

# The Climate Card

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## Background

In Seoul, the transportation sector is a major contributor to greenhouse gas (GHG) emissions. In 2021, GHG emissions from this sector accounted for 18.1%<sup>1</sup> (approximately 8,328 tons) of the city's total emissions, right after the commercial sector and the residential sector. Notably, GHG from internal combustion engine vehicles have been steadily increasing, with gasoline and diesel accounting for 42.4% and 33.4%, respectively, of transportation-related GHG emissions in the city in 2021.<sup>2</sup>

The ongoing population concentration in Seoul has led to an increase in daily transportation users and a rise in GHG emissions. In response, the city has been promoting public transportation as an eco-friendly alternative to reduce per capita GHG emissions compared to private vehicle use. However, the recent hike in public transportation fares has raised concerns about the financial burden on users. To enhance citizens' mobility rights, alleviate economic pressures, and address the climate crisis, the Seoul Metropolitan Government (SMG) introduced the "Climate Card" in early 2024, with plans for gradual expansion.



1. Seoulnetzero. (2024, July 11). Seoul Carbon Neutrality Brief Report vol.2. Seoul Carbon Neutrality Support Center. <https://seoulnetzero.si.re.kr/archives/brief/%EC%84%9C%EC%9A%B8%ED%83%84%EC%86%8C%EC%A4%91%EB%A6%BD%EB%B8%8C%EB%A6%AC%ED%94%84-2024-vol-2/>
2. Seoulnetzero. (2024a, March 25). Seoul Carbon Neutrality Brief Report vol.1. Seoul Carbon Neutrality Support Center. <https://seoulnetzero.si.re.kr/archives/brief/%ec%84%9c%ec%9a%b8%ed%83%84%ec%86%8c%ec%a4%91%eb%a6%bd%eb%b8%8c%eb%a6%ac%ed%94%84/>



Figure 1: Climate Card Design<sup>3</sup>

## Key Components

The Climate Card is a comprehensive monthly transportation pass providing unlimited use of Seoul’s public transportation system, including subways, buses, and bikes.<sup>4</sup> The initiative has three primary goals.

1. **Alleviating the financial burden of transportation expenses:** With unlimited use, the card is expected to mitigate the impact of the planned public transportation fare hike scheduled for the second half of 2024, thereby easing household budget pressures.
2. **Reducing GHG emissions:** As part of its strategy to achieve net-zero emissions by 2050, SMG has prioritized inclusive climate action. The Climate Card is a key component of this strategy, encouraging greater use of eco-friendly public transport.
3. **Promoting cultural engagement:** The card offers discounted access to various cultural

institutions, aiming to foster greater citizen participation in cultural activities and stimulate the culture and art industry. By making it easier to access these experiences, the Climate Card is expected to enrich cultural life and promote a more vibrant cultural environment.

## Implementation

From January 2024 to June 2024, SMG conducted a six-month test operation to assess its feasibility and identify potential issues. The revenue structure of the Climate Card is primarily managed through a partnership with T-money, the clearing company responsible for handling payments for all public transport in the capital region. When users recharge their Climate Card, the funds are transferred to T-money, which then distributes the collected fares to the relevant subway and bus companies, much like the existing payment system for transportation services.<sup>5</sup>

3. “Climate Companion Card” to Offer Stronger Benefits Starting July! - My hands in Seoul. (n.d.). <https://mediahub.seoul.go.kr/archives/2011569>  
 Seoul launches “climate card tourist pass” with 1, 2, 3, and 5-day options starting in July! -. Official Website of the. (2024c, June 21). <https://english.seoul.go.kr/seoul-launches-climate-card-tourist-pass-with-1-2-3-and-5-day-options-starting-in-july/>  
 4. Climate card . Official Website of the. (n.d.-a). <https://english.seoul.go.kr/policy/transportation/climate-card/>  
 5. Seo, Y. (Ed.). (2024, February 11). The revenue structure of the climate card. Seoul Newspaper. Retrieved from <https://www.seoul.co.kr/news/society/2024/02/11/20240211500003>.

If accumulated usage fees exceed the amount initially charged on the card, the City of Seoul and the respective transportation companies provide the necessary top-ups. This setup allows seamless management of public transportation usage and payments, helping the city balance costs while promoting eco-friendly travel alternatives.<sup>6</sup>

To encourage the usage among younger generations, a discount was offered to youth users aged 19 to 39, who make up 61% of total Climate Card cardholders. In response

to the steady increase in usage, the City also introduced daily passes tailored for foreign tourists and visitors with discounted access to various cultural and leisure facilities, aiming to boost tourism in Seoul.<sup>7</sup>

For the pilot operation, the total budget is KRW 75 billion (USD 54.91 million), with SMG contributing KRW 40.1 billion (USD 29.36 million) and transportation organizations providing KRW 34.9 billion (USD 25.55 million). Following the successful test period, SMG officially launched the Climate Card in July 2024.

**Table 1: Price and type of Climate Card**

Type	Monthly Pass		Daily Pass	
	Bus+Subway+Bicycle	Bus+Subway	Bus+Subway	
Price	Youth Discount (from 19 to 39 years old)		1 Day	5,000 KRW (4 USD)
	58,000 KRW (43 USD)	55,000 KRW (41 USD)	2 Day	8,000 KRW (6 USD)
	<ul style="list-style-type: none"> <li>■ Trial Period: 1 to 5 days after the purchasing date</li> </ul>		3 Day	10,000 KRW (7 USD)
			5 Day	15,000 KRW (11 USD)
			7 Day	20,000 KRW (15 USD)
			<ul style="list-style-type: none"> <li>■ Trial Period: after the charging date</li> <li>■ No post charging</li> </ul>	

## Results and Impact

After the six-month test period, the pilot project has demonstrated significant positive outcomes and early success, with growing card usage, increased savings for citizens, and substantial reductions in GHG emissions.<sup>8</sup>

**1. The continuous increase in card users:**  
The daily utilization of the Climate Card for subway and bus transportation is steadily increasing. Within 70 days of its launch, the “Climate Card” recorded cumulative sales of 1 million units. The current total sales

have reached approximately 1.6 million units, with the number of weekday users counted up to 540,000.<sup>9, 10</sup> The demographic that predominantly purchases and utilizes the card consists of young individuals, characterized by high mobility.<sup>11</sup>

**2. Lowering transportation costs for citizens:**  
The Climate Card has proven to reduce transportation expenses, saving users an average of 30,000 KRW (22 USD) per month. For instance, an office worker commuting 20 days a month would typically spend 62,000(46 USD) to 65,000 KRW (48 USD) on

6. Launch of “Climate Companion Card Tourism Pass”: Available in 1, 2, 3, and 5-Day Options Starting July; Seoul Metropolitan Government. (2024, May 16). <https://news.seoul.go.kr/traffic/archives/512275?listPage=1&s=%EA%B8%B0%ED%9B%84%EB%8F%99%ED%96%89%EC%B9%B4%EB%93%9C>

7. Seoul’s Milestone Policy, “Climate Companion Card,” Officially Launches on July 1.; Seoul Metropolitan Government. (n.d.). <https://mayor.seoul.go.kr/oh/seoul/newsView.do?photoGallerySn=2918&main=pc>

8. “Climate Companion Card” Gets an Upgrade This July! Discover the Benefits”(n.d.-b). <https://opengov.seoul.go.kr/mediahub/31249091#:~:text=>

9. Climate companion card, million-seller policy item by mayor oh, to start full operation on July 1 -. Official Website of the. (2024, July 8). <https://english.seoul.go.kr/climate-companion-card-million-seller-policy-item-by-mayor-oh-to-start-full-operation-on-july-1/>

10. Seoul Solution. (2024, April 15). Climate card sales hit 1 million with more than 0.5 million weekday users. □□□□□□□□ Seoul Solution. <https://seoulsolution.kr/en/content/10018>

11. A month into the implementation of the climate card, users received monthly average of KRW 30,000 discount -. Official Website of the. (2024b, March 11). <https://english.seoul.go.kr/a-month-into-the-implementation-of-the-climate-card-users-received-monthly-average-of-krw-30000-discount/#:~:text=When%20the%20Climate%20Card%20discount,and%20encouraging%20the%20social%20activity>

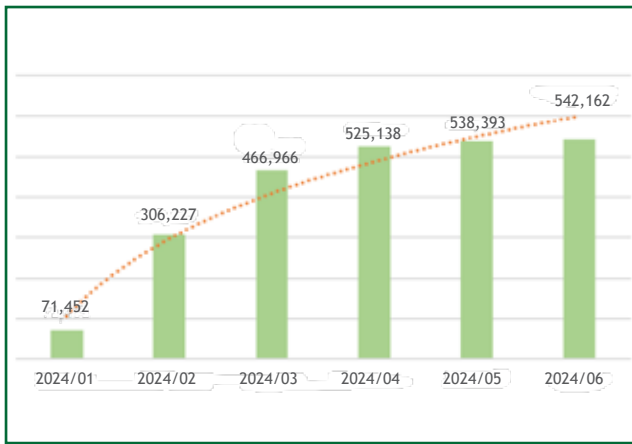


Figure 2: Daily Public Transport Users<sup>12</sup>

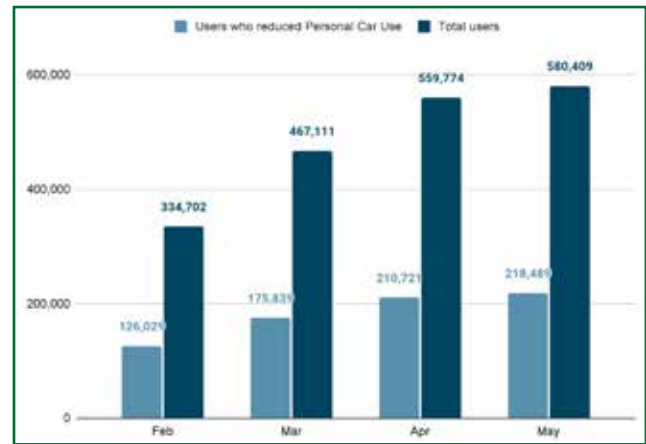


Figure 3: Users Reporting Reduced Personal Card Use<sup>14</sup>

subway fares, whereas the Youth Climate Card, priced at 55,000(41 USD) to 58,000 KRW (43 USD), provides savings beyond regular commuting costs. Additionally, for private vehicle users, who face average monthly fuel expenses of around 200,000 KRW (148 USD), the basic Climate Card, priced at 55,000(41 USD) to 65,000 KRW (48 USD) offers substantial savings—nearly 3.5 times the cost of fuel.

3. **Economic spin-off:** According to the survey by the Seoul Institute, which included 2,090 card users, 68% of respondents reported an increase in outdoor activities by approximately 1.3 times per week after using the card. Furthermore, there was an increase in consumer spending on dining out, shopping, and bank savings. The induced production effect due to this increase in consumer spending is estimated to be approximately 80.2 billion KRW over four months.<sup>13</sup>

4. **GHG reduction:** Over the four months from February to May, it is estimated that approximately 9% of Climate Card users reduced their use of private vehicles by around 100,000 vehicles. This reduction is equivalent to a decrease of 9,615 tons of GHG emissions and has the same environmental impact as planting approximately 1.4 million trees.<sup>15</sup>



Figure 4: GHG emission and Vehicle Reduction data of climate card<sup>16</sup>

12. NEAMF

13. "Mayor Oh Se-hoon's "Climate Companion Card" Officially Launches on July 1". (n.d.). <https://mayor.seoul.go.kr/oh/seoul/newsView.do?photoGallerySn=2918&main=pc>

14. ALP forum

15. "Mayor Oh Se-hoon's "Climate Companion Card" Officially Launches on July 1". (n.d.). <https://mayor.seoul.go.kr/oh/seoul/newsView.do?photoGallerySn=2918&main=pc>

16. "Climate Companion Card" Expands Services Starting July: Official Launch and New Short-Term Pass Options," Seoul Media Foundation TBS. TBS. (2024b, June 26) [https://tbs.seoul.kr/news/newsView.do?typ\\_800=7&idx\\_800=3524258&seq\\_800=20517074](https://tbs.seoul.kr/news/newsView.do?typ_800=7&idx_800=3524258&seq_800=20517074)



## Future Steps - Concluding Remarks

Building on the successful experiences of the pilot project, Various benefits and changes will continue in the second half of the year. In November, a postpaid version of the Climate Card with integrated debit and credit card payment

functions is scheduled for release. The postpaid card will automatically bill the user's expenses for the Climate Card on a monthly billing date, eliminating the need for users to recharge every 30 days. This will enhance user convenience by allowing unlimited public transportation access and facilitating purchases with a single card.<sup>17</sup>



**Figure 5: Seoul Mayor Oh Se-hoon is passing through the ticket gate using the Climate Card that he purchased himself. Seoul City<sup>18</sup>**

17. "Climate Companion Card" Gets an Upgrade This July! Discover the Benefits"(n.d.-b) <https://opengov.seoul.go.kr/mediahub/31249091#:~:text=>

18. Mayor Oh Se-hoon: "We Will Continue Enhancing the Climate Companion Card with Postpaid Credit Card Options for Greater Convenience." (n.d.). <https://mayor.seoul.go.kr/oh/seoul/newsView.do?photoGallerySn=2525&curPage=12>



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