



Low Emission Zones (LEZ) and Limited Traffic Zones (LTZ) both often use exemptions and or permits. The two types of scheme/mechanism have different aims, premises and approaches. This note aims to explain the differences in the terminology used, and its accompanying nuances.

- **Low-Emission Zones (LEZ)** aim to ensure that all vehicles meet a certain emission standard, rather than reducing the number of vehicles entering the area *per se* like a LTZ does. There are a few **exemptions** for those vehicles that do not meet the standards, but there are good reasons for allowing them access, for example emergency services, rarely used very expensive vehicles. A complying vehicle wanting to enter the LEZ often has to identify itself as complying with the standards, either by showing a sticker, or being on a database (usually automatically on a national vehicle database plus those actively registered (foreign) vehicles that are not on the national database). These are not seen as permits, but stickers or registrations.
- **Low-Traffic Zones (LTZ)** aim to reduce / limit traffic, rather than to change the emissions standard of the vehicles used in the area like an LEZ does. Certain categories of vehicles or trips, for example those living in the area, are **permitted** to enter. They are given a permit to prove their eligibility. In addition to permits, there are usually exempted vehicles; these are usually vehicles readily identified by their livery / visual characteristics that are needed for the functioning of the town, e.g. emergency vehicles, public transport, postal vehicles etc.

Summary of the different approaches

## Low Emission Zones

- Aim – to reduce emissions. So far LEZs have not generally reduced traffic, however this was different for the London ULEZ as the standard is that much tighter, and is likely to be different for ZEZ
- Premise – All vehicles must meet an emissions standard
- Only exemptions need to apply
- As few exemptions as possible
- Allowed in automatically if you meet the standards sometimes need sticker /registration
- Occasionally vehicles not meeting the standards may apply for certain exemptions
- Public authority vehicles should lead by example & comply

## Traffic Limited Zones

- Aim – to reduce traffic
- Premise – No vehicle is allowed in, unless has permit
- Vehicles needed to service area are granted entry
- All vehicles entering have a permit or exemption
- Vehicles are generally banned, however some vehicles need / allowed to enter (exemption / permit)
- Some vehicles are essential to the area operating, e.g. emergency vehicles, public transport, postal vehicles, local authority vehicles.... & are easily identified. These are given exemptions
- Other vehicles allowed entry if have specific permission – given / applied for a permit

# Low Emission Zones (LEZ)

## Exemptions

Low emission zones generally don't reduce traffic, but change the emissions of (different types of) vehicles allowed in the zone (Zero Emission Zones may break from this). Complying with this often costs

money, so exemptions can be used to lessen the financial impact on particular groups, and to avoid disproportionate costs for high-cost vehicles rarely needed in the area.

The fewer exemptions, the more impact and credibility the LEZ has, and would be the aim of a good practice LEZ. However, exemptions, if carefully administered, can also help increase their acceptability and feasibility, and allow the implementation date to be brought forward. There needs to be a balance between ensuring those that really need to access the LEZ but are unable to afford a compliant vehicle can do so, and a long string of exemptions that weakens the LEZ. Exemptions should be (and be seen as) fair, ideally clear and simple, and not give the appearance that large numbers of vehicles are exempted.

Generally, there are a number of main types of exemptions for LEZs:

- **Key roads** (legally required) - Key roads that are needed for Inter-European travel e.g. **Trans-European Network (TEN) road network**, motorways, harbour access roads require special attention, due to the EU Freedom of movement principle. They are usually exempted. The single motorway LEZ (Austrian A12) has a low standard due to this.
- **Emergency / military vehicles** (widely used)
- **Specific low mileage expensive specialist vehicles** when they are needed in the area (widely used) - e.g. off-road going vehicles which are allowed to drive on the highway, mobile cranes, mixer / concrete mixer, mobile suction machines, exceptional transport, showmans/circus vehicles, agricultural vehicles, (non-commercial) historic vehicles. This list should aim to be short, and include essential vehicles only. As these vehicles are rarely used, individual exemptions could perhaps be combined with a certain number of (paid) exemptions per year.
- **Hardship exemptions** (useful to minimise socio-economic impact) - See further details below
- **Interim /sunset exemptions** (short, limited duration exemptions at the start of a scheme / phase) - These are mainly used where local residents / businesses had little lead-in time to comply (and the vehicle was owned before the LEZ was announced), or to give some types of driver, e.g. disabled, additional time to comply due to the (expensive) modifications made to the vehicles.
- **Retrofits** - to allow more cost-efficient compliance
- **Specific journeys or temporary exemptions** (give the potential for wide ranging exemptions with a high administrative burden) - Either individual entries for 'the common good' that are exempted, or a certain number of entries can be purchased (further details below)
- **Vehicles for registered disabled persons** (e.g. disabled vehicles tax class / much weaker Blue badge) have often been used, but increasingly LEZs are making differences between vehicles that require expensive adaptations for the disabled person, and normal vehicles that are driven by disabled persons. London uses a sunset exemption to allow adapted disabled vehicles more time to comply. Different to LTZs, affected disabled persons can still access the area if they comply with the emissions standard. Disabled vehicles are still exempted generally in some countries, in particular Italy, where LEZs are based on the same legislation as LTZs, and where there are also generally more exemptions in Italian LEZs than in other countries.

## Further details on LEZ exemptions

### Limited purchased exemptions

These are a form of exemption where a certain number of entries can be purchased / fee paid (e.g. **Antwerp** (8 per year)/ **London** (€130-260/day)).

These avoid the bureaucracy of exemptions, while allowing those vehicles that occasionally need/wish to enter the zone, the opportunity to do so; the premise is that regular visitors will have most impact on the air quality (as well as congestion) rather than those entering rarely. The Belgian model allows for a maximum of 8 entries per year at an administrative fee of €35. The London model has a high daily charge, that works as both a penalty, or a charge for a single daily entry (€130-260 depending on vehicle type).

## Hardship exemptions

For those for whom complying with the LEZ would cause significant financial difficulties, hardship exemptions have been used in the Netherlands and Germany.

The intention is to reduce the potential socio-economic impact of the LEZ without reducing significantly its environmental impact. Few were in fact applied for, but it gave a mechanism to ensure that businesses didn't close due to the LEZ, in order to increase acceptability and feasibility. In order that these exemptions are fairly and strictly implemented, the applicant needs to prove that retrofitting is not possible and either a) as an individual, their income, per dependent, is lower than set levels, or b) proof from an accountant that the business is at a risk of bankruptcy if a compliant vehicle would have to be purchased. For example, in Cologne, the hardship exemption can be granted to tradespeople where operating a vehicle that meets the standards would threaten their business viability. This threat must be confirmed by an accountant, auditor, a Chamber of Commerce<sup>1</sup> or similar organisation.

For Germany in the case of individuals, they need to prove that they cannot afford to replace the vehicle and retrofit is not possible. Hannover sets the measure of 'not economically viable' as the limits under civil law in terms of a maximum monthly income allowed, depending on the number of dependants<sup>2</sup>.

Dutch hardship exemptions are issued on a case-by-case basis if the business has a low income and the business's livelihood depends on having the relevant vehicle able to enter the LEZ. In the Netherlands the number of applications under the hardship clause (which prevents businesses experiencing serious financial problems due to the LEZs) is very limited.

## Exemptions where public transport is not available

In Germany and Italy there have been exemptions where private cars are affected for individuals unable to afford a compliant vehicle and whose work hours (with proof) are when no public transport is available; however, these exemptions are rarely used any more.

## Interim / 'sunset' exemptions

Sunset exemptions can be used (exemptions with a fixed end date) can enable the targeting of specific owners as opposed to vehicles that might need longer to comply. However, there are often other ways of achieving the same goal. One example could be giving sufficient lead time before initiating or enforcing the measure by having a 'run-in' or 'interim' period, where perhaps for the first 6 months information notices are given (a letter saying "if we had enforced, you would have received a €XX fine") instead of penalties, which can also help information dissemination. Another option might be instead to have some categories of vehicle / driver being affected by a later phase of an LEZ, which has subsequently tighter standards over time. The time period of any sunset exemptions should be clearly defined and not extended. As with any exemptions, they should not be used too widely.

While **electric vehicles (EVs)** are sometimes officially exempted from low emission zones, in practice it is not necessary (except for perhaps a political/statement point of view), as EVs meet the emissions standards. Also, for all current LEZ emissions standards, certainly all plug-in hybrid electric vehicles are new enough to meet the standards, as are most hybrids.

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<sup>1</sup> German firms are legally required to be members of these organisations

<sup>2</sup> Monthly income as of 2011 was: With no dependants €1130, 1 dependant €1560, 2 dependants €1820, 3 dependants €2110, 4 dependants €2480, 5 dependants €3020.

**Retrofits** are sometimes included as exemptions, but more often as part of the standard. Sometimes a later phase of the LEZ has removing the ability to comply with retrofits when the retrofit does not apply to all pollutants.

## Not good practice exemptions

Public vehicles. These should comply, so as to lead by example.

Long or complex lists of exemptions, with different requirements.

## Limited Traffic Zones (LTZ)

An LTZ has a different purpose to a low-emission zone. Its purpose is to reduce the number of vehicles in the area – irrespective of their emissions. In order to enable the LTZ area of the city to function, it needs to allow certain vehicles to access the city.

## Exemptions

Commonly exempted vehicles (i.e. those that do not need to request and show a permit) are usually vehicles that operate public utility services in the city and are readily identified by the visual characteristics, such as.

- Emergency vehicles, Police, Ambulances and medical vehicles, fire service vehicles, Doctors responding to an emergency
- Waste collection and street cleaning
- Public transport including taxi and car-hire with driver services
- Postal / Parcel services
- Utility vehicles, electricity, digital, gas, water and sewerage network operators
- Surveillance vehicles, (eg parking wardens, security firms)
- Funeral cars
- Transport of money and valuables

These vehicles are normally included in the “white list” (if a camera-based enforcement system is in place) or not penalised by the local police if the exemption is indicated in the regulation. The presence of official logos on or in the vehicle and the provision of services within the municipal boundaries (e.g. in performing a contract with the public entity or a license) can be indicated as prerequisite for certain public utility vehicles where the vehicle is not obviously owned by the town.

## Permits

LTZ permits - and therefore categories as indicated in the regulation - are primarily set according to the user’s **place of residence** (i.e. LTZ residents), health/**physical condition** (people with reduced mobility, people who need assistance) and **regular and continuous accessibility needs** (e.g. garage owners/tenants, couriers, maintenance workers, caregivers, etc.)

The only vehicle type category that are automatically allowed to obtain a permit are electric and hybrid vehicles (as recently introduced by “Article 7, point 9-bis.” of the Italian Road Code).

A permit can be **permanent** (but with a predefined duration e.g. 1 to 5 years), **temporary** (e.g. limited to some months or days) or **short term/occasional** (e.g. day pass or hourly pass).

Those allowed to access the LTZ need to demonstrate the possession of the requirements and formally request a permit in order to have the right to access the LTZ. Different rules are applied as to whether the vehicles are allowed to circulate or park in the LTZ, or allowed to do both.

**Main common LTZ user categories** allowed to hold a permanent or temporary permit are:

1. **Residents** (households permanently living in the LTZ – i.e. as stated by the municipal registry office and as owners/tenants of a property)
2. **Owners/tenants of a garage in the LTZ**
3. **Freight carriers\***, either professional third-party operators (e.g. express couriers, logistics companies) or companies delivering goods on an own-account basis (e.g. retailers/ shopkeepers located in the LTZ, food & beverage producers/distributors, companies transporting heavy and voluminous goods, street vendors, pharmacies, catering services, florists, etc.)
4. **Maintenance and tradespeople providing regular and continuous services in the LTZ\*** (e.g. providers of technical assistance on IT systems, elevators, bar equipment, cleaning companies, electricians, plumbers and other tradespeople, etc.)
5. **Clients of hotels in the LTZ\*** (usually only for check-in and check-out)
6. **People with disabilities** with either an EU parking card or better disabled vehicle tax class
7. **Caregivers**, either professional or relatives, providing assistance to those dependent on their help living in the LTZ (e.g. elderly or disabled persons, children)
8. **Doctors** of the Local Health Service and/or with a clinic in the LTZ
9. **Public institutions** for their official fleet only

\* allowed in specific time-windows.

**Occasional and temporary permits** are usually issued for

- Tradespeople
- Construction companies
- Event organisers
- Wedding car
- Removal companies performing house moving operations
- justified urgent and/or occasional needs (normally indicating a maximum number of access per month)

Less-restrictive LTZs might include also the following categories to hold a permanent permit (instead of an occasional one):

1. **Dwellers not residing in the city** (single citizens or families living only in certain months/weeks of the year in the LTZ e.g. university students, workers or owners/tenants of a vacation apartment)
2. **Retailers and tradespeople located in the LTZ**
3. **Professionals located in the LTZ**
4. **Owners of private properties in the LTZ** but not living in the LTZ
5. **Minors not living in the LTZ** who need to be accompanied to schools or to grandparents in the LTZ
6. **Private vehicles of people covering an institutional role or working for a public entity** (police officers, city council officers, city council members).
7. **Journalists**

Each permit can be associated to one or more vehicles according to the rules set in the LTZ scheme.

**Further restrictions** can be applied according to

- **Vehicle type** (e.g. light duty vehicles, motorcycles),
- **Size** (weight, length),

- **Emission standard** (Euro norms, fuel/energy, ZEV – thus making the LTZ similar to a LEZ/ZEZ, the difference being that in the LTZ all vehicles need permits, Z/LEZ only vehicles with exceptions need to apply)
- **Use** (e.g. only one registered vehicle allowed to enter the LTZ per day/time).
- **Cost** also differentiated to discourage (certain) types of trips
- **Certain Trips** (eg delivery) could be required to be bike-based, by granting no vehicle-based permits

## Permit Recommendations

Permits should have restricted validity, eg 1 year, to aid the phasing of scheme. Phasing might be

- permit numbers reduced
- additional requirements added
- persistent offenders penalised...

Give as much warning as possible of next phase, so vehicle operators can adapt.

The boundary definition between low or zero emission zones and LTZ is increasingly blurring. There are LTZ with LEZ aspects, ZEZ implemented via an LTZ mechanism. The general rule between the two approaches is:

- Z/LEZ all vehicles meeting standard can enter
- In LTZ vehicles are restricted (need permit) AND need to meet standard/other requirement

A ZEZ can still be 'marketed' as ZEZ, even if it is implemented via permits.

## How are permits-exemptions identified?

Stakeholder process is likely to gain many calls for exemptions & permits. Many different stakeholders arguing as to why they need an exemption or permit. The role of the scheme designer is to balance the initial scheme popularity, political feasibility with the scheme impact (& popularity & fairness).

While the scheme could have both positive and negative impacts, but the design should aim to minimise negative impacts, through inherent scheme design, complimentary measures, appropriate permits and where necessary exemptions. There will be those stakeholders that feel they are negatively affected by the scheme, but these may not be negative effects of the scheme.

General rule: As few exemptions and types of permit as possible, and them (as well as the whole scheme) as clear as possible.

Key factors that can help minimise the need for exemptions (and often also raise the quality of the scheme):

- Good Communication Strategy facts, clear explanation & visualisation of aim, impact assessments, good 'marketing'....
- Strong political leadership / consensus

- Other ways round the problem / resistance eg Providing ZEV disabled shuttles, micro-mobility, MAAS, delivery hub, viable financial alternatives for no longer used car parks or rooms previous converted into car boxes....
- Legal necessity eg AQ / larger goal eg Climate Change
- Phasing of the scheme
- A user-friendly permit process
- Time limited exemptions and permits