of fuel considering the calorific value and the input ratio (refer to the Table 2)

The Base Fuel Cost is the past twelve-month average fuel price of bituminous coal, LNG and Bunker C oil as posted by the Korea Customs Service. For 2021, the twelve-month average fuel price is Won 289.07 per kilogram measured by taking the average of monthly fuel prices from twelve preceding months from one month before the new tariff system was implemented, from December 2019 to November 2020.

Table 1. The average of monthly fuel prices for the three-month period from September 2020 to November 2020

*Before customs duties, individual consumption tax and surcharges, in Won/kg*

Fuel type	September 2020	October 2020	November 2020	Average
Bituminous Coal	65.10	61.03	61.83	62.65
LNG	310.38	315.71	347.99	324.70
Bunker C oil	343.63	323.13	324.87	330.54

*After customs duties, individual consumption tax and surcharges\*, in Won/kg*

Fuel type	September 2020	October 2020	November 2020	Average
Bituminous Coal	111.10	107.03	107.83	108.65
LNG	335.50	340.99	374.23	350.24
Bunker C oil	386.81	365.69	367.48	373.33

\* In accordance with Article 50 of the Customs Act, Article 1 of the Individual Consumption Act and Article 24 of Enforcement Decree of the Petroleum and Alternative Fuel Business Act

Table 2. The Actual Fuel Cost of the three-month period from January 2021 to March 2021

	Average Price after tax, etc.	Scale Factor	Multiplied Value
Bituminous Coal	Won 108.65/kg	$\times 0.8591 (\alpha)$	Won 93.34/kg
LNG	Won 350.24/kg	$\times 0.3661 (\beta)$	Won 128.24/kg
Bunker C oil	Won 373.33/kg	$\times 0.0093 (\gamma)$	Won 3.47/kg
<b>Actual Fuel Cost</b> (Total of multiplied values)			Won 225.05/kg

## 2. Calculation details of the Unit Price of the Fuel Cost Adjusted Charge

The Unit Price of the Fuel Cost Adjusted Charge is calculated by multiplying (i) and (ii) below.

- (i) the difference between the Base Fuel Cost and the Actual Fuel Cost (refer to the Table 3)
- (ii) the Conversion Factor which is the input amount in kilograms to generate one kilowatt-hour of electricity. (refer to the Table 4)

However, any value that exceeds Won  $\pm 5$  per kilowatt-hour will not be reflected in the Fuel Cost Adjusted Charge. Also, there is a quarterly cap on the Unit Price of the Fuel Cost Adjusted Charge to be (i) no less than Won  $\pm 1$  per kilowatt-hour and (ii) no greater than Won  $\pm 3$  per kilowatt-hour as compared to the immediately preceding quarter. (refer to the Table 4)

Table 3. The difference between the Base Fuel Cost and the Actual Fuel Cost

Actual Fuel Cost (a)	Base Fuel Cost (b)	Difference (a - b)
Won 225.05/kg	Won 289.07/kg	Won -64.02/kg

Table 4. Calculations on the Unit Price of the Fuel Cost Adjusted Charge

*Before the caps*

Difference (a)	Conversion Factor (b)	Unit Price of the Fuel Cost Adjusted Charge (a $\times$ b)
Won -64.02/kg	Won 0.1634 kg/kWh	Won -10.5/kWh

*After the caps*

After the $\pm 5$ cap	After the quarterly cap	Unit Price of the Fuel Cost Adjusted Charge
Won -5.0/kWh	Won -3.0/kWh	Won -3.0/kWh

Therefore, Unit Price of the Fuel Cost Adjusted Charge to be effective from January 2021 to March 2021 is Won -3 per kilowatt-hour.

**UPDATES ON UNIT PRICE OF THE FUEL COST ADJUSTED CHARGE**  
**For the three-month period from April 2021 to June 2021**

March 2021

**1. Calculation details of the Actual Fuel Cost and the Base Fuel Cost**

The formula for calculating the amount of the Actual Fuel Cost is by multiplying (i) and (ii) below for each type of fuel, bituminous coal, LNG and Bunker C oil and then summing up those multiplied values, thus drawing out the average fuel price.

- (i) the average of monthly fuel prices from three preceding months from one month before the start of each period as posted by the Korea Customs Service (refer to the Table 1)
- (ii) the Scale Factor which is the weighted value for each type of fuel considering the calorific value and the input ratio (refer to the Table 2)

The Base Fuel Cost is the past twelve-month average fuel price of bituminous coal, LNG and Bunker C oil as posted by the Korea Customs Service. For 2021, the twelve-month average fuel price is Won 289.07 per kilogram measured by taking the average of monthly fuel prices from twelve preceding months from one month before the new tariff system was implemented, from December 2019 to November 2020.

Table 1. The average of monthly fuel prices for the three-month period from December 2020 to February 2021

*Before customs duties, individual consumption tax and surcharges, in Won/kg*

<b>Fuel type</b>	<b>December 2020</b>	<b>January 2021</b>	<b>February 2021</b>	<b>Average</b>
Bituminous Coal	60.79	68.37	73.67	67.61
LNG	392.55	453.44	590.44	478.81
Bunker C oil	368.74	392.13	432.63	397.83

*After customs duties, individual consumption tax and surcharges\*, in Won/kg*

<b>Fuel type</b>	<b>December 2020</b>	<b>January 2021</b>	<b>February 2021</b>	<b>Average</b>
Bituminous Coal	106.79	114.37	119.67	113.61
LNG	420.13	482.84	623.96	508.97
Bunker C oil	412.67	436.76	478.48	442.64

\* In accordance with Article 50 of the Customs Act, Article 1 of the Individual Consumption Act and Article 24 of Enforcement Decree of the Petroleum and Alternative Fuel Business Act

Table 2. The Actual Fuel Cost of the three-month period from July 2021 to September 2021

	Average Price after tax, etc.	Scale Factor	Multiplied Value
Bituminous Coal	Won 113.61/kg	$\times 0.8591 (\alpha)$	Won 97.60/kg
LNG	Won 508.97/kg	$\times 0.3661 (\beta)$	Won 186.35/kg
Bunker C oil	Won 442.64/kg	$\times 0.0093 (\gamma)$	Won 4.12/kg
<b>Actual Fuel Cost</b> (Total of multiplied values)			Won 288.07/kg

## 2. Calculation details of the Unit Price of the Fuel Cost Adjusted Charge

The Unit Price of the Fuel Cost Adjusted Charge is calculated by multiplying (i) and (ii) below.

- (i) the difference between the Base Fuel Cost and the Actual Fuel Cost (refer to the Table 3)
- (ii) the Conversion Factor which is the input amount in kilograms to generate one kilowatt-hour of electricity. (refer to the Table 4)

However, any value that exceeds Won  $\pm 5$  per kilowatt-hour will not be reflected in the Fuel Cost Adjusted Charge. Also, there is a quarterly cap on the Unit Price of the Fuel Cost Adjusted Charge to be (i) no less than Won  $\pm 1$  per kilowatt-hour and (ii) no greater than Won  $\pm 3$  per kilowatt-hour as compared to the immediately preceding quarter. (refer to the Table 4)

Table 3. The difference between the Base Fuel Cost and the Actual Fuel Cost

Actual Fuel Cost (a)	Base Fuel Cost (b)	Difference (a - b)
Won 288.07/kg	Won 289.07/kg	Won -1.00/kg

Table 4. Calculations on the Unit Price of the Fuel Cost Adjusted Charge

*Before the caps*

Difference (a)	Conversion Factor (b)	Unit Price of the Fuel Cost Adjusted Charge (a $\times$ b)
Won -1.00/kg	Won 0.1634 kg/kWh	Won -0.2/kWh

*After the caps*

After the $\pm 5$ cap	After the quarterly cap	Unit Price of the Fuel Cost Adjusted Charge
Won -0.2/kWh	Won -0.2/kWh	Won -0.2/kWh

### **3. The Unit Price of the Fuel Cost Adjusted Charge to be applied for the second quarter of 2021**

**The Unit Price of the Fuel Cost Adjusted Charge to be effective from April 2021 to June 2021 is Won -3 per kilowatt-hour instead of Won -0.2 per kilowatt-hour pursuant to Article 2.4) of the Guidelines for Operation of the Unit Price of the Fuel Cost Adjusted Charge under the Terms and Conditions for Electricity Supply.**

The government notified the Unit Price of the Fuel Cost Adjusted Charge to be effective for the second quarter is Won -3 per kilowatt-hour, same as the first quarter, citing that even though the Unit Price of the Fuel Cost Adjusted Charge for the second quarter of 2021 was derived to be equal to Won -0.2 per kilowatt-hour due to the increase in global fuel prices, there are (i) the abnormal nature of the rapid increase in the price of LNG due to the global cold wave in the winter of late 2020 and early 2021, (ii) the need to alleviate the hardship of the Korean people caused by the prolonged economic effects of Covid-19 pandemic, and (iii) the consideration of some portion of the Fuel Cost Adjusted Charge that was not reflected in the Unit Price of the Fuel Cost Adjusted Charge for the first quarter of 2021 because of its cap at the lower bound of Won -3 per kilowatt-hour instead of being further decreased.

**UPDATES ON UNIT PRICE OF THE FUEL COST ADJUSTED CHARGE**  
**For the three-month period from July 2021 to September 2021**

June 2021

**1. Calculation details of the Actual Fuel Cost and the Base Fuel Cost**

The formula for calculating the amount of the Actual Fuel Cost is by multiplying (i) and (ii) below for each type of fuel, bituminous coal, LNG and Bunker C oil and then summing up those multiplied values, thus drawing out the average fuel price.

- (i) the average of monthly fuel prices from three preceding months from one month before the start of each period as posted by the Korea Customs Service (refer to the Table 1)
- (ii) the Scale Factor which is the weighted value for each type of fuel considering the calorific value and the input ratio (refer to the Table 2)

The Base Fuel Cost is the past twelve-month average fuel price of bituminous coal, LNG and Bunker C oil as posted by the Korea Customs Service. For 2021, the twelve-month average fuel price is Won 289.07 per kilogram measured by taking the average of monthly fuel prices from twelve preceding months from one month before the new tariff system was implemented, from December 2019 to November 2020.

Table 1. The average of monthly fuel prices for the three-month period from March 2021 to May 2021

*Before customs duties, individual consumption tax and surcharges, in Won/kg*

<b>Fuel type</b>	<b>March 2021</b>	<b>April 2021</b>	<b>May 2021</b>	<b>Average</b>
Bituminous Coal	83.07	88.23	91.65	87.65
LNG	495.67	431.57	456.38	461.21
Bunker C oil	468.87	468.11	485.85	474.27

*After customs duties, individual consumption tax and surcharges\*, in Won/kg*

<b>Fuel type</b>	<b>March 2021</b>	<b>April 2021</b>	<b>May 2021</b>	<b>Average</b>
Bituminous Coal	129.07	134.23	137.65	133.65
LNG	526.34	460.32	485.87	490.85
Bunker C oil	515.80	515.02	533.29	521.37

\* In accordance with Article 50 of the Customs Act, Article 1 of the Individual Consumption Act and Article 24 of Enforcement Decree of the Petroleum and Alternative Fuel Business Act

Table 2. The Actual Fuel Cost of the three-month period from July 2021 to September 2021

	Average Price after tax, etc.	Scale Factor	Multiplied Value
Bituminous Coal	Won 133.65/kg	$\times 0.8591 (\alpha)$	Won 114.81/kg
LNG	Won 490.85/kg	$\times 0.3661 (\beta)$	Won 179.72/kg
Bunker C oil	Won 521.37/kg	$\times 0.0093 (\gamma)$	Won 4.85/kg
<b>Actual Fuel Cost</b> (Total of multiplied values)			Won 299.38/kg

## 2. Calculation details of the Unit Price of the Fuel Cost Adjusted Charge

The Unit Price of the Fuel Cost Adjusted Charge is calculated by multiplying (i) and (ii) below.

- (i) the difference between the Base Fuel Cost and the Actual Fuel Cost (refer to the Table 3)
- (ii) the Conversion Factor which is the input amount in kilograms to generate one kilowatt-hour of electricity. (refer to the Table 4)

However, any value that exceeds Won  $\pm 5$  per kilowatt-hour will not be reflected in the Fuel Cost Adjusted Charge. Also, there is a quarterly cap on the Unit Price of the Fuel Cost Adjusted Charge to be (i) no less than Won  $\pm 1$  per kilowatt-hour and (ii) no greater than Won  $\pm 3$  per kilowatt-hour as compared to the immediately preceding quarter. (refer to the Table 4)

Table 3. The difference between the Base Fuel Cost and the Actual Fuel Cost

Actual Fuel Cost (a)	Base Fuel Cost (b)	Difference (a - b)
Won 299.38/kg	Won 289.07/kg	Won 10.31/kg

Table 4. Calculations on the Unit Price of the Fuel Cost Adjusted Charge

*Before the caps*

Difference (a)	Conversion Factor (b)	Unit Price of the Fuel Cost Adjusted Charge (a $\times$ b)
Won 10.31/kg	Won 0.1634 kg/kWh	Won 1.7/kWh

*After the caps*

After the $\pm 5$ cap	After the quarterly cap	Unit Price of the Fuel Cost Adjusted Charge
Won 1.7/kWh	Won 0.0/kWh	Won 0.0/kWh

### **3. The Unit Price of the Fuel Cost Adjusted Charge to be applied for the third quarter of 2021**

**The Unit Price of the Fuel Cost Adjusted Charge to be effective from July 2021 to September 2021 is [Won -3 per kilowatt-hour](#) instead of Won 0.0 per kilowatt-hour pursuant to Article 2.4) of the Guidelines for Operation of the Unit Price of the Fuel Cost Adjusted Charge under the Terms and Conditions for Electricity Supply.**

The government notified the Unit Price of the Fuel Cost Adjusted Charge to be effective for the third quarter of 2021 is Won -3 per kilowatt-hour, same as the second quarter, citing that even though the Unit Price of the Fuel Cost Adjusted Charge for the third quarter of 2021 was derived to be equal to Won 1.7 per kilowatt-hour due to the rapid increase in global fuel prices since the end of 2020, there are (i) the need to alleviate the hardship of the Korean people caused by the prolonged economic effects of Covid-19 pandemic and high inflation rates since the second quarter of 2021 and (ii) the consideration of some portion of the Fuel Cost Adjusted Charge that was not reflected in the Unit Price of the Fuel Cost Adjusted Charge for the first quarter of 2021 because of its cap at the lower bound of Won -3 per kilowatt-hour instead of being further decreased. The government, however, also cited that if the current high level or rising trend of the fuel prices continues through the second half of the year, it will review the Unit Price of the Fuel Cost Adjusted Charge for the fourth quarter of 2021 to reflect such trend.