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Malta Low Carbon Development Strategy

Friends of the Earth Malta, Moviment Graffiti and BirdLife Malta Recommendations

Friends of the Earth Malta (FoEM), Moviment Graffiti and BirdLife Malta believe that carbon neutrality is a key step in working towards a sustainable future, one that is more equipped to adapt to the inevitable effects of climate change. The record high temperatures we are experiencing in Malta, and indeed across the globe, underscore the critical urgency of confronting this threat with the effective action required. There is no room for half-measures. On this basis, our organisations believe that the proposed Low Carbon Development Strategy, a key and fundamental step in our national climate change strategy, fails to deliver the full extent of actions and measures required to realistically meet the overarching carbon neutrality target by 2050. Its scope remains too narrow at times, and there appears to be a reluctance in some areas to implement comprehensive change. Abdicating Malta's responsibility to tackle certain issues head-on, blaming this on our size or population density, is also unimaginative and removes focus from the areas in which proper change can and must be implemented.

Carbon emissions are the main drivers of climate change, and Malta's Low Carbon Development Strategy (LCDS) must therefore be willing to make maximum efforts in achieving its scope of emission reduction across the seven sectors involved. A shift to renewable energies must be prioritized, with a phasing out of fossil-fuel dependency. We also note that the LCDS is drafted based on the 19% emission reduction target of the Emission Strategy Regulation for 2030¹, which is far lower than the revised 30-35% reduction target². To address this discrepancy, the transport sector needs to be drastically restructured to focus on active mobility and public transport and energy efficiency in all buildings must be tackled.

A second general and related observation is the frequent reference throughout the document to the application of future technologies once these have been developed. We are not satisfied that sufficient research has been carried out into current decarbonization technologies and strategies that can be considered. This overreliance on vague future technologies is detracting from meaningful mitigation measures that can be taken in the shorter term.

The overall assumption that energy demand will continue to grow is problematic. A reliance on electric vehicles and a continued growth of energy requirements in the buildings sector are both assumed from the outset of the LCDS without question. If Malta aims to reach carbon neutrality the approach must be more ambitious and the reduction in energy use per capacity must be prioritised.

¹ https://ec.europa.eu/energy/sites/ener/files/documents/mt_final_necp_main_en.pdf

² https://ec.europa.eu/clima/policies/effort/regulation_en

Recommendations per sector

Energy measures

The approach of how the LCDS aims to abate emissions in the energy sector is problematic as is indicated with the following sentence on p 37 *“By 2030, the most significant contributor to GHG emissions abatement is the interconnector”*. **Offshoring or exporting our emissions to another country is not a solution**. If Malta aims to move towards carbon neutrality, not only on paper, it needs to focus on reducing its energy consumption as well as investing in renewables. The interconnector does not guarantee that the energy sourced by Malta will be produced through renewable energy and the heavy dependence on the interconnector simply means that our GHG emissions are exported to another country. With this in mind, FoEM, Movement Graffiti and BirdLife Malta propose the following measures:

- **The CO₂ emissions associated with the energy imported through the interconnector needs to be made publicly available** so that the value of such an interconnector and the proposed second one can be assessed.
- **The planned natural gas connection with Gela (Sicily), and proposals by the EU to consider a hydrogen line instead, need to be carefully considered and discussed openly before major decisions are made.** We understand that energy provisions should ideally come from a mix of sources, however Malta cannot depend on a source that is currently in experimental stages, especially when most hydrogen sources are still coming from non-renewable sources linked to fossil fuel generation (grey and blue).

Hydrogen is simply a vector to store and move energy around. If the production of hydrogen releases CO₂, from splitting methane gas, it worsens global warming. The fossil fuel industry claims that it can in the future capture and store carbon. In reality, the large-scale and secure storage of carbon remains unproven and uneconomic.

Hydrogen is also inefficient. When compared to its alternatives, both fossil and renewable hydrogen are very energy-intensive and expensive. Five times more wind or solar farms would be needed to heat our homes with (green) hydrogen than if we were to heat them directly with electricity using a heat pump. It is a similar story with hydrogen cars versus electric cars.

We are only aware of experimental hydrogen-powered/retrofitted power stations – and these are very expensive to retrofit.

- The supply of energy needs to be democratised and community energy initiatives supported. This would mean amendments to the legislative framework that limits the supply of electricity to a single provider (ie Enemalta) and hence precludes the possibility of the adoption of energy communities. Create/encourage community energy cooperations, in which the public can invest in **communal energy schemes** (e.g. solar on large roofs of industrial estates, schools, government buildings, etc). These would be highly effective in Malta using public buildings as over 50% of the Maltese population live in apartment buildings (Eurostat 2018), which would limit available roof space for solar panels.

- The estimated proportion of renewables in the total electricity supply seems to remain very small as indicated in table 3 on p36. **If Malta aims to reach carbon neutrality by 2050 the ambition for the share of renewables must be much larger to at least 30% by 2030³.** The dependence on an interconnector does not guarantee the procurement of green energy but could lead to ‘offshoring’ of emissions.

In this regard, there need to be more incentives for conventional PV systems. **Protection of solar rights** (i.e. loss of sunlight as a result of increase in building height) needs to be enshrined in law. The potential of solar water heaters and how to promote uptake needs to be studied. Non-conventional renewable energy, such as PV on facades and in glass windows, sea-based PV arrays and onshore micro-wind installations need to be further studied, keeping in mind potential negative effects (e.g. effect of off-shore energy on Posidonia meadows and marine life).

Transport measures

Rather than focusing predominantly on measures promoting an ICE to EV transition, the priority should first and foremost be on reducing the number of cars and journeys made by car. Electro-mobility can play a role, but the **focus should be on reducing the need to travel and on promoting public and active transport**, as they have a lower cost of investment, provide health benefits (in physical and mental health) and can contribute to improvements in air quality and reduction of noise pollution.

The footprint of public and active transport is also much lower than that required for private car use: a pedestrian, cyclist and bus passenger requires between 0.5 and 1.5 m² per person to move, whereas a person in a private car needs around 10m² of road space (not even counting the public space dedicated to car parking). **It is time to reclaim our public space for healthy and efficient modes of transport, to contribute to meeting our climate, air quality and health objectives.**

Our country is besieged by a frenzy of tree-cutting and the destruction of agricultural land sacrificed to road widening and construction. We have been told these should reduce traffic and travelling distances; however, studies worldwide have shown that road construction and widening does not solve the traffic issue. **The studies carried out by the Maltese authorities confirm this clearly: no new road will save the country from gridlock, unless there is a shift to alternative means of transport.** In spite of these studies, we face a lack of serious investment in these alternatives, such as efficient public transport and infrastructure for cyclists. In the meantime, millions are being spent on new roads that will not solve the issue.

The “Impact Assessment for the Transport sector” mainly focuses on EV infrastructure. **It is perplexing to note however that one of the points on p106 “Free public transport may disincentivise innovation/competition in this market” was considered to be relevant enough to be included in this document - this goes counter to every logical plan, including proposals being made through the Air Quality Plan sub-Committee (AQPC) committee which seeks to extend the free public transport scheme.** This comment in a

³ <https://www.europarl.europa.eu/factsheets/en/sheet/70/renewable-energy>

way shows the clear bias towards the car industry since with that frame of thinking, one can also argue that walking “may disincentive innovation/competition in this market”

It is stated that a fuel Internal Combustion Engine ban will come into force in 2030 at the earliest. This is still too vague, considering it is such an impactful measure. A cut-off point should be more clearly specified, and brought forward before 2030, as the removal of non-electric cars should be considered a priority. One wonders why the Cleaner Vehicles Commission set up by MECP in 2019 has not provided this clarity considering that “The Cleaner Vehicles Commission was set up in 2019 with the objective to propose a cut-off date for the registration of passenger cars and small vans that are not zero or low emission”.⁴

The incentivization of **remote working** is mentioned, however, nothing concrete is described. If done properly, this could be a highly impactful measure as it will reduce the amount of cars on the road at any one time altogether. **The Government should lead by example in encouraging remote or hybrid working (for remote-possible jobs such as office jobs) within its ministries/departments, and possibly provide incentives for private companies/other entities who enable teleworking for their employees.** Whilst this should be done irrespective of COVID-19, the pandemic has proved that the technology is at a stage where teleworking is feasible and might in fact increase productivity when compared to working at the office.

Parking tools need to be given more prominence. **Introduce communal / residential parking schemes, to give back public space to citizens** and to free up road space for active travel within and between towns / villages. The LCDS has no mention of any form of parking scheme. Increased investment in active travel infrastructure is mentioned, however this was designated as the lowest priority measure for this sector.

Public transport, free or not, needs to become more efficient and reliable. Emphasis is placed on the promotion of public and active transport in this strategy, with the extension of free public transport mentioned. A National Household Travel Survey will be carried out in order to determine ways to increase use of public transport, and electrification of Malta’s bus fleet will be finished by 2030. However, no mention is made of its increased efficiency and reliability, which is one of the main reasons the vast majority of people dismiss the use of public transport. No mention was made of Bus Rapid Transit lines. Although the development of a Mass Transport system was mentioned, no financial or impact information was given. **Research and investment needs to be carried out in Bus Rapid Transit lines (short-term mass-transit solution).** These measures, with transport contributing such a large fraction of Malta’s emissions, should be given more detailed importance.

We call for shorter and more bus routes, more use of smaller buses, and more frequent bus trips, especially during rush hours, whilst ensuring that no bus trips are missed under any circumstance. Also, the introduction of additional routes and night-time routes all week covering all locations to encourage bus use.

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https://meae.gov.mt/en/Public_Consultations/MECP/PublishingImages/Pages/Consultations/GreenPaperTowardsCleanerVehiclesonourRoads/Towards%20Cleaner%20Vehicles%20on%20our%20Roads%20-%20v2.0.pdf

Commuting

- The introduction of a Differentiated Car Pooling Strategy for employees of both public and private sector;
- The provision of pooled transport to staff of private and public sector entities;
- Incentives for employers to install bicycle infrastructure and shower facilities that can encourage employees to commute by bike;
- Enforcement on school transport vans and buses so that children are picked up for school at a decent hour of the day;
- The removal of road licence fees for motorbikes;
- The lowering of the minimum age for driving a scooter (max capacity: 150cc) to 16 years of age;
- Provide higher grants for e-bikes for students;
- Withdrawal of the proposed e-scooter regulations since these disincentive use of this alternative means of transportation.

Although infrastructure on pedestrian and cycle tracks has been mentioned, there is no concrete plan on the design and implementation of pedestrianised areas and one-way village roads dedicated only to buses, bikes and motorbikes in all towns and villages of Malta and Gozo. **The creation of more bicycle lanes to create a network which can connect all those choosing to commute by bike, and the creation of safe and accessible pavements and spaces for pedestrians.**

We also suggest the **repeal of the Development Notification Procedure allowing Infrastructure Malta** to go ahead with the asphaltting and widening of country roads without going through the full standard planning application process.

We are also highly critical of this statement on page 44. *“In this area, the NECP indicates a plan to develop a tunnel between Malta and Gozo which is assumed to reduce the requirement for gasoil used in internal navigation by around 50%.”*

The process to plan the tunnel to Gozo needs to be halted and investment is needed in a proper options analysis, including fast ferries (for foot passengers) connecting Gozo and localities along Malta’s shores directly to the urban centre. Electric ferries from Valletta have now started to operate and are proving to be a very efficient way to travel between Malta and Gozo, especially when combined with other public transport services. Encouraging more private car travel between Malta and Gozo is going to be counterproductive in a low carbon strategy. Apart from that, the tunnel threatens the destruction of prime agricultural land, archaeologically sensitive sites and the perched water aquifer.

Claiming that this tunnel will decrease CO₂ emissions is to say the least short-sighted, as it encourages the use of private vehicles, as well as being detrimental to the coastal and marine areas in which it will be built. Fast ferries should be encouraged, not only from Valletta but also from other localities (especially the more densely populated eastern half of Malta).

Buildings measures

- LCDS 'assumes' that new buildings are targeted, but there are no specifics given on how this will be ensured. Additionally it is not clear why retrofitting of buildings is not part of the LCDS. Yes, it might be more costly to do so, but to reduce the energy requirements for heating and cooling households, especially in the hot summer months, would require also tackling the existing buildings right now. This can be done with incentives and support for residents. For all future buildings mandatory requirements, not online guidelines, are required to ensure that insulates and passive cooling systems are integrated into the design of all new buildings.
- Greening of roofs, especially in urban areas to combat the Urban Heat Island effect as well as increase insulation in buildings reducing heating and cooling related costs and energy use. This and other passive cooling systems can reduce the dependency on AC units. Especially since in the document there is nothing specifically mentioned about how replacing AC units for increased energy efficiency will be achieved.
- Additionally street lighting can also be tackled through the LCDS. Street lights, especially on secondary roads can be triggered by sensors to both reduce energy dependency as well as light pollution.
- Introduce 'White Certificates' (Energy Savings Certificates) following the successful example of Denmark, France and Italy to boost zero-emission building, not only for hotels and offices but extending to other buildings including residential ones.

Industry measures

- Look into opportunities of energy cascading and use of waste-heat in industrial business parks.

Waste measures

Reference should be made to the recommendations submitted in relation to the [Long Term Waste Management Plan for the Maltese Islands \(2021-2030\)](#)⁵.

Water measures

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The Mediterranean region is considered a hotspot of climate change since it lies in a transitional climate zone⁶. Researchers have extrapolated future scenarios for the Mediterranean and their predictions imply that drought will increase to an average of 6 months with a global rise of 2°C, and an average of 12 months with a rise to 3°C with annual water availability decreasing by 17% at 2°C⁷. Malta is already prone to droughts and experiences limited rainfall for over 5 months of the year. Rain-water harvesting measures and control of groundwater abstraction is crucial for climate change adaptation. Even though the RO systems in Malta have become much more energy efficient, rain-water collection can be done through passive low-tech methods that would reduce energy requirements for water generation and increase water security. Therefore we support the measures proposed in the LCDS and would like to recommend the following additions:

- Introduce the obligation to restore water wells and reservoirs and provide financial incentives to the public and businesses.
- Research into the introduction of measures for domestic waste water recycling, specifically for the reuse of grey-water from showers and sinks to water for flushing before going into the national waste water system. This should complement the greywater use in the hotel industry.
- Prioritise the development of water-catchment infrastructure, especially rain-water runoff due to soil capping, even if it is less cost effective than RO water production.
- Introduce permeable paving material, especially on country roads to allow rain percolation into the water table.
- Introduce sufficient incentives for farmers to create reservoirs for rain-water harvesting rather than rely on borehole extraction.

Agriculture & LULUCF measures

As mentioned in the feedback provided by FoEM in June 2020, it is crucial to tackle the sector holistically rather than adapt piecemeal solutions.

- Introducing measures such as “Methane-inhibiting vaccines” and “optimising feed to minimise fugitive methane emissions from livestock” are simply not focusing on the root cause of emissions in the agricultural sector. Ensuring that there is sufficient support and economic incentives for farmers to transition to agro-ecology, agro-forestry and organic farming is crucial, rather than attempting to make livestock farming more “efficient”.
- Agricultural land (both in use and abandoned) needs to be protected, considering that this land can be used as a carbon sink rather than a source of GHG emissions. Soil capping should be avoided at all costs since this reduces water percolation while materials such as tarmac, asphalt and concrete also contribute to the heat island effect.
- Incentives should be provided to livestock farmers to transition to vegetable and fruit production to phase out high methane generating animal husbandry, especially cow dairy farms.

⁶ D. Skuras and D. Psaltopoulos, “A broad overview of the main problems derived from climate change that will affect agricultural production in the Mediterranean area.” [Online]. Available: <http://www.fao.org/3/i3084e/i3084e16.pdf>.

⁷ R. McSweeney, “Interactive: The impacts of climate change at 1.5C, 2C and beyond,” *Carbonbrief.org*, 2020. https://interactive.carbonbrief.org/impacts-climate-change-one-point-five-degrees-two-degrees/?utm_source=web&utm_campaign=Redirect

- Farmers also need to be supported with fertiliser plans and these need to be enforced to avoid denitrification and release of nitrous oxide.
- Commercial scale aquaponics-based food production requires high capital investment and is more resource intensive. If such systems are to be adopted it is crucial that:
 - Such landless farming is not adopted on existing agricultural land but rather in already developed areas.
 - Are powered 100% by renewable energy, especially if such systems will adopt artificial lighting.
- Stronger protection for carbon sinks (trees, soil) and incentives to increase carbon sinks and carbon content in soils. Protection of mature trees – not just on paper. Although planting more trees is a positive initiative, let us not delude ourselves into believing that they have the same positive benefits for our environment and wellbeing as one single mature tree. The same applies for replacing trees from urban environments and replanting them away from communities.
- Agricultural waste materials (organic waste) can be treated at the biodigester rather than burnt, e.g. clearing of grasses by farmers.
- Incentives for farmers to invest in agricultural tools and machinery that does not rely on heavy fuel oil. This can either be done through subsidies or by creating a sharing economy where energy efficient electrically powered machinery can be rented out by farmers.
- Incentives for further introduction of PV systems on agricultural buildings. This should not be done at the expense of or damaging the rural heritage and aesthetic in rural areas.
- While agricultural land is being abandoned and not utilised well, young people and communities would like to access agricultural land. There are many citizens interested in sustainable farming and would like to participate in community farming. This is an **opportunity to provide agricultural land to communities that would like to conserve soil, farm organically and have a holistic plan for each agricultural parcel**. Surveys can be carried out to determine which government-owned agricultural land is not being utilized well and these plots of land can be made available to communities in each locality. An allotment system can hence be implemented, focusing on good agricultural practices.
- Increased research on how climate change affects Maltese agriculture and how it can adapt/mitigate effects.
- Implementation of good farming practices such as wind curbing, soil conservation. Research on crops requiring less water and fertilisers/high economic return. More emphasis on sustainable agricultural practices, should tie in with adaptation measure 3.

Financial recommendations for the LCDS

- Incentivise Maltese participation on EU projects with a 100% automatic co-financing (signed off by Ministry of Finance) for all EU projects not fully financed by EU funds (life, Interreg etc) when applications are submitted by registered NGOs, University of Malta, MCTS and non-making profit organisations. It has to be as simple as a signature because the consistency with the LCDS is checked already at the EU level.
- Provide banks with a State collateral guarantee for all green loans issued according to ISO 14100 and 14030 standards (soon published) or for Green Infrastructures built according to selected standards (example SM 3700:2017 for Green Roofs) or in a list of national priorities (example: shading parking with photovoltaic panels)
- Reduce (via tax credit) the taxation when banks demonstrate they are reserving a relevant percentage of the TIER 1 Capital for green loans and green bonds used to finance local GI and green energy /efficiency projects.
- Add the Financial sector to the sub-sections of section 5 to study the social and economic impacts and identify the effect of LCDS measures in the financial sector.
- Enable the Ombudsman with the power to sanction green washing practices and withdraw the benefits listed above.