

DANISH CHAMBER OF COMMERCE

COSTS OF ROAD CHARGE FOR TRUCKS

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1 Introduction

From January 1, 2025, the upcoming distance-based road charges will come into effect, which means that trucks with a total weight of 12 tons and above will have to pay more in road charges than they currently do. From 2027, it is intended that trucks with a total weight of 3.5-11.9 tons will also be subject to the upcoming road charges¹.

The road charge will be paid from January 1, 2025, per kilometer driven based on a fee rate that is determined by several parameters.

It can indeed be challenging to understand the magnitude of the increased costs that the upcoming road charge will bring. Therefore, it may be difficult for operators to determine the future price increases for their services.

Initially, it is the haulers who will bear the cost of the road charge, which increases the overall transportation expenses. Although it is expected that the additional cost will be passed on to transport buyers and ultimately to consumers, The Danish Chamber of Commerce has requested an analysis of the expected magnitude of the additional costs for transport operators. It is desired to examine this through various cases that vary in several parameters that impact the size of the road charge.

The Danish Chambers of Commerce has therefore asked COWI to analyze the impact of the upcoming road charge on transport operators.

During the analysis, COWI has been in contact with the industry to inquire about their preferences regarding how the additional costs associated with the new road charge should be calculated, making it easier for them to implement in their current pricing structure. In response to this, some parts of the industry have indicated that they would like the additional costs associated with the new road charge to be calculated as a percentage increase in the overall operating costs of the truck under the new fee system, relative to all other expenses they incur related to truck operation. This includes costs for truck financing, charging infrastructure (if applicable for electric trucks), fuel (electric or diesel), driver salaries, insurance, and maintenance. They also note that there may be different ways and methods to calculate the required increase in customer prices, depending on the extent of driving on the chargeable road network for specific customers.

¹ [provenuberegning-for-kilometerbaseret-vejafgift-for-lastbiler.pdf \(skm.dk\)](#)

2 Facts about the distance-based road charge

From 2025, the current period-based road usage tax for trucks weighing 12 tons and above will be replaced with a distance-based road charge. From 2027, it is intended that small trucks weighing 3.5-11.9 tons will also be included in the upcoming distance-based road charge².

The road charge is paid per kilometer driven based on a fee rate that is determined by three parameters:

1. The taxable road network

From 2025, the road charge will only apply to the national road network, other roads that are relevant for commercial traffic, and public roads within environmental zones (approximately 10,900 km in total). From 2028, the entire public road network will be included (approximately 75,000 km). The fee rate will vary depending on whether the driving occurs within the environmental zones or not. Driving within environmental zones will be 50 percent more expensive than on the rest of the road network.

2. The truck's CO₂ emission class

In addition, the fee rate will also differentiate based on a new classification of trucks called CO₂ emission classes. There is no correlation with the current Euro norm and the CO₂ emission classes. Trucks with electric drivetrains will be classified in emission class 5, which is the least expensive class. The Ministry of Taxation has stated that it is expected that diesel and biogas trucks will be classified in CO₂ emission class 1, which is the most expensive class³.

3. The truck's total weight

The fee rate is finally divided according to the truck's total weight, where the heaviest category is the most expensive:

- > Trucks with a total weight between 3.5 and 11.9 tons (expected to be included in 2027)
- > Trucks with a total weight between 12 and 17.9 tons
- > Trucks with a total weight between 18 and 32 tons
- > Trucks with a total weight over 32 tons

Table 1 displays the fee rates. The values for the periods 2025-2027 and 2028 are derived from DTL's (Dansk Transport & Logistik) calculations, following discussions with the Ministry of Taxation. The values for 2029 are based on the Ministry of Taxation's "Revenue calculation for kilometer-based road toll for trucks"⁴. It should be noted that the rates increase in two stages after implementation. The rates are introduced in 2025 and remain the same until 2027. They will then increase by 26-45% in 2028 and again by an additional 13-59% in 2029 compared to the 2028 level. As a result, the rates will increase by a total of 39-102% from 2025 to 2029. From 2029, the rates will remain fixed.

The rates for the period 2025-2027 will, on average, receive a discount of 19% compared to the originally announced prices. Similarly, the rates for 2028 will, on average, receive a discount of 12%

² [provenuberegning-for-kilometerbaseret-vejafgift-for-lastbiler.pdf \(skm.dk\)](#)

³ See attachment 1 in the assumption note

⁴ [provenuberegning-for-kilometerbaseret-vejafgift-for-lastbiler.pdf \(skm.dk\)](#)

compared to the originally announced rates as compensation for the increase in diesel tax by 0.50 DKK per liter⁵.

Table 1 Rates for future distance-based road tolls indicated as kr. per kilometer driven (price level 2025).

Rate structure 2025-2027								
	3,5-11,9 ton ⁶		12-17,9 ton		18-32 ton		Above 32 ton	
	Other road network	Environmental zone	Other road network	Environmental zone	Other road network	Environmental zone	Other road network	Environmental zone
CO₂ emission class 1			0.86	1.29	1.00	1.50	1.10	1.65
CO₂ emission class 2			0.79	1.19	0.92	1.38	1.01	1.52
CO₂ emission class 3			0.69	1.04	0.82	1.23	0.91	1.37
CO₂ emission class 4			0.46	0.69	0.53	0.80	0.58	0.87
CO₂ emission class 5			0.13	0.20	0.13	0.20	0.13	0.20

Rate structure 2028								
	3,5-11,9 ton		12-17,9 ton		18-32 ton		Above 32 ton	
	Other road network	Environmental zone	Other road network	Environmental zone	Other road network	Environmental zone	Other road network	Environmental zone
CO₂ emission class 1	?	?	1.14	1.72	1.30	1.96	1.43	2.13
CO₂ emission class 2	?	?	1.05	1.57	1.20	1.78	1.29	1.94
CO₂ emission class 3	?	?	0.90	1.36	1.06	1.57	1.15	1.74
CO₂ emission class 4	?	?	0.62	0.92	0.70	1.04	0.74	1.11
CO₂ emission class 5	?	?	0.19	0.29	0.19	0.29	0.19	0.29

Rate structure 2029								
	3,5-11,9 ton		12-17,9 ton		18-32 ton		Above 32 ton	
	Other road network	Environmental zone	Other road network	Environmental zone	Other road network	Environmental zone	Other road network	Environmental zone
CO₂ emission class 1	1.29	1.94	1.38	2.07	1.51	2.27	1.61	2.42
CO₂ emission class 2	1.13	1.70	1.22	1.83	1.35	2.02	1.44	2.16
CO₂ emission class 3	0.97	1.46	1.06	1.58	1.18	1.76	1.26	1.90
CO₂ emission class 4	0.66	1.00	0.72	1.07	0.79	1.19	0.84	1.25
CO₂ emission class 5	0.26	0.39	0.26	0.39	0.26	0.39	0.26	0.39

⁵ [Aftale om deludmøntning af Grøn Fond \(fm.dk\)](#)

⁶ This weight class is expected to be included from 2027, but the rates are not yet known.

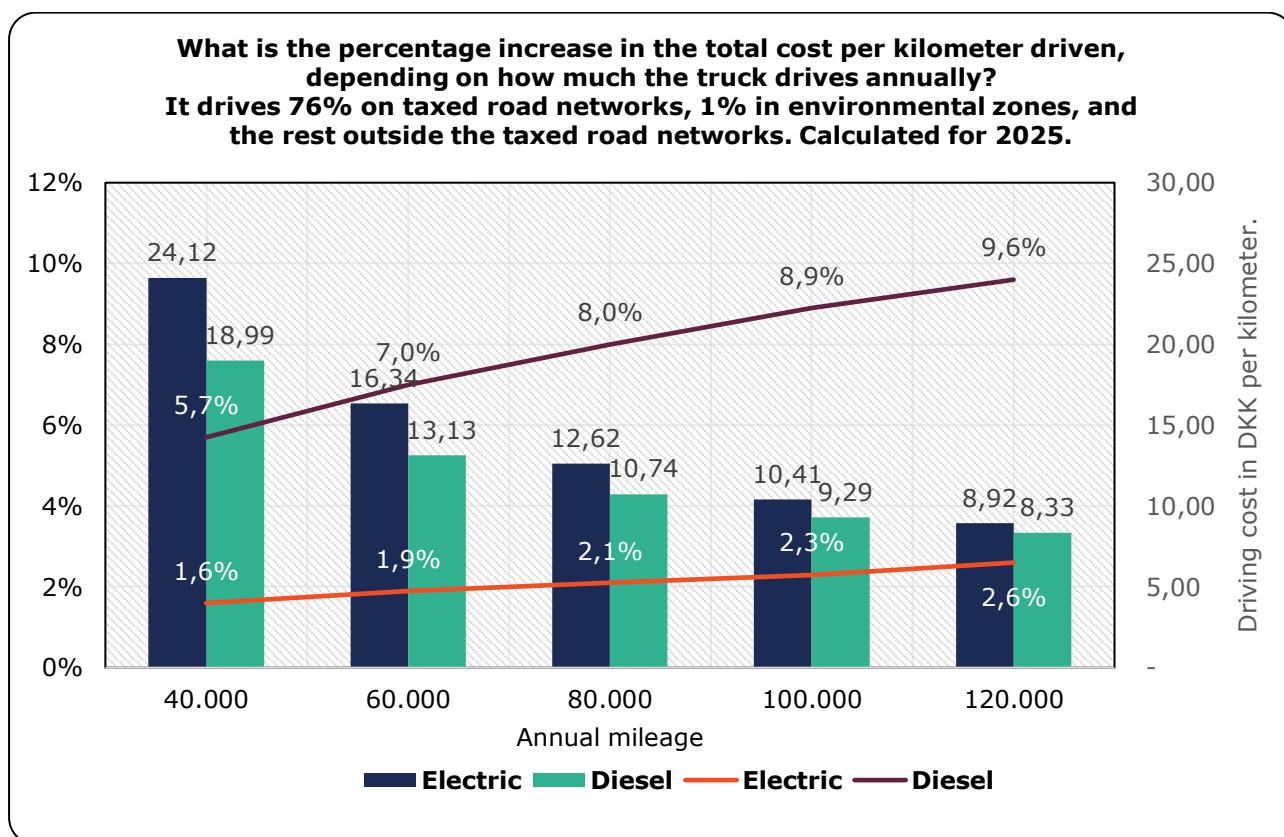
3 Calculation of additional costs per kilometer

General considerations

The costs of operating a truck include both fixed (annual) costs and some costs that depend on how much the truck drives. Both factors are included in the calculations of the cost per kilometer driven. When the kilometer-based road tax is introduced from 2025, it is important to remember that the road tax does not differentiate based on whether the truck is operating at full capacity or on empty/positioning trips – the road tax per kilometer is the same. This should also be considered in the calculation of the overall increase in operating costs.

Since the tax rate is per kilometer driven, it means that in order to calculate the increase in total operating costs resulting from the road tax, all fixed and variable costs must be calculated per kilometer driven. This includes all costs related to fuel, financial expenses for leasing or purchasing, driver expenses, insurance, road tax, etc., which are converted into an average cost per kilometer driven. This average cost varies depending on how many kilometers the truck drives per year. As some costs do not depend on the distance traveled, the average cost per kilometer will decrease as the truck drives more kilometers per year, as it is spread over a greater number of kilometers. This also means that the fixed costs per kilometer driven become smaller and smaller the more the truck drives per year. It also means that all costs that vary with the distance traveled become relatively more significant the more kilometers the truck drives per year. The same applies to the upcoming road tax. In other words, the more kilometers the truck drives per year, the higher the proportion of the total costs per kilometer represented by the upcoming road tax. This is illustrated in the figure below, which is based on an electric and diesel truck in the weight class of 12-17.9 tons in 2025, driving 75% of all kilometers on the taxed road network and 1% in environmental zones. The percentage increase is shown in relation to the total driving costs without road tax. For other weight classes, please refer to the four fact sheets. The average increase grows as the truck drives more kilometers. This is because the average total operating costs per kilometer decrease as the number of kilometers driven increases. This is also shown in the figure for the selected case.

Figure 1 What is the percentage increase in total costs per driven kilometer depending on how much the truck drives annually? 76% of the driving is on the taxed road network, 1% is in the environmental zones, and the remainder is outside of the taxed road network. Calculated for 2025.



Calculation of the average road toll per kilometer

When calculating the average additional cost per kilometer after the introduction of the road toll, it is important to understand that this additional cost is a weighted average of different tax rates based on the roads the truck will be driving on and the number of kilometers driven on each of these roads. In 2025, as mentioned earlier, the roads are divided into three categories: roads in environmental zones, other tolled roads, and roads that are not affected. Here, you need to find the rate for the CO₂ emission class that the truck is classified under for both roads in environmental zones and other tolled roads.

To find the average road toll per kilometer, you can use the following formula:

$$\text{Average tax cost per kilometer} = \frac{(\text{Environmental zone rate} * \text{number of kilometers in the zone}) + (\text{rate on other taxed roads} * \text{number of km})}{\text{Total number of kilometers driven (all roads)}}$$

4 Four cases

To illustrate the impact of the upcoming road tolls on carriers, calculations have been made for four different cases. These cases vary in terms of truck size and number of kilometers driven and will be affected differently by the structure and division of the forthcoming road toll.

To calculate the additional cost relative to other expenses, it has been necessary to use data and prices for other cost elements such as truck price, insurance, fuel, taxes, etc. The values and sources of these are indicated in a separate Assumptions Note.

Each case is structured in the same way, starting with the presentation of the specifications for the truck, which have an impact on the size of the road toll. Then, the percentage increase in road toll costs is presented in relation to the total costs for both an electric and diesel truck, classified respectively in CO₂ emission class 5 (cheapest class) and class 1 (most expensive class). The percentage increase in costs for diesel trucks is shown in relation to the total costs of operating diesel trucks today (2024), and the same applies to electric trucks compared to their current costs. This includes current road usage fees and diesel taxes. Therefore, it is not a comparison across different fuels or CO₂ emission classes, but rather a comparison of cost levels for the same truck before and after the introduction of the road toll.

5 Case 1 – Delivery truck weighing 16 tons.

In this case, we start with a truck with a total weight of 16 tons and an annual mileage of 40,000 km. The tax class and distribution of driving in the different toll zones for this case are shown in the table below:

Gross vehicle weight	16 tons
Annual mileage	40,000 kilometers
Tax weight class	12-17,9 tons
Distribution of driving in taxed zones	2025-2027: 1%*, 76%** & 23%***. 2028-: 1%* & 99%**

* = Environmental zones, ** = Other zones, *** = Non-covered zones

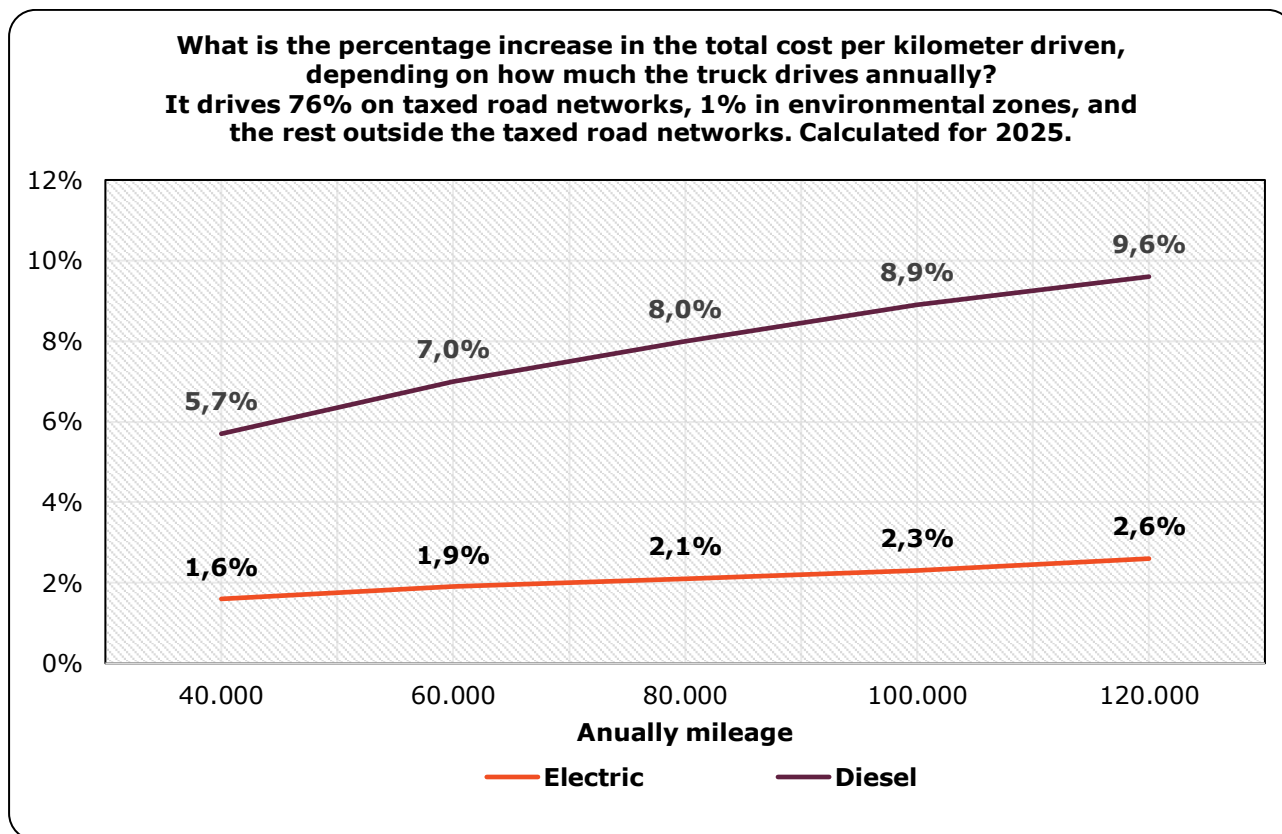
Additional costs due to the road toll:

The table shows both the average road toll per kilometer driven and the increase in total costs due to the road toll (including the cost of administering the toll). This is shown for different toll periods and for both electric and diesel trucks. The total costs include expenses for truck financing, charging infrastructure for electric trucks (if applicable), driver wages, fuel (electric or diesel), maintenance, insurance, and administrative costs for managing the road toll.

Tax period	2025-2027		2028		2029-	
Fuel type	BEV	Diesel	BEV	Diesel	BEV	Diesel
Average road tax per kilometer, in DKK (including administrative costs)	0.38 DKK	1.03 DKK	0.46 DKK	1.51 DKK	0.54 DKK	1.75 DKK
Additional costs due to road taxes, %	1.6%	5.7%	2.0%	8.4%	2.3%	9.8%

When road tolls are implemented from 2025, it is important to note that the price does not differentiate based on whether the truck is operating at full capacity or engaged in empty/positioning driving. The price per kilometer driven on the tolled road network is the same. This should be taken into consideration when calculating the increase in total operating costs and the operating costs per kilometer driven.

The figure shows that the increase in operating costs per kilometer driven varies depending on how much the truck is driven. This is because when fixed costs are distributed over all driven kilometers, this portion decreases as more kilometers are driven. As a result, the overall average operating costs per kilometer driven also decrease.



Calculation of the average toll surcharge:

The operator has several different methods and options for calculating their additional costs due to the road toll. Below is one of the possibilities, which calculates an average toll surcharge:

- > The operator should first determine the current cost per kilometer excluding the road toll. This should include all kilometers driven on both tolled and non-tolled roads, including empty driving.
- > Next, the operator needs to determine the average cost of the road toll per kilometer by mapping out where the trucks are driven and the weight and CO₂ emission classes of the trucks.
- > The operator can then use the following formula to calculate the size of a surcharge, which can be added to the current invoiced amounts:

$$\text{Surcharge percentage} = (\text{Average road toll per kilometer}^7 / \text{current cost per kilometer}) * 100$$

One can also choose other methods to distribute the additional costs resulting from the road toll between the customers, such as taking into account where the individual customer's transportation takes place or the proportion of the truck's payload being utilized, or something entirely different.

Examples of passing on (recharging) road tax for diesel and electric trucks

The choice of re-invoicing method can be calculated in various ways. Here are two examples, depending on whether it concerns full-load or distribution transport, based on the distribution of trips on the different toll roads shown in the table above.

⁷ It is determined by taking a weighted average of the rates from the zones that the truck will be traveling in.

Transportation with one shipment for a single customer (full-load transport): For this type of transport, the carrier can map out the route to the customer in order to identify which road sections are subject to tolls and thereby calculate the total cost of toll fees for the entire route, including the return trip.

Example calculation of the tax surcharge for invoicing:

A route of 100 km, including the return trip, will result in a total toll fee of 103.00 DKK for a diesel truck in 2025 (100 km * 1.03 DKK/km⁸). If the trip is carried out using an electric truck, the toll costs will amount to 38.00 DKK (100 km * 0.38 DKK/km).

Distribution run: During a distribution run, the total road toll needs to be divided among potentially many customers. It can be challenging for the carrier to allocate an exact share of the total road toll payment to a specific customer due to complexity. In practice, a simple approach is to add a percentage increase to the customer's current expenses based on how much the total costs increase according to the table and figure above. Operators can therefore multiply their current expenses by the values from the bottom line of the table above to determine the size of the toll surcharge for invoicing.

Example calculation of the tax surcharge for invoicing:

In 2025, an operator with a diesel truck will multiply their current expenses by 5.7%, while for their electric trucks, they will multiply their current expenses by 1.6%.

Weighting for a mix of BEV and diesel trucks

If a carrier has both electric and diesel trucks in their setup, it is possible to use the same additional cost for tolls on trips regardless of the fuel used by each individual truck. In such cases, the additional costs resulting from the road tolls should be weighted based on the percentage of the fleet composed of electric and diesel trucks, respectively. This approach can be used for both full-load and distribution examples shown above.

⁸ Weighted rate resulting from driving in environmental and other zones.

6 Case 2 – Truck weighing 26 tons

In this case, we start with a truck that has a total weight of 26 tons and an annual mileage of 60,000 km. Further information about the specifications of the truck is shown in the table below.

Gross vehicle weight	26 ton
Annual mileage	60,000 km
Tax weight class	18-32 ton
Distribution of driving in taxed zones	2025-2027: 1%*, 76%** & 23%***. 2028-: 1%* & 99%**

* = Environmental zones, ** = Other zones, *** = Non-covered zones

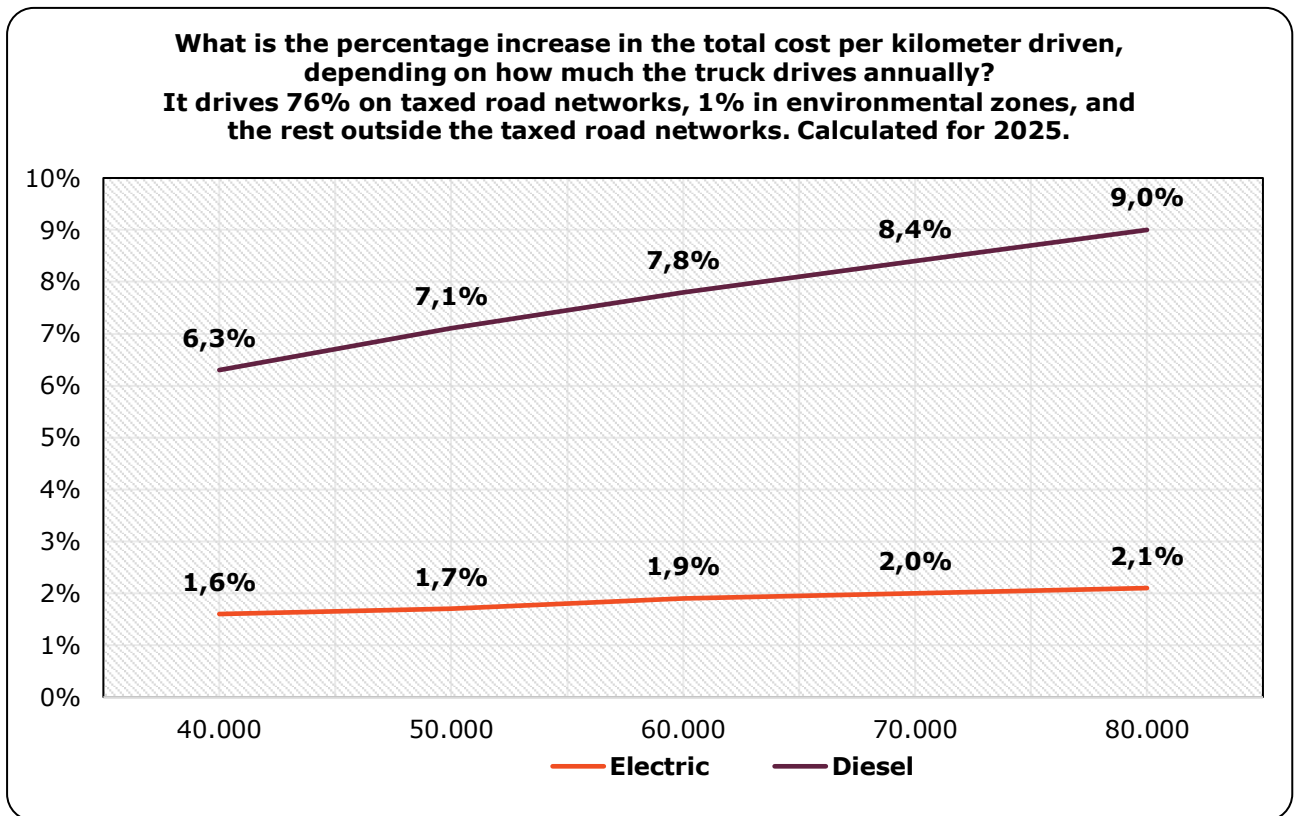
Additional costs due to the road toll:

The table shows both the average road toll per kilometer driven and the increase in total costs due to the road toll (including the cost of administering the toll). This is shown for different toll periods and for both electric and diesel trucks. The total costs include expenses for truck financing, charging infrastructure for electric trucks (if applicable), driver wages, fuel (electric or diesel), maintenance, insurance, and administrative costs for managing the road toll.

Tax period	2025-2027		2028		2029-	
Fuel type	BEV	Diesel	BEV	Diesel	BEV	Diesel
Average road tax per kilometer, in DKK (including administrative costs)	0.30 DKK	1.03 DKK	0.39 DKK	1.56 DKK	0.46 DKK	1.77 DKK
Additional costs due to road taxes, %	1.9%	7.8%	2.4%	11.8%	2.8%	13.5%

When road tolls are implemented from 2025, it is important to note that the price does not differentiate based on whether the truck is operating at full capacity or engaged in empty/positioning driving. The price per kilometer driven on the tolled road network is the same. This should be taken into consideration when calculating the increase in total operating costs and the operating costs per kilometer driven.

The figure shows that the increase in operating costs per kilometer driven varies depending on how much the truck is driven. This is because when fixed costs are distributed over all driven kilometers, this portion decreases as more kilometers are driven. As a result, the overall average operating costs per kilometer driven also decrease.



Calculation of the average toll surcharge:

The operator has several different methods and options for calculating their additional costs due to the road toll. Below is one of the possibilities, which calculates an average toll surcharge:

- > The operator should first determine the current cost per kilometer excluding the road toll. This should include all kilometers driven on both tolled and non-tolled roads, including empty driving.
- > Next, the operator needs to determine the average cost of the road toll per kilometer by mapping out where the trucks are driven and the weight and CO₂ emission classes of the trucks.
- > The operator can then use the following formula to calculate the size of a surcharge, which can be added to the current invoiced amounts:

$$\text{Surcharge percentage} = (\text{Average road toll per kilometer}^9 / \text{current cost per kilometer}) * 100$$

One can also choose other methods to distribute the additional costs resulting from the road toll between the customers, such as taking into account where the individual customer's transportation takes place or the proportion of the truck's payload being utilized, or something entirely different.

⁹ It is determined by taking a weighted average of the rates from the zones that the truck will be traveling in.

Examples of passing on (recharging) road tax for diesel and electric trucks

The choice of re-invoicing method can be calculated in various ways. Here are two examples, depending on whether it concerns full-load or distribution transport, based on the distribution of trips on the different toll roads shown in the table above.

Transportation with one shipment for a single customer (full-load transport): For this type of transport, the carrier can map out the route to the customer in order to identify which road sections are subject to tolls and thereby calculate the total cost of toll fees for the entire route, including the return trip.

Example calculation of the tax surcharge for invoicing:

A route of 100 km, including the return trip, will result in a total toll fee of 103.00 DKK for a diesel truck in 2025 (100 km * 1.03 DKK/km¹⁰). If the trip is carried out using an electric truck, the toll costs will amount to 30.00 DKK (100 km * 0.30 DKK/km).

Distribution run: During a distribution run, the total road toll needs to be divided among potentially many customers. It can be challenging for the carrier to allocate an exact share of the total road toll payment to a specific customer due to complexity. In practice, a simple approach is to add a percentage increase to the customer's current expenses based on how much the total costs increase according to the table and figure above. Operators can therefore multiply their current expenses by the values from the bottom line of the table above to determine the size of the toll surcharge for invoicing.

Example calculation of the tax surcharge for invoicing:

In 2025, an operator with a diesel truck will multiply their current expenses by 7.8%, while for their electric trucks, they will multiply their current expenses by 1.9%.

Weighting for a mix of BEV and diesel trucks

If a carrier has both electric and diesel trucks in their setup, it is possible to use the same additional cost for tolls on trips regardless of the fuel used by each individual truck. In such cases, the additional costs resulting from the road tolls should be weighted based on the percentage of the fleet composed of electric and diesel trucks, respectively. This approach can be used for both full-load and distribution examples shown above.

¹⁰ Weighted rate resulting from driving in environmental and other zones.

7 Case 3 – 40-ton truck with a trailer

In this case, we start with a truck with a total weight of 40 tons, with an annual mileage of 90,000 km. Other information about the truck's specifications is shown in the table below.

Gross vehicle weight	40 tons
Annual mileage	90,000 kilometers
Tax weight class	Above 32 tons
Distribution of driving in taxed zones	2025-2027: 1%*, 76%** & 23%***. 2028-: 1%* & 99%**

* = Environmental zones, ** = Other zones, *** = Non-covered zones

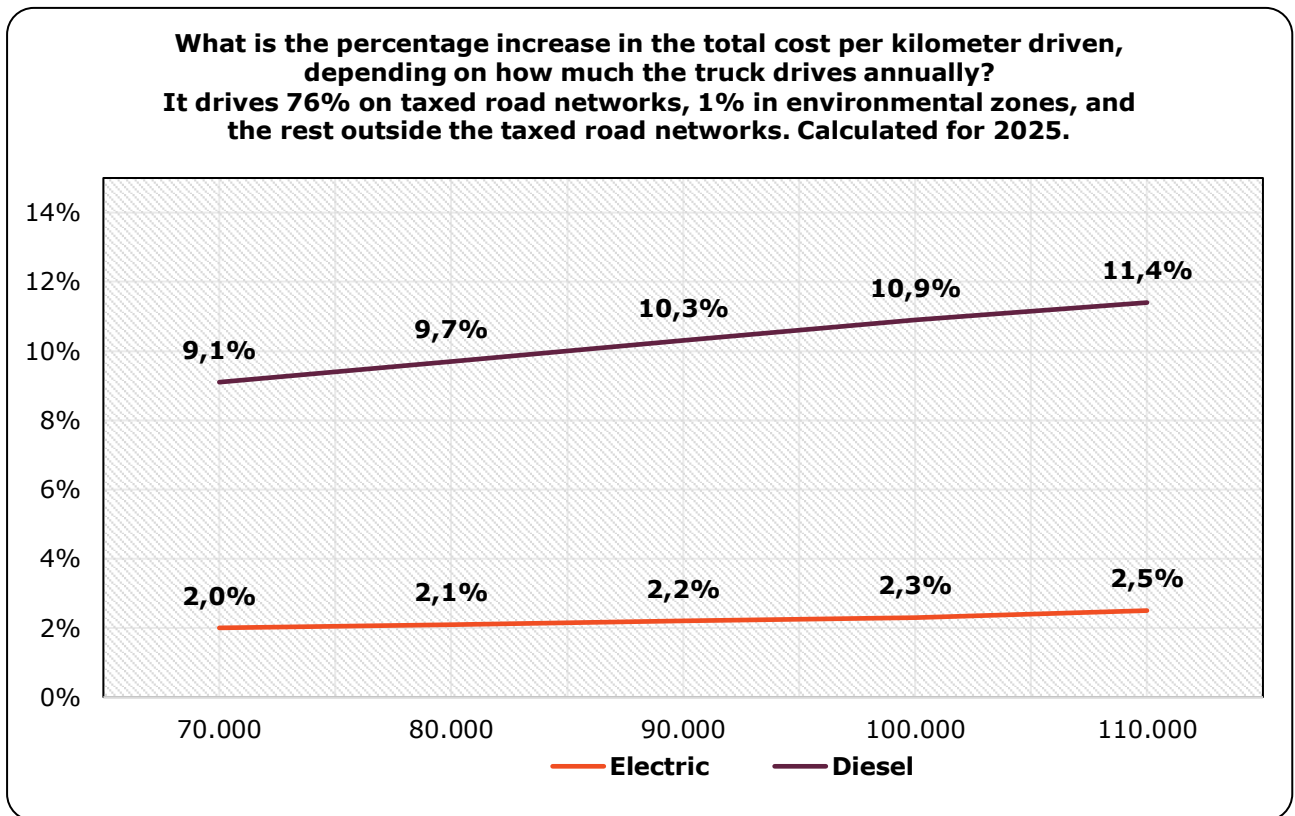
Additional costs due to the road toll:

The table shows both the average road toll per kilometer driven and the increase in total costs due to the road toll (including the cost of administering the toll). This is shown for different toll periods and for both electric and diesel trucks. The total costs include expenses for truck financing, charging infrastructure for electric trucks (if applicable), driver wages, fuel (electric or diesel), maintenance, insurance, and administrative costs for managing the road toll.

Tax period	2025-2027		2028		2029-	
Fuel type	BEV	Diesel	BEV	Diesel	BEV	Diesel
Average road tax per kilometer, in DKK (including administrative costs)	0.25 DKK	1.03 DKK	0.34 DKK	1.61 DKK	0.41 DKK	1.79 DKK
Additional costs due to road taxes, %	2.2%	10.3%	3.0%	16.2%	3.6%	18.0%

When road tolls are implemented from 2025, it is important to note that the price does not differentiate based on whether the truck is operating at full capacity or engaged in empty/positioning driving. The price per kilometer driven on the tolled road network is the same. This should be taken into consideration when calculating the increase in total operating costs and the operating costs per kilometer driven.

The figure shows that the increase in operating costs per kilometer driven varies depending on how much the truck is driven. This is because when fixed costs are distributed over all driven kilometers, this portion decreases as more kilometers are driven. As a result, the overall average operating costs per kilometer driven also decrease.



Calculation of the average toll surcharge:

The operator has several different methods and options for calculating their additional costs due to the road toll. Below is one of the possibilities, which calculates an average toll surcharge:

- > The operator should first determine the current cost per kilometer excluding the road toll. This should include all kilometers driven on both tolled and non-tolled roads, including empty driving.
- > Next, the operator needs to determine the average cost of the road toll per kilometer by mapping out where the trucks are driven and the weight and CO₂ emission classes of the trucks.
- > The operator can then use the following formula to calculate the size of a surcharge, which can be added to the current invoiced amounts:

$$\text{Surcharge percentage} = (\text{Average road toll per kilometer}^{11} / \text{current cost per kilometer}) * 100$$

One can also choose other methods to distribute the additional costs resulting from the road toll between the customers, such as taking into account where the individual customer's transportation takes place or the proportion of the truck's payload being utilized, or something entirely different.

¹¹ It is determined by taking a weighted average of the rates from the zones that the truck will be traveling in.

Examples of passing on (recharging) road tax for diesel and electric trucks

The choice of re-invoicing method can be calculated in various ways. Here are two examples, depending on whether it concerns full-load or distribution transport, based on the distribution of trips on the different toll roads shown in the table above.

Transportation with one shipment for a single customer (full-load transport): For this type of transport, the carrier can map out the route to the customer in order to identify which road sections are subject to tolls and thereby calculate the total cost of toll fees for the entire route, including the return trip.

Example calculation of the tax surcharge for invoicing:

A route of 100 km, including the return trip, will result in a total toll fee of 103.00 DKK for a diesel truck in 2025 (100 km * 1.03 DKK/km¹²). If the trip is carried out using an electric truck, the toll costs will amount to 25.00 DKK (100 km * 0.25 DKK/km).

Distribution run: During a distribution run, the total road toll needs to be divided among potentially many customers. It can be challenging for the carrier to allocate an exact share of the total road toll payment to a specific customer due to complexity. In practice, a simple approach is to add a percentage increase to the customer's current expenses based on how much the total costs increase according to the table and figure above. Operators can therefore multiply their current expenses by the values from the bottom line of the table above to determine the size of the toll surcharge for invoicing.

Example calculation of the tax surcharge for invoicing:

In 2025, an operator with a diesel truck will multiply their current expenses by 10.3%, while for their electric trucks, they will multiply their current expenses by 2.2%.

Weighting for a mix of BEV and diesel trucks

If a carrier has both electric and diesel trucks in their setup, it is possible to use the same additional cost for tolls on trips regardless of the fuel used by each individual truck. In such cases, the additional costs resulting from the road tolls should be weighted based on the percentage of the fleet composed of electric and diesel trucks, respectively. This approach can be used for both full-load and distribution examples shown above.

¹² Weighted rate resulting from driving in environmental and other zones.

8 Case 4 – Articulated truck weighing 50 tons

In this case, we start with an articulated truck with a total weight of 50 tons, with an annual mileage of 120,000 km. Other information about the truck's specifications is shown in the table below

Gross vehicle weight	50 tons
Annual mileage	120,000 kilometers
Tax weight class	Above 32 tons
Distribution of driving in taxed zones	2025-2027: 1%*, 76%** & 23%***. 2028-: 1%* & 99%**

* = Environmental zones, ** = Other zones, *** = Non-covered zones

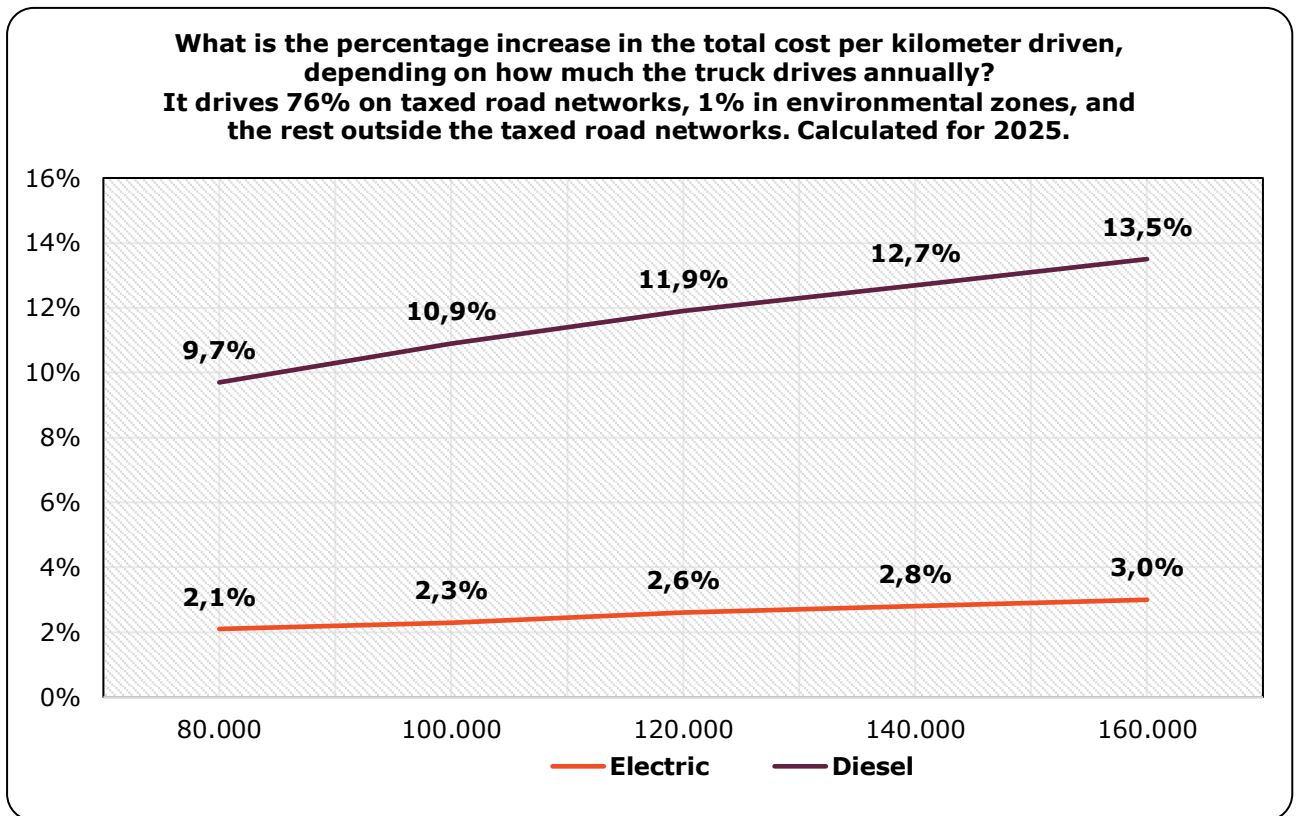
Additional costs due to the road toll:

The table shows both the average road toll per kilometer driven and the increase in total costs due to the road toll (including the cost of administering the toll). This is shown for different toll periods and for both electric and diesel trucks. The total costs include expenses for truck financing, charging infrastructure for electric trucks (if applicable), driver wages, fuel (electric or diesel), maintenance, insurance, and administrative costs for managing the road toll.

Tax period	2025-2027		2028		2029-	
Fuel type	BEV	Diesel	BEV	Diesel	BEV	Diesel
Average road tax per kilometer, in DKK (including administrative costs)	0.23 DKK	0.99 DKK	0.31 DKK	1.57 DKK	0.39 DKK	1.75 DKK
Additional costs due to road taxes, %	2.6%	11.9%	3.5%	18.8%	4.4%	21.1%

When road tolls are implemented from 2025, it is important to note that the price does not differentiate based on whether the truck is operating at full capacity or engaged in empty/positioning driving. The price per kilometer driven on the tolled road network is the same. This should be taken into consideration when calculating the increase in total operating costs and the operating costs per kilometer driven.

The figure shows that the increase in operating costs per kilometer driven varies depending on how much the truck is driven. This is because when fixed costs are distributed over all driven kilometers, this portion decreases as more kilometers are driven. As a result, the overall average operating costs per kilometer driven also decrease.



Calculation of the average toll surcharge:

The operator has several different methods and options for calculating their additional costs due to the road toll. Below is one of the possibilities, which calculates an average toll surcharge:

- > The operator should first determine the current cost per kilometer excluding the road toll. This should include all kilometers driven on both tolled and non-tolled roads, including empty driving.
- > Next, the operator needs to determine the average cost of the road toll per kilometer by mapping out where the trucks are driven and the weight and CO₂ emission classes of the trucks.
- > The operator can then use the following formula to calculate the size of a surcharge, which can be added to the current invoiced amounts:

$$\text{Surcharge percentage} = (\text{Average road toll per kilometer}^{13} / \text{current cost per kilometer}) * 100$$

One can also choose other methods to distribute the additional costs resulting from the road toll between the customers, such as taking into account where the individual customer's transportation takes place or the proportion of the truck's payload being utilized, or something entirely different.

¹³ It is determined by taking a weighted average of the rates from the zones that the truck will be traveling in.

Examples of passing on (recharging) road tax for diesel and electric trucks

The choice of re-invoicing method can be calculated in various ways. Here are two examples, depending on whether it concerns full-load or distribution transport, based on the distribution of trips on the different toll roads shown in the table above.

Transportation with one shipment for a single customer (full-load transport): For this type of transport, the carrier can map out the route to the customer in order to identify which road sections are subject to tolls and thereby calculate the total cost of toll fees for the entire route, including the return trip.

Example calculation of the tax surcharge for invoicing:

A route of 100 km, including the return trip, will result in a total toll fee of 99.00 DKK for a diesel truck in 2025 (100 km * 0.99 DKK/km¹⁴). If the trip is carried out using an electric truck, the toll costs will amount to 23.00 DKK (100 km * 0.23 DKK/km).

Distribution run: During a distribution run, the total road toll needs to be divided among potentially many customers. It can be challenging for the carrier to allocate an exact share of the total road toll payment to a specific customer due to complexity. In practice, a simple approach is to add a percentage increase to the customer's current expenses based on how much the total costs increase according to the table and figure above. Operators can therefore multiply their current expenses by the values from the bottom line of the table above to determine the size of the toll surcharge for invoicing.

Example calculation of the tax surcharge for invoicing:

In 2025, an operator with a diesel truck will multiply their current expenses by 11.9%, while for their electric trucks, they will multiply their current expenses by 2.6%.

Weighting for a mix of BEV and diesel trucks

If a carrier has both electric and diesel trucks in their setup, it is possible to use the same additional cost for tolls on trips regardless of the fuel used by each individual truck. In such cases, the additional costs resulting from the road tolls should be weighted based on the percentage of the fleet composed of electric and diesel trucks, respectively. This approach can be used for both full-load and distribution examples shown above.

¹⁴ Weighted rate resulting from driving in environmental and other zones.