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Planning Guidance for Micro Wind Turbines 2010

**Public Submissions on
Draft Policy**

May 2010

MEPA

Ref	Respondent	Date	Summary of Comments Received	Response
MWC01	Jes Farrugia	30/07/09	Request for further information	Requested information was sent on 03/08/09.
MWC02	Oliver Cini	30/07/09	Requested if the document covers also the vertical small wind-turbine under the 1kw hour generation. Such turbines would be great for urban areas since vibration wise they can be mounted on solid rubber and noise propagation will be limited by its height.	The document provides policy guidance for all wind turbines with a generating capacity not exceeding 20 kW.
MWC03	Marc Anthony Azzopardi	03/08/09	Interested in the subject of horizontal axis micro-wind turbines and has plans to install a turbine in the urban environment. With this regard has embarked on a detailed study of the wind resource on his property. The research plan is to evaluate the economics and feasibility of small scale domestic 1kW micro-wind turbines. It is worth gaining experience in Malta prior to the widespread development of micro-wind turbines which may have disappointing effects. The study will also look at important details such as capital expenditure, maintenance costs, set-up costs, amortization periods, safety considerations, over speed control, maximum power transfer algorithms, neighbour-relations and many other useful technical aspects.	The policy encourages research into the advantages and disadvantages of micro-wind turbines in urban areas and MEPA intends to set up a partnership with other public agencies, research institutions and NGOs to fund and carry out such research.
NWC04	Antoine Busuttil	03/08/09	Request for further information.	Requested information was sent on 03/08/09.
MWC05	John Proffitt-White	06/08/09	Welcomes the opportunity to have the permission to fit such a power source to his residence if given the go ahead by the authorities concerned. The property is in the village of Munxar and looks down over the valley leading to Xlendi This is an ideal location when the winds blow up from the coast, through the valley and up onto Munxar.	MEPA encourages the development of micro wind turbines that fulfill the requirements of the policy.
MWC06	David Fenech	16/08/09	Micro-wind Turbines should not be	The policy document takes a

			<p>allowed in congested urban areas. Their installation must have a set distance from other buildings. They definitely should not be a cause of further visual impact as we have enough water tanks, solar panels, satellite dishes, etc. Such turbines should also not be permitted in areas which are sloped as these will definitely have a visual impact which will cause trouble for the neighbours.</p> <p>The internet has many sites where one can make his own turbine. Some of these turbines cause more noise than others.</p>	<p>precautionary approach towards the location of micro-wind turbines in the urban environment.</p> <p>The policy includes mitigation measures against visual impact through height limitations and location guidance.</p>
MWC07	Anonymous	18/08/09	<p>The starting point in establishing regulations for erecting and use of micro-wind turbines is that presently illegally erected wind turbines on urban private roofs be dismantled or else these regulations would be a futile effort. The author lives near an illegally installed wind turbine on the roof of a maisonette. Neighbours have to live with the humming emitted by such a turbine when operated, besides the dangers of its construction.</p> <p>If MEPA is tolerant towards this flagrant illegal construction, how can one be optimistic of the rules governing this topic? Does MEPA think that without taking action against persons who own illegally erected turbines, the new regulations would be a deterrent?</p>	<p>In the absence of research especially on noise impacts, the policy document takes a precautionary approach towards the location of micro-wind turbines in the urban environment (residential areas). Pilot projects that assess the potential impacts i.e. visual impact, noise and vibrations need to be carried out before MEPA considers a more widespread installation in residential urban areas.</p> <p>The fact that illegally installed micro-wind turbines exist strengthens the requirement for a policy that guides their development.</p> <p>The illegality remains an enforcement issue and enforcement notices have been served on a good number of turbines.</p>
MWC08	Alfred Grech	18/08/09	<p>Wind turbines could be installed on top of the street light poles in the by passes. They will not look ugly and perhaps they may be one of the cheapest ways of installing several of them like in the St Paul's Bay by pass, etc.</p> <p>Solar heaters in Malta could help</p>	<p>The policy document is not aimed towards micro-wind turbines that may be installed with other infrastructure. However, the document has been amended to ensure that such installations can still be considered on their own merits outside the framework of this guidance.</p> <p>MEPA policy guidance that enables and</p>

			<p>tremendously. If one looks at an aerial view of Tel Aviv, one finds many solar heaters on the roofs of private houses. Why not in Malta? The government could import them and sell them at a reasonable price and perhaps they can be exempt from VAT to make them more affordable.</p>	<p>facilitates the installation of solar water heaters is already in place. Also, the Malta Resources Authority already has in place schemes that subsidize the purchase of solar water heaters. As a result, solar water heaters on the roofs of buildings have also become a common feature in Malta.</p>
NWC09	Paul M Camilleri	22/08/09	<p>Domestic wind turbines for homes/flats should be of a reasonable height - not more than 9 metres from the rooftop upwards. Ideally they should be posted at the back of the roof - not in front. The diameter of the wind turbine should not be more than 2 metres. The maximum production of energy for domestic wind turbines should be 5kW so as to limit both the visual and noise effects. The sound at full speed should be as low as possible and they should be unheard from inside. (Each company would have its own specifications.)</p> <p>There are various micro wind turbines on the market and only those with particular low noise value should be positively advocated for use in Malta.</p> <p>The footprint of a wind turbine is small and small wind turbines are not an intrusion.</p>	<p>In the absence of research especially on noise impacts, the policy document takes a precautionary approach towards the location of micro-wind turbines in the residential urban environment.</p> <p>MRA is considering promoting turbines which reach certain standards on noise, power performance and safety.</p> <p>Visual impact is one of the disadvantages of wind turbines as they constitute an alien feature both in the urban environment and in the countryside. One also needs to consider the cumulative impact of the turbines. One turbine might not be an eyesore but 20 or 30 would be. However, this disadvantage needs to take into consideration the potential energy savings as well as their environmental benefit of generating energy from a clean source. Thus the policy promotes them subject to height and location control.</p>

MWC10	Dr. Andre F. Raine obo Birdlife Malta	27/08/09	<p>Malta is on a key migratory route for birds following the central European-African migratory flyway. As such, in spring and autumn, large numbers of birds pass over Malta, and often use the islands to roost overnight. As the document rightly points out, in key areas wind turbines can cause a problem with birds of prey (and other large birds, such as herons, cranes, storks etc) and collision. However, SPAs and Bird Sanctuaries do not necessarily cover the main flyways of these birds in Malta - in fact the majority of them are designated for seabirds only. The same is true for rural areas - although it should be highlighted that rural areas in Delimara and around Maghtab are indeed critical areas for roosting birds of prey and these sites may have 100s of these birds flying low for several hours over the area looking for roost sites - thus making them vulnerable to collision. However, there are other critical sites for migratory birds of prey (and other large species) that should be considered. Ridgelines in areas like Wardija and Marfa often have large numbers of raptors passing low over them during migration periods. As these areas are not near an SPA or Bird Sanctuary, nor are they considered to be rural areas, under your Policy Guidelines they would not need to be considered for assessment of impact, even though they might have a serious impact on birds of prey.</p> <p>In February 2008, BirdLife Malta submitted a project proposal to MEPA to carry out a study to map the important flyways and roost sites in Malta in respect to wind farms, to highlight areas where collision would and would not be a major issue. This project proposal was</p>	<p>The Planning Guidance requires an assessment of the impact on birds for all wind turbines that are located in rural areas. This would not only include SPAs and Bird Sanctuaries but all other land outside the development zone.</p> <p>Comment has been referred to the respective Unit within the Environment Directorate.</p>
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MWC10a	Nicholas Barbara obo BirdLife Malta	11/09/09	<p>BirdLife Malta supports the tackling of climate change by generation of renewable energy from wind. Conservation of biodiversity is also essential in adapting to climate change</p>	<p>The promotion of micro wind turbines balanced by restrictions on habitats of sensitive species is one of the objectives of the policy.</p>

			<p>and hence damage from renewable energy to biodiversity should be avoided.</p> <p>BirdLife Malta supports the consideration of potential impacts by micro wind turbines on birds and bats in the draft policy.</p> <p>Although little data is available, it is commonly accepted that due to their relatively small scale micro wind turbines pose less threat than the larger on/off shore wind farms to flying fauna. There are three main impacts: death from collision; deviation of migratory routes; habitat fragmentation. The severity of the impacts depends on the number of micro wind turbines installed, although death from collision is higher for single turbines.</p> <p>The policy should define the height, span and swept area for micro wind turbines;</p> <p>Micro wind turbines should also avoid migratory flyways and roost sites;</p> <p>Urban areas should be favoured over ODZ areas as they pose less threat to flying fauna;</p>	<p>Comment noted.</p> <p>The policy guidance requires that the impacts on birds and bats are assessed when micro-wind turbines are proposed on sites located outside development zone. These issues will be taken into account in this assessment.</p> <p>The policy defines the overall heights for roof mounted and tower mounted micro-wind turbines with a generating capacity up to 20 kW and this also places limits on the spans and swept areas. These two dimensions (overall height and generating capacity) allow a wide range of turbines with different, generating capacities and thus different heights, rotor diameters and rotor swept areas.</p> <p>Migratory flyways and roost sites have been included in the planning guidance as areas that require an assessment of the impact on bats and birds.</p> <p>The policy document takes a precautionary approach towards the location of micro-wind turbines in the urban environment and allows them in ODZ areas subject to assessment of the impacts on birds and bats.</p>
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MWC11	Mario Psaila	01/09/09	<p>Writer resides in an area where a semi commercial wind generator had been installed. This was a cause of noise generation which disturbed sleeping and a visual intrusion. Eventually MEPA made the owner bring it down.</p> <p>The writer quotes a news item from Reuters world wide from the <i>China Times</i> article that says that a large number of goats in Taiwan may have died of exhaustion because of noise from a wind farm. The Taiwanese Ministry of Agriculture says it suspects that noise may have caused the goats' demise through lack of sleep.</p>	<p>Comment noted. Noise, vibration and visual intrusion are the main disadvantages of the turbines in urban areas and at this stage the policy document is not recommending their introduction.</p> <p>This article clearly refers to a large scale wind farm. This policy guidance is only aimed for micro-wind turbines with a generating capacity of not more than 20kW.</p>
MWC12	Godfrey Formosa o.b.o Di Natura	30/08/09	<p>The author suggested the inclusion of noise levels. With such guide line it will avoid most of the arguments in Micro Wind business. In England/Scotland a noise level is set up (35 dB A) (above ambient noise) so that people who are</p>	<p>Although there is agreement that the establishment of acceptable noise levels is the best way forward, currently there are no approved ambient noise level maps and setting up a noise level above that may prove to be difficult.</p>

			<p>interested in micro wind turbines would decide what to purchase before hand. The two main issues with Micro Wind that is Noise level vs Power Produced (Kw/Hr). The "not sensitive to noise generation" should have a noise level as technology has improved drastically and with this level it's safe to the purchaser, to the supplier and to the authority.</p> <p>To encourage the general public to invest in Micro Wind especially at this stage when the MEPA carries out the studies around Malta & Gozo, the time frame between applying for the permit and the issue of the permit should have short periods for example 3 to 6 weeks.</p>	<p>Consequently, the policy makes provision for the development of micro-wind turbines in industrial areas and ODZ locations as those locations are less vulnerable and are deemed to be less sensitive to noise related issues</p> <p>The development processes is governed by the Development Planning Act, 1992.</p>
MWC13	Minutes of Public Meeting at the premises of the National Council of Women	02/09/09	<p>Members present raised the following points:</p> <p>Concern about the visual impact which would result from the promulgation of wind turbines on the roof of buildings in dense urban areas.</p> <p>Potential of having only one turbine on the roofs of flats with the energy generated being shared between owners.</p> <p>The need for a comparison on the feasibility of other sources of renewable energy, such as solar, to enable the consumer to make informed choices.</p> <p>Support for the promotion of wind turbines</p>	<p>Cumulative visual impact is one aspect that the policy guidance took into consideration and as a result, at this stage, the policy document does not promote micro wind turbines in urban areas.</p> <p>Shared systems are strictly a technical and financial feasibility issue.</p> <p>MEPA agrees that consumers are provided with this information; however it is not its remit to generate this information. Some general guidance is available in Government and MRA documents, especially the 2006 draft Renewable Energy Policy for Malta.</p> <p>The policy guidance supports such</p>

			<p>in rural areas, especially in connection with farm holdings.</p> <p>Query on the possibility of installing micro wind turbines on dwellings in the countryside.</p> <p>Support for the promotion of wind turbines in industrial areas.</p> <p>Possibility of developing micro wind farms at Dingli.</p> <p>Concern that the general public might not accept the impact from noise even though the benefits of renewable energy generation are fairly obvious.</p> <p>Concern that the consumption of energy will still not fall as this could mean a</p>	<p>proposal as it allows the development of either a roof mounted or tower mounted micro-wind turbines on the roofs / within the curtilage of large farm buildings in rural areas.</p> <p>The policy indicates that micro-wind turbines can be accommodated on the roofs of large buildings or within the curtilage of large buildings surrounded by large grounds. The policy has retained this position as it is difficult to mitigate the visual impact of micro-wind turbines when installed on smaller buildings.</p> <p>The policy guidance supports such proposal as the development of both roof-mounted and tower mounted micro-wind turbines are allowed in industrial areas, subject to limitations on overall height.</p> <p>This policy guidance is aimed towards individual micro-wind turbines. Wind farms have different characteristics and would need to be assessed within Government's Proposal for an Energy Policy of 2009, other supporting documents published by the Malta Resources Authority (MRA), and all relevant studies necessary to inform decisions on any future applications for such development.</p> <p>Comment noted. In the absence of research, the policy document takes a precautionary approach towards the location of micro-wind turbines in the residential urban environment. The impact from noise would need to be evaluated through a research program.</p> <p>There are various options to reduce the energy consumption without reducing the</p>
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			<p>reduction in the quality of life. What was considered a luxury in the past is now a necessity.</p> <p>Potential for passive schemes in buildings to reduce consumption.</p>	<p>quality of life such as the use of more energy efficient appliances and equipment and passive systems in building design and construction such as natural ventilation. All such interventions entail a cost and it boils down to finding an acceptable balance between socio-economic considerations and environmental protection.</p> <p>MEPA agrees with this comment and encourages individuals to install any passive schemes prior to resorting to renewable energy generation as the energy generated may end up being used to make up for the energy losses.</p>
MWC14	Carmel Cachia	06/09/09	<p>It could be that the term micro wind turbine has already been accepted that it includes 20kW wind turbines. But for roof top fitting the physical size is definitely, more important than the wattage. This is also true for the visual, sound and vibration impact. Also the force exerted on the roof top and the actual weight of the turbine itself will be very big. For these reasons the size of the wind turbine should be the limiting factor and not the wattage. Under no circumstance should the blade tip diameter exceed three meters for roof top fitting irrespective of the wattage.</p> <p>Persons who have a valid application with MEPA which is still pending should be allowed to install their wind turbine.</p> <p>MEPA should use any feed back coming from neighbours (after verifying it). The feed back should not be anonymous as</p>	<p>The generating capacity and dimensions of the turbine are directly related and the policy seeks to limit both by setting maximum thresholds for each. There is agreement with the point raised regarding the issues generated by the dimensions of the turbine. The policy sets an overall height of 5m from roof level which will also control the diameter span and therefore the generation capacity. Manufacturers define micro wind turbines as those turbines with a maximum capacity of 20kW. This definition has also been adopted by the Malta Resources Authority (MRA) and Government in their policy documents and therefore there would be no scope in developing a new definition for planning purposes.</p> <p>Permissions should be granted for proposals which comply with the requirements of this policy.</p> <p>A research program about micro-wind turbines in urban areas is planned and will take on board any relevant information</p>

			<p>this could lead to abuse. MEPA can also get first hand information from these people (who have installed a micro wind turbine) should it be required.</p> <p>If later on, the number of people to apply for the installation of micro wind turbines on urban roof tops increases, then the same principle applied for rural installations should apply, namely that it should be on a first come, first served basis.</p> <p>People who are taking the initiative to install a wind turbine from their own finances should be encouraged by some kind of an incentive and not be hindered by everyone and everything. After all such people are helping the government to reach targets set by the EU and at the same time are helping Enemalta in power production, even if by a small amount.</p>	<p>available from existing installations.</p> <p>The policy does not adopt a first come first served approach to installation of micro wind turbines in rural areas but an impacts based approach, with due regard to cumulative impacts. It would be extremely difficult to establish the total number of micro wind turbines an area/locality can accommodate without unacceptable impacts.</p> <p>MEPA can only guide the development of micro-wind turbines. It is not MEPA's remit to issue incentives that will encourage their development. It should be noted that MRA studies have indicated that it is not anticipated that the installation of micro wind turbines would make a significant contribution towards the national renewable energy targets and are not taken into account.</p>
MWC15	Ryan Xuereb obo Econetique Ltd	11/09/09	Request for information on the requirements for submission of an application for a 4kW Vertical Axis Wind Turbine.	Requested information was sent on the 11/09/09.
MWC16	Ing. Robert N. Farrugia & Dr. Tonio Sant Institute of Energy Technology University of Malta	10/09/09	Section 6.7 & 6.10. The colouration of small wind turbines depends on the vantage point from which such a machine is seen. If observed against a built-up background, then stone-colour may be the best colour, dark blue if against a seascape, etc. The Mediterranean sky is generally assumed to be blue. In the case of turbines on towers in rural areas the policy attempts to tackle this issue by stating that green or brown may be more	MEPA agrees that visual impact depends on the vantage point from which micro-wind turbines are seen. With this regard, the policy guidance has been amended and now indicates pastel particularly light non-reflective gray as suitable colours as it is a relatively safe neutral colour which is highly adaptable to most lighting and weather conditions.

			<p>appropriate. In any case, most attempts to 'hide' a wind turbine - or any other protrusion such as chimneys, pylons, TV aerials, etc. for that matter - will help mitigate any visual impact under specific climatic conditions and when seen from particular vantage points.</p> <p>Section 6.9 It is understood that the higher above roof level, the better the wind speeds and the less turbulent the wind conditions. An overall height of 3m appears rather low. A proviso that allows an overall height of not more than 5m has also been catered for - but when will this be allowed? What are the criteria that will be used to determine whether or not a 3m height is feasible? Some definitions of the relevant feasibility criteria would be appropriate.</p> <p>Section 6.7. Clarification is suggested on the level of assessment on impact on birds when turbines are located in rural areas. If a detailed scientific assessment on a case-by-case basis is what the MEPA is striving for, then this would mean an added expense to interested parties living or operating in such areas. On a similar note; what about the existing wind-driven water pumps (rdieden tar-rih) that have dotted our rural landscape for so many years? Have they been detrimental to the bird and bat populations? Are there any local studies that have been conducted or that are currently underway that can be used to gauge better any such impacts?</p>	<p>The policy guidance has been amended to only indicate a maximum overall height of 5m.</p> <p>Clarification has been included. Prospective applicants are being encouraged to consult with the Ecosystems Management Unit of the Environment Protection Directorate (EPD) of MEPA prior to the submission of an application. The EPD will still need to be consulted during the processing of the application to obtain guidance on any potential impacts of the wind turbines on birds and bats and any studies and mitigation measures necessary.</p> <p>There are no studies available about these impacts that determine whether wind-driven water pumps on birds and bats.</p> <p>The policy accepts that due to the lack of specific data, an assessment of potential impacts on sensitive species is carried</p>
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MWC17	Rose Mercieca Malta Communications Authority	11/09/09	The MCA strongly recommends the carrying out of studies on the potential effects of electromagnetic interference caused by micro-wind turbines to broadcasting terrestrial television, radio and mobile reception as well as fixed radio/microwave communication links, aviation and associated navigation systems. Mitigation measures should also be identified.	MEPA will include MCA on the list of standard consultees for planning applications for the installation of micro-wind turbines.
MWC18	Peter Mifsud obo Malta Resources Authority	11/09/09	<p>Installation of micro wind turbines is hindered by financial and regulatory aspects, rather than by technological innovation.</p> <p>Strict standards must be set for installation, maintenance and noise but the guidance does not indicate any and therefore the retailer does not know which model to market.</p> <p>Maps showing the acceptable locations should form part of the guide.</p> <p>The provisions of the policy are still subject to interpretation on a case-by-case basis and will thus increase delays and costs in permitting processes, ultimately hindering the promotion of this technology. The guide should indicate the acceptable zones with clear noise thresholds avoiding the need to measure the existing noise levels for every</p>	<p>Comment noted.</p> <p>There is agreement that standards should be set. However MEPA is not the entity who should set the technical requirements and standards for micro-wind turbines. As an environmental agency, MEPA can establish acceptable noise levels. In the absence of the relevant studies, this is not possible at this stage.</p> <p>The policy has adopted a location-specific approach and guides micro-wind turbines towards industrial areas and ODZ while excluding the rest of the urban areas. Although an acceptable locations map has not been prepared, the potential areas are very easy to identify.</p> <p>The suggested approach would render the assessment of applications into a purely mechanical, "tick-box" process. Although perhaps administratively convenient, it is unsuitable as the impacts of micro-wind turbines depend greatly on the location and site where they are installed which vary greatly. Thus the provisions need to be clear but flexible</p>

		<p>installation. In this way the public will be encouraged to install this technology, with substantial benefits to the local energy market.</p> <p>Guide should have criteria for certification of installers.</p> <p>Data on impacts on birds is scarce and hence there should not be a need for assessment unless the turbine is close to a bird sanctuary or nature reserve.</p> <p>Visual impact is subjective and turbines should not be treated differently from other infrastructure such as utility poles/towers or other antennae or billboards.</p> <p>The guide lacks maximum allowable noise thresholds correlated to the background noise. The noise generated by some models may not even be above noise generated from air conditioning units, traffic or a flag pole. Noise assessments are expensive and not necessary as noise thresholds are established by the manufacturer and an acceptable level in the guide, specific to different locations, would indicate which models would be allowed.</p> <p>Provided each turbine complies with the specified standards, cumulative effects</p>	<p>and therefore applied on a case-by-case basis. Currently there are no approved ambient noise level maps and setting up a noise level above that may prove to be difficult.</p> <p>MEPA is not the entity responsible for certification of installers.</p> <p>The fact that data is scarce strengthens the argument against blanket permission and that at least an evaluation of impacts should be carried out.</p> <p>In MEPA's opinion, visual impact is one of the disadvantages of wind turbines as they constitute an alien feature both in the urban environment and in the countryside. One also needs to consider the cumulative impact of the turbines. One turbine might not be an eyesore but 20 or 30 would be. However, this disadvantage needs to take in consideration the potential energy savings from a clean source. Thus the policy promotes them subject to height and location controls.</p> <p>Although there is agreement that the establishment of acceptable noise levels is the best way forward, currently there are no ambient noise level maps available and setting up a noise level above that may prove to be difficult. Consequently, the policy makes provision for the development of micro-wind turbines in industrial areas and ODZ locations as those locations are and are deemed to be less sensitive to noise related issues.</p> <p>Cumulative effects need to be assessed as the potential impacts are likely to be</p>
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		<p>need not be assessed. Billboards and banners are also a visual distraction for road users.</p> <p>Neighbour concerns on one application should not feature in the guide. Other factors may have contributed to the objections raised. The solution to neighbour conflict is the setting up of standards. MRA is considering promoting turbines which reach MSA EN 61400-11, 61400-12, 61400-2 standards on noise, power performance and safety.</p> <p>The prohibition of turbines in urban areas prior to studies indicates that several years would need to pass before they can be considered. The guide will hinder the uptake of micro wind turbines in urban areas. The studies should have been concluded to enable proper information to be disseminated to the public.</p> <p>In view of the lack of data on wind speeds, MEPA should allow temporary installation of wind measuring equipment.</p> <p>The examples on economic feasibility in the appendix, especially the last paragraph, should be amended or deleted as they indicate that turbines would only be feasible if a grant is forthcoming when this is not the case and the figures quoted</p>	<p>greater when micro-wind turbines are located in proximity to each other.</p> <p>Neighbour conflicts are of a concern to MEPA. Although there is agreement that the establishment of acceptable noise levels is the best way forward, currently there are no ambient noise level maps available and setting up a noise level above that may prove to be difficult. MEPA welcomes the setting of standards that may be set by MRA but notes that the mentioned standards address technical and perhaps feasibility issues and not environmental concerns.</p> <p>MEPA intends to commence discussions about the research study with the potential partners once the policy is approved. It would be more beneficial in the long term for all involved (manufacturers/retailers, consumers, neighbours) that the issues of concern are properly addressed and resolved enhancing the possibility of general acceptance of the infrastructure rather than rushing into decisions which would be counter productive as the turbines may become a source of grievance and friction among communities.</p> <p>Comment noted.</p> <p>The main aim of the Appendix is to serve as a guide to prospective applicants. It presents a wide range of systems for which the cost of energy production can be calculated. However the appendix has been amended to avoid possible</p>
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MWC19	Charles Yousif/Liana Vella obo Malta Energy Efficiency and Renewable Energies Association (MEEREA)	11/09/09	<p>are hypothetical.</p> <p>The share of micro-wind in Malta will be small and hence the link between action on climate change at European and International levels and this technology is weak. This makes the second section of the guide superfluous. Micro wind would have been more appropriately linked to the energy performance in buildings.</p> <p>Studies on wind speeds should be encouraged to identify areas of “weak wind”. The MEPA data on wind obtained from pollution monitoring stations should be made public.</p> <p>The proposal to site turbines at the back of the building is problematic due to noise impact on bedrooms and other high structures. Siting should be flexible.</p> <p>The overall height of roof mounted micro wind turbines should be increased to 5m with a minimum clear distance of 2m.</p>	<p>misinterpretations about feasibility.</p> <p>Micro-wind has been included as a potential renewable source of energy by Government and the Malta Resources Authority in their policy documents. Although the contribution is small, climate change action remains the broad justification for wind turbines. Energy performance in buildings is more related to passive systems and when combined with on-site generation produces the carbon rating for the buildings.</p> <p>MEPA agrees with studies that would enable an informed decision about the installation of micro-wind turbines. Wind data from pollution monitoring stations is available on request but its utility for this purpose may be quite limited. The policy document encourages prospective applicants to ascertain that adequate wind exists at the proposed site.</p> <p>The suggestion of locating micro-wind turbines at the rear of a property is mainly to address visual impact. Situations where turbines are fixed to facades are unacceptable from an aesthetic point of view unless the structure is included at the design stage to be integrated with the façade – something which is rather unlikely to happen in a domestic context.</p> <p>The policy has been amended to indicate an overall height of 5m for roof mounted micro-wind turbines when located on the roofs of buildings located in rural areas. Policy has also been amended to indicate that the height is measured from the point of installation. Clearance distance is a technical matter (safety and performance).</p>
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			<p>Annual mechanical checks should be mandatory.</p> <p>The guide is not clear on whether turbines would be allowed by the DNO, depending on their size, or requires a full application, in turn affecting economic viability when compared to other RE which is permitted development.</p> <p>Turbines should also be considered in urban areas.</p> <p>Assessment of cumulative effects should also consider the impacts on performance as a result of turbulence.</p>	<p>Not MEPA remit.</p> <p>At this stage a full development application is required for micro-wind turbine development. The requirement of full development permission is not intended as a deterrent for the uptake of this technology but to enable a site specific assessment of impacts. MEPA is of the opinion that it does not at this stage have adequate information to safely provide blanket permission for micro wind turbines through the DNO. If in the future it transpires that there is sufficient information to adopt the DNO approach, then this will be considered. The same approach has been adopted in other domestic renewable generating (eg solar water heaters and photovoltaics)</p> <p>MEPA has adopted a precautionary approach towards the location of micro-wind turbines in urban areas in view of the lack of data especially on noise impacts.</p> <p>Effect on performance due to turbulence is very site specific and remains the responsibility of the applicant to take it in consideration prior to the installation.</p>
MWC20	Pauline and Nathalie Attard	12/09/09	The wind turbines should be located on land and not in the sea because if they are placed at sea, the waves and sea salt will destroy them much earlier than if they are located on land. These are very expensive and we cannot afford doing them over and over again.	This submission relates to large scale turbines which lie beyond the scope of this policy document.
MWC21	Francis Bugeja Ministry for Resources and Rural Affairs	1/12/09	EU Directive has set a target that 10% of Malta's final energy consumption needs to be produced from renewable energy by	MEPA agrees that there needs to be maximisation of available resources. MEPA already allows for the installation of

		<p>the year 2020. This target is based on the final energy consumption (including fuels consumed for transport and heating) and not on the generated electricity alone. The country's renewable energy resources are very limited due to the restricted space available and the relatively high population density. It is thus important to maximise as far as possible the utilisation of the available RES resources with present technologies. A significant proportion of Malta is built-up and therefore it is sensible to try to maximise the utilisation of micro generation RES technologies that can be integrated in the built environment.</p> <p>Micro-wind turbines in built-up areas could meet local energy demand in certain circumstances, as long as the turbines are properly sited in areas exposed to favourable wind conditions. A number of innovative micro-wind turbines designed specifically for the urban environment are available on the market. Such turbines are aesthetically pleasing and have very low noise emissions.</p> <p>Micro wind turbines on roof tops occupy a relatively small footprint and could prove to be a better option than other technologies (e.g. Solar PV) in cases where roof space is very limited and where the buildings are well exposed to the prevailing winds.</p> <p>The NWLP and GCLP need to be updated in a way that they can support the inclusion of wind energy projects and</p>	<p>solar PVs and solar water heaters in most areas without the need for a development application. However, in the absence of research on the potential impacts arising from micro-wind turbines, MEPA has taken a precautionary approach towards their location in the urban environment and is considering their installation, subject to overall height restrictions, in industrial areas.</p> <p>In MEPA's opinion, visual impact is one of the disadvantages of wind turbines as they constitute an alien feature both in the urban environment and in the countryside. One also needs to consider the cumulative impact of the turbines. One turbine might not be an eyesore but 20 or 30 would be. However, this disadvantage needs to be considered together with the potential energy savings from a clean source. Thus the policy promotes them subject to height and location controls.</p> <p>Comment noted.</p> <p>This comment relates to large scale turbines/wind farms which lie beyond the scope of this policy document.</p>
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			<p>which may lead to negative consequences in meeting RES targets.</p> <p>In many instances, microwind turbines will be co-financed through EU funds. In order not to discriminate among the various renewable energy technologies available, it is best if MEPA adopts a simplified permitting process for micro wind turbines in the same way as photovoltaic panels. In such case, micro wind technology will be eligible under the EU project for domestic RES.</p>	<p>sensitive to noise related issues.</p> <p>The pilot project will require the involvement of a number of entities apart from MEPA. This would ascertain that the expertise in the field are all involved and thus minimise the risk of the project being inconclusive. It should be noted that MRRA and MRA studies have indicated that it is not anticipated that the installation of micro wind turbines would make a significant contribution towards the national renewable energy targets and are not taken into account.</p> <p>MEPA is of the opinion that it does not at this stage have adequate information to safely provide blanket permission for micro wind turbines through the DNO. If in the future it transpires that there is sufficient information to adopt the DNO approach, then this will be considered. The same approach has been adopted for solar water heaters and photovoltaics.</p>
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