ARTICLE 4

4.1 Any passenger car (including sedans and station wagons) with a gasoline or diesel engine, manufactured or imported by the entity shall comply with the following Subparagraph 4.1.1 or 4.1.2 regarding the standards governing the energy efficiency of vehicles (hereinafter referred to as the Energy Efficiency Standards):

4.1.1 Energy efficiency testing is conducted in accordance with the Federal Test Procedure (FTP-75) of the United States:

4.1.1.1 Energy Efficiency Standards

Class of vehicles engine displacement (cubic centimeters)	Energy Efficiency Standards (kilometers/liter)
Below 1200	16.2
Over 1200 to 1800	13.0
Over 1800 to 2400	11.4
Over 2400 to 3000	10.0
Over 3000 to 3600	9.2
Over 3600 to 4200	8.5
Over 4200 to 5400	7.2
Over 5400	6.5

4.1.1.2 The combined energy efficiency value for passenger cars (including sedans and station wagons) is calculated by the following equation:

Combined energy efficiency value (kilometers/liter, km/L) =

$$\dfrac{1}{\dfrac{0.55}{\text{City energy efficiency (km/L)}} + \dfrac{0.45}{\text{Highway energy efficiency (km/L)}}}$$

4.1.2 Energy efficiency testing is conducted in accordance with Directive 1999/100/EC and subsequent amendments:

4.1.2.1 Energy Efficiency Standards

Class of vehicles engine displacement (cubic centimeters)	Energy Efficiency Standards (kilometers/liter)
Below 1200	14.1
Over 1200 to 1800	11.3
Over 1800 to 2400	9.9
Over 2400 to 3000	8.7
Over 3000 to 3600	8.0
Over 3600 to 4200	7.4
Over 4200 to 5400	6.3
Over 5400	5.7

4.1.2.2 The combined energy efficiency value for passenger cars (including sedans and station wagons) is calculated by the following equation:

For vehicles being tested under the New European Driving Cycle (NEDC):

Combined energy efficiency value (kilometers/liter, km/L) =

$$\frac{\text{Urban test mileage (km)} + \text{Extra urban test mileage (km)}}{\dfrac{\text{Urban test mileage (km)}}{\text{Urban energy efficiency (km/L)}} + \dfrac{\text{Extra urban test mileage (km)}}{\text{Extra urban energy efficiency (km/L)}}}$$

For vehicles being tested under the Worldwide harmonized Light vehicles Test Cycle (WLTC):

Combined energy efficiency value (kilometers/liter, km/L) =

$$\frac{\text{Low-speed mileage(km)} + \text{Medium-speed mileage(km)} + \text{High-speed mileage(km)} + \text{Extra High-speed mileage(km)}}{\dfrac{\text{Low-speed mileage(km)}}{\text{Low-speed energy efficiency(km)}} + \dfrac{\text{Medium-speed mileage(km)}}{\text{Medium-speed energy efficiency(km)}} + \dfrac{\text{High-speed mileage(km)}}{\text{High-speed energy efficiency(km)}} + \dfrac{\text{Extra High-speed mileage(km)}}{\text{Extra High-speed energy efficiency(km)}}}$$

4.2 Effective from Jan.1, 2016 for manufactured or imported passenger car (including sedans and station wagons) with a gasoline or diesel engine by any entity to apply for vehicle type fuel economy certificates shall be tested in accordance with the test procedures prescribed in the European directive 1999/100/EC and its subsequent revisions; effective from Jan. 1, 2017, the previous mentioned vehicles shall comply with the following requirements:

4.2.1 The sales weighted average energy efficiency value of the manufacturer sold vehicles shall be higher than the required sales weighted average energy efficiency target value.

4.2.2 The Sales Weighted Average Energy Efficiency Limits corresponding to different vehicle types prescribed by the required sales weighted average energy efficiency target value are as follows. But if the previous year's annual sales in Taiwan of a vehicle model by the entity were less than 300 units and the vehicle model's global annual production is less than 10,000 units, or the entity being approved as a small volume manufacturer and applicable to comply with a specific CO_2 emission (energy efficiency) standard issued by the government of vehicle's Country of Origin, a proposal for its energy efficiency improvement may be submitted and being approved by the central competent authority to execute its improvement project announced by the central competent authority, and not applicable for the sales weighted average energy efficiency standard limits prescribed herein.

4.2.2.1 The Sales Weighted Average Energy Efficiency Limits effective from Jan. 1, 2017 till Dec. 31, 2021:

Class of vehicle reference mass (kg)	Sales Weighted Average Energy Efficiency Limits (kilometers/liter)
Below 850	19.2
Over 850 to 965	18.2
Over 965 to 1080	17.4
Over 1080 to 1190	16.6
Over 1190 to 1305	15.7
Over 1305 to 1420	15.0

Over 1420 to 1530	14.1
Over 1530 to 1640	13.3
Over 1640 to 1760	12.5
Over 1760 to 1870	11.8
Over 1870 to 1980	11.2
Over 1980 to 2100	10.5
Over 2100 to 2210	9.7
Over 2210 to 2380	9.3
Over 2380 to 2610	8.4
Over 2610	7.2

4.2.2.2 The Sales Weighted Average Energy Efficiency Limits effective from Jan. 1, 2022:

Class of vehicle reference mass (kg)	Sales Weighted Average Energy Efficiency Limits (kilometers/liter)
Below 850	23.3
Over 850 to 965	23.3
Over 965 to 1080	23.3
Over 1080 to 1190	22.2
Over 1190 to 1305	21.3
Over 1305 to 1420	20.4
Over 1420 to 1530	19.6
Over 1530 to 1640	18.9
Over 1640 to 1760	18.2
Over 1760 to 1870	17.5
Over 1870 to 1980	16.9
Over 1980 to 2100	16.1
Over 2100 to 2210	15.6
Over 2210 to 2380	15.2
Over 2380 to 2610	14.3
Over 2610	13.7

4.2.3 The sales weighted average energy efficiency value and sales weighted average energy efficiency target value prescribed in Subparagraph 4.2.1 shall be calculated by using the following formula:

4.2.3.1 Sales weighted average energy efficiency value:

$$\text{Sales weighted average energy efficiency value(km/L)} = \frac{\sum_{1}^{N} V_i \times W_i}{\sum_{1}^{N} \frac{V_i}{FC_i}}$$

i: manufactured or imported vehicle type's sequence number.

FCi: Energy efficiency test value (km/liter) for manufactured or imported vehicle type i.

Vi: sales number (units) of manufactured or imported vehicle type i.

Wi : Correspond Credit Multiplier for Vehicle Type i.

4.2.3.2 Sales weighted average energy efficiency target value:

$$\text{Sales weighted average energy efficiency target value(km/L)} = \frac{\sum_{1}^{N} V_i}{\sum_{1}^{N} \frac{V_i}{T_i}}$$

i: manufactured or imported vehicle type's sequence number.

Ti: Sales Weighted Average Energy Efficiency Limits (km/liter) of the manufactured or imported vehicle type i in accordance with Subparagraph 4.2.2 of this Article.

Vi: sales number (units) of manufactured or imported vehicle type i.

4.2.4 The sales weighted average energy efficiency values for each individual manufacturer shall be calculated by the central competent authority by using the fuel economy test values registered by each individual manufacturer; different manufacturers may be combined for their sales weighted average energy efficiency value calculation, if being approved by the central competent authority.

4.2.5 Vehicle entities pursued Subparagraph 4.2.4 may consent to end their combined calculation of sales weighted average energy efficiency value; their previous earned credits from exceed the required target value may continue to be used by the assigned manufacturer through agreement; the deficiency from under their target value shall be managed in accordance with Subparagraph 4.2.8 of this Article.

4.2.6 The same vehicle entity manufactured or imported different brands of vehicles, may calculate the sales weighted average energy efficiency value separately for different brands, if being approved by the central competent authority.

4.2.7 Vehicle entities with annual sales number over 100 units or values over 100 million NT dollars being approved by the central competent authority may use their annual sales number for the calculation of sales weighted average energy efficiency value. If the calculated sales weighted average energy efficiency value is over the target value, the earned credits may be accumulated for the calculation of next 3 year's sales weighted average energy efficiency values. After this amended regulation becomes effective upon its promulgation in 2018, if the calculated sales weighted average energy efficiency value is over the target value, the earned credits may be accumulated for the calculation of the next 4 year's sales weighted average energy efficiency values.

4.2.8 For vehicle entities mentioned in the previous Subparagraph 4.2.7, if their calculated sales weighted average energy efficiency values are under their required target values at specific year, their subsequent market sold vehicles must comply with the Sales Weighted Average Energy Efficiency Limits being defined by Subparagraph 4.2.2 of this Article until the difference of calculated and target values are being complemented or acquired from other entities' credits to regain their sales weighted average energy efficiency value calculation by their annual sales numbers.

4.2.9 For Electric vehicles or Fuel Cell vehicles (sedans and station wagons) that being sold by the vehicle entity, its sales may be multiplied by 10 as the correspond sales and being used in the calculation of sales weighted average energy efficiency value; for Plug-In Hybrid Electric sedans and station wagons with pure electric travel mileage over 50 kilometers, their

correspond sales multiplier may be set as 5. The Subparagraph 4.2.2 to 4.2.8 are also applicable and the energy efficiency test values shall be rated by the competent authority in other provisions.

4.2.10 Effective from Jan. 1, 2022, for the sedans or station wagons that being sold by the vehicle entity, if its energy efficiency value is higher than the correspond Sales Weighted Average Energy Efficiency Limits as listed in Item 4.2.2.2 of this Article, the multipliers for the calculation of sales weighted average energy efficiency value are set as follows：

4.2.10.1 Over by 10%, set as 1.5;

4.2.10.2 Over by 20%, set as 2;

4.2.10.3 Over by 30%, set as 2.5;

4.2.10.4 Over by 40%, set as 3;

4.2.10.5 Over by 50%, set as 3.5.

4.3 The Energy Efficiency Standards listed in Article 6 are applicable to vehicles with importer provided the listing of US certificate being classified as LDT model or with the EU certificate being classified as M1G model.